

ARCTIC EXPEDITION.

FURTHER

CORRESPONDENCE AND PROCEEDINGS

CONNECTED WITH

THE ARCTIC EXPEDITION.

Presented to both Houses of Parliament by Command of Her Majesty.



LONDON:

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I.

United States Arctic Expedition in Search of Sir John Franklin.

No. 1.

Lieutenant E. J. DE HAVEN to the SECRETARY OF THE ADMIRALTY.

United States Arctic Expedition,

Proven, 6th July 1851.

(Received 20th November.)

Sir,

I TAKE pleasure in communicating, for the information of the Lords Commissioners of the Admiralty, such operations of H. B. M. search squadrons as have come under my immediate notice, under the impression that no opportunity has occurred of their hearing directly from them since the date of our last seeing them.

An extraordinary bad season retarded their passage through Melville Bay and entrance into Lancaster Sound until late in August, and they were all, my own command included, arrested at the entrance of Wellington Channel; the ice, both to the north and west, being impassable.

Various traces were found on Cape Riley and Point Innes, indicating that these points had been visited by the missing expedition, but when or under what circumstances was left to conjecture.

On the 27th August the schooner "Felix," Captain Sir John Ross, Mr. Penny's squadron, and my own command were moored to the land ice at Beechy Island. A joint search was instituted along the shores, and in a short time one of Mr. Penny's men returned and reported that he had found several graves. On examination his report proved correct, and every other indication was found near the spot identifying it as the winter station of a large and well-equipped civilized party. The following inscriptions copied from the head-boards of three carefully made graves will plainly show whose party it was :

1st. Sacred to the memory of W. Braine, R.M., H.M.S. "Erebus." Died 3d April 1846. Aged 32 years.

2d. Sacred to the memory of John Hartnell, A.B., H.M.S. "Erebus." Aged 23 years.

3d. Sacred to the memory of John Torrington, who departed this life January 1st A.D. 1846, on board H.M.S. "Terror." Aged 20.

The spot was on the inner or north-east side of Beechy Island, which with main land forms a well protected and convenient harbour, where no doubt the ships passed their first winter in security.

The most minute search was made for written notices or records, but nothing of the kind could be met with.

On the 10th September the vessels were all again arrested a few miles west of Griffith's Island, with little or no hope of making further progress. On the 13th, Captain Austin's squadron of four vessels were left by us near Cape Martyr, three miles to the east of which a small harbour had been discovered, where he proposed taking up his winter quarters in case of not being able to proceed further. Ten miles to the east of this we saw at a distance three vessels, apparently moored near the shore inside some grounded ice; these were supposed to be the "Lady Franklin," "Sophia," and "Felix."

The officers and men were all in good health when I last communicated with them, and the vessels in an efficient condition.

A short detention at this place enables me to make this hurried communication, hoping, however, that before you receive it you may have had much later and more satisfactory accounts direct from the searching vessels.

Would you do me the kindness to impart these contents to Lady Franklin, (as well as to others interested,) with my regret that the limited time at my disposal prevents the pleasing duty of a personal letter.

I am, &c.

EDWIN J. DE HAVEN,

Lieutenant commanding U.S. Arctic Expedition.

No. 2.

The SECRETARY OF THE ADMIRALTY to Lieutenant EDWIN J. DE HAVEN,
late commanding the United States Arctic Expedition.

Sir, Admiralty, 24th November 1851.

I AM commanded by my Lords Commissioners of the Admiralty to acknowledge the receipt of your letter of the 6th July, dated from Proven, (which has just been received by one of the whale ships,) transmitting information of the progress of the Arctic squadron under the command of Captain Austin and Captain Penny, and in conveying to you their Lordships thanks for your considerate communication, I am at the same time desired to express their congratulations at the safe return of your expedition from its perilous voyage in search of Sir John Franklin, and providential escape from dangers and privations of no ordinary character, borne with praiseworthy fortitude.

My Lords further direct me to express their hope that you will gratify them by transmitting, at your earliest convenience, a copy of the proceedings* of the "Advance" and "Rescue," in order that the same may be placed on record at the Admiralty.

I have, &c.
W. A. B. HAMILTON.

* See Page 188.

II.

Proceedings of Sir John Ross. "Felix" Discovery Vessel.

No. 1.

Sir JOHN ROSS to the SECRETARY OF THE ADMIRALTY.

"Felix" Discovery Vessel, 1st July 1851,
Cornwallis Island.

Sir, (Received 9th October.)

As it is probable that the seven ships and vessels now frozen in at Cornwallis Island may not be able to return to England this autumn, I am to request you will be pleased to move the Lords Commissioners of the Admiralty to extend the payment of my pension for wounds, for the support of Lady Ross, to the 31st October 1852; and to pay my half-pay as captain or rear admiral to my bankers, Messrs. Coutts and Co., who have my directions for its disposal.

I am, &c.
JOHN ROSS, Captain R.N.

Copy sent by carrier pigeons, 21st July 1851.

No. 2.

Sir JOHN ROSS to the SECRETARY OF THE ADMIRALTY.

"Felix" Discovery Vessel, Cornwallis Island,
Lat. 74° 36' N., Long. 84° 20' W., 12th August 1851.

Sir, (Received 9th October 1851.)

As the Secretary to the Honourable the Hudson's Bay Company (under whose auspices my expedition sailed) will transmit to you, for the information of the Lords Commissioners of the Admiralty, the detailed account of my proceedings, it only remains for me to state that all the ships and vessels

employed on the search of the missing ships that left England in May 1845 have acted together in concert, with a laudable cordiality and unanimity, while the admirable arrangements of that distinguished officer Captain Austin and of Captain Penny ensured the most complete examination of every part within reach of the position in which they were arrested by impenetrable ice near to Cornwallis Island.

While it is deeply to be regretted that *not a single trace* of the missing ships or their crews have been found, it is satisfactory to have it proved beyond doubt that Sir John Franklin could not have pursued a course westward of Barrow's Strait, which, according to the report and unanimous opinions of those indefatigable officers who have been employed, must have eventually led to his destruction.

Alderman Jones's and Smith's Sounds have not yet been examined. Should no trace be found there by Captain Austin's ships, or by the western expedition under Captain Collinson, the probability is that on their return towards England the ships have been surrounded by heavy ice (i. e. beset), as were the "Enterprise" and "Investigator" in 1849, but having not, like them, been "miraculously" released, they may have suffered shipwreck. It will remain, therefore, but to search the eastern and western shores of Baffin's Bay; the former falling to my lot, while Captain Penny examines the latter. In the meantime my little yacht, the "Mary," is left at Cape Spencer, at the request of Captains Austin and Penny, with provisions, as a retreat vessel, either for the missing ships, Captain Collinson's, or any other that may at a future period be in distress.

Their Lordships will observe by the report of that excellent officer Commander Phillips that he executed the laborious and difficult service allotted to him in exploring Cornwallis Island with a perseverance and energy that cannot be surpassed, and in which, and on all other laborious services, Dr. David Porteous, M.D., surgeon to the expedition, took a willing and active part; and I beg also to recommend him as a young man of superior talent and education, who would be an ornament as well as an acquisition to Her Majesty's service.

The season being more than usually backward, owing to the severity of February and March, it will probably be late in August before we shall be released from our present winter quarters. As to proceeding further to the westward (were it necessary), that is totally out of the question. The only danger to be apprehended by the *large* ships is being beset in the *pack* of *heavy ice*; but I shall not leave sight of them until they are completely released.

I cannot conclude this letter without acknowledging the obligation I owe to their Lordships, whose kind instructions enabled Captain Austin to afford me every kind of supply and assistance of which I stood in need; and also to Captain Penny, who shared bountifully with me some of the necessaries and luxuries which my limited means did not enable me to provide, and which was very conducive to the extraordinary good health enjoyed by the crews of the three small vessels.

I am, &c.

JOHN ROSS.

No. 3.

Sir JOHN ROSS to the SECRETARY OF THE ADMIRALTY.

"Felix" Discovery Vessel,
Stranraer, 25th September 1851.
(Received 27th September.)

Sir,

I HAVE to acquaint you, for the information of the Lords Commissioners of the Admiralty, that this vessel, (one of the two,) which left England under my charge in May 1850, in search of the missing ships under the command of Sir John Franklin, arrived here this day, having posted despatches from Captain Austin, with whose squadron we parted on the 13th of August, then on their passage to examine Jones's and Smith's Sounds, while the "Felix" proceeded towards the eastern coast of Baffin's Bay, after having made a further search

at the winter quarters of the "Erebus" and "Terror," and after ascertaining that the Wellington Channel was not navigable.

As our subsequent proceedings since that time, which I deem of much importance, touching the fate of the missing ships, will be transmitted to you by the Secretary of the Honourable the Hudson's Bay Company, it only remains for me to reiterate my strongest recommendation of Commander Phillips and Dr. Porteous, and to express my thanks to their Lordships for the kind interest manifested by them for the success of our humble endeavours; and while I regret that the main object of our search has not been obtained, I am confident their Lordships will be satisfied that "every man has done his duty," and join with me in thanks to Divine Providence that we have returned without the loss of a man, and *all* in perfect health.

I am, &c.

JOHN ROSS, Rear Admiral R.N.,
in charge of a private expedition.

No. 4.

Commander PHILLIPS to the SECRETARY OF THE ADMIRALTY.

Loch Ryan, N.B., 25th September 1851.

(Received 27th September.)

Sir,

I HAVE the honour to report my arrival here, with Sir John Ross, in the "Felix" discovery vessel from Cornwallis Island in Barrow Strait, which she left on the 12th August last with the expeditions under Captain Austin and Mr. Penny, parting company the same day.

The "Felix" remained a few hours near the winter quarters of Sir John Franklin in 1845, to make further search for any documents that might have been left by him, but entirely without success.

She then proceeded down the strait, sighted Cape Dudley Digges 18th August, but found the ice too heavy to penetrate in that direction.

She therefore traced the middle ice down to about latitude $72\frac{1}{2}$, when she crossed it without much difficulty, arriving at Leifly in Disco on the 31st August.

There I was informed by the master of a Danish storeship that on the 24th of the same month, he had communicated with the officers of the American expedition under Lieutenant De Haven, whose vessels were then hove to off the island of Proven.

It appears that these vessels in attempting to return home last year got beset about the 18th September in Barrow Strait, and wintered in the ice, which carried them down Baffin's Bay as far as Holsteinberg before they were able to extricate themselves, which I was given to understand they did not succeed in doing until May last.

They had been at Leifly, which harbour they left on the 21st of last June, had suffered from scurvy, and lost one of their number by it. It was the opinion of the Danes that they were seeking information of the English expeditions, and would probably return soon either to Disco or the Whale Fish Islands.

The Felix sailed from Disco on the 2d instant.

I have only to add that I hope to reach London a few hours after the arrival of this letter, and to say that my journals and memoranda of the Felix's voyage are at the disposal of their Lordships should they desire to have them.

I am, &c.

C. G. PHILLIPS, Commander R.N.

No. 5.

A. BARCLAY Esq. to the SECRETARY OF THE ADMIRALTY.

Sir,

Hudson's Bay House, 27th September 1851.

I AM directed to transmit to you, for the information of the Lords Commissioners of the Admiralty, the copy of a despatch, dated Stranraer, 25th September, received this day from Rear-Admiral Sir John Ross.

I am, &c.

A. BARCLAY.

Sir JOHN ROSS to A. BARCLAY Esq.

“Felix” Discovery Vessel,
Stranraer, 25th September 1851.

Sir,

In reference to an extract of my despatch of 29th July 1851, sent by Captain Austin, I have to acquaint you, that after leaving our winter quarters at Cornwallis Island, on the 12th August, we parted company with the vessels under Captain Austin and those in charge of Captain Penny off the Wellington Channel on the following day, and after having made a further search at Beechy Island, we proceeded, without much obstruction, to the eastward, and having made the land in latitude 76° N., we used every effort, between the 15th and 25th August, to close with the coast, but were prevented by impenetrable ice extending from the east land to seaward 20 miles, between the latitude of 75° and 77° N.; and it being evident that by getting round this immense body of ice either by the northward or southward, even if it were possible, that we must be obliged to spend another winter in order to make the proposed examination, and for which we had not provisions, being originally victualled for only eighteen months, I was therefore under the necessity of bearing up for Godhaven (Liefly) in Disco, still in hopes of obtaining a supply of provisions from what the commander of the “North Star” was directed by the Admiralty to land there, and which would enable me probably to obtain a position north of Wolstenholme Sound, from whence I should, during the ensuing spring, have set the question at rest; but here, I regret to say, I was disappointed. I arrived at Godhaven on the 30th August in company with the Danish Government Brig “Hoalfisken,” which I fell in with on the 29th, and to my mortification I found that Mr. Saunders the master commander of the “North Star” had not, according to his orders, been to Godhaven to land any provisions; and although the manager and magistrate at Godhaven, in absence of the Governor, most readily supplied us with the refreshments so necessary for the health of my crew, he could not spare us provisions for another season; and being obliged to defer my intention of examining the coast between Whale Sound and Melville Bay, it only remained for me to obtain the deposition on oath, touching the fate of the missing ships, of my interpreter Adam Beck, who on the 1st September was carried before the magistrate, and being warned that if it was found by a future expedition, which would probably be sent out, that he had sworn to what was not true he would incur a severe punishment. Whereupon he voluntarily made the enclosed deposition, which he signed and swore to in my presence and in that of the magistrate. I regret that there was no person at Godhaven who could translate this document either into Danish or English, although it was perfectly understood by the magistrate’s lady, who is the daughter of a former Governor, was born and brought up in Greenland, but could not translate into Danish. The substance of this document was, however, that the two missing ships were actually wrecked on the coast north of Cape York; that some of the crews reached the land in a state of destitution, and perished during the winters of 1846 and 1847, either by cold, hunger, or by the treachery of a hostile tribe of natives; that articles belonging to the ships could be shown, which would prove the truth of his assertion; and that he would accompany any future expedition that might be sent to ascertain the truth.

It is true indeed that Peterson the Dane, who is interpreter on board the “Lady Franklin,” flatly contradicted the report of Adam Beck; but circumstances have transpired, and facts have come to light, which have cast serious doubts on the veracity, if not on the respectability of Peterson, while they have in a material degree corroborated the testimony of Adam Beck, and have also in a satisfactory manner accounted for the boy now on board the “Assistance” being on the side of Peterson. I am also authorized by the residents and magistrates of Disco to say, that they firmly believe that what Adam Beck has deposed is true, as he was born in Greenland, was brought up a Christian, can both read and write, is well informed on the nature of an oath and its consequences, and, under such circumstances, the natives have never been found to swear falsely.

And having myself taken every thing into consideration I am clearly of opinion that the missing ships under the command of Sir John Franklin having remained at their winter quarters, Beechey Island, until September 1846, and

seeing there could be no possibility of advancing further during that season (after which they would only have one year's provisions), that they had, on their attempt to return home round the north end of the Pack, been wrecked on the east coast of Baffin's Bay, and, in short, that the report of Adam Beck is in every respect true.

Adam Beck was discharged on the 30th of August on our arrival at Godhaven. Enclosure No. 1. contains his deposition on oath written in the Esquimaux language; enclosure No. 2. is his account current, copies of bills in liquidation of his wages and supplies for the ships.

Truly thankful for the blessings of health and strength by which, through Divine Providence, we have been enabled to perform the arduous duties we undertook, it is with feelings of unqualified satisfaction I have to inform you that the "Felix," not having meet with the slightest damage, has safely arrived here this day, without the loss of a man, and with the whole crew, as well as myself, in perfect health.

I have, &c.
JOHN ROSS, Rear-Admiral.

No. 7.

THE SECRETARY OF THE ADMIRALTY TO SIR JOHN ROSS.

Sir, Admiralty, 28th September 1851.

WITH reference to that passage of your letter of the 25th instant, addressed to Mr. Barclay, Hudson's Bay House, wherein you state your opinion that Sir J. Franklin remained in the winter quarters at Beechey Island until September 1846, I am commanded by my Lords Commissioners of the Admiralty to request that you will furnish their Lordships with the grounds on which you found that opinion.

I have, &c.
W. A. B. HAMILTON.

No. 8.

SIR JOHN ROSS TO THE SECRETARY OF THE ADMIRALTY.

Sir, 267, Strand, 29th September 1851.

IN reply to your letter informing me that the Lords Commissioners of the Admiralty request to be informed on what grounds I had formed my opinion that Sir John Franklin had remained in his winter quarters at Beechey Island until September 1846, I have to acquaint you that on the 6th of September 1850, three days after all the other vessels had left Beechey Island, a piece of English elm, four feet nine and a quarter inches long, four by three



inches square, having a saw-cut on the one end, in which was inserted a plate of tin, with "September 1846" painted on it in white letters on a black ground, was found by Adam Beck, the Esqui-

maux interpreter, who (I distinctly saw with my spyglass) had it on his shoulder as he came from the hill where he found it and approached the beach. The "Felix" was then getting under weigh, and under circumstances that required my attention, and obliged me to postpone inquiry respecting it, not doubting that *all* had been brought on board; and it was not until the next day, after we had succeeded with difficulty to cross the Wellington Channel and reached Barlow Inlet, that I learned it was found lying beside a cairn of stones on a hill north of the graves, and that the piece of *tin*, having fallen from the saw-cut unobserved and into the snow was not on board; but Adam Beck declared that there was painted on it "September 1846," and as he has since deposed before the magistrate at Godhaven to the truth of his assertion, I have not the smallest doubt of its being true, although it rests entirely on his evidence.

In my opinion this fact accounts for no documentary notices having been found in the cairns erected by the "Erebus" and "Terror," for Sir John Franklin, if detained at his winter quarters until that time, when all hope of advancing

that season was given up, would leave no documentary notices of his intention to return to England, which he made up his mind to do, when it was evident in September (but not before) that he must either do so or pass another winter there, after which he could have only one year's provisions.

The above being the grounds on which I have formed my opinion, I have only to add that the piece of wood will be carried from the "Felix" to the Admiralty when I shall be ready to give any further information that may be required by their Lordships.

I am, &c.

JOHN ROSS, Rear-Admiral.

No. 9.

The SECRETARY OF THE ADMIRALTY to Lord STANLEY OF ALDERLEY.

My Lord,

Admiralty, 29th September 1851.

I AM commanded by my Lords Commissioners of the Admiralty to send you herewith copies of a letter from the Hudson's Bay Company, dated 27th instant, and of one from Rear-Admiral Sir John Ross, who has returned from an expedition to the Arctic seas in search of Sir John Franklin and party, and I am to request that Viscount Palmerston will communicate this paper* to the Danish Government, and obtain from them any information on the subject which they may have received.

I have, &c.

W. A. B. HAMILTON.

No. 10.

Sir JOHN ROSS to the SECRETARY OF THE ADMIRALTY.

Sir,

267, Strand, London, 4th October 1851.

THE officers commanding the expeditions under the orders of the Lords Commissioners of the Admiralty and those sent by the American Government, having deemed it necessary that a "vessel of retreat" should be left at the entrance of the Wellington Channel, I acceded to their proposal to leave at Cape Spencer my yacht, the "Mary," which, being supplied by the different ships with stores, provisions, and fuel, was hauled up in that position accordingly, and notices of which were left by the different travelling parties at the different stations they visited, as noted in the reports of each vessel, and in the enclosed document for Captain Austin.

I am to request that you will be pleased to lay this statement, with Captain Austin's letter, before the Lords Commissioners of the Admiralty, and to move their Lordships to grant me a compensation for the loss of this vessel, which was my private property, amounting to 190*l.* sterling.

I am, &c.

JOHN ROSS, Rear-Admiral.

No. 11.

Captain AUSTIN's Cognizance of the foregoing.

Sir John Ross has requested me to give him in writing my cognizance of the circumstances under which he left a decked boat as a depôt near Cape Spencer. They were as follows; viz.

Sir John Ross informed me of his intention to leave his decked boat at Cape Spencer in August 1850, and proposed that provisions and clothing should be left in her. I readily consented (with the other expeditions then present) to aid in the measure, and accordingly placed on board her a limited quantity of provisions and a bale of blankets.

I have always considered this boat as a depôt upon which any of the expeditions prosecuting the search beyond Cape Spencer might fall back in the event of necessity.

HORATIO T. AUSTIN.

H.M.S. "Resolute," crossing the Wellington Barrow's Strait, 12th August 1851.

N.B.—Notices of the "Mary" being hauled at Cape Spencer are left at the different positions visited by the officers of the "Resolute," "Assistance," "Lady Franklin," "Sophia," and "Felix," as well as at the extremes.

Original value	£
of the "Mary"	150
Doubling and	
strengthening	36
Provisions and	
fuel left	- 4
	—
	£ 190
	==

* Deposition of Adam Beck in the Esquimaux language.

No. 12.

The SECRETARY OF THE ADMIRALTY to Sir JOHN ROSS.

Sir,

Admiralty, 9th October 1851.

I HAVE received and laid before my Lords Commissioners of the Admiralty your letter of the 4th instant, reporting that, with the cognizance of the commanding officers of the several expeditions to the Arctic regions in search of Sir John Franklin, you had, in August 1850, left your small decked yacht at Cape Spencer at the entrance of the Wellington Channel, to serve as a depôt for provisions and stores for the use of any parties that might reach the spot, and require the vessel or supplies. I am commanded by their Lordships to acquaint you, that under the circumstances of the case, and the purpose to which this vessel has been devoted, and considering the ready sacrifice made by you in your generous exertions to assist in the search of the missing ships, my Lords feel glad of the opportunity of relieving you of the expense thereof, viz. 190*l*.

I have, &c.

W. A. B. HAMILTON.

No. 13.

DIRECTION to the ACCOUNTANT GENERAL.

Accountant General,

Admiralty, 9th October 1851.

Rear-Admiral Sir John Ross having, with the cognizance of the commanding officers of the several expeditions to the Arctic regions in search of Sir John Franklin, deposited his small decked yacht at Cape Spencer, at the entrance of Wellington Channel, to serve as a depôt for provisions and stores for the use of any parties that might visit the spot and require the vessel or supplies, upon consideration of the whole of the circumstances we are pleased to direct you to pay to Sir John Ross the sum of 190*l*. in compensation thereof.

HOUSTON STEWART.

ALEX. D. MILNE.

No. 14.

Sir JOHN ROSS to the SECRETARY OF THE ADMIRALTY.

Sir,

267, Strand, London, 19th October 1851.

ON my return here, after paying off the "Felix," I received your letter of the 9th instant, informing me that the Lords Commissioners of the Admiralty, having taken into consideration the circumstances under which my small decked yacht was left as a retreat vessel at Cape Spencer, &c. my Lords feel glad of the opportunity of relieving me of the expense thereof.

I am to request that you will be pleased to express my most sincere thanks to the Lords Commissioners of the Admiralty for this high mark of their Lordships kind consideration.

I am, &c.

JOHN ROSS, Rear-Admiral.

III.

Letter from Hudson's Bay Company with Intelligence of Captain Collinson's Expedition*, and Arrangements for Supplies on the Coast.

No. 1.

Sir J. H. PELLY to the SECRETARY OF THE ADMIRALTY.

Sir,

Hudson's Bay House, 29th May 1851.

WITH reference to your letter of the 16th ultimo, on the subject of the Arctic Searching Expedition, I beg to hand herewith extract of a despatch from Sir George Simpson, under date 5th instant, detailing the arrangements he has made for carrying into effect the wishes of the Lords of the Admiralty as communicated in that letter.

I at the same time enclose copy of a letter recently received by Sir George Simpson from Captain Collinson, of Her Majesty's Ship "Enterprise," dated Sitka, 12th November 1850, a transcript of which was immediately forwarded from Montreal to Commander Pullen, agreeably to Captain Collinson's desire.

I am, &c.

J. H. PELLY.

No. 2.

EXTRACT of a LETTER from Sir GEORGE SIMPSON to ARCHIBALD BARCLAY Esq., Secretary of the Hudson's Bay Company, dated Lachine, 5th May 1851.

I have to acknowledge your letter of the 18th April, covering copy of correspondence with the Lords of the Admiralty on the subject of providing further supplies of provisions, clothing, &c. for the use of any of the Arctic searching expeditions which may touch at the Mackenzie River.

By last advices from that district, likewise from Athabasca, I learn that there was a great scarcity of provisions, so much so that chief trader J. Anderson (a), seemed to think it would be necessary to get pemmican all the way from the Saskatchewan for the use of the craft of those districts going to the depôt. The resources of Mackenzie River district, therefore, cannot be counted on to yield much beyond fish diet for any strangers who may find their way there. At the late period of the season at which the instructions of the Admiralty will be received in the interior, it is doubtful that crews and craft can be provided to carry supplies from Red River or Norway House in time to reach Mackenzie River by open water; but on this subject I have written Governor Colvile particularly, as you will observe by the twenty-fifth paragraph of my despatch of 1/3^d instant, of which copy is herewith forwarded, pointing out what I consider the best modes of meeting the views of the Admiralty, and I am quite satisfied that no effort will be spared, however inconvenient to the service, to carry out the instructions on this subject."

No. 3.

EXTRACT of a LETTER from Sir GEORGE SIMPSON to EDEN COLVILLE Esq., Governor, and the Council of the Northern Department of Rupert's Land, dated Lachine, 1/3^d May 1851.

Since writing the foregoing I have received a letter from Mr. Secretary Barclay, under date 18th April, covering correspondence with the Admiralty, of which and its enclosures copy is annexed.

You will observe that it is the "wish of the Lords of the Admiralty that a supply of the necessary stores and provisions be kept up at the Company's several posts and settlements on the different rivers, and on the shores of the Polar Sea, sufficient for the necessities of any parties arriving on those shores or rivers from the Arctic searching expedition."

* See page 200.

The instructions on the subject will reach the interior at so late a period in the season that it will be very difficult to send large supplies of provisions to the Arctic regions; but as this letter will probably reach Governor Colville at Fort Alexander, I beg to suggest that he send back to Red River orders to engage the crews of three or four boats, four if possible, to proceed to Portage la Loche, loaded with seventy to seventy-five pieces each of pemmican, flour, tea, and sugar, and a few bales of blankets, slops, &c., say such an assortment as was sent in last year by Chief Factor Ballendin, for the use of the expedition. If the cargoes can be furnished at Red River it would save the necessity for the boats going round by Norway House, and proceeding direct to the Grand Rapid, they would probably be there as soon as the Portage la Loche brigade. There would be serious difficulty in getting the provisions conveyed from Portage la Loche to M'Kenzie River, unprepared as they will be for this additional transport; I would therefore recommend that a small express canoe be sent ahead of the boats to meet the gentleman in charge of M'Kenzie River district on his way up to the Portage, advising him of the approach of the four boats loaded with provisions, with a view to his making preparations for conveying their cargoes into the district, either by dividing them among his boats, adding boats to his brigade, employing Indians, or in any other way that he may find most convenient. The men to be engaged at Red River for this service should be under contract to carry on the portage and to proceed to Athabasca if necessary, and if no other means can be devised to get forward the provisions, two of the Red River boats should be hauled across Portage la Loche to be employed in transport from thence, with which additional freight, and by loading the M'Kenzie River boats deeply, I think the whole four cargoes from Red River might be taken in. It would be very desirable that the Red River tripmen should not go beyond the Portage, so that they may be sure of getting back to the settlements before the close of the navigation. I would therefore recommend that Indians be employed to perform the transport beyond the Portage, the assistance of the tripmen being only required to haul the two boats across.

The only further effort I can suggest in order to meet the views of the Lords of the Admiralty in reference to this object would be to forward an express across land from Red River to the Saskatchewan, with instructions to send to Athabasca as much pemmican or materials (say pounded meat and grease) as can be spared from that district, and for which they may have the means of conveyance, to be delivered at Fort Chipewgan before the 20th September. If there be no craft at Assiniboine, nor persons qualified to navigate the Pembina and Athabasca Rivers, the pemmican must be forwarded viâ Lesser Slave Lake and Dunvegan, and as there may be no boats at the latter place, a rough carpenter should be sent with the party to construct a bateau, which in the smooth waters of the Peace River would be a sufficiently safe craft for the purpose.

No. 4.

Captain COLLINSON to Sir GEORGE SIMPSON.

Sir, H. M. S. "Enterprise," Sitka, 12th November 1850.

I AVAIL myself of the opportunity that the "Beaver" affords to place you in possession of the measures which have been taken this season by the expedition under my command in search of the missing Arctic expedition.

The "Investigation" (Commander M'Clure) was last seen on the 5th August off Wainwright Inlet, standing under a press of sail to the northward, and has either wintered in the pack, reached Cape Bathurst, or discovered winter quarters to the N.E. of Point Barrow.

The "Enterprise" traced the pack seventy miles to the east of that point, where it took a south-westerly direction, and brought us back, on the 21st August, within thirty-five miles of Point Barrow; then, considering the season too far advanced to assume the inshore route, I proceeded to the north, and reached the latitude of 73° 20' N. without finding a lead to the eastward.

The "Plover," provisioned for three years, has been placed in Port Clarence (Kotzebue Sound having proved too exposed a position for winter quarters),

and I have landed the second lieutenant of this ship (Mr. Barnard) together with the assistant surgeon (Mr. Adams) at Michaelowski, the Russian settlement in Norton Sound, with directions to ascertain the practicability of communicating with the Polar Sea by means of their advanced posts.

By the information I have received from the authorities here it is evident that the Russians have no establishment on any river communicating with the Polar Sea, and that the course of the Yucon or Colville is erroneously delineated on the Admiralty Polar Chart, so that it will greatly depend upon the information I receive from the officers I have detached whether the resources of the "Plover" will be employed in the ensuing season in attempting to reach the Polar Sea by this route or not, and unless information to the effect that a communication has been effected is found deposited at the mouth of the Colville, any parties from the shore of the Arctic Sea had better pursue the coast route by Point Barrow, where they will find provisions buried in a creek to the south of Refuge Inlet, on the Second Sea Horse Island from the north, and on Chamisso Island in Kotzebue Sound, where also a boat has been left.

It is the opinion of Captain Tebenkoff (the late governor general of these possessions) that the Hudson's Bay posts on the Pelly Fork is on the head waters of the Kevepak or Yukhana, which empties itself into the sea to the southward of Norton Sound, and is the stream from which our expedition will attempt to reach the Colville.

According to a native map which Captain Dodd has been good enough to show me it appears that the Indians from the head waters of the west branch of Lynn Canal reach this port by means of Lewis River in fourteen days, returning by land in fifty.

In the event of any of your post communicating with the Kevepak, they can descend it with the certainty of finding an asylum at Michaelowskie, from whence they can readily proceed to the "Plover."

I transmit an abstract of the native reports relative to ships and white men having been seen on the Polar Sea, and I have to request you will be so good as to forward to Commander Pullen information concerning our proceedings, and acquaint him that it is my intention during the ensuing summer to pursue an inshore route to the eastward, as from what I have seen this season I feel assured that the offshore is not practicable.

I have, &c.

R. COLLINSON, Captain.

REPORTS relative to SHIPS and WHITE MEN having been seen to the northward.

The natives of Buckland River in Kotzebue Sound report that some northern people who had been trading with them say that two vessels, answering to the description of the "Erebus" and "Terror" had been boarded by natives inhabiting the coast to the eastward of Point Barrow about the latter end of the summer of 1848, whilst they were working to windward against a westerly wind. After the natives had been on board some time the water began to shoal, when the ships went about, and stood to the northward, after which they were not seen. Kotzebue Sound,
11th Nov. 1849.

Reports that two officers and eight men had been on a river named the Ek-ko, which is within thirty-five days of Michaelowski Redoubt in April 1848, and that they were in a very distressed state, having bartered guns and ammunition for provisions. Mr. Pegus, mate
of the "Plover,"
at Michaelowski
Redoubt, March
1850.

The natives of Hotham Inlet reported that four stranger natives had arrived from the northward, and had told them that there were some white people at a place called Ko-puk, which is apparently near to Point Barrow, where they were building a vessel. Hotham Inlet,
4th March 1850.

Four natives from the northward visited the "Plover" in Kotzebue Sound, one of whom having come from the vicinity of the River No-a-tok, reported that he fell in with a party of natives, who told him that there was a vessel and a number of people a long way to the northward, with whom they had bartered knives. He also brought the wooden model of a knife he had seen in the possession of these people, marked with the letter L. Kotzebue Sound,
1st May 1850.

- Point Barrow,
27th July 1850. The natives of Point Barrow report that a number of people dressed like ourselves had arrived at a river called Ko-puk ; they were now dead, and buried by the natives.
- Wainwright Inlet,
5th August 1850. The natives have reported that two boats had arrived at the Ko-puk, that the crews had quarrelled with the natives, who shot them with arrows and stabbed them with knives ; one of the two boats was stole at the Ko-puk, but the other was driven away by the sea.
- Port Clarence,
18th Sept. 1850. Some natives visited the "Plover" yesterday and brought information that a vessel had arrived at a place called Noo-wok, some distance to the eastward of Point Barrow ; that she was destroyed by the ice and the people starved, a number of whom are represented to have been lying on the shore. From what I am able to understand, it would appear that this vessel, which they report to have three masts, must have been wrecked on the breaking up of the ice in the spring of 1849.
- Michaelowski Re-
doubt. Oct. 1830. The natives have brought information to the Fort Darabin, which is on the Kive-pak, that five white people have been seen in the interior.

R. C.

No. 5.

The SECRETARY OF THE ADMIRALTY TO SIR JOHN PELLY.

Sir, Admiralty, 2d June 1851.
HAVING laid before my Lords Commissioners of the Admiralty your letter of the 29th ultimo, enclosing an extract of a despatch from Sir George Simpson, detailing the arrangements he has made for carrying into effect their Lordships wishes for supplies to be kept up at all the settlements bordering upon the shores of the Polar Sea, I am commanded by their Lordships to request that, in conveying to Sir George Simpson their Lordships thanks for his continued and unremitting exertions, the Hudson's Bay Company will inform him that my Lords place the fullest reliance that no means will be wanting on his part to ensure the delivery of the most ample supply of provisions, fuel, and clothing for any parties that may be compelled to abandon their ships and seek the shores of America from the several expeditions now in the Arctic seas.

I have, &c.
W. A. B. HAMILTON.

No. 6.

The SECRETARY OF THE ADMIRALTY TO A. BARCLAY Esq.

Sir, Admiralty, 2d June 1851.
WITH reference to my letter to Sir John Pelly of this day's date, I am commanded by my Lords Commissioners of the Admiralty to request that the Hudson's Bay Company will have the goodness to give particular instructions to the officers in command of the ships about to proceed to Hudson's Straits to keep a strict look out for any floating casks or cylinders as they approach the entrance of the straits ; and also to make inquiries of any of the natives they may fall in with (belonging to Resolution or the Button Islands) if any such casks or cylinders have been found by them. Two casks, which were thrown overboard in Lancaster Sound by Sir James Ross and by one of the whale ships, have been picked up on the coast of Labrador, and it is by no means improbable that others may have drifted in the same direction.

I have, &c.
W. A. B. HAMILTON.

IV.

Dr. Rae's Expedition.

No. 1.

Dr. JOHN RAE to the SECRETARY OF THE ADMIRALTY.

Port Confidence, Bear Lake, 14th November 1850.

Sir,

(Received 3d October 1851.)

I HAVE the honour to acquaint you, that on the 13th instant your letter, dated 3d May 1850, reached me, accompanied by the following papers; namely, copies of a communication between the Admiralty and the Hudson's Bay Company on the 25th January last; of instructions addressed to Commander Pullen on the same day; of instructions given to Mr. W. Penny, in charge of our expedition to the Arctic Seas; and of orders to Captain Austin of Her Majesty's Ship "Resolute," about to proceed in command of another expedition in the Arctic Sea.

I beg to enclose herewith a list and distribution of the instruments, &c., property of the Admiralty left under my care by Sir John Richardson, and which, with a few exceptions specified, have been transferred to the charge of Commander Pullen by his own desire.

I have, &c.

JOHN RAE.

No. 2.

A. BARCLAY Esq. to the SECRETARY OF THE ADMIRALTY.

Sir,

Hudson's Bay House, 10th November 1851.

I AM directed to transmit to you, for the information of the Lords Commissioners of the Admiralty, copies of two despatches received from Dr. Rae, dated respectively the 18th April and 10th June.

Though Dr. Rae was not fortunate enough to learn anything respecting the missing expedition, it will be seen that he succeeded in exploring the southern shore of Wollaston Land, a tracing of which is enclosed herewith. (*See plan annexed.*)

The delay in the arrival of the former of the above-mentioned despatches is to be attributed to its having been forwarded via Red River and the United States instead of by way of York Factory.

I have, &c.

A. BARCLAY, Secretary.

Doctor RAE to Sir GEORGE SIMPSON.

Sir,

Fort Confidence, 18th April 1851.

I HAVE now the honour to acquaint you with the proceedings of the searching expedition at this place since my last communication in the beginning of November. At that date there was every prospect of our being abundantly supplied with food, but these hopes were not fully realized, in consequence of the deer having migrated to a great distance eastward, led thereto it is supposed by a long continuance of winds from that quarter, which appears to have had an equally prejudicial effect on our fisheries, for the nets so early as December produced scarcely enough fish to maintain the two men attending them. During two months we received scarcely a mouthful of food, which induced me to put the people on reduced rations as a precautionary measure. Notwithstanding that every economy was used our stock of provisions in the beginning of January was very low, when most fortunately two Indian couriers arrived bringing the welcome intelligence that their party had a large quantity of venison "en cache" for us six days journey distant. Our dogs and sleds were immediately sent for it. Since then, having obtained supplies from other quarters we have experienced no scarcity, and have collected sufficient, for our own consumption, to last until the beginning of June, were it not that we are much burdened with starving Indians, about thirty of whom receive

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assistance from us more or less as they appear to require it. Twelve of these being women and old men who have no one to provide for them are, according to the usual custom at the H.B.C's posts, supplied with rations as regularly as our own people, not certainly in such large quantities, but enough to recruit their strength gradually.

These poor creatures are in a great measure indebted to their own obstinacy and want of forethought for the privations they are suffering. Some weeks since they received two or three days provisions to carry them to where their friends had been killing musk cattle, and some ammunition (gratis) to enable them to procure the means of subsistence for themselves. At the same time they were told where I knew, by the experience of Messrs. Dease and Simpson and my own observation, that deer were likely to be numerous. Instead of going there, however, and living in abundance (which they would have done, as our sledge drivers saw large herds of deer at the place pointed out,) they went in the very opposite direction, and killed little or nothing; the consequences were that they returned here so much reduced that some of them would scarcely have reached the house had not provisions been sent to meet them.

Nothing in my opinion can more clearly show the careless and unobservant habits of the natives of this quarter than a circumstance that took place here some weeks since. Having learnt that our fisherman whilst setting a net had seen a number of small fish at no great depth under the ice, I had a spear made, and seventy herrings (equal to a week's rations for one person) were killed in a few hours. The custom of spearing herrings is very common near Old Fort Franklin, but had never been tried before at this end of the lake, and the Indians were surprised to hear of such a thing being done. Yet easy and simple as this mode of obtaining food is, for a child, after a hole has been cut in the ice for him, can do it, we cannot prevail on the natives to practise it, although the weather has been so beautiful for some time past that it is a pleasure to be in the open air.

I am aware that it is foreign to the purpose in such a letter as this to enter into particulars regarding the condition and character of the aborigines, more especially to you, sir, who know so well the customs at the Hudson's Bay Company's posts, and the general disposition of the natives, but my reason for doing so is the having noticed that of late years some credulous persons in England have been censuring, in no measured terms, the conduct of the honourable company's officers towards the Indians, a subject on which those would-be philanthropists are personally in perfect ignorance, and have little to found their arguments upon beyond the mistatements and exaggerations of parties known to be inimical to the company, very generally for causes which if fairly stated would tell not much in their own favour.

The winter has been unusually fine, with a great quantity of snow, and but little stormy weather. January was the coldest month, on the 21st of which the temperature fell to 72° below zero.

The health of the party has been excellent, not a man on the sick list since we came here. We have heard of no deaths among the natives, except one or two children in the first of the winter at a distance from this, who died of inflammation of the chest. There are many of the Indians here much reduced by want, but whilst they remain near us not a soul will be allowed to die of starvation so long as the store contains any provisions. Their own conduct forces us to give them less than I would wish to do, as were they to be supplied more abundantly they would make no exertion to obtain food for themselves by setting hooks for trout or hunting.

Our sledges are now employed hauling to the Kendall River the stores, &c. requisite for the summer's boat voyage, amounting in all to about 2,700 lbs. weight, to which some bales of dry meat are to be added. This duty will be completed about the 22d instant, immediately after which I contemplate setting out with two companions on a foot journey over the ice and snow to the north. Our course will be in the direction of Banks Land through the supposed strait dividing Victoria and Wollaston Lands. We shall be accompanied by five dogs and two sledges for the transport of our baggage. Our provisions will consist of pemmican and flour sufficient for 35 days consumption, counting from the date of leaving the mouth of the Coppermine; we shall carry grease as fuel for the same time, at the rate of one pound per day, which has been found sufficient to do our simple cooking. Bedding for the whole party will be one blanket, one deer skin robe, and two hairy deer skins to place between us and the snow, as tents at such a season would be mere useless lumber. I shall follow the same plan as when tracing the shores of Committee Bay, and make our lodgings of snow. For this purpose I have during winter renewed my experience in snow house building, and the men who are to accompany me have become very tolerable snow masons. Our whole equipments including food for the dogs, &c. will not exceed 560 lbs., which is not a heavy lading for two sledges. In short, nothing that our small means would admit of has been left undone that can in the slightest degree tend to the advancement of the object of the expedition; and it is hoped, that if blessed with health, and if no very great obstacles oppose our progress, we may examine about 300 miles of coast or ice-covered sea before the 7th or 8th of June, at which date I expect to be back at the Kendall, where we will await the arrival of the boats, which are to be brought across by Mr. McKenzie and the remainder of the party, aided by Indians, as soon as the ice on Dease's River breaks up.

Should I meet with any incidents of interest during the spring journey an express will be immediately sent off to Fort Simpson with orders that it be forwarded without loss of

time to the southward, in expectation of its reaching York Factory before the ship sails, or Canada or the States before the closing of the navigation.

It has not yet been decided which direction will be taken with the boats during the summer; much must depend upon the state of the ice, and the observations made in the spring; the most probable route will be round either the east or west known extremity of Victoria Land, and then to the north-eastward in the direction of Cape Walker. I shall endeavour to be here again by the 10th September, so as to embark all the party for Fort Simpson, unless instructions are received desiring that I should pass next winter at this place. To provide for such contingency I have forwarded a requisition to the gentleman in charge of M'Kenzie River district for such goods as we may require, and which he will send hither if the services of the party are required for another season.

In the event of any accident preventing my return from the coast in spring, Mr. M'Kenzie has learnt to make the necessary observations for time, latitude, longitude, and variation, so that he may carry on the search during the summer in the boats without my aid. A memorandum has been given him for his guidance, copy of which I beg to enclose.

With the assurance that no effort it may be in my power to make in any way likely to lead to the discovery and assistance of the venerable Sir John Franklin and his gallant party will be omitted,

I have, &c.

JOHN RAE, C. F.

P. S.—During the last three days we have had a great thaw, which is remarkable here at this season. The temperature has ranged from 34° to 41° in the shade, and much snow has disappeared. It will be unfavourable for our transport business.

JOHN RAE.

Dr. RAE to Mr. H. A. M'KENZIE.

MEMORANDUM.

Before taking my departure on a foot journey to the Arctic coast I beg to hand you the following observations for your guidance during my absence.

It is almost unnecessary to say anything on the subject of the common duties at this place, as they are to be carried on much in the same manner as during the winter; bearing in mind always that there should be no useless waste, either of ammunition or provisions, as our stock of both is far from large. You will also impress upon John Fabien (the man to be left in charge during the summer) the necessity of care on these two particulars.

The most important duty you will have to attend to is, the transport of the boats across to the Kendall River. This work occupied Dease and Simpson's party thirteen days, and mine in 1849 a like time; however, by having favourable weather and following the route I took, it may easily be accomplished in a less period. Two of the small streams through which you will have to pass are navigable only during the spring floods, which circumstance is the only cause for haste, so as to reach them before the water subsides too much. But in no case allow even this consideration to induce you to hurry forward at the risk of damaging the boats, which ought to be particularly guarded against; and you will caution your men on this subject especially, and whenever there is any difficulty let both crews unite, and pass one boat at a time. Six or seven Indians will be engaged to assist you, to be paid a M. Br. each, or more in the event of good conduct, for every day they are employed; these, with one of the men that are to summer here, will make your party amount to thirteen or fourteen, a number large enough for any purpose required.

The ice on Dease River usually breaks up between the 1st and 10th June, possibly earlier; you will consequently about that time station there, or send daily, a trustworthy man, who may have nets set to obtain a supply of fish, to notice when the ice has ceased driving; after which no time should be lost before hauling the boats and baggage to the river, and commencing the ascent of it. If there be symptoms of a speedy decay of the lake ice you might take the boats to the river, or as near it as danger from the driving ice will admit, at an earlier date, but this you will be able to judge of for yourself.

It is difficult to specify the quantity of provisions that will be required for your party during the time you are crossing the Kendall, but I should consider two bags of pemmican, one bale of dry meat, and half a bag of flour amply sufficient, as in a few days after leaving this your Indians can, in all probability, kill deer enough for the maintenance of all. Should such be the case, venison is always to be used instead of pemmican or dry meat, to save the two latter as much as possible.

In the event of my considering it requisite to send an express to Fort Simpson after my return to the Kendall from my foot journey, the Indian that has been engaged to carry it will accompany you part of the way across, so as to meet the person I may send with despatches. On the receipt of these they are, without a moment's loss of time, to be sent hither, where the Indian and a companion are to be supplied with sufficient provisions, say 40 lbs. dry meat each, and a quantity of ammunition, so as to start without delay by the

shortest route to Fort Simpson. The guide will be paid 40 M. Br. for the trip, with ten skins additional if he perform the journey in less than twenty days; his companion is to receive thirty skins.

As it is not improbable that an express may arrive here during my absence, and before you leave this, you are hereby authorized to open any official letter or letters to my address that it may bring. If you learn by them that the party of Sir John Franklin has been found, or certain knowledge of their fate obtained, making it unnecessary to carry on the summer search with boats, you will, as quickly as you can, use every effort to get the stores, &c. now at the Kendall River transported to the Forks of the Dease, and "cached" there under the care of a man or two, until the river is navigable, when you will send one of the small boats for them. It would nevertheless be advantageous to leave a couple of men and Indians at the provision station on the Kendall to await my return.

Any packet that may be brought here after your departure should be sent after you by Fabien, and directions are to be given him to do so.

Should any unforeseen occurrence prevent my return from the coast to the Kendall in June, you are to endeavour to carry out the objects of the expedition in the same way as I would have done if present, with this exception, that you had better proceed in the direction as nearly as you can which I had previously taken, unless the men that accompanied me reach you in safety, and report that there are no traces of the missing navigators in that quarter. In such a case the route I would recommend is round either the east or west known extremity of Victoria Land, and then towards Cape Walker, if the land trends that way; but information from the Esquimaux may lead you to follow some other course.

With these harmless people you will carry on a friendly intercourse, and endeavour to gain their confidence, which it is not easy to do, as they are very shy and timid.

Whatever may be the distance that the ice permits you to advance, you should commence your return so as to reach the Coppermine by the 4th or 5th September at latest, unless the autumn is very fine, and there is some advantage to be gained by a longer stay on the coast.

On your arrival here you will immediately embark all the party and property of every description in the two large boats, and proceed to Fort Simpson; thence, if no orders to the contrary are received from Sir George Simpson or Mr. Colville, on to Slave Lake, or, if possible, Athabasca, by open water, with the men that were engaged in the Red River Colony, who are to travel thither as soon as winter journeying is practicable.

At your earliest convenience you will forward to Sir George Simpson a brief statement of your proceedings from the time of my leaving this place to the date of your letter.

Having full reliance upon your solicitude to execute efficiently the duties assigned to you, I trust you may be successful in their performance, and be blessed with health and favourable weather to carry them on satisfactorily.

Given under my hand, at Fort Confidence, Bear Lake, this 22d day of April 1851.

(Signed) JOHN RAE, C.F.
Commanding A. S. Expedition.

DR. RAE TO SIR GEORGE SIMPSON.

Sir,

Provision Station, Kendall River, 10th June 1851.

I HAVE the honour to acquaint you that I arrived at this place to-day from the Arctic coast with my two men, having been absent forty-two days, during which the shore of Wollaston Land was examined to the eastward of longitude 110°, and westward as far as longitude 117° 17', without finding any strait or passage leading to the north, and without seeing any traces of Sir John Franklin's party, or obtaining any tidings of them from the Esquimaux we met with.

I left Fort Confidence on the 25th April, accompanied by four men with three sledges drawn by dogs, and a small sledge drawn by the men alternately, on which our provisions and baggage were stowed. We reached this station on the 27th, and were detained two days by stormy weather. This time was profitably employed in arranging our baggage and stores, repairing and strengthening our sledges, and in recruiting the dogs.

On the 30th, everything being in readiness and the weather fine, I started for the coast with two men (Beads and Linklater), and two sledges drawn by five dogs. A fatigue party of three men and two dogs accompanied us to within half a day's march of the coast. In consequence of a great thaw that had occurred the previous week, which cleared much of the ground of snow, the travelling was extremely bad, and although long detours were made to find a good road for the sledges, they got much injured by the stones.

On the 1st May we put "en cache" for our return journey a little pemmican and flour, and next day, when ten miles from the coast, the fatigue party was sent back. After experiencing much difficulty in crossing some deep ravines we reached the shore of Richardson Bay, about five miles west of the mouth of the Coppermine near midday, when I was

most happy to find that, as far as visible, the ice to seaward was not unfavourable for travelling.

Being desirous of walking during the night, to prevent the glare of the sun on the snow inflaming the eyes, we commenced our journey at 10 P.M. on the 2d. The weather was unpleasant, with a strong breeze of cold north wind, as we directed our course as straight as possible for Point Lockyer. The ice being smooth and the snow hard we advanced rapidly until 8 A.M. on the 3d, when we stopped for the day in latitude by observation $68^{\circ} 8' 44''$ N. The building of an excellent snow house occupied us an hour and three quarters, during which our simple cooking was going on, so that no time might be lost.

On the 4th we encamped on the beach five miles north of Point Lockyer, where we found some wood for cooking, and as the weather was fine no snow hut was required; the wind was, however, still sharp, and a temperature of $+ 10^{\circ}$ made a shelter in the form of a semicircular wall of snow agreeable.

At 9h. 15m. P.M. we were again on foot, our course being directed towards the N.W. end of Douglas Island, on which we landed at 3h. 5m. A.M. on the 5th, when we cooked a kettle of pemmican and flour, with some wood picked up, and put "*en cache*" a quantity of provisions for our return.

After two hours stay we resumed our march in a nearly N.E. direction.

At the same hour as on the previous evening we commenced our night's march, and a walk of one mile and three quarters brought us to a low point, covered with debris of sandstone and limestone, and a few boulders of granite. The land was so low that from our snow house it appeared much more distant. We now turned eastward, but had much difficulty in keeping along shore, as there were several small bays and islets, among which, in the hazy weather, we had some trouble to find our way. Under these circumstances, rather than lose time uselessly, I determined to travel over land due east, leaving the coast to be traced when returning, at which time the thawing of the snow would have laid bare a greater extent of the shore, and made it more easy to define.

On our second day's march over an uninteresting track of low ground, swamp, and lakes, we arrived at the coast at 6 A.M. on the 7th, nearly opposite to some large rocky islands, and at a place where the shore presented a high sloping front. After two hours walk to the E. by N. along shore we built our snow hut in latitude $68^{\circ} 31' 42''$ N., longitude $111^{\circ} 30'$ W., under a steep bank surmounted by some whitish limestone and reddish brown sandstone *in situ*. Here, during the interval between taking the observations for time and latitude, I shot ten hares. These fine animals were very large and tame, and several more might have been killed, as well as many partridges, had I thought it expedient to follow them.

7th and 8th May. Our course for the first five miles of this night's march was nearly E.S.E., until we rounded a long point, and crossed a deep bay in an east direction, some large islands lying outside at a couple of miles distance from the shore, but gradually approaching it to within half a mile as we advanced westward. These islands I named after the distinguished naturalist and traveller, Sir John Richardson. The islands as well as the adjacent coast were high, rocky, and in many places precipitous. Specimens of the rocks have been preserved.

The land now turned imperceptibly northward to N. 40° E., in which direction we proceeded 4 miles to the entrance of a narrow inlet, on the west side of which, in lat. $68^{\circ} 38' 5''$ long. $110^{\circ} 50'$, we stopped, at 3h. 30m. A.M., but built no snow hut, as the weather was not bad.

Previous to taking the noon observation, and whilst supper was cooking, I examined the inlet, hoping to find it a passage leading to the northward, but a walk of two miles and a half undeceived me. Several deer were seen, but as we had abundance of provisions no attempt was made to approach them.

On the night of the 8th the weather was so stormy, with thick snow, that we could not travel; we therefore built a snow house, and made ourselves comfortable, occupying our time repairing shoes, making up calculations, &c.

Next night, the weather having become better, we resumed our march, and travelled nearly three miles rather to the southward of east, then east one mile and a half, after which we crossed a point two miles broad in the same direction. We now traversed a considerable bay with low shores, our course being E. by N. To this bay I gave the name of Welbank, after one of the directors of the Hudson's Bay Company.

As we travelled onwards the land continued low, and had an easterly trending during the remainder of our night's walk, which was not continued so long as usual, the weather being extremely cold for the season. The thermometer showed a temperature of 22° below zero, which made the shelter of our snow hut more than usually acceptable. One of the men got rather deeply frostbitten in the face, and the taking of a set of lunar distances was rather unpleasant work. I have generally found, indeed, that a temperature which in winter would be pleasant, is in the latter part of spring almost insupportably cold. The latitude of our position was $68^{\circ} 37' 48''$ N. by observation, longitude by account $110^{\circ} 2'$.

The furthest point of land, about six miles distant, bore E.S.E., so that it appeared unnecessary to travel further in this direction, as my survey and that of Messrs. Dease and Simpson must have met here, although our latitudes do not agree, mine being some distance south of theirs.

There were now two modes of proceeding open to me; the one being to strike over land to the north in search of the sea coast, the other to return along the coast and travel westward, in hopes that some of the spaces of Wollaston Land, left blank in the charts, might prove to be the desired strait. I chose the latter of these modes, because to travel overland in a northerly direction would be very difficult and fatiguing, and would always be getting more so, as the ridges of land (most of which were already clear of snow) lay across our line of route, so that a few days of warm weather would have made travelling with sledges and dogs very difficult, if not wholly impracticable.

The night of the 10th was very stormy, with thick snow-drift; but the wind being in our backs, we commenced our return to our previous days resting place. After walking some time we fell upon our old track, which saved me much trouble in taking bearings, as they would have been often requisite, the snow being so thick that we could not see to the distance of twenty yards. After a very cold but smart walk of rather more than seven hours duration, we were very glad to find ourselves snug under cover of our old quarters, our clothes being penetrated in every direction with the finely powdered snow.

The weather on the night of the 11th continued so bad that we were obliged to remain indoors, but the following night was fine enough to allow us to proceed westward by our former track.

Our journey to Douglas Island was favourable. The coast, from latitude $68^{\circ} 31' 40''$ N. and longitude $111^{\circ} 30'$ W., up to Cape Lady Franklin in latitude $68^{\circ} 29'$, longitude, $113^{\circ} 5'$, was, with the exception of one high rocky point, low and indented, with many bays of small extent, the general direction being nearly west. The weather continued good, so that we arrived at the N.W. extremity of Douglas Island at a few minutes to 8 A.M. on the 15th, when we found abundance of drift wood to cook with.

As to return by Douglas Island would lead us out of the straight road homewards, when we started on the 16th for Wollaston Land we carried with us the provisions we had previously put *en caché*. We directed our course to the most distant visible point, bearing about N.N.W., and found that it was nine miles distant; but in reaching it we were much delayed by rough ice, in rounding which we increased the length of our walk very much, and a very heavy fall of snow stopped our farther advance.

Our next night's journey was rather long, to make up for the time lost by the bad weather. For thirteen miles our course was about N.N.W., along a series of bays and points; the coast then ran north for some distance, and afterwards slightly to the eastward, until we encamped on a small peninsula near the head of the bay, in latitude $69^{\circ} 1'$, longitude $113^{\circ} 25'$, both by account.

17th and 18th May we walked for two miles and three quarters N. 28° W., which brought us to a point on which we deposited some pemmican, &c., having made another "cache" about seven miles from our former day's sleeping place. We also left here a small sledge, on which I had hauled from 35 lbs. to 50 lbs. since leaving Richardson's Bay, two days excepted. We now traversed a deep and wide bay in a direction N. 40° W. towards some high hills, which appeared to be not very far off; but finding that we could not reach the coast there, I turned more to the northward, and ended our night's walk on the west point of a small bay, in latitude $69^{\circ} 17' 30''$, longitude $114^{\circ} 7'$ W.

Being anxious to discover how the land looked to the northward, and as a high hill, about thirteen miles inland, would afford the opportunity of obtaining a very distant view, our next day's journey along shore was only five miles and a half, the course being west.

Here I left the dogs and baggage under the care of one of the men, whilst with the other I set out for the hill already mentioned; but, unfortunately, the walking was so bad, that although we were quite unencumbered we could get no farther than ten miles, when we returned, rather fatigued, to our sleeping place. Many partridges (*Tetrao Mutus*) were seen, but they were so shy that only eleven were shot. These birds are large, and fine eating.

To the large bay we had just traced, and to a range of hills, of which the most prominent is the one I attempted to reach, I gave the names of Simpson and Colville, in honour of the Governor-in-Chief and Governor of the Hudson's Bay Company's territories.

During the journey of the 19th and 20th the trending of the coast was still to the west as far as our sleeping place, on a point with high limestone cliffs, latitude $69^{\circ} 15' 54''$ N., longitude $115^{\circ} 24' 54''$ W.

The next night our course was to the north of west until within a mile or two of the end of our night's walk, which was in nearly a north direction to the head of a small bay, where we took up our quarters in latitude $69^{\circ} 24' 47''$, longitude $116^{\circ} 23' 34''$.

On the 21st and 22d we travelled nearly N.W. for five miles, which brought us to a cape with limestone cliff, at least 170 feet high. This cape was named after Captain Hamilton, R.N., Secretary to the Admiralty.

A couple of miles to seaward there were thirteen Esquimaux lodges, and we had an amicable interview with the good harmless inhabitants, who were rather timid at first, but soon gained confidence. It was difficult to make them understand that no return was expected for some presents I made them. None of the women showed themselves, but all the men were well and cleanly dressed in deer skin. They were all very fat, having evidently abundance of seals flesh and fat, large quantities of which were carefully deposited in seal skin

bags under the snow. We purchased a quantity of this for our dogs, and some boots, shoes, and seal skins for our own use. After a most friendly interchange of signs and words, few of which could be understood on either side, we parted, after six of them had walked some distance with us, both parties apparently equally well pleased with the meeting.

Our course was now N. 36° W. across a bay 11 miles wide, the north side of which was bounded by a curiously shaped point which I called Pullen, after the commander in the navy of that name, who successfully performed the voyage from the westward of Point Barrow to the M'Kenzie River in 1849; to the bay, the name of Lady Richardson was given. Three miles further in the same direction brought us to an island, which was the terminus of our night's journey. This island is high but not rocky, and about 3½ miles long; it received the name of Bell, after a chief trader in the Hudson's Bay Company's service; near it, to the east, there is a small islet covered with large pieces of rugged limestone.

Next night our course for 7½ miles was N. 33° E. to a point with limestone precipice 70 or 80 feet high. The coast then rounded up to the northward until it attained a true north direction, and for a mile before we ended our night's walk a N.N.E. course into a small bay, where we rested for the day, in latitude 70° 00' 23" N., longitude 117° 16' 35" W.

The period I had allowed for our outward journey having now arrived I left our dogs and one of the men here, whilst with the other I travelled half a day's journey further.

At 8h. 30m. on the 23d the night was beautiful, and we started with no other incumbrance than a gun, telescope, and compass, so that we travelled fast over the hard snow and ice. After walking two miles to the N.W. we turned a cape, which received the name of "Baring," in honour of the First Lord of the Admiralty, beyond which the coast took a sudden bend to E. by N. for 8 miles, and then became more northerly for 6½ miles, which was the farthest point reached. A high cape, which was called after Sir George Back, bore N. 73° E. about 7½ miles distant, and bounded our view of the coast in that direction.

Near the place from which I turned back the land was fully 300 feet high, from which objects could be seen at a great distance, and some land 15 or 20 miles off was observed, the most westerly point bearing N. 25° W., the view of its more distant eastern extremity being obstructed by Cape Back.

It is difficult to determine whether the water dividing these two shores is a bay or a strait, but from the little information I could obtain from the Esquimaux I suspect it to be the latter. Unfortunately want of time (as the interests of the summer voyage with the boats required my presence at this place) would not allow me to decide this question.

Our return was effected at the same quick pace as our outward journey, and we arrived at our *bivouac* after an absence of ten hours, with excellent appetites for supper, to which, as usual, we did ample justice.

On the 24th May, at 8 h. 25 m. P.M., we commenced our homeward route, the details of which I shall not trouble you with, merely remarking that the bearings and distances were carefully checked, and several observations for latitude, variation, and time obtained, which the cloudy state of the weather prevented being taken previously.

Where the depth of the bays was at all doubtful I made a circuit round them, whilst the men and dogs followed the straight route.

We had several more interviews with the Esquimaux, all equally friendly as the first. At one of the tents two of the women made their appearance, and were not in the slightest degree timid.

All the land near the coast, from Cape Lady Franklin to Cape Baring, is so extremely barren that although many deer cross from the main they do not remain near the shore, but make their way directly inland, too far for persons travelling as we were, and abundantly supplied with food, to follow them.

On the 30th May we reached our "*cache*" of the 16th, and found it, as well as two others, perfectly safe, notwithstanding that one, or perhaps all of them, had been seen by the Esquimaux.

On the night of the 30th we crossed over, in as direct a line as the rough ice would permit, to the high rocky point north of Cape Krusenstern, traversing a portion of Lambert Island on the way. Next night we reached the south side of Point Lockyer, where a laughing goose (*anser albifrons*) was shot, and water was obtained without thawing snow.

On the 2d June the extremity of Cape Hearne formed our head quarters, at which place eleven geese, all in fine condition, were killed.

Being anxious to know if a deposit of provisions left in Icy Cove by Sir John Richardson in 1848, and examined by me in 1849, was still safe, I deviated half a day's journey from our direct route in order to visit it; but a deep snow-drift prevented my attaining my object. As the Esquimaux appear to have a great respect for "*caches*" of any kind, I believe it is still quite safe, unless destroyed by wet or the barren-ground bear.

Our next sleeping place was seven miles north-west of Cape Kendall. Here ten geese were shot, and double that number might have been got had we required them.

At 7h. 50m. A.M. on the 4th June we encamped on the south shore of Richardson Bay, two miles east of where we stopped on the 2d May. During the last two days there was much water on the ice, and it was evidently high time that our journey should be approaching its conclusion. As the consumption of provisions for the coast journey began here, it may not be out of place to mention, that the quantity used in 33 days was 54lbs. flour

and 128 lbs. pemmican, or nearly 2 lbs. for each person per diem, with 1½ lb. tea, 2 lbs chocolate, and 10 lbs sugar, for all the party during the same time.

We stayed a day here to arrange loads for ourselves and dogs, and to make a "cache" among the rocks of 30 lbs. pemmican, 20 lbs. grease, (fuel remaining,) and several other things which we did not require to carry with us.

On the 5th June, between 9 and 10 P.M., we started for the Kendall, lightly laden, and came on to within four miles of our "cache" of provisions made on the 1st May. One of the men was sent to examine it, but found that everything, except an axe, had been either eaten or destroyed by a barren-ground bear. We saw a very large one next day, probably the very fellow that had robbed us, but he was too wary to allow us to get within shot of him; possibly he may be less successful in avoiding us on our return to the coast.

On the 9th, when nine miles from this, a large musk bull was shot, and his flesh was found excellent; the skeleton will be preserved.

A short time after mid-day on the 10th we arrived here, having been five days coming from the coast, during some of which we were fourteen hours on foot, and continually wading through ice, cold water, or wet snow, which was too deep to allow our Esquimaux boots to be of any use.

The latter part of our journey, if not the most fatiguing, was by far the most disagreeable. Through every hollow and valley a stream more or less large flowed, some of them so deep and rapid, that we had often to walk three or four miles out of our course to find a ford; and even then it was so difficult to keep on our feet, that one of the men fell, and lost all our cooking utensils, plates, pans, and spoons, so that for two days we were compelled to use stones as substitutes.

Our principal food was geese, partridges, and lemmings; the latter, being very fat and large, were very fine when roasted before the fire or between two stones. These little animals were migrating northward, and were so numerous that our dogs, as they trotted on, killed as many as supported them without any other food.

The dogs did their work well, considering their leanness when we set out; had they been in better condition, I have no hesitation in saying that our daily journeys would have been three or four miles longer. We were frequently delayed by rough ice, but when this happened we made up for lost time by additional exertion, either on the same or subsequent days.

I subjoin a note of the daily and total distances travelled, counting this place as our starting point.

I beg to enclose a very rough tracing of the coast examined, it has been done in great haste and without pretensions to great accuracy, as I have many of my calculations to revise and several sets of lunar distances to work out; some islands are also omitted, and the positions of others may require alteration.

In conclusion permit me to observe, that the conduct of the two men who accompanied me has been excellent, and they, as well as myself, are in a much better state for commencing another such journey than when we left Fort Confidence.

Apologizing for the hurried manner in which this is written, my only excuse being the anxiety I feel that it should be sent off with the least possible delay,

I have, &c.

JOHN RAE.

DISTANCES TRAVELLED.

	Miles.
Kendall to coast	64
2d and 3d May	25
3d " 4th "	27' 5
4th " 5th "	23
5th " 6th "	20' 5
6th " 7th "	19' 75
7th " 8th "	19' 5
8th " 9th "	— stormy.
9th " 10th "	21' 5
10th " 11th "	21' 5
11th " 12th "	— stormy.
12th " 13th "	19' 5
13th " 14th "	20' 25
14th " 15th "	21
15th " 16th "	10' 50 thick snow
16th " 17th "	26' 75
17th " 18th "	25' 5
18th " 19th "	{ 5 } along coast
	{ 20 } inland.
19th " 20th "	23
20th " 21st "	22' 25
21st " 22d "	32' 50

	Miles.
22d and 23d May	- 19'75
23d „ 24th „	- 31
24th „ 25th „	- 23
25th „ 26th „	- 18'75
26th „ 27th „	- 23'25
27th „ 28th „	- 23
28th „ 29th „	- 24'5
29th „ 30th „	- 21
30th „ 31st „	- 16'5
31st „ 1st June	- 21
1st „ 2d „	- 25'5
2d „ 3d „	- 23
3d „ 4th „	- 19'5
4th „ 5th „	- — did not travel.
5th to 10th „	- 75
	824'25 { geographical miles.
	Or 942 English miles.

No. 3.

The SECRETARY OF THE ADMIRALTY TO ALEXANDER BARCLAY Esq.

Sir,

Admiralty, 13th November 1851.

HAVING laid before my Lords Commissioners of the Admiralty your letter of the 10th instant, enclosing copies of two despatches from Dr. Rae, dated 18th April and 10th June last, reporting his proceedings in search of the expedition under Sir John Franklin, I am commanded by my Lords to express their Lordships thanks to the Hudson's Bay Company for this communication.

My Lords have received with much gratification the account of the exertions made by Dr. Rae, and they consider he has shown great energy and zeal.

I am, &c.

J. PARKER.

V.

Proceedings of Commander Pullen's Boat Expedition.

No. 1.

LETTER from Lieutenant W. J. S. PULLEN of Her Majesty's Brig "PLOVER," reporting the Arrival of the BOAT EXPEDITION under his Command at the MACKENZIE RIVER.

Fort Simpson, Mackenzie River,
4th October 1849.

Sir,

I BEG to acquaint you, for their Lordships information, of my arrival at this place yesterday morning, with the greater part of my party, having left the remainder with an officer, Mr. Hooper, Acting Mate, at one of the Hudson's Bay posts, on the river Peel. I left the "Plover" off Wainwright Inlet, on the night of the 25th of July 1849, in pursuance of orders from Commander Moore; a copy of which I herewith send, together with those from Captain Kellett of Her Majesty's ship "Herald." Our voyage has been successful, with the exception and main object of not finding any traces of our missing and unfortunate countrymen. Extracts from my journal of proceedings I can only at this time send, as an extra express will be sent directly the boats arrive from the Great Slave Lake, momentarily expected, and where the party pass the winter; and it will only be by great exertion that they (the express)

will save the open water. A track-chart and complete journal I hope to lay before their Lordships on my arrival in England, leaving this for York Factory about the middle of June 1850, and expect to arrive there the latter end of August.

JOURNAL.

On the night of the 25th of July 1849, off Wainwright Inlet, Her Majesty's brig "Plover," Her Majesty's ship "Herald," and schooner yacht "Nancy Dawson" in company, I shoved off from the first-named vessel (receiving three hearty cheers; the same from the "Herald" on passing her, which we, about to prosecute the search for the gallant Sir J. Franklin and his party, heartily returned,) with four boats; viz., the "Herald's" decked boat called the "Owen," the "Plover" pinnace, and two whale-boats, with a crew of five-and-twenty, including officers and myself, seventy days provisions for each man, and twenty cases of pemmican.

On Sunday the 29th, early in the morning, passed Cape Smyth, and soon after came up to the main pack of ice, close into the shore, and stretching westward as far as the eye could reach. I now thought our voyaging was over, and we should have to return to our ship. The wind was N.E. Hauled to the westward, and ran along the pack in hopes of finding a passage there, as at one time I fancied I saw an opening, when I saw the "Nancy Dawson" coming towards us. She is commanded and owned by Mr. Shedden, formerly a mate in our service, and from whom I received very valuable assistance and great kindness. He seemed determined to keep by us, and to follow us as long and as far as possible. At noon I got the latitude on the ice $71^{\circ} 15' 58''$ N., and on looking well round I saw a narrow lane of open water close in shore, leading to the northward, but apparently blocked up at its entrance. I made for the shore again, when we were visited by natives, who gave us to understand there was a narrow passage close in shore, leading up the coast. Here our interpreter was at fault, he could not talk to these people or make himself understood a bit better than we could, gaining all our information by signs, succeeding to admiration, the Esquimaux being apparently so used to that mode of receiving and imparting information. As we got in shore we saw the channel in the bottom and nearly centre of a deep bay formed by the pack and mainland, the western horn being about two miles off shore. There was heavy ice driving through it, together with a current of two knots, and wind dead on end (N.N.E. light); it was impossible to get on, so I anchored in $4\frac{1}{2}$ fathoms, between two bergs at the mouth of the bay, to wait for an opportunity of getting through; and as the ice was driving fast down on us, weighed and made fast to the western berg under its lee.

The next morning the yacht took a berth alongside of us, mooring with two ice anchors. During the night of the 30th, as well as all day, it blew hard from the N.N.E., and on the morning of the 31st not quite so much wind, but still heavy ice driving down the channel, our friendly berg parted and set all adrift, surrounded by heavy floes and drift ice. The boats were soon again fast under the lee of the in-shore or eastern berg, where the "Dawson" again took up her berth, working up, threading her way through the drift ice, and against a strong current, in gallant style. Towards evening the wind began to moderate, and at 6.30. P.M. sent the two whale-boats to pull up close in shore, while the large ones turned up with a moderate breeze until 9, when it had hauled so much to the westward that we stood along shore, and took our small craft in tow. As we advanced we saw many natives, who tried every inducement to get us to land, dancing, shouting, and following us till we came to the southern part of the low narrow spit terminating to the northward in Point Barrow, and which point we were in hopes of reaching by 12 o'clock. We were disappointed, for at 11 P.M. were stopped by an immense floe effectually blocking up the channel, so we hauled close in to the shore, under a projecting point of ice lying on the beach and secured, when we were visited by many natives, quite friendly, and apparently delighted to see us, offering their furs for trifling pieces of tobacco, and helping us in various ways. It was light all night, but rather cold, the thermometer standing at 33° .

The next morning the ice had driven off shore a little, and allowed us to get on, partly under sail and partly tracking, in which the natives readily took a

share, when at 11 A.M. we were effectually stopped, the ice from the shore to the main pack quite set fast, and no channel as far as the eye could reach. Hauled close in under the lee of a projecting point from the beach, and made fast. The wind was moderate from the N.E. off-shore, so it might clear a passage for us; but no, it was too heavy, although much of it was shore ice from its colour. Our latitude at noon was $71^{\circ} 20' 30''$ N. In the afternoon hauled close up to the ice, and tried to force a passage, but it was useless; many parts of it aground in five fathoms water, but wearing away fast. In the evening I landed amongst the natives, and was most graciously received by rubbing noses; they dancing, and shouting to each other with stentorian lungs, and showing us round their camps with evident satisfaction. One in particular, the chief, apparently assembled all his people, and entertained us for an hour with dancing, accompanied with singing, and music on a sort of tambourine—a thin skin (intestine of the seal) well stretched on a circular frame of wood, and beat against a stick. I gave them beads, tobacco, and snuff, winding up with a scramble, at which they were as much pleased as our men, for it was rather a ridiculous sight, so many (women and all) wrapped up in furs, rolling about on the ground together. We parted good friends, many following us to the boats, where I dressed the hand of one man who had received a wound in it while seal hunting. I am sure it never got such a washing before as I gave it.

At 11 this night the wind hauled to the S.E.; shortly after, the ice began to break, when I heard the booming of a heavy gun, which I returned with a small 3-pounder we had in the bows of the "Owen," and pulled down the coast in hopes of seeing the "Plover." It was foggy at the time, but on its breaking away a little I discovered the "Nancy Dawson" most perseveringly following us up. I went on board, and tried to persuade Mr. Shedden to return south, as his vessel was quite unfit to encounter the ice. But no; he was determined to follow us as far as he possibly could, with a chance of getting back. At 12 the ice was driving northward, and a large floe coming up from the south, the schooner then at anchor, it drove her close in shore, but not on the ground, as it was checked by projecting points from the beach. As she was not in any danger I left her, returning to my boats with a current setting to the northward at the rate of $1\frac{1}{2}$ knots an hour; when, at 5.30. A.M., seeing our obstruction in full move, we made sail after it, threading our way through the loose pieces towards Point Barrow, and at 7 rounded it, and came to in 2 fathoms water, 100 feet off shore, with mingled feelings of delight, and silent thanks of gratitude to that merciful Providence who had conducted us thus far in safety, and with a prayer for a continuation of His help on our voyage. I now had to consider and determine on my future proceedings. It did not take me long, for with the fine open sea to the eastward, I concluded there could be little difficulty in reaching the Mackenzie, and resolved to make a bold push. I landed among a large concourse of natives, recognizing many of our former friends. Got observations for time, dip, and variation. A large pole up, with directions on it for finding buried information of our movements, and that there were two ships in the Arctic Seas; one to winter either at Kotzebue or Port Clarence. Purchased a baidar; gave the natives a few trinkets and tobacco, with which they were highly delighted; when, at 11 o'clock that night, we were all ready for a move, and the yacht, a mile south of the point, driving up with the ice. Shortly after Mr. Shedden came on board, having walked up the coast, landing two miles below to see us—to see the last of us. His boat came soon after, when we got under weigh at half-past 11 of the night of the 2d of August, parting with mutual good wishes for success. I hope and trust he got clear and away to the southward without any difficulty.

We made sail to the eastward with a light northerly air and easterly set, threading our way through loose ice until 2 o'clock, afternoon of the 3d, when we anchored in 5 feet water 200 feet from the shores of a low sandy spit, in latitude $71^{\circ} 6'$ N. and longitude $154^{\circ} 31'$ W. It was now blowing hard from the south, and kept us here until the night of the 4th; when, the weather moderating, and our three boats loaded, having given them names,—the first whaler, "Louisa," second, "Logan," and baidar, "Supply,"—I gave Mr. Martin directions to return to Refuge Inlet with the large boats, and there wait as long

as he considered it prudent; and on no account run the risk of being caught by the ice, or north of Icy Cape after the first week of September, but on the first indication of it, to get away to the southward and rejoin the ship, finding her at either of the places mentioned in Commander Moore's orders. Refuge Inlet we examined coming up the coast, but found it not available for the large boats. My crews consisted of eleven men (three of them petty officers), John Abernethy, Acting Quartermaster Ice, Mr. Hooper, Acting Mate, and myself, fourteen in number.

In my orders I was directed to take Mr. Martin; but as Mr. Hooper was the Magnetic Observer, I made the change, particularly as Commander Moore had left it entirely to myself on speaking to him about it. The Interpreter also I did not bring on, as up to Point Barrow I found him useless: he did not understand the natives; in fact none of the northern tribes, and told us so shortly after starting. Again, when I was first going to leave this night I found him very ill; I waited for an hour and no improvement. I resolved not delaying any longer, and lose the light wind which was now blowing from the south; so at 11.45 P.M. shoved off, with three hearty cheers from those we left behind us, and who would most gladly have come on to share our danger and our difficulty. Mr. Martin in particular was much cut up, greatly disappointed at not taking the large boats farther on, but I did not like to run the risk. I considered now we had fully ninety days provision, besides twenty cases of pemmican. Our little craft were certainly very deep; but we had light hearts, and every hope of success in reaching our destination. We kept close in shore, with wind from S.S.W., a moderate breeze.

At 10.30 A.M. passed Cape Governor Simpson; steering more southly to round Smyth's Bay, at noon got to latitude $70^{\circ} 58' 33''$ N., and at 2.50. landed five miles from that spot. As the wind was blowing fresh, although favourable, I remained here till 5 P.M., for our heavily-laden boats were in no condition to stand heavy sea; but by that time it was a little more moderate, so we shoved off, and were getting well across Smyth's Bay with an increasing breeze, now from the westward, and sea getting up, that we tried to keep closer in shore; but the water so shoal were obliged to haul off again; when at 7 the "Logan," with "Supply" in tow, made a signal of distress, shortened sail, and pulled towards them, and found the latter shipping a great deal of water from being so deep. Took some of the stores out of her, and I, with the "Louisa," took her in tow. This was almost out of the frying-pan into the fire, as the extra weight in the whalers rendered their situation ticklish; but there was no help for it, and we all kept close together; when, at 9 P.M., we were obliged to land on a dead lee shore, with the sea breaking right over us in the eastern part of Smyth's Bay. Hauled the boats up, and unloaded. Found all our bread wet, with the exception of 120 lbs. in a cask, and about 100 lbs. of flour; the preserved potatoes saturated, with all our small stock of clothing in a like condition. We camped in a low boggy situation, the best we could find, and made the most of it.

The next morning, the 6th, still blowing and raining; built a sort of oven and commenced drying our bread, which kept us at work all day, and the watch all night, and then only imperfectly done, for it took up more time than I was willing to spare, particularly as in the evening the wind was falling and the sea going down. Since leaving the large boats we have not seen much ice, and none to the north; as far as the eye can reach is a clear open sea. Crossing Smyth's Bay, we could see the pack from four to five miles distant.

On the morning of the 7th the weather was almost calm; we launched our boats and loaded them; sorry to find that a great quantity of our bread is still wet, which we are likely to lose, as well as six tins of preserved potatoes. At 11 we shoved off, the "Logan" taking the lead, the "Louisa" (my boat) with "Supply" in tow; pulled up the eastern shores of the bay close-to; rounded Point Drew, and landed a few miles east of it; got our dinners, and the dip, and at 3 moved on again, winding our way among drift ice, with wind light from the eastward. At 8.30 we landed for the night by the deer pound and salt creek of Simpson, with wind from S.E.

The morning of the 8th was fine, with a light haze, and moderate wind from S.E.; at 5.30 we shoved off, and on the morning of the 9th, at five minutes after 8 A.M., landed on the south-east part of Cape Halket, and got the dip. It was now perfectly calm and cloudy sky, with pack from two to three miles off shore; when, at a quarter to 10, we shoved off under oars, and steered a course for Point Berens, the eastern horn of Harrison's Bay. I found the current setting eastward—a great help to us; when, at 11 A.M., we entered the ice (right in our course), the sea being covered with large floes as far as the eye could reach, and some aground in five fathoms water. At 4.30 P.M. a heavy squall of rain, with wind from S.W., to which we made sail, and hauled a little to the southward to close the land, the sky looking very threatening; quantities of drift wood passing, driving to the northward as well as the ice.

On the morning of the 10th the breeze began to increase, and sea get up, and our poor little vessels to labour very much, shipping water, and keeping our boilers constantly going. At 2 A.M. our sounding had been gradually decreasing from $3\frac{1}{2}$ fathoms to 1 fathom, and we were all looking anxiously for land, to get on shore as soon as possible. The "Logan" had the "Supply" in tow, when at 2.30 A.M. she parted her tow rope; secured her again, and at 3 sighted land, very low, which I take to be about the mouth of the Colville, from the shallow water and large quantities of drift wood. At 3.15 A.M. the water had shoaled to two feet, and before we could haul off were aground; poled into deep water and stood to the northward. At 3.30 A.M. a strong breeze and heavy sea, with land barely in sight, I found it absolutely necessary to make for it, a dead lee shore as it was, and effect a landing at all risk (the wind being about west), for at one time I was doubtful whether the "Supply" would reach it, the "Louisa" and "Logan" being very little better. At 3.40 A.M. the "Supply" pitched under, and with the weight of water broke off her head-rails and tore the skin adrift, which was soon laced up again. It was now necessary to lighten, if we were to get on shore; so I gave the word, and threw overboard some of our lading, confining ourselves to that damaged in the last gale. Our boats felt the relief directly, and at 6.30 A.M. we reached the shore, landing pretty well, (about two miles south of Point Berens,) with the exception of all hands getting an addition to our already wet garments. Cleared, and hauled the boats up, and on overhauling found we had thrown overboard besides the bread, seven cases of preserved potatoes, and a ten-gallon cask of water, making it more imperative on us to be very careful of what we have got. I now consider the worst part of our voyage over, no more deep bays to cross, but able to keep the land close on board.

On the morning of the 11th we were again all ready to proceed with dry clothes and with cheerful hearts, and at 7.30 A.M. shoved off, pulled up for Point Berens; and at ten minutes to 9 A.M. landed as I intended, burying some pemmican, which would be a relief to our boats, and on a conspicuous point likely to be visited by those we are in search of, if successful in getting down to these shores and proceeding to the westward. We met here a great many natives, all friendly and glad to see us, to whom I made presents, and made our *cache* without their observing it; the direction post we could not hide, but let it very deep into the soil. On shoving off we missed our shovel, and one of the men observed a native bury something in the sand and stand on it; I walked up to him, fully expecting it was the missing article, and on trying to find out what it was, he resisted, when Mr. Hooper pushed his hand completely through the sand, got hold of the shovel, and hauled it from under him. The fellow was disappointed and followed us to the boat, and while shoving off made another attempt to get it with no better success. We ran to the eastward with wind from W.N.W., between Jones's Isle and the main, when at 2.15 P.M. landed for dinner, and were soon joined by a baidar or omiak full of men and one woman, among whom we recognized our friend who had attempted to steal the shovel; we did not allow them to come beyond a certain boundary line, when at 2.30 P.M. we started again with wind from N.W., still following the shore as close as the shoal water would permit, and when abreast of the western part of the eastern isle of Jones's group, crossed over to it and ran along its southern shores, while crossing over observed the omiak following us, but keeping a respectable distance. At 8.30 P.M. landed on the southern shores

of the eastern isle, and were soon visited by a party of natives who were quite friendly. I gave them a few beads and small pieces of tobacco, but one of them apparently a chief was very desirous of getting powder. He had a musket of English manufacture, Barnet the name on it, also a powder horn with about a quarter of a pound of powder in it, but no shot. At 11.30 P.M. shoved off again, and saw approaching us four omiaks full of men and a few women, and observed two large camps, one on the point of the main abreast of us, the other and larger on a point a little to the eastward of it. We were now pulling to the eastward, with every appearance of a freshening breeze from N.E., and five large omiaks keeping close up with us, in one I counted twenty-three, two of the number women, and none of the others less than sixteen. We kept close order, not allowing them to approach too near.

On passing the large camp they tried hard to induce us to land, without success, so they left us, and as I thought for good, when at 12.15 A.M. of the 12th we were under the necessity of pulling in for the shore, and landing on a very shallow beach, about half a mile westward of Point Beechey, making but little progress against a strong north-easterly wind, and sea getting up. At 3 A.M. the natives came up to us again, walking along the shore from their camp about two miles off, having certainly watched us all the time. They now mustered in large numbers; there could not be less than eighty, among whom I recognized our friend of Point Berens who tried to steal our shovel, and the chief with his musket carried by his wife, and several other women present beside. I felt no apprehension, but at the same time had all ready to embark at a moment's notice, drawing a line for their boundary, and saw them all seated on their proper side, when the man with the musket crossed over and made many demands for powder, which I would not give him, and motioned him off; when on seeing me resolute in refusing, he gave the gun to his wife, walked a short distance to their camp, and returned almost immediately with his bow and arrows, the whole of the men doing the same. I gave the word to get into the boats, but to do it leisurely, and show them we are ready: Mr. Hooper, two marines, and self, kept a sharp look out with musket in hand, when I ordered the "Logan" and "Supply" to shove off and get into deep water. In the meantime this chief tried hard to get on the bank and to windward of us, but I would not allow him, when the remainder of us made a move to the "Louisa," they made a rush for the bank, and I expect hoped to catch us at disadvantage, but we were all in the boat, Mr. Hooper and I with our double barrels at the present, while the men were shoving off, and pulling out to the "Logan." One fellow had the arrow on the string, and the bow at full stretch, when, fortunately, I covered him, and he dropped down under the bank immediately. We lost our anchors, otherwise everything was all right.

As the wind was too strong to proceed eastward, I ran back to that part we had previously landed on; and as the "Supply" was nearly half full of water, I took out of her three cases of pemmican, and buried it in the sand; but before I could get marks up, the natives were after us again, and landed half a mile on the reef to the eastward of us, just as we were shoving off. I now made an attempt to pull up for the pack, distant about two miles from the northern part of the reef, with quantities of drift ice close down on the northern shore; passed through an opening in the reef, and all strung on together to keep close, with two large omiaks full of men, about forty following, ranging up alongside occasionally, but at a respectable distance, apparently watching for an opportunity for attack, which I really think they would have tried if for one moment they had seen our eyes off them. We pulled for an hour without making any advance against a heavy sea and strong breeze, and tiring the men to no purpose. I bore up again for the reef, and landed on its weather shore. Hauled our boats up immediately, and built a stockade of the drift timber, quantities of which were near at hand, and got all ready for resisting any attack they might make, having landed half a mile to the eastward of us; at the same time a large party doing so to the westward; mustering in all about 100 men. Three men tried to approach us, but I would not allow it, keeping an armed watch just on the rise of the reef, which, they seeing, did not trouble us any more that day, but watch us. At 10 A.M. they left us, returning to the main land.

It was impossible for us to move with the present weather, blowing hard from N.E. with a heavy sea, and the ice driving fast down on the reef, and immense masses assuming all sorts of appearances; and on one occasion this afternoon the men came running to me, and shouting, A sail, sir; there is the schooner; I looked, and it certainly did look like a vessel, but on examining with the glass, saw directly it was a large berg in the pack. The night before I was deceived in nearly the same way. Passing between the main and Jones's Island under sail, directly we opened the passage between two islands, and got sight of the ice, I made certain there was a boat coming down towards us; and so sure was I, that we down sail and pulled dead to windward for a long way, but on a near approach saw that it was only ice. In the evening Mr. Hooper and I visited the spot where we had buried the pemmican, and found it untouched.

The morning of the 13th was cold and rainy, with wind fresh from north, and very hazy weather, which I determined to take advantage of, and get away from our troublesome friends. At 2 A.M. we shoved off, leaving a large fire inside our stockade, and pulled directly for the pack; and at 4 A.M. made fast to a large berg close to it, and commenced preparing our breakfast, (boiling our kettle with spirits of wine.) which we got, shivering with cold and almost dripping wet with sea-water and damp fog. At 8.15 we shoved off from our cold berth and pulled away to the eastward following close along the pack, and passing between large bergs with N.E. wind, and current setting westward, when at 10 A.M., to our unexpressible joy, the wind hauled to the north-west: made sail, and at half-past 12 landed on the western part of Return Reef, about two miles from its extreme point. Large fires soon dried our wet clothes, and got us a warm dinner, fitting us again for anything, when, as we were getting our things into the boats, saw two omiaks coming out from under the land, paddle up and land to the westward of us, just as we were shoving off, quite bent on doing us mischief if they could, for every man, forty in number, had his bow and arrows, and directly as they thought within distance fired two arrows dropping astern, and one ahead, Mr. Hooper and I fired over them which they returned; we then fired amongst them, but I am happy to say without effect, as just then both parties were out of range, and we saw our balls skip along towards them, nevertheless it made them drop flat on the ground, and they were evidently frightened. We now made sail, and resumed our course with a fine breeze from the W.N.W., and at half-past 12 at night landed on a low shingly point, two miles to the eastward of Foggy Island, tired and weary, after the two days of excitement and continued watching, wet through the greatest part of the time, with thermometer from 35 to 40, considering the latter quite warm. Since leaving the Return Reef we have not seen any ice.

The next morning until 8 o'clock passed the Lion and Reliance Reefs, and on the morning of the 16th landed on the eastern part of Flaxman's Island with the pack about a mile from its seaward shores, but the drift close down. We passed between the island and the main in a free channel, and at 1.15 P.M. landed on the low sandy beach from the high eastern part of the island; the ice apparently close down, but on getting on this high part a passage along shore was distinctly seen, as well as in Camden Bay. At 2.15 P.M. we were again moving, threading our way through the ice, occasionally tracking where the shoal water allowed us to land. The wind light from the eastward, the main pack from two to three miles off shore, with a great quantity of sailing-ice about. At 10 we made fast for the night to a small grounded berg, not able to get on shore, water so shoal, and slept in our boats. Night was now throwing her sable mantle over us, which we all seemed to welcome as an old acquaintance, having for nearly the last two months daylight throughout the twenty-four hours.

The next morning at 4 A.M., we found the ice had driven off shore; perfectly calm and smooth water; cast off, pulling eastward, landing at 5 to get our breakfast on a small spit, where there was an immense tree amongst the drift timber, perfectly straight, 80 feet in length, and 10 feet in circumference at its base. From 6.30 A.M. up to noon the ice was very thick, when we got into fine open water, and made good progress, with a light W.S.W. wind which sprung up just as we got clear, it appearing to have been shut out before by the

ice. The main pack was distant about four miles off shore, with very little drift ice visible. At 1 passed a very large camp, but no natives seen; and at 9.15 P.M. landed on the south-west part of Barter Island, and camped for the night.

The next morning, 18th, started with wind from N.E., and at 11.30 A.M. landed on the northern part of a small island eastward of Manning Point, and got a meridian altitude, and the dip. Here I buried cases of pemmican, erected a post, with directions on it for finding it, and at 8 P.M. we again stopped for the night on a small spit off Point Martin, having made but little progress, the wind against us all day and strong.

The next day we were detained with a N.E. gale and thick fog, thermometer during the day from 35 to 37. Fifteen minutes after midnight of the 19th the fog began to clear, and wind shifted to the S.W. Our boats which had been lying on the south side of the spit, formerly the lee, now the weather, were shifted round to the northern side, loaded, and at 1.15 A.M. of the 20th we shoved off under low sail, sometimes driving, as it was dark, and fog not cleared entirely, when at 2, broad daylight, made all sail.

On the evening of the 21st, at 7.30 P.M., landed for the night on a low shingly beach from one of the islands between Herschel Island and the main, and forming for our boats a good lee, the wind then blowing strong from the N.W. with a heavy sea. The ice here is heavier than any we have yet seen, lying close up to the north-west shores of Herschel Island, fast aground, with large floes and sailing-ice going fast to the eastward. We were now drawing close to the mouth of the Mackenzie, which I fully hoped to reach in two days at the furthest; but misfortunes still awaited us, and the last.

At half-past 1 on the morning of the 22d I was awoke with the disastrous news of all the boats being swamped, and on going to them found it was really so, occasioned by a sudden shift of wind to S.W., and breaking their quarter fasts. We cleared them immediately, and found our instruments the greatest sufferers, for the bread we had was already saturated, and could receive but little or no additional injury. We turned to with a will, carefully wiped and cleaned all, but I fear the dip circle is injured more than we can remedy, together with my own sextant. However at 8 A.M. we were all ready again, and although we have had such frequent occurrences, no one seemed discouraged, but, like sailors, danger and difficulty over, nothing more is thought of it, and no despairing. Anxious to get on, fearing the ice might block us in where we were now lying, as it was driving fast eastward with the strong north-wester, although a heavy sea on at 8.30 shoved off under close reefs, when at 11 we were obliged to seek shelter under the lee of the narrow tongue from the western point of Herschel Island, which forms, with the opposite point on the island, a deep bay. Here we got our dinners, after which, finding both wind and sea gone down, I pushed on, going fast eastward with the sailing-ice, and all under sail; the "Supply" doing better alone, but keeping between the "Louisa" and "Logan." On getting clear of Herschel Island we began to feel the heavy rolling sea, with no ice in sight, and were again driven to the shore, landing with a good drenching under the lee of a gravel spit, south-east of Calton Point. On these spots we never find water, so are obliged to carry it with us. Immense quantities of wood is always to be had, and our greatest enjoyment and most comfortable time is sitting or standing before immense fires made of this drift. To-day we took advantage of it as we could not start, got all things out of the boats, made one long range of fires, spread our bread, now quite a paste, and drenched garments before it. The spit was of no great size, you might walk round it in five minutes, and just enough elevated in the centre to have our tents and fires in a dry berth; but to us it was "any port in a storm." I got the dip here, and towards evening the wind was lulling, and sea going down, with sky clearing and stars showing, so we may hope for fine weather to-morrow; thermometer during the day 35 to 38.

On the morning of the 23d it was fine, with a moderately westerly breeze, and at 10 minutes after 3 A.M. we shoved off and ran away eastward, making good progress. At 3.30 P.M. rounded Kay's Point, with the wind light, and by 4 quite calm; and we did not reach the mouth of the river until the evening of the 26th, passing between Escape Reef and the main, where we saw the last of the Esquimaux.

On the evening of the 27th we entered the river, having been employed all day observing, and exploring our locality, for I was doubtful of my position, but perfectly satisfied of my being on a branch of the Mackenzie. We did not go far up, for Whale Island is yet to be visited; and I determined to leave the greater part of the party with Mr. Hooper here on the left bank two miles from its mouth, and proceed the next day with one boat and seven men, including myself and Ice Master, with a week's provision; most thankful to that blest Providence who has conducted us thus far in safety.

On the morning of the 28th I left the camp with wind strong from S.W., and steered to the N.E., when, in the evening, we were stopped by strong N.W. winds, and every appearance of a change for the worse, for it was now very cold. During the night it rained hard and blew heavy, clearing up a little in the morning, but wind still the same, dead against us; so I made up my mind to return; waiting until 7 o'clock, with no appearance of change for the better, we shoved off on our way back, and had not made much progress when it came on heavy sleet, followed by hail, and finally snow; piercingly cold, continuing all day with but slight intermission; and, I could safely say, it has been the most miserable day I have had since the commencement of our voyage. At one time it was so thick and blowing strong that we can only just see the bank we were close to, under which we stopped for such shelter as it afforded, stamping our feet, and beating our hands to get them at all warm, for there was no walking, the dwarf willow too thick to allow of it. At 6 we reached the camp, and found they were not in a much better condition.

Throughout the night we had snow; but the morning of the 30th was fine, although very cold, the thermometer 32, with a light westerly wind. At 7 A.M. we commenced the ascent of the river by tracking, which was not a very easy job; from the top of bank to water's edge in many places thickly covered with dwarf willow.

On the morning of the 5th of September we reached the first of the Hudson's Bay posts, and one of which my orders speak of, namely, on the Peel River; but our getting here was quite accidental, having mistaken the Rat River, not in my chart, for the mouth of the Peel, and turned into it, instead of keeping on. Again, not seeing mountains on the left, as is in my chart, I was not sure, although very doubtful.

The night of the 4th an Indian came to us (one of the Louchoux), and told us the white men were not far off, so I determined on going on, for the next day at least, until I had got sufficient observations for what I wanted. It was about 10 A.M. when we reached the post, and were kindly welcomed by Mr. Hardisty, the gentleman in charge, who gave me such good intelligence of being able to keep a part of our party, that I resolved on leaving five of them and Mr. Hooper here, together with one boat, and the greatest part of the provision, with orders to join me in the spring of the year, when the Company's people come on with the returns of the year for shipment for England.

I intended pushing on with the rest of the party (seven men) to Point Separation, and the next post; cleared the boats, and had the "Logan" and "Supply" loaded with twenty days provisions for eight men, and seven cases of pemmican, and on the afternoon of the 6th, taking one of the Company's men as pilot, we shoved off. Got to Point Separation the next morning, where I found a note in the "cache" from Sir J. Richardson, saying we were to go on to Fort Simpson, and winter on the Great Slave Lake. I left three small cases of pemmican, nearly equal in weight to his one, a note with an account of our proceedings, and shoved off, crossed to the right bank, and commenced tracking.

On the morning of the 11th I found it very necessary to get rid of one of our boats, namely, the "Supply;" sorry was I to do it, for I had hoped to have carried her on to England as a specimen of the naval architecture of the Western Esquimaux, and for the good service she rendered us; but there was no help for it, she retarded our progress terribly, and was a great weight to

the men in tracking, who were now beginning to feel the work and getting foot-sore and weary, although the strongest of the party. Those I left at Peel River, at least three of them, were in a very weak condition, which was partly my reason, together with Mr. Hardisty's assurance of there being plenty of provision for leaving them; at all events they have at least fifty days provision of what we had in the boats, besides four small cases of pemmican. After breaking up the "Supply" I had the skin cut into three pieces (considering it would make good mocassins for the men), and stowed it in the "Logan" together with her other stores, which made us very deep, particularly when nine men got into her, but she was lighter on the line, and we were getting on better, when a light breeze sprung up from south, to which we made sail; and on its increasing, took all hands in, and flew along at a rapid rate, but dare not keep any distance off shore, so much sea was there raised by the strong wind against the downward current. As our flour and bread was all out, I opened a case of pemmican as a substitute.

On the noon of the 14th we met the Company's boats on their way to the Peel with their winter supply, and at 6.30. P.M. we arrived at Fort Good Hope. I remained here until Monday morning, getting from Mr. M'Beath, the gentleman in charge, a supply of mocassins for the men, for the heavy boots were not at all fit for such work as we have to perform—the walrus hide (skin of "Supply") made up, also a case of pemmican and quantity of dried meat; leaving our boat, the "Logan," as she is quite unfit for the work, also all the stores we did not require, bringing on nothing but the two marines muskets, and taking one of the Company's boats Mr. M'Beath had at the station; two men, a Canadian and half breed, the former steersman, and two Indians to assist in tracking; and good service they rendered us, for we should not have been here yet if they had not been with us, not knowing the river, and particularly the rapids, where we should have been at fault.

On Monday the 26th the thermometer at 6 was down to 26°, with a light easterly air; when at 7.10. A.M. we moved on with the tracking line, and on Sunday the 23d, at noon, arrived at Fort Norman, got a supply of pemmican, a bag of flour, 30 lbs. of dried goat's flesh, from Mr. M'Kenzie, the gentleman in charge; discharged our two Indians, who were to return to Fort Hope, and on Monday the 24th pushed on again, greatly missing our two Indians, who were as sorry to leave us as we to part with them; and reached this place on Wednesday the 3d of October at 11 o'clock in the forenoon, most hospitably welcomed by Dr. Rae, Mr. Bell, and Mr. O'Brien; the former the Arctic voyager, and in charge of the post.

In conclusion, I beg to assure their Lordships that every endeavour has been made to gain intelligence of our missing countrymen; and if I have at all deviated from my orders, it was with a firm conviction that I was doing all for the best. I have had little or no trouble with the natives in making them understand what we wanted; even those with whom we had the skirmish were questioned on our first meeting; and all that we have met have looked at us gravely and with astonishment. Every corner, every part of the coast, has been thoroughly searched, with the exception of the depths of Harrison's Bay; and there I should not think it likely they would go; again, the natives at Point Berens would have known it, had any one been there. The northern shores of Herschel Island I did not visit, as at the time we were there it was blowing hard from N.W., W., and S.W., and our time was getting very short. All marks on the coast and many poles have I seen and examined, taking us often very much out of our course, and giving us a wet walk; in fact, I fear there is but little hope of any news of our gallant countrymen, at least the way we have come; and none without Sir James Ross gets any, or they return to England. I have seen no difficulty in a proper ship getting on by the same route as we have come, and can hardly think there is no deep channel into the Mackenzie, where such a rapid current is met with. Our boats I found very small for the voyage; if we could have kept the sea at times we should have performed it in half the time. In the river work the men have been greatly at fault, particularly when we came to the tracking over large stones, our only way of getting on; and we arrived here very weary, the gentlemen and parties at the different posts wondering how we got on, and

expressing astonishment at our small and deeply-laden craft; nevertheless they did do their work well, and I should have much liked to have got them home. I have been obliged to draw largely on the Company's stores for clothes for my men, for such a ragged set as we were on arriving I have not for a long time seen. We all started with but little hope of getting thus far, and it was out of the question our taking much, with so much of other stores, and I know there was not a blanket among the fourteen. But thank God, He has indeed been with us, and it is only by His help and assistance we are here. We are now waiting for the boats from the Great Slave Lake, where the men winter, and in June next all start for York Factory in the Company's boats.

On my arrival in England I hope to lay before their Lordships a track-chart; my journal is full with all notes and observations I may have obtained on this most interesting expedition. I cannot help recommending Mr. Hooper, Acting Mate, and my second, to their Lordships most favourable consideration. He has been active and zealous in the performance of his duty; and all the dip observations along the coast up to the Peel were obtained by him.

I hope their Lordships will not think me presuming in taking the liberty of enclosing with this a letter for my wife, which I beg you will be good enough to have posted.

With every respect,

I am, &c.
(Signed) W. J. S. PULLEN,
Lieutenant of Her Majesty's Brig "Plover,"
Commanding the Boat Expedition.

To the Secretary of the Admiralty,
London.

No. 2.

Commander PULLEN to the SECRETARY OF THE ADMIRALTY.

16, Buckingham Street, Aldephi,
13th October 1851.

Sir,

I HAVE the honour to hand to you, for their Lordships information, the journal of my proceedings, in full detail, from the 28th June 1850, (at which date we turned back, once more to resume our search in the Arctic Sea, in accordance with their Lordships orders,) to the 4th October 1851. I also enclose a copy of Mr. Hooper's * journal whilst on detached service, with a collection of Esquimaux words we have been enabled to gather during our trips on the coast.

Accompanying this is a specimen of dry meat and pemmican, which was chiefly our food during our last trip on the coast, and residence in the Hudson's Bay territories, varied occasionally with fresh deer meat, wild fowl (when in season), and fish, which at all stations, except those on lakes, such as the Great Bear and Slave Lakes, become, during the thaw in the spring, rather highly flavoured. These are, however, unavoidable circumstances, for it would never do to throw away a certainty, although indifferent, for the chance of obtaining another supply.

The sudden changes from indifferent fare to the good food which we have of late enjoyed, is apparently now beginning to tell on our constitutions; not only myself, but Mr. Hooper, have been and are yet feeling the effects of imperfect digestion.

In conclusion I beg to say to their Lordships, should they deem it necessary to send out any other searching expedition, I most willingly offer my services.

I have, &c.
W. J. S. PULLEN, Commander.

* See page 148.

* See Parliamentary Papers, Sess. No. 97., 7th March 1851, page 55.

JOURNAL of the PROCEEDINGS* of the Party from the River Mackenzie towards Cape Bathurst in search of Sir John Franklin's Expedition, thence back again, and on to Fort Simpson and England, between July 1850 and October 1851. By W. J. S. PULLEN, Commander R.N., commanding the Expedition.

Leave Fort Good Hope. On Wednesday the afternoon of the 17th of July 1850 we left Fort Good Hope, with still the same fine weather which had attended us, and anticipations (from such an early season) of success in our undertaking. About midnight we crossed the Arctic Circle, the boats driving with the current, with the watch only pulling to keep in mid-stream, while the remainder were endeavouring to snatch a little repose. In truth it was hard work, for with myriads of mosquitoes it was almost a matter of impossibility, then only in short and feverish dozes with heads wrapped in a blanket. Day or night made no difference to them, they were our eternal tormentors; and in no hot country that I have ever been have I found them so troublesome. In the daytime they were not our only pests, for the bulldogs (immense large flies) were almost as thick and troublesome with their sharp and poignant bite; so between them both we got but little rest. On the afternoon of the 19th several of the Louchoux tribe of Indians visited us as we entered their territory, and informed us of their having had a fight with the Esquimaux, wherein they had come off victorious. It took place in the vicinity of Point Separation, but understanding it to have been a mere Indian affair did not give it much attention, or land, as they were anxious for us to do, but proceeded on our way; and the next morning, the 20th, landed at the Point. Here we stopped just long enough to make final arrangements in the boats stowage, and take up the pemmican deposited by Sir J. Richardson and myself the two preceding years, which increased our stock of provisions sufficiently for every purpose; and on the morning of the 22d, at 8 o'clock, once more got sight of the Arctic Ocean. On leaving Point Separation I intended keeping the eastern channel of the Delta, but the steersman informing me that it was shoal I kept more westerly in a wider and deeper channel, which took us out much further to the westward than I had calculated on, and through new channels; however, as we were in good time, and the additional distance no detriment, I determined on passing outside all the islands.

Mosquitoes.

Louchoux Indians.

Arrive at Point Separation.

Enter the Arctic Sea.

Garry Island. Garry Island was now in sight, we made for it, and with the assistance of a light westerly breeze landed thereon at 1 o'clock. While dinner was preparing I walked to the highest point of the island (the soil of which was pretty profusely strewed with flowers), and got a good view round. To seaward an unbroken line of ice (or from N. 78° W. to N. 30° E.) was visible, with a strong blink to the S.W. To the N.E. was clear open water, and towards the Pelly Isle, which after our meal we made for, under oars (the wind having failed), and at half-past eight we landed on its northern shore and pitched the camp.

Our sea voyage was now fairly commenced, and all felt a most sensible difference in the temperature since the morning; then almost a tropical heat; now the chilling cold of the Arctic Sea, with thick and wetting fog closing fast around us, so that we were again putting on the warm clothing so lately thrown off. At 11.30 P.M. the fog cleared off, and showed us the ice driving in fast for the shore with a moderate breeze from the north.

Tuesday, July 23d, 1850.—The morning was fine with the wind still northerly, and the ice making rapid approaches towards the shore; but as it was early I waited for a noon observation, which places the island further north than the chart. I make it 69° 35' 55" 4 N., and longitude 135° 26' 39" 6 W., the latter of which is pretty nearly the same as the chart. Our hunters had been very successful here, having killed no less than forty geese, beside numerous young ones, and thin as they were they made an acceptable addition to our stock of provision. But with our fishing we were not equally fortunate, not even a single one.

Position.

Successful hunt.

The wind was now rather fresh against us, making our progress under oars very slow, so that it was two o'clock before we reached the eastern extreme of the island, certainly not more than three miles from where we had encamped. Here, landing for dinner, I walked to the highest part, and saw the ice to the eastward still heavily packed, and entirely surrounding an island, for which I looked in vain in the chart; and as I had other business in hand than fixing

New islands seen.

positions, I contented myself with a bearing of its northern part (N. 24° E.) then returned to the boat and proceeded. Pulling close along the ice to the eastward we found it heavily packed, and trending to the S.E. enabled us to make sail, which brought us to a low, narrow sandy spit or island, extending about E.N.E. and W.S.W. The shoal water and ice obliged us to pass to the westward of this patch, its extreme point being about four miles distant from the eastern shores of Pelly Island. We then steered for Kendall Island, and after passing a small high island on our starboard hand, we landed at 8.30 P.M. on the N.E. point of the former; both wind and sea having increased so much that we were glad to get shelter, therefore encamped for the night. From the N.E. point of the island, which was high, I again saw the island observed from Pelly Isle, with no less than three in addition, almost in a line with it, and that on which we now are; the ice so completely surrounding all but one (the nearest) that to approach them was impossible, if I had even been so inclined. The extremes of the nearest island bore N. 37° E. and N. 42° E., from three to four miles distant. From south round to N. 62° E. was also land, which I take to be the western shores of Richardson's Island. Midnight the wind freshened, drawing more to N.E.

New islands.

Wednesday, July 24th.—Weather fine this morning, but wind still fresh from N.E. with very little ice in sight, but a strong blink to north and N.W. As we could not make much progress under oars against such a breeze, after pulling out a little to windward we made sail, and until a quarter to six were beating against the wind which would occasionally lull, giving us a good opportunity of judging of the boat's capabilities under canvass, not of the first order certainly, but considering she had the "Logan" in tow I feel satisfied that she will perform every service required. About this time the wind was falling when we pulled up for the western shores of Richardson's Isle, and at nine landed, but not until after much difficulty, by reason of the shoal water.

"Try Again's qualities on a wind tested.

Working across from Kendall Island, on standing to the southward we found the water very shoal, and when we saw the land in the same direction it appeared low, sweeping round in a deep bight, and connecting with Kendall Island. From Kendall Island there appeared to me a connexion, or at all events only a separation of low swampy land by narrow channels; and as we saw deer on the latter, one of which our hunters shot, (the remainder of the herd wading off to a low patch.) I think is enough for saying that they are connected; for a swim from Kendall Island to the main without some resting place would be a long one.

Richard and Kendall Isles connected.

This landing place was the northern extreme of Richards Island, from which the N.E. extreme of Kendall Island bore S. 80° W., and there was a channel of about one mile wide, bearing S.E., apparently leading to open water, and formed by another large island to the north whose extreme point bore from us N. 17° E.

Here we were also successful in procuring a supply of fresh meat, for directly on landing the Indians were off, one soon returning announcing the joyful intelligence of a deer killed. Carriers were never wanted to bring in the spoil, who were soon returning with the denizen of the wilds, skinned and cut up in true butchers fashion, and ready for the cook's selection of the choice morsels. These were pleasing and most acceptable times to the men, for after such a long spell of fish diet, fresh meat was a treat to them, in fact to all of us. Queer beings they looked in their various costumes, crowned with the red cap, more like wild men of the woods than the natty man-of-war's man, but there was no help for it, all have now been so long from the ship, with but few clothes at starting, that they are glad to put up with what little they can get from the company's stores. Mr. Hooper and myself have nothing to boast of either, for between us and the men there is little difference in costume or fare.

Hunters successful.

Appearance and costume of party.

At Kendall Island last night we found the rise and fall about a foot, here it appears less, not more than four inches, the wind influences it greatly. The water too is getting more the colour of the sea, for until this time it has been muddy looking, and quite fresh, now a little brackish.

Tides.

Thursday, July 25th.—The wind this morning was from the S.W. a moderate breeze, and notwithstanding the chilly weather we were pestered with mosquitoes. At 7.30 we shoved off, and as I was not certain about where the channel (showing between the two islands) led, we ran along the western shores of the northern island; and at 9.30 rounded its N.W. point, which I called

Thick fog. Kellett's Bluff, in remembrance of a kind friend, when a strong breeze from W.S.W. brought up with it a thick fog, holding up occasionally as if to give us a glimpse of our whereabouts, and showing that the northern face of the island was a range of high and steep cliffs, which there was no approaching for the breakers, extending some distance off the shore, and which appears to be a characteristic feature in all these islands whether the shores are high or low. Outside of us the ice was driving along in large and heavy masses, and what with it and the shoal water our eyesight was on a constant strain to avoid either collision or getting on shore. Once, notwithstanding our sharpness, before we could avoid it we were in the breakers and bumping on a sandy spit, but, thank God, we were soon off again, and making rapid progress to the eastward with the increasing and favourable breeze. At 10.40 the fog cleared a little, we could see no land, but were running along a heavy pack of field ice, which at 11 bore more to the S.E. At 12.30 it was so far clear that we got a glimpse of the land, distant on our starboard beam, which from its appearance I take to be the two islands east of Richards Isle, and at 9 P.M. landed close to Teker Point. Here were a number of winter dwellings, large caches of blubber and seal oil, with many articles of Esquimaux manufacture, of which the men would fain have taken possession had I not stopped them, and on leaving placed among the things several small articles, as beads, knives, scissors, &c., with a board of hieroglyphics intimating who we were and whither bound. We had up to this time made a very good run, and as the wind was still favourable, although light, I determined on going on. The ice was plentiful about, but not sufficiently packed to retard our progress; the usual watch was set, although we had not much of night, for the sun at midnight withdrew but half his diameter below the western horizon, yet it was cold and chilly, with a wetting dampness in the atmosphere, which made a coil in the blankets not at all unpleasant, a stretch was out of the question as room was not so plentiful. On looking at the chart, and taking into consideration the short distance to Cape Bathurst, I confidently expected that the 1st of August would see us there; I little thought then such difficulties would be met with, or that they were so near at hand; but this is anticipating, I will therefore resume my narrative. It was 10 P.M. when we shoved off with a current evidently in our favour, and the weather beautifully clear. Passing the bay east of Teker Point we grounded but were soon off again, and saw that the bay was full of ice. At midnight the wind was light from N.W., and on the morning of the 26th we saw a heavy fog, banks rising up from the same quarter. At 2 A.M. we were obliged to bear away to the S.E. to clear the ice, and get into what appeared deep water near the land, then from three to four miles off. After steering this course for a short time we found we were hampered by a succession of shoal flats and loose ice, and were obliged to try back for a long way, when about 5 we got to the edge of the pack, and also stuck there. Meanwhile the ice (with the easterly current) having so closed in on the land, and still approaching it with no open water visible, that we had once more to break through towards the land to avoid being crushed, and succeeded in reaching the inner edge, now aground in one fathom a long half mile off shore. Here we held on for some time in hopes of a change; got breakfast, accompanied by a heavy down pour of rain, when seeing no difference, but indications rather of something worse, I reluctantly made for the shore, which after much difficulty, lightening our small boat and the aid of the India rubber canoe, we succeeded in reaching, and set up the camp.

Heavy ice.

Land on the main Esquimaux dwellings.

Ice closed in on us.

Obliged to land.

Prospect. From the highest peak on shore there was no open water visible to allow of our proceeding; whichever way we turned, to seaward, presented an unbroken field of ice, excepting the narrow belt of shoal water between it and the shore, where before we had so much difficulty, and where in the gale which followed quantities were driven, and pieces so close to our large boat (at anchor) sufficiently large as to excite fears for her safety. As it was early in the day (only 9 A.M.) when we landed, with no hopes of getting on, the nets were laid out, and hunters sent off, who returned in the evening unsuccessful, but reporting the land we were on to be an island, with a wide channel between it and the main, and where we had already found was at the N.E. point of the island, deep enough close up to the beach for the boats, but shoal between it and where they were now lying. At 5.30 P.M. the wind came from east, and the tide was rapidly falling, so that at 9.30 P.M. our boats were very nearly dry. At 10 it came on to rain, and continued very heavy all night.

At 2 on the morning of the 27th our large boat was afloat, when she was hauled out into deep water, and at 4 we began getting our camp gear off, hoping for a good day (as the ice had driven somewhat off shore), and make up for our lost time of yesterday. The wind was light from east, with a dark gloomy sky and occasional drizzling rain, when at 6 in a heavy squall it shifted to north and put an end to our moving, for the ice was again driving in faster than ever, and the sea in a short time presented the appearance of one white mass tossing about in wild confusion with the gale, a thick fog coming in at the same time. Gale commences.

Fortunately for our boats a very narrow strip of sand (dry only at low water) outside them, preventing some of the larger masses driving in, and by the middle of the day the tide had risen so considerably from the effect of the wind that we were enabled to shift them to the north-east end of the island, where they lay in perfect safety. Our nets we were obliged to take up, finding in them four white fish and three flounders. We tried them at another place, but got nothing.

At this place we saw traces of Esquimaux, a deer pound of sods so placed as to appear like men, in a long line. All water we found was in pools, and very brackish, so we got our supply by melting the ice which was driven in on the beach. A few tufts of grass, plenty of moss, and patches of the small leaf swamp tea (in bloom), of most delicate flavour, but not a tree or a bush to afford us the least shelter from the piercing wind; and as neither of our tents (so completely worn) were proof against the heavy rain, hail, and snow which followed in quick succession, our position was by no means an enviable one. A quarter mile to the eastward of us were a few sand hills, so about noon of the 28th, finding it no longer bearable, each shouldered his share, and in spite of the heavy gale, and snow fast falling, we took up a berth under the lee of them, where our situation was in a short time certainly much improved, and we could stand to the fires and somewhat dry our wet garments; completely to do it was impossible, for the atmosphere was so loaded with moisture that anything exposed to it soon felt its influence. Towards midnight of the 28th the weather began to moderate, the wind now from W.N.W., but it was very foggy, with occasional showers of heavy rain. The thermometer throughout has been ranging from 32° to 31°. Esquimaux signs.

On the 27th in a break of the clouds I managed to get the latitude 69° 44' 15" and a very imperfect sight for time, which places us in Hutchinson's Bay. Shift our berth.

Monday, 29th July.—This morning the weather was rather improved, with the wind light from N.W.; the ice still heavy, but showing a few openings, so after breakfast, and embarking our camp gear, at 8.30. shoved off. As the tide had not receded much, we got over the shoal water in shore, and out to the edge of the pack, along which we pulled, having in many cases to lighten our heavy boat by means of the India rubber. Our progress was by no means quick, for frequently we were obliged to push into the pack, and break a passage with ice chisels and axes before we could get along. This ice was heavier than that of the 26th, with much of its upper surface worn away, leaving long under tongues, which the weight of the boat alone frequently broke away; at last we got clear, that is into a wider channel, and with sails and oars made pretty fair progress until 1.30. P.M., when we took the ground. We were now about three miles from the land, and after in vain trying for deep water, I saw no other resource but to break through the outer pack, which was very heavy, field and hummocky ice, with open water outside, to all appearance deep and clear of shoals. The India rubber boat was once more inflated and loaded; so after selecting the narrowest, and what I considered the most practicable part, at 1.50 we commenced, and not until 3, after receiving many hard rubs, did we get into the deep water, with no pack visible to seaward, but several bergs and large floe pieces driving down to the pack with the moderate N.N.W. wind. This pack followed pretty nearly the trending of the coast, and making sail we turned along its outer edge which we found getting much heavier as we advanced to the N.E.; fog occasionally obscured all objects, but as it cleared got glimpses of the low land and isolated peaks distributed along and seen from the coast, but a long way off. At 8.30 P.M. I saw heavy ice to seaward, which from its great height I considered to be the barrier, and not seeing a continuation of the open water concluded we had Weather moderates.

Break through the pack to regain the land.

been running into a deep bight of the ice, which, if the wind came off shore, would place us in a very ticklish position, particularly as we had not seen any opening by which we might get into the land. On turning my attention to it I saw it looming through a light haze much closer to us than it had yet been since the morning, and on pushing into the pack found it to my great relief sufficiently loose to permit of our getting through by cutting and launching, accomplishing our deliverance by 11; and half an hour before midnight landed under the lee of a long spit of sand extending S.W. from the Bluff Point, forming the western horn of M'Kinley Bay. It was fortunate for us we got this shelter, for the ice on either side of the point was heavily packed, resting close in on the shoal water, with no prospect of a change unless the wind should shift either to S. or S.E.

The weather all day has been bitterly cold; our rigging on landing was encrusted with ice, and on visiting the many winter dwellings at this point, and which were apparently in ruins, we saw that all pools of water were frozen over, the thermometer standing 25° in the air, and 31° in the water clear of ice. In the afternoon we saw a fog bow, the clouds of fog retaining the form after the prismatic hues had disappeared.

Tuesday, 30th July.—The ice still heavily packed, and resting on the shoal water; outside was a few narrow lanes of open water; the wind from N.N.W. to north, with occasionally fog. At noon the fog cleared and the wind settled at north; the hunters were sent off and nets laid out, while Mr. Hooper and I employed ourselves in observing for latitude, dip, and variation; the men drying their clothes, provisions, stores, &c. In the afternoon the Indians returned with game (geese) enough for one meal, and three fish were taken by the nets. The ice unchanged, the wind moderate from north, the thermometer varying from 37° to 31° . At 11 P.M. it was low water.

Ice still heavy.

Wednesday, 31st July.—This morning the wind was strong from N.E. by E., with much fog, and on reaching our observatory (the western horn of M'Kinley Bay, and the highest point) I saw no hopes of prosecuting our voyage, for although the ice to the westward had opened out into lanes, that directly in our track was still closely packed, resting on the shore, and stretching out to sea as far as was visible. This was indeed discouraging, for in the Mackenzie the spring had been so early and extraordinarily fine up to the very day we entered the Arctic Ocean that we all fully calculated on finding an open sea, and up to the first detention in Hutchinson's Bay made sure of being at Cape Bathurst by this time. We now see how little to be depended on are inferences drawn from such circumstances; already we have had much trouble and difficulty in getting thus far, and have fully experienced some of the severities of these regions. With the exception of yesterday, the weather has been bitterly cold, the ponds and sea close along shore showed this morning a coating of ice, and all the afternoon the snow fell heavily, now lying thick around us. This is now the sixth day of our detention, and as yet I see no possibility of our further advance. The thought is constantly presenting itself to me, that if we are thus enduring, what must be the sufferings of the gallant band we are endeavouring to find? May God in His great mercy direct us, and have us all in His safe keeping, for I feel fully that He only can help us.

Weather.

Reflections.

Tides.

It was high water this morning at 1.45, low at 11.30, showing a fall of sixteen inches, and at 5 P.M. it was high water again, the rise being only nine inches, the tide then standing an hour before falling. In the evening the wind fell, and if the many visits Mr. Hooper and I have paid to the look-out hill could have driven the ice off shore, we should have been far on the voyage ere this; but that barrier to our advance still stares us in the face, and appears that only a southerly wind will start. The thermometer this evening was 25° , young ice forming in all the pools sheltered from the wind (now from N.E. by N.), and number of snow birds about.

Our nets have been more productive than heretofore, yielding a dozen fish, chiefly "inconnu;" a young seal was also caught, but the man who visited them (the Canadian) got frightened (having never before seen one) and let it escape.

Proceed.

Thursday, 1st August.—This morning we found all pools hard frozen, much young ice close along shore, and the water left in our kettles last night was now solid ice; the thermometer at 8 o'clock stood at 29° . The ice was yet heavy,

driving with the N.W. wind, but as there was open water showing in many places, I determined on trying to get on, and at 8.30 shoved off. After some difficulty in clearing the near ice lying aground on the shoal water off the front, we were enabled to make sail, and got a short and very circuitous run until 11 o'clock, when we were again having recourse to axes, ice chisels, and setting poles, to get along, in which arduous work we were engaged until the evening, when at 6.30 a heavy fog coming up, with many shoals as well as heavy ice in our track, I made for the shore, and after much difficulty succeeded in reaching it, landing on one of the islands S.W. of Cape Brown in latitude $70^{\circ} 5' N.$ (about). Towards night the weather became dark and threatening, with thick wetting fog and occasional snow. The wind from north, thermometer 27° .

We have found the India-rubber boat of the greatest service, both in landing on these shoal shores and lightening our large boat to get over shoals; she has been laden with as much as nine pieces (equal to 810 lbs.) with which she swam very light. I have been paddling about in her, with two men and a boy in perfect safety, but I should say greater length would be an improvement.

India rubber
canoe.

Friday, 2d August.—This morning the weather was thick and foggy, with a light wind from N.W. At 8 the weather began to brighten up, and at 9.15 we moved on under oars. At 10 we made sail, the wind veering to the north, and were turning through a loose pack until 11, when we found it close in on us, and resting on such shoal water that inside it it was impossible for us to go; ice chisels, axes, and setting poles were therefore in requisition again, and until 4 o'clock we were alternately pulling with that laborious work on a slow but onward progress. About this time we rounded the extreme of the shoal water off Cape Brown, and once more got into deep water. Our large boat as yet is quite tight, but they both have received so many hard rubs and severe squeezes, that should we encounter much more of the same sort of work I fear they will soon be unserviceable altogether. From 11 until this time we had been out of sight of land; I now ran in for it, carrying deep water up to a loose pack stretching eastward, with its western extreme resting on the islands off Cape Brown, and as there appeared deep water inside this pack we forced through with but little difficulty, pulled between it and the land, occasionally grounding, when at 7 o'clock we landed on a small island on the western shores of the bay formed by Capes Brown and Dalhousie in latitude $70^{\circ} 8' N.$, and encamped for the night. It was early certainly, but after such a hard day I found it necessary to stop to recruit my men. During the day the weather was gloomy and threatening with occasional drizzle and snow showers; the thermometer ranging between 28° and 25° .

Shoals off Cape
Brown.

Saturday, August 3d.—The weather this morning dark and cloudy, but every appearance of clearing. It was my intention to retrace my steps, and again get outside the pack we had passed through yesterday evening, thinking it might lead direct across this and into Liverpool Bay, as from our present position the ice appeared to lay thick in the bottom of this bay, rendering it very problematical whether we could get through it. It was noon before we started with a moderate breeze from N.W. (westerly), when after passing through a first pack on our backward route there opened out a wide channel leading east, to all appearances clear, and which I determined on following. We were soon under sail, with clear beautiful weather, and running with a fair wind on a course for Cape Dalhousie as near as was possible to keep it, considering the many loose pieces of ice in the way. At 2 we saw several large bergs lying on the edge of the outer pack forming the channel, the heaviest ice we have yet seen; and as from the boats I could not see any land or how the open water led, I landed and mounted to the summit of the highest, which was at least fifty feet above the sea. On such a slippery surface great ingenuity was requisite to keep one from quickly finding his way to the bottom, for, sailor-like, none of us had thought of bringing what was close at hand in the boats, and which would have aided us much, namely, the ice chisels; however we managed to get up, and were amply rewarded for our toil with a most extensive view. The deep channel we crossed yesterday led into that we were now in, which with many a tortuous course passed Cape Dalhousie, thence turned out to the northward and appeared to lose itself among heavy ice; between the channel and the shore was a dense pack of field and hummocky ice, with not a vestige of open water in it,

An open channel.

Large bergs.

View from the
highest berg.

and completely filling up the bay. Through this there was no hope of our being able to force a passage to get into Liverpool Bay, for to follow this channel with the certainty of its leading out to sea I did not think prudent, as we should stand a very poor chance of seeing the land again if a shift of wind to the southward should set the ice in motion, or even if it was to freshen up from its present quarter, and to turn back without another endeavour to get on I was very averse to; we therefore descended from our perch, and I determined to push on, at least as far as abreast of Cape Dalhousie, trusting that Providence who had brought us thus far in safety would not desert us in our hour of need. After filling up our kettles with water from holes in the ice we again made sail, moving among ice getting heavier as we advanced, and a little before 7 P.M. shortened sail abreast of the Cape, distant about a quarter of a mile, and from which we were separated by the pack, which at its narrowest and best part for forcing through that we could see from our mast-head was certainly not more than 800 feet. The wind was now quite light when at 7 we commenced operations, getting on famously for the first 50 yards among loose floe pieces, and which we managed to separate and break their edges with our setting poles, axes, chisels, &c., but after this it was a continued heavy labour, and only at 10 o'clock that we got to the inshore edge, with all hands so fagged and wet nearly to the middle that I made for the nearest land, where after our usual necessary practice of wading, making several trips with the India-rubber canoe, &c., our camp was established by midnight, and all hands but one, the watch, were soon enjoying nature's best restorer. I have now seen more than 22 years of a sailor's life, and can safely say have never been engaged in such laborious and disheartening work as we have gone through this day and since the 27th. The thermometer this day ranging between 32° and 27°, and this evening as fast as we cut a channel the young ice would be making before we could fairly get through, and it was only by perseverance that we accomplished the job; we might perhaps have made it a portage, but from the nature of the ice our boats would have received more injury in launching, and we should have not got over in double the time.

Heavy work.

My usual practice on landing was to take a view round from the highest point; on doing so here I saw that all outside of us, and stretching far into Liverpool Bay, was one vast field of solid ice, with a narrow channel of open shallow water between it and the land. Our encampment was on an island (Cape Dalhousie itself, in fact) inside of which was open water, but affording no passage for our boats. Resting completely on the cape (our boats lying just to the westward of it) was the ice, the large boat at anchor as close in as she could come; her bilge and sides, from her many encounters with the ice, as rough as a porcupine's back, and what was worse, much of her planking so separated from the timbers that one might easily pass the hand between some of them; in truth we now begin to find how weakly she is built, for on looking closely into her injuries we see how badly she is fastened, with nails not sufficiently long to clench or rivet, that I am astonished she has held on so well. Could I have imagined that boats for running rapids (often bumping over stones) were so weakly built, our carpenter (one of the marines) should certainly have put in and clenched a few additional nails before we started. Our own boat, the "Logan," is now in a most shaky condition, and so leaky that we can put nothing in her that will injure from wet, but she has had a long voyage before, so it is not surprising.

Condition of boats.

Young ice formed along shore of considerable thickness during the night.

Sunday, August 4th.—This morning the weather was quite calm, with a dark dull looking sky. There was no change in the ice, so I did not move on, particularly as I do not like doing more on the Sabbath than is actually necessary. At noon I read prayers to the party.

At 5.45 P.M. it was low water, and after rising 11½ inches it stood at midnight; the ice at that time had driven more in, but the pack opening out and spreading.

Firewood scarce.

Firewood we find here very scarce, in fact since leaving the Pelly Island it has been gradually on the decrease, and in several places we have had to take a wide range before obtaining sufficient for our wants. Since getting out of the influence of the Mackenzie this is the only place where we have found fresh water, getting our supply before from the ice.

This is now the 4th of August; from appearances there are yet more delays to be met with, and I begin to fear our expectations so frequently indulged in previous to entering the Arctic regions were too sanguine and doomed to be disappointed, and we may yet have to turn back without accomplishing even the small portion (to Cape Bathurst) of what we started for. After a long conversation with Mr. Hooper, and considering well our position, and the probable difficulty we may yet meet in our way, I have come to the determination that if we do not reach Cape Bathurst by the 10th instant to give up the idea of going to Banks Land direct so late in the season, unless from the state of the ice and fair winds I could make certain of meeting but few obstructions, and instead make the best of our way along the coast to the eastward, and push for Wollaston Land where first seen, thence on towards Banks Land as far as practicable, with the certainty of leaving our boats on the coast, if not before, and cross the ice to regain the continent. This, I think, we might easily accomplish by leaving the greatest part of our party on the main to await our return. Our course then to be for Fort Confidence on Bear Lake, where we should be almost certain to meet Mr. Rae, and equip ourselves with provision to take us to the nearest post on the Mackenzie. I consider this about the best plan to adopt in the event of the first failing, particularly as the steersman (M'Leod) knows the route; and provided as we are with sledges and snow shoes I cannot doubt of our being able to accomplish it; slow we may be, sailors are not generally good walkers, but as the journey has been done before I do not see why we cannot do it.

Considerations
and plans.

Monday, August 5th.—This morning was calm and cloudy; low water at a quarter after 6. After breakfast we embarked, and at 9.15. proceeded, threading our way through heavy ice and over shoal ground, on which it was resting, by means of oars and poles, into Liverpool Bay, when at 10.50. we got into deep water. Making sail to the light W. by S. breeze, we kept along the western shores of the bay from 1 to 2 miles off, just outside the shoal water; and, although the ice was still heavy, as we advanced south it opened out, and brighter prospects were dawning on us, when, having run a distance of from 9 to 10 miles from Cape Dalhousie, we landed on a low point to have a look round us. To the S.E. lay Nicholson's Island looming very high, with a comparatively open sea between us and it, which I purposed keeping; and after a slight dinner we proceeded, with a light N.W. breeze, which soon failed us; however, at 8.30. we reached the northern shores of the island, having passed much loose hummocky and floe ice driving into the bay; on the horizon it appeared thick and heavy. We passed a few grampus and small whales, also quantities of Esquimaux ducks. The water was deep; an occasional cast gave us mud, $4\frac{3}{4}$ fathoms, on the main shore, and $7\frac{1}{2}$, mud, within a couple of miles of the island.

Move on.

Brighter prospects.

Here, as at almost every place where we have landed east of the Mackenzie, was shoal, so that it was some time before we got on shore, but as the temperature throughout the day has been warmer than usual, the thermometer in the air ranging from 37° to 29° , in the sea 36° , the wet walking was not so keenly felt. The camp was established on the beach, just at the point where the island begins to ascend, attaining to a moderate height, keeping nearly the same on the whole face of the eastern shore. The western shores are high and steep; and the whole island has the same general feature as all the lands of the Arctic sea, ice the substratum of a dark soil, thickly covered with a variety of mosses, and here and there short wiry grass. These cliffs plainly show their nature, for in many places the surface soil is washed off either by rain or thaw, like a land slip, when you see the main body to be nothing but ice. About our camp we soon found it out to our cost, and that frost was in the ground throughout, for the fires soon brought it out, making what we had thought perfectly dry as wet and mucky as if water had been just poured over it.

Nicholson's Island.

Among a few patches of grass on a light sandy soil we found plenty of mushrooms, which were a most welcome addition to our usual meal of the hard dried meat. Partridges were innumerable, but the hunters at first hardly thought them worth expending powder and shot on, so we only got a few.

During the night the thermometer in the air ranging between 33° and 41° , sea 34° and 38° .

Tuesday, August 6th.—The finest day we have had since leaving the river, and so warm that the mosquitoes paid us a visit. The thermometer at 6 o'clock in the sun 54° , at noon it was 75° . At 9. we embarked and pulled for Point Maitland, with a light air from E.S.E. We had now a very open sea, only occasionally passing a few pieces of floating ice; on the horizon, however, it was still very thick, with heavy fog banks accumulating and the mirage strong. At noon the wind drew to the N.E., breezed up, and made our progress very slow; and as we neared the land came off in such heavy gusts, that our large boat, from her light draft and extreme flatness, would do nothing under oars; we made sail, and only at 5. succeeded in gaining the beach. This was Maitland Island; the beach narrow, and of light shingle, backed up by high icy cliffs, with the usual coating of mud, making it appear at a short distance off as if it was really nothing but mud. As we carried deep water up to the beach we got the tracking line out, and at 8.30. rounded Maitland Point; and for the first time this trip we saw Esquimaux; a single hut or lodge coming in view just as we were off the point. On landing we were received by two women (an old lady and her daughter), who seemed rather anxious for us to go away; but after getting a few presents, and finding us peaceable, were assured we should do them no harm; for as it appeared to be the most convenient place for firewood, now very scarce, I chose it for the camp. The old woman became very gurgulous, examining everything, and as busy as possible, sitting down at the door of the men's tent, intently watching them arranging the interior. They told us the men of their family (eight in number) were away fishing, pointing to main land towards Cape Bathurst, and that there we should find many more "Innecet."

First Esquimaux seen.

Our hunters were rather surprised at these women, never having seen any before; it could not have been their beauty, for neither of them had any to boast of; their dress was certainly different from their own women; but the low waddling square figure, long coarse grey hair, and bow legs of the elder dame was quite enough to attract the notice of any one, particularly with nothing in her countenance to indicate one of the softer sex; however, they were good friends in a short time, the gentlemen visiting them in their hut, and receiving presents of fish and other delicacies, &c. which they were as willing to bestow upon us all.

Detained by bad weather.

Wednesday, 7th August.—At 6. we were preparing to start with a fresh breeze from the westward, and had embarked the tents and other things, when a thick fog came on, which determined me to wait in hopes it would hold up. At 9. the weather was rather worse, with a heavy rolling surf on the beach, and much ice, so that I resolved on waiting for a more favourable time, rather than run for a dead lee shore; and as the boats were not in a very safe position they were hauled up, the tents again pitched, and the hunters sent off to try for deer, and being fearful of going by themselves, one of the men accompanied them.

The Esquimaux dwelling was on the beach just at the foot of the bank. I expect it was only a temporary affair, for fishing parties, as it was composed of nothing more than a few pieces of drift wood covered in with sods and skins, with a scaffold close to, whereon fish (herring) were drying. In the course of the day we missed the women, and conjectured they had gone off to summon others who might be on the island; but they had left everything behind them, showing no fear of our attempting to appropriate any of their property.

On the hill just at the back of their hut were many upright posts, remains of old winter dwellings, and from which we got our chief supply of firewood. Whether these dwellings are inhabited every winter I cannot say, certainly not without much repair and preparation, for all that we have yet seen have been in a most dilapidated condition, with quite a ground floor of ice. In the evening the women returned again; and our hunters had been back some time without seeing any traces of game, but had shot a couple of partridges.

Friendly meeting with Esquimaux.

Thursday, 8th August.—The weather this morning was very much improved, but with a wet fog, a light wind from westward, and a dark dull looking sky. At 8.30. we embarked, and made sail to the northward. At 1.30. observed, on a low point of land for which we were steering, a large Esquimaux village, the people of which as we drew near came off to us, the men in their kyaks, the women and children in the omiaks, and we were soon surrounded

by a very large concourse, all apparently friendly disposed and very glad to see the "Kabloonan" (white men). Among them we observed a great many beads and other articles obtained from Sir J. Richardson's party; and after a time M'Leod the steersman and one of the native men recognized each other, the Esquimaux looking thereat very much delighted. They accompanied us, very often getting in our way, pitching all things into the boats, deer meat, wild fish, furs, fish, &c., the kyacks hanging on by our gunwale, and making themselves troublesome with their kindness, but readily moving off when told, only for a time though, and in no instance showing hostile feeling; bartering bows and arrows, &c. for mere trifles; in fact, I think, they would have parted with every thing they possessed, and really seemed glad to see us. The ladies, in particular, were most uproarious in their welcome, and seemed half mad, and making signs which were not to be mistaken. One married dame was just on the point of sending her infant child, by her husband, for barter, quite in a state of nature, she was however stopped by our declining so burthensome an acquisition. All this time we were progressing (although but slow) under oars, and whatever feeling of distrust might have entered the breast of any of us at first, on being so surrounded, was soon entirely dispersed. I knew only at certain points they could approach us with our long sweeps out; and a sharp look out was all that I considered necessary for any emergency.

We were threading our way among heavy masses of ice, much of it close in on the shore; and the banks for a considerable way up faced with snow, which, together with the dark, gloomy, chilly weather, seemed to throw a damp over our prospects. The omiaks with the female part of our escort were now dropping off singly and returning to their village; when at 3.30. we landed in a small bay about 7 miles from Cape Bathurst, the Esquimaux men did the same, and while our dinner was cooking, an animated barter of fish, deer meat, bows and arrows was carried on until our meal was ready. After hastily despatching it, we shoved off again, and on drawing out of the bay, saw the omiaks coming after us again; we then learnt from the men, who knew how far we could go, that they all intended accompanying us, and those astern were their women, who they had sent back for the camp gear. This I did not exactly like, not being sure how long we should remain as friendly as now and they pointing inside the Baillie Islands as being the best course to pursue; I instead went outside, thinking by so doing we should get rid of them all, but we were mistaken, only a portion of them went with the women, leaving eight or ten men still with us, when at 8.30 P.M. we landed on the south-western shores of the western island, and camped for the night. Here the ice along shore was very heavy, lying close up to the beach, (which was steep too,) and from our friends we learnt that to the eastward it was much thicker, and that we should soon be stopped. They remained with us all night, and were most friendly, but troublesome from their curiosity and obtrusive manner, and I fear, by the close proximity they appear so fond of, we shall have a share of those gentry they carry so plentifully about them; but that and much greater inconvenience would I endure, rather than give them the slightest cause of disagreement.

Friday, August 9th.—We took an early breakfast, and got everything into the boats, when so thick a fog came on, with the wind fresh from E.N.E., that I would not move on, particularly as there was so much heavy ice lying directly in our course. In the meantime the natives were walking about in friendly discourse, very much pleased with the trifling presents we had given them, and making themselves quite at home; one fast asleep in my tent, after asking and obtaining permission, while others were sitting round Mr. Hooper watching the pen as he wrote, and greatly surprised at the strange looking characters its movements made. At length, at 10. it partially cleared up, and we embarked, with the wind about N.E. by E., the Esquimaux trying all they could to persuade us from going on; I paid, however, no attention to them, thinking we might not only effectually get rid of them, but proceed on our voyage with more success than as yet attended us. Making sail we worked along shore, passing between many large pieces, when at 1.30. we were completely stopped by heavy packed ice, through which I saw no opening in the direction we wished to go. This was in about latitude 70° 34' N., on the western part of the larger of the Baillie Islands; and not liking to go back we ran into a small sandy bay, only open to the S.W., with a channel of about half a cable's length between the shore and a large berg 30 feet in height,

which with another, both aground, stretched completely to the opposite shores of the bay, and formed a good and snug shelter. On landing I walked to the top of the bank at the western point of the island, at least 40 feet above the water mark, and soon saw that unless there was open water between the islands and Cape Bathurst, our advance in every direction was stopped. From N.W. round by north to east, as far as I could see, was a dense field of ice closely jammed into the shore; when after walking along the bank for a couple of miles in the direction of Cape Bathurst, I saw no alteration, and returned to the camp, turning over in my mind what was now best to be done. In our former trip from Point Barrow to the Mackenzie I do not recollect ever seeing such large ice, excepting for a short distance in Camden Bay. This before us now was certainly not formed in one season on the coast, for it is in large, clear, clean, and glassy masses; I can only conclude that it has been driven from the northward last fall, and never since off the coast. I can now fully appreciate the information given by the Esquimaux, for they knew full well we should be stopped here; a number of both sexes joining us in the afternoon, having walked from their village, which they had established on the S.E. shores of the smaller island.

Intentions. This was indeed a damper on our hopes of reaching Banks or Wollaston Land in this direction; for to be so effectually stopped from getting out to sea I never expected; but, from the many difficulties already encountered, only thought the barrier might check us, and then only well off the land, hardly thinking we should find the sea here less open than Sir J. Richardson did. I now resolved on retracing our steps in the only direction where open water was visible, pass inside the islands to Cape Bathurst, go along the coast, and endeavour to follow out the plan I had resolved on trying when at Cape Dalhousie, in the event of the first and main object failing. This latter course would be taking us to the southward again, and some success might yet attend us.

The thermometer during the day has been ranging between 35° and 34°.

Bear hunt. As we were pulling in for the shore I saw a large bear trot off from the top of the bank; the hunters got out of the boat as soon as possible and gave chase, but as they were long in starting, and did not see him at first, lost the chance. Soon after the arrival of the first Esquimaux a woman came into the camp who had seen the animal on her way to us, and had to go down over the bank to avoid him, where she sunk nearly to her middle in the mud, and had a heavy and fatiguing walk; poor creature, she looked quite exhausted when she came in. Parties of both men and women were now flocking to us in numbers, but were quiet, and keeping a sharp look out for bruin. At last they discovered him, and with a shout pointed out his whereabouts, in the act of swimming in for the shore, at the opposite point of the bay to where we were encamped. All hands were now on the move, Esquimaux and white men starting off together, each with their own weapon of destruction, and a most animated chase took place. On reaching the spot he was making for, seeing so many foes, he turned about, and swam for a more distant landing, and directly on getting out of the water received a ball in his foot, which staggered him for a moment; recovering he again took to the water, making for one of the large bergs, and on his passage received a ball in the back of the neck, causing him to turn and grin on his enemies; at last he gained the berg. The Logan meanwhile had been launched, and was close at his heels as he got out of the water, but did not succeed in bringing him down, only worrying him until he took the water again, when another actor appeared on the arena, an Esquimaux in his kyak, who drove him fairly out to sea, inflicting many severe arrow wounds and otherwise annoying him, until the brute received the death wound from a musket ball lodged in his brain by one of the Logan's crew. He was towed to the beach, and really a big fellow he was. The Esquimaux who followed him so perseveringly (it had lasted about four hours) was rewarded with a broad dagger and several beads, greatly to his delight. It certainly was a most exciting scene, to see this man playing about the animal in his light and tiny craft, driving his arrows into him, throwing water into his face with the paddle as he turned on the canoe, and keeping just out of his way as if it was a matter of every-day occurrence, showing ready tact and great coolness, for the least blow of the brute's paw (whose endurance was truly astonishing) on the kyak would have upset her, and nothing could have saved the man from the infuriated animal.

All this we could see from the bank, and he certainly would have escaped if it had not been for the Esquimaux. As soon as the animal received his death wound, a chief who was present exclaimed that it belonged to the "Kabloonan;" but not wishing to keep the whole, I had it cut up, and retained the skin, with the smallest half.

Here we discovered how frightened our Indians were of the Esquimaux. One of them really could not sleep all night, and was constantly asking the men on watch why they did not awake me up, and get ready for the attack he was sure was meditated. Their reason for so thinking I could not find out, for our visitors were as quiet as possible, and I am sure had not the least idea of anything of the sort. Indians much frightened.

Saturday, August 10th.—The wind still the same as yesterday, and as I saw no change in the ice, embarked at 9. and ran along the land to round the south-western point of the island, when the wind was unfavourable for Cape Bathurst, and as it was blowing fresh we landed at 2.30. on the main, in the same bay we had been once before. We were now joined by a small family we had not seen before, a man and three women; we made them a few presents of beads, and essayed to improve their beauty with vermilion, they offering no objection, on the contrary desiring it. The youngest of the women (apparently unmarried) was certainly not a bad looking girl, who after receiving her quantum of decoration on her face, was dragged forward by her female friends, who turned up her frock, patted her belly, and requested a like operation might be effected there; they were gratified, Mr. Hooper daubing it to their hearts content. After dinner the wind still fresh against us, we shoved off again, and made sail to beat up for Cape Bathurst inside the Baillie Islands. As we drew toward the cape the wind fell, and we were again under oars, pulling about a mid-channel, the shoals from the main extending nearly that distance to the Baillie Islands. At 8 P.M. we saw the village of our friends situate on the smaller island three or four miles from the cape; as we drew near we counted twenty-two lodges, which poured out their numerous inhabitants to look at the strangers. They were soon off to us, shouting and making noise enough to deafen one, but all in high glee. Some of the old men came alongside, and told us we could go no further, and from the look of the ice we were beginning to be of the same opinion; but as there was nothing like judging for oneself, we pushed on, they leading the way, sounding with their paddles, and took us round the spit stretching to the westward from the cape, through the nearest channels formed by the ice in the deepest water, and as far along its northern shore as we, or they could possibly go, which was not half way between the extreme point of the spit and Cape Bathurst, where a number of winter dwellings were situated. It was now evident that our advance in every way was stopped, and that no cutting or portages would avail us here, for the ice was close in on the shore stretching far into Franklin Bay, out to seaward as far we could possibly see, and in my firm opinion never off shore this year. This opinion was confirmed by the Esquimaux, who, as far as we could understand, had not been beyond this with their canoes this season. Again, the strong westerly wind which blew all the 7th not appearing to have affected it, was more confirmation of my opinion, and that we could do nothing with it. Strong winds I have always found more destructive to ice than anything else, therefore more welcome to the voyager than calms; but here it appears to have worked no change; certainly it did not last long. Retrace our steps for the passage between the Baillie Isles and main.

This complete check was a great disappointment, the more keenly felt, as never hoped for. I made certain we should pass the cape when we came in from the Baillie Islands, and get along the coast without difficulty, from the very circumstance of Sir J. Richardson having done so in 1848. M'Leod, the steersman, who was one of his crew then, was astonished, repeatedly saying they never met such ice in the whole course of their voyage. To go back again, directly, I did not like doing; to remain here was out of the question, for there was no firewood, and I was unwilling to encamp among so many natives, now about us, who, although apparently friendly, are most expert thieves, in which art they have been already exercising their ingenuity, one fellow slipping a silver spoon up his sleeve, another burying a frying-pan, and our pockets frequently tried, so that it was very necessary to be ever on the watch. In an attempt to

Turn back.

reach the cape, on the southern side of the spit, and encamp there, we failed, from the shoal water extending a considerable distance off. I therefore determined on returning to the bay where we had dined, being the only place where we could conveniently land, establish the camp, and wait until the 15th, and if no change took place in the ice by that time, return as fast as possible to the Mackenzie. Under existing circumstances, I consider this about the best thing to be done, for if we remained longer, and the ice should open out, it would be too late to go northward, or even to reach Wollaston Land by the coast, and a sacrifice of time, stores, and provisions, without any resulting benefit; the same also would be the case if we returned by the "Inconnu" river.

We did not get to the camping ground until midnight, our friends leaving us as we passed their village, thinking, I expect, we were taking our final departure, but on running down the coast, the family who had visited us at dinner time, and were encamped at a short distance from our resting place, observed, and let the others know of our whereabouts; however, we were free of them for some hours, and got a quiet night.

In the early part of the day the weather was dark and cloudy, but towards noon it cleared, and the sun shone out brightly, with the wind, however, fresh from N.N.E. coming over the ice, and a low temperature; we felt the cold severely. All along the main shore, as well the sea-face of the islands, from as far west as Pelly Island, we have found abundance of snow lying, particularly on the high and steep banks.

Sunday, 11th August.—At midnight the thermometer stood at 28°, with a thick frost on the ground, and the wind moderate from E.N.E.; this morning it was from the same quarter, so I remained in the camp, and, as far as possible, kept the day in peace and quietness. At noon we offered up our prayers of thankfulness to our Heavenly Guide, for the protection He has given us in our perilous voyage. The weather warmed a little towards noon, the thermometer getting up to 43° in the sun, and 36° in the shade; at night it was down again to the freezing point. In the evening several natives came into the camp, among whom was a chief, with his three wives and family; they pitched their tent close to ours, and were quiet and orderly.

Esquimaux.

Monday, 12th August.—Blowing hard from E.N.E.; and as this was a wind not likely to move the ice I did not leave the camp. After breakfast the nets were set, and hunters went off to try for game. All day Esquimaux came flocking in, and by the evening we mustered a strong force of both sexes and all sizes, very friendly, but without exception the most persevering pests I ever met with, picking up everything they could clap their hands on, and shoving their noses everywhere, but displaying no hostility, on the contrary showing every inclination to assist, such as fetching wood and water, &c.; and indeed we cannot move a step without being followed by some of them. Our dresses are great curiosities, both men and women handling us most annoyingly. I have not been sparing of presents to either men, women, or children; and the poor creatures are highly delighted with the most trifling article; but to get a knife appears to be the height of their ambition. I think we have really gained their friendship; bows, arrows, dresses, in fact any and every thing, they are most willing to part with, and appear to have every confidence in our good faith towards them, the women and children coming to us alone without the slightest doubt or hesitation. Mr. Hooper has got from them a number of words, by which means I think we may form a pretty tolerable vocabulary; there appears to be little difference from the western tribes. About noon our hunters came back with only three partridges; they went off again in the evening, taking merely their guns and ammunition, and entirely of their own free will, notwithstanding their fear of the Esquimaux.

Hunters missing.

Tuesday, 13th August.—The wind this morning was from the north, with heavy fog banks on the horizon. Our hunters had not returned. At 9, they being still away, I determined to go on to Cape Bathurst again with only one boat, and leave Mr. Hooper with the other to await their arrival; desiring him to go some distance back from the coast and make musket signals occasionally, in case they might have missed the camp. When I shoved off the greatest number of the Esquimaux accompanied me, leaving as we passed their village on the island. At 1. 30. I landed once more on the spit, just in the same place

I did before, and found the ice quite unaltered from its state of Saturday night. Being anxious to get to the cape if possible, I walked towards it with two of the men, but when within a couple of cables length of it we were stopped by a channel of deep water which we could not pass, and the ice was not sufficiently near to walk on; thus were we cut off from the desired goal. The open water south of the spit, which we had tried on Saturday night, would not allow of the boat coming any nearer, so whichever way we turned obstacles not to be overcome met us, and return was all we could now do. We got back to the boat, and at 3 P.M. shoved off again, pulled to the N.E. point of the small isle, and from the high bank had a most extensive view of the ice. From N. 71° 30' E. to west, the sea was completely covered, with not a vestige of open water to be seen, excepting a few pools a short distance from us. There were many high bergs in the pack, which was chiefly composed of heavy field ice, and, as I have before remarked, has never been off the coast this season. With the wind from E.N.E. we now made the best of our way back to the camp, with sorrowful hearts at the disappointment of hopes from which we had expected such favourable results; and on reaching the camp at 5 P.M. found a further disappointment as well as painful anxiety about the Indians, for they had not returned; neither had Mr. Hooper, who had been some distance back from the coast, found any traces of them.

Ice still in the same state.

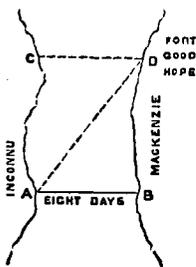
Return to camp

How to account for the absence of the Indians in any other way than that they had deserted us, (from their fear of the Equimaux,) I could not. They of late had been making repeated inquiries as to the direction and probable distance of the "Inconnu," as well as the direction and distance of the Mackenzie from it. Turning over these circumstances, I concluded they had gone off for the former, and would easily find their way to the latter river, as one of them had hunted on the banks of the Inconnu before, but had never got so far north as to be clear of the wooded country. From his account deer were most plentiful in the neighbourhood; ammunition would therefore be all they wanted, of which their pouches were nearly full when they started. As for Indians losing themselves in a plain country like this, I hardly thought possible; but as they had gone off without any spare shoes or tobacco, the latter of which an Indian will never be without if he can possibly help it, was rather against their having deserted; at all events, I resolved on waiting until the evening of the 15th.

Perplexity respecting the Indian hunters.

The account of the Inconnu from the Indian who had hunted there before was somewhat different from what we got at Fort Good Hope. His name is "Karias," and was one of the party from whom Mr. Hooper in 1849 had taken a guide when on his way after me to Fort Good Hope. They had just then (the Indians) arrived on the River Mackenzie from the Inconnu, having been eight days on the journey. It appears that the Indians call it "Soon illay thess," or Unknown River, as it is in the French. They laughed when we gave Sir John Richardson's word "Beghoola," which they said signifies "no meat." "Karias" drew a sketch like this:

The Inconnu River Indian account.



From A to B, C to D, is full of large lakes, so cannot well be travelled. From A to B is the road they took heavily laden, which occupied them only eight days. B to D is only a two days march along the banks of the Mackenzie to Fort Good Hope, or three at the least. He thinks our boats might go up to A; the current is sluggish, and the water may be deep enough, as higher up than where they cross it is up to a man's middle; good tracking ground, and deer as thick as mosquitoes.

Wednesday, 14th August.—This morning the weather was very fine, with the wind moderate from east, thermometer standing at 39° in the sun. No signs yet of our missing hunters. At 9. I sent Mr. Hooper with two men out once more to search for them, but he returned at 2.20 without finding any tracks. Many Esquimaux had arrived during the day, and now mustered stronger than they ever had before; they encamped near us, and were friendly as usual, but most confoundedly troublesome, craving after everything they saw, and using every artifice to possess themselves of it, requiring the eyes of an Argus to watch them. I was now getting seriously alarmed about our Indians, for even

Reflections.

if they had made for the "Inconnu" it is hardly possible they would get to it without meeting strange Esquimaux, and there would be no knowing the consequence. My reflections were indeed painful, particularly as the time I had fixed on for our return was drawing near, and longer delays might be dangerous. With the wind as it was now, and no prospect of a change, the probability of getting round Cape Bathurst in any time to be of service in the main object of the expedition was very small. I was restless and uneasy, and could not remain still in one place for a minute, when I walked to the bank on the south side of the bay, and took a long and anxious look over the wild and dreary plain, when to the southward apparently close to the bank were two objects apparently sometimes advancing and then receding very slowly, and strangely distorted by mirage. I could not make out what it was; at last concluding it some of the Esquimaux, never thinking the Indians would come from that quarter, I once more returned to my tent, when to my inexpressible relief, at 4 P.M. the two missing ones came in. Poor fellows, they made a sad appearance, weary and exhausted, with hardly a rag on their feet, having been on the tramp ever since they left us, wandering about in search of the camp.

Indians return.

The night they went off they wounded a deer, and in the ardour of the chase had got so completely bewildered as to their locale as to despair of ever finding us again. In the course of their wanderings they came on the shores of Franklin Bay, and found the ice there in the same state as at Cape Bathurst. On asking them what they would have done if on their return they had found us gone, they replied that they should have dug a hole, laid down in it, and died.

Shift our quarters.

After the Indians had recruited a little, I determined on shifting the camp, and at 5. began to embark the gear, when the Esquimaux, thinking perhaps it a fine opportunity, and that from their strong muster they might appropriate things with impunity, made several daring attempts at embezzlement, one fellow cutting very expertly the knife lanyard round one of the men's waists and walking a way with the knife with all imaginable coolness. However, by much forbearance and a sharp look, out we managed to get everything into the boat without loss, or giving any cause for disturbance of the friendly feeling which had throughout existed. As a farewell present I gave them a quantity of iron hoop; and at 5.30 we made sail, ran along the coast to the southward, and at 8. landed about five miles from the old camp, at the place where we first saw these people, and for the last time were joined about an hour after by two women and seven men of the number we had been so long amongst, who were apparently determined to see the last of us. One of the Indians who had throughout been in such a constant state of fear now made sure, although we were the stronger party, that they were bent on mischief, and in spite of the fatigue he had undergone latterly could not sleep a wink all night.

Commence our return.

Thursday, August 15th.—Wind moderate from eastward this morning; and as it was the day I had fixed on for our return, there being no visible signs of change of wind to affect the ice, we embarked at 8 A.M., previous to which I made presents to the natives who were with us. It is true they had before received some; but I wished these to be a mark (the most acceptable to them) of our sincere friendship, and gratification at the manner in which they had behaved while we were among them. They all appeared delighted; and the eldest woman made a long speech as we were shoving off, the purport of which, as far as we could understand, was, that they hoped the "Kabloonan" would come amongst them again. We made sail directly across Liverpool Bay, encountering rather a heavy sea particularly as we neared the western shore, and shipping much water, to the damaging of our provision. We made the land inside Cape Dalhousie, but could not get on shore, for there was too much surf beating on the outlying shoals. Hauled out, passing many pieces of drift ice, and at 3.20. rounded the Cape, and kept on a S. westerly course. When at midnight, after making several ineffectual attempts, by consequence of the shoal water, to get on shore to encamp, we gave it up, anchored inside the shoals off Cape Brown, and slept in the boats. During the day we observed much large hummock ice on the horizon, and in the afternoon passed quantities of loose ice, with a strong blink from W. by N. round by north to S.E. At 9 P.M. the thermometer stood at 36° with a light westerly air.

Shoal water.

Friday, August 16th.—At 8 A.M. we made sail, after having pulled well to the N.E. to clear the shoals. The breeze was fresh from the eastward. When at 9.

we found we were still inside the shoals, and were once more obliged to take to the oars. With the fresh breeze we made but very slow work of it, and it was not until 1.30 P.M. that we succeeded in extricating ourselves; then only by hauling the boats over the narrowest part, with the water just about to the men's knees. These shoals were not all dry, as laid down in the chart, for it was only an occasional patch that we found above water, or we might have got clear sooner. Outside the shoals the ice was heavy, in floe pieces, following the line of shoal, and distant from one to two miles off. At 4. it was quite calm. When, on looking into the well, we found the water above the ceiling, and, as the boat had been pumped out dry in the morning, concluded she must have started something coming over the shoal, although there were other reasons sufficient for such an increase of water, the oakum having worked completely out of many of her upper seams, and the second plank from the gunwhale, nearly fore and aft, separated widely from the timbers. We could put nothing in the small boat, nor was she in any way repairable, and I fear we shall hardly get her to the river. Her sternpost is nearly out, the knees of sailing thwart gone, with several timbers sprung. Condition of boats.

At 8. we landed in latitude $70^{\circ} 4'$ (about), where we had once before stopped Land. (on the 1st). Immediately cleared the boats, and found, as I feared, much of the provision wet; but as the spot was a good landing place, with a very long and wide dry beach, I determined on waiting to-morrow, and have a regular drying match. The hunters were sent off directly, and at 10. one returned Hunters successful. for assistance to bring in the deer he had killed, which was most welcome news, for all hands were complaining, and I knew not what to attribute it to, otherwise than the provision, for it certainly is wretched stuff.

Saturday, August 17th.—Heavy rain all night, with wind from the westward. At 9. it held up, but a thick fog was banking up to the S.W. Our boats were lying close to the beach; the camp was on a high bank; between them the flat dry sandy beach, of about a quarter of a mile wide, whereon the provisions were spread, and as the fog, which at 1 P.M. closed completely around us, was not damp or wetting, we had partially succeeded in drying all. At 5. the wind settled at N.E. by N. moderate, with clear weather; and as to-morrow was Sunday, I determined not to move on, therefore had the provision gathered together under the oil-cloths for another drying previous to putting it into the boat. The hunters were again successful, having killed a doe and her fawn; but our nets yielded only four fish "inconnu;" certainly a poor return, but two of them were the largest I have ever seen. The rise and fall of the tide was $13\frac{1}{2}$ inches.

In the afternoon I took a walk, and a wet one it was, towards one of the many hills which are interspersed here and there along the coast eastward of the Mackenzie. From the summit of this hill I had a most extensive view. View from hill. Sweeping round with the glass, to seaward, and not very far off, was still heavy ice; on the landside, a dreary desolate plain, cut up with lagoons and swamps, apparently only frequented by deer in the summer season. I saw four grazing in undisturbed solitude. The only dry ground appeared to be in the vicinity of our camp, and that of no very great extent.

Sunday, August 18th.—This morning the sky was overcast, and raining hard, with a moderate wind from N.E., but hauling gradually round to south until 8 A.M., when it settled at S.W. by S., and blew a gale, bringing up a thick wetting fog. We were now obliged to anchor the large boat off clear of the surf, and at 4. take up the nets, for heavy ice was driving in from seaward. Prayers were read in the morning, and afterwards all were anxiously watching Gale. the progress of the gale and rising of the tide, which by 6 P.M. had increased so much that we were all obliged to sally down to the beach and bring our High tide. provisions up on the bank, and had only just completed the work when the spot was covered to the depth of two inches; the ice, too, coming in still faster, and gale increasing.

Monday, August 19th.—No hope of moving, for it is now blowing hard from S.W. by W., with cold, wet, miserable weather. At noon it came on to snow; the tide still rising; ice covering the whole view to seaward, and exciting great fears for our large boat. In the evening the gale was still on the increase, with

heavy squalls and snow. On opening a bag of pemmican which was rather damp, found it quite mouldy and unfit for use. This is not the first time such has been the case.

Tuesday, August 20th.—This morning the "Logan" was driven close into the bank by the tide, which had risen so high that all the flat beach was completely covered. Still blowing, but not quite so strong, now from W. by N. About 9 A.M. the "Logan" was able to get off to the "Try again," and found her lying very snug, the heavy ice being aground outside, and forming quite a breakwater, very much to my satisfaction, as I had been momentarily expecting to see her driven in on the beach. Throughout the day we have had rain, snow, and sleet at intervals, with the thermometer standing at $28^{\circ} 5'$. In the evening the wind moderated, and the tide fell off the beach so much that we were enabled to load the boats ready for a start in the morning. Hard frost all night.

Weather moderate.

Wednesday, August 21st.—This morning the wind was moderate from W. by N., with a dark cloudy sky and heavy fog bank to seaward, the ground white with frost, thermometer at 6 A.M. 28° . At 9.15. we shoved off under oars, occasionally sailing amongst a loose pack. At 2 P.M. we landed by Bromell's Cove for dinner, and were visited by an Esquimaux family, who were most importunate for knives, needles, &c., in which particular their desires were gratified. At 3.30. we shoved off again, but were obliged to retrace our steps for some distance, having got inside a long spit of sand in the fog. Outside this spit the ice was lying thick and heavy, apparently in the same state as when we passed this way before; and the wind having now shifted, we ran among it under easy sail, as the fog was very thick around us. At 8 P.M. the fog cleared, and finding we were nearly abreast of a former encampment on the point of M'Kinley Bay, we ran for it, hauled inside the spit, and landed for the night. The fog did not keep off long; just time enough to show us the heavy ice, then closing in thick and wetting, very cold and miserable. Thermometer 26° .

Proceed.

Heavy ice.

Thursday, August 22d.—A very thick fog this morning, with a moderate breeze from the northward. Our friends of yesterday visited us again this morning, and as my servant was clearing up the tent ready for embarking, the Esquimaux, who was watching him, abstracted the knife from his belt. Fortunately Mr. Hooper saw the fellow do it, and made him return his booty, which he did with a laugh, but evident disappointment. At 9. we embarked, and proceeded under oars, for the fog was too thick to allow of making sail. When at 10. it cleared a little, and we got under canvass, steering about south, with a moderate easterly wind. At noon the fog began dispersing gradually; we got sight of the land. In half an hour it was quite clear, and we found ourselves in an open sea, with only a few pieces of drift ice here and there. At 2 P.M. we passed the winter dwelling we had landed near on the night of the 25th of July. They were then uninhabited; now several natives were there, perhaps preparing them for the ensuing winter. Many of them shouted, and waved clothes to us from the roofs, as a signal to land, but we were too anxious to get on. One man endeavoured to come off, but was either frightened of us or the sea, which was rather rough for his tiny craft, and put back again. At 6. we landed close to some other winter dwellings (farther south), to look for water, but finding none proceeded until 7 P.M., when we put on shore for the night on the northern side of Refuge Cove, and encamped. At 8.30. two natives were seen approaching, but were evidently in a great state of alarm; for what reason I know not; and it was long ere we could induce them to come into the camp; then only by assuring them that in the morning they should each have a knife, which they appeared most anxious to get. Wind light during the night from E. by N. Thermometer standing at 37° .

Heavy fog.

Esquimaux frightened.

Friday, August 23d.—Directly we began to move this morning, and get our things into the boats, the Esquimaux scampered off as fast as they could; and it was only as we were going to shove off that they again made their appearance; not, however, venturing near, nor being without their bows and arrows. As I wished to assure them we were friendly, I walked towards them alone, with two knives and other trifles as presents; but it was long before they would come near enough to take them, and then again running off as fast as their legs would carry them to a safe distance. It was 7.30 A.M. when we made sail, with

an easterly wind, for the opposite shore (Richard's Island), which we could only see from the highest hill at the back of the camp. As we drew towards the land, saw that it extended to the northward. We hauled out for the extreme point, and coasting along passed a deep bight or opening, showing like a channel leading through to the westward, and which bight I take to be the eastern extreme of the channel I had before observed from our encampment on Richard's Island on the night of the 24th of July; making, therefore, this new land an island, and a big one too, and which I now named Beaufort Island, after the Hydrographer of the Admiralty. We ran along the eastern shores of the island (which was deeply bayed), and before reaching its northern extreme saw another island, still more northerly, not so large, but forming a channel of at least 3 miles wide leading to the westward. This channel we ran through, keeping close along the northern shores of the large island, which was also deeply indented, and high steep muddy banks. At 2.30. we attempted to land, to get a few bearings, to show the position of these new lands; but from the heavy surf on the shoals, which appear to girdle all these islands, we did not succeed; therefore, held on our course, keeping as close as the breakers would allow. When at 6 P.M. we managed to get on shore, and encamped for the night on the western shore of Beaufort Island. Towards night we had very heavy rain, and a strong breeze from E.N.E., which at midnight increased to a gale, and seemed very likely to cause us another detention.

Saturday, August 24th.—Blowing strong from N.E. by E. About noon it moderated. We embarked, and made sail to the westward. As we drew off the land, we felt the wind more forcibly, and found the sea very much heavier than I expected; but as one of the new islands we saw on the 23d of July was directly in our track to Pelly Island, I determined on landing on it. Our first effort, on a narrow beach, under a high bluff (S.E. point), was unsuccessful, from the shoal water. We then ran for the dry patch extending from the southern part of the island, where we managed to get on shore by wading through bitterly cold water for at least a cable's length of distance; but any port in a storm, for it was now blowing a complete gale, and this was the only shelter we could get. On the beach, under the lee of a very high grassy bank, we just got room enough to pitch out two tents, and were soon again a little comfortable, with all hands running about to get warm, and firewood, which was very scarce. My intention, before I got on shore, was to land the provision, as from the quantity of water we had shipped it was again very wet; but as it would have kept the men too long in the water, and such a scarcity of firewood, I abandoned it for a fitter opportunity. In the evening the wind was a little more moderate; the sky dark and cloudy, with thick misty weather. At the back of the camp the ground rose almost perpendicular to a height of at least sixty feet. From the summit, for a short distance, was quite a table land then dipping to the N.E. for half a mile, when it gradually rose until you attained, about the centre of the island, not more than 120 feet above the sea. From this point, eastward, the land was gently undulating, and terminating in the steep cliffs of the eastern shores of the island to the westward, sloping off gradually to the beach. The greatest length of the island was, from N.E. to S.W., from three to four miles. It has the same characteristic feature as all lands of the coast,—mossy and swampy, except the face of the steep bank at the back of our camp, which had a thick grassy sward; and where we found plenty of mushrooms. In fact, it appears to be the summer side of the island, for some of the flowers we have already found were growing in abundance. Fresh water was most plentiful; but we had to go some distance for it.

S.W. of our camp were two small islands, close together, and not more than a quarter of a mile off, but surrounded with shallow water.

Sunday, August 25th.—Wind from N.E. by E., blowing fresh, with an overcast and threatening sky. At 11 A.M. read prayers to the party. In the evening rain, snow, and sleet. Thermometer +29°.

Monday, August 26th.—This morning, about 3 o'clock, it was high water, when I had the "Try again" (our large boat) taken off into deeper water, to ensure our getting off in time; notwithstanding which it was past noon before we could move, so much time being taken up in embarking the camp gear, by having to make so many trips over a long stretch of shoal water. Early in the morning it was snowing very heavily, completely covering the

osition of new
lands.

ground; but in the course of the forenoon it ceased, and in the break of the clouds I managed to get a glimpse of the sun. The noon observation was pretty good, but those for time so imperfect that they cannot be depended on; neither is the chronometer to be trusted; and as the longitude I give from observation was from the error taken from a single lunar observation at the entrance to the river seven days after, I am more inclined to trust to the bearings and distances run, supposing the positions of the Pelly and Kendall Islands to be correct.

Camp on S.W. point of Discovery I, or Hooper's Island, latitude $69^{\circ} 39' 21''$ N., longitude $135^{\circ} 2' 28''$ W., deduced from lunar; $134^{\circ} 55' 0''$ deduced from bearings from Pelly and Kendall Isles. From this, bearings and distances place the centre of Pullen's Island in latitude $69^{\circ} 45' N.$, longitude $134^{\circ} 30' W.$; the most northern land we discovered.

roceed.

It was at noon the last trip was made; and at 12.30. we made sail with a fresh breeze from N.E. by E. We ran rapidly to the westward, passing outside the narrow spit or low isle before observed, outside Pelly Island; rounded the N.W. point of Garry Island, and at 7 P.M. landed on its south-western shores for the night. During the night we had both rain and snow. Rise and fall of the tide about fourteen inches.

Tuesday August 27th.—This morning all pools of water were quite frozen over. At 7.45. we embarked, having the satisfaction of again stepping from the beach into the boats, instead of wading through bitter cold water. Fire-wood, too, was also plentiful, of which we took every advantage, by keeping blazing fires all night.

boals of the river.

We steered about south with a light N.W. wind, and at 9 A.M. we were once more in the muddy and fresh water of the Mackenzie. At 11. we got into shoal water, and although far distant from the shore we experienced a continued succession of grounding in nearing it. At length we got into a deeper channel, which I was in hopes led into the river; but from the slack current, and slow advance, from meeting so much shoal water, I resolved on landing as soon as possible, to examine whether it was only a deep bight into which we were pulling. This we accomplished at 5., on the northern shores of this indentation. Walked a little way along the bank, and plainly saw that it was only one of the numerous outlets for the spring flushes of the river, as there was but little wood on the shore, the country very flat, and bearing indications of recent inundation. Flocks of wild geese were numerous, but our hunters were not particularly successful in shooting many, from the difficulty of approaching them near enough.

Ellice Island.

Wednesday, August 28th.—A slight frost this morning, with beautifully clear weather. At 6.50 A.M. we embarked, and proceeded under sail with a light wind from the eastward, steering off the land to clear the shoal water, as I had determined on proceeding westward, and enter the river by the same channel I did last year, which I knew to be deep. About 8. we rounded what I considered to be the outer part of the shoals, and finding deeper water, with a current setting offshore, hauled in once more for it. At 9. we entered a narrow deep channel, and there being a strong current against us, I supposed we were fairly in the river; and as our provision was still wet, not having had an opportunity of getting it on shore since the last drenching, I landed at 10., to take advantage of the fine weather for drying it, as we might not have such another opportunity. Some of it we found in a very bad state from the wet. Here I got observations, which place us to the westward of Ellice Island; but as no land appears there in the chart, I conclude this to be land not before seen, and mean to follow through the channel which is formed by another island to the westward, yet whereon our hunters are now in chase of wild geese and swans. In the evening they returned with a few game, but that they had seen the big water from its western shores. In the afternoon Mr. Hooper and myself walked to a hill about two miles S.E. of our position, and from its summit plainly saw the Richardson Mountains, and deep indentures to the eastward, which I conclude to be a passage between this and Ellice Island.

In the evening light passing showers of rain.

Thursday, August 29th.—At 8.25. we embarked, and with a moderate breeze from the eastward made sail, following the course of the channel (trending south), with a light current against us. About 10 A.M. the channel began

to open out, and we soon got into an open sea, instead of being in one of the numerous passages which led directly into the river, as was my conjecture yesterday. I still held on the same course (south) as near as possible, when we soon sighted land, which could be no other than Pitt Island. We ran for it, with the intention of passing along its western shores, thence to Colville Island, and the Man-of-war Channel; but the water was so very shoal, that, after trying in vain all day to get to the southward, both near and far off the island, I was obliged to give it up, retrace our steps to round the western part of the island, before we could get south. We had got so confused among the complete labyrinth of shoals, that it was with the greatest difficulty we got clear again before dark, and then only after lightening our large boat by a sacrifice of about 320 lbs. of meat. However, it was a good riddance, for it had been so often wet, and latterly so long, that it was so bad as to be quite unfit for food. At 10 P.M. darkness was closing fast around us, and as the shore was too shoal to approach (the N.E. part of Pitt Island) we anchored the boats, and passed the night in them; obliged to go hungry to sleep, as unfortunately we had no wood to make a fire, and, with the heavy rain which had been pouring for the last six hours, we were not very comfortable.

Pitt Island.

Shoals.

Unpleasant night.

Friday, August 30th.—Early this morning the wind was rather fresh from N.N.E.; the sky looking dark, and threatening with rain. At 4. we got under weigh, and pulled along the N.E. shores of Pitt Island. At 7.15. observed a narrow channel, with a strong current setting into it, which led me to suppose that it might be a passage through the island. We therefore followed it, and at 7.30. landed on its western shore, not only to get breakfast but a warming, after the chilly and unpleasant night we had passed. It was still raining hard. However, we managed to get a fire, and partially dry our clothes. When before we had finished our breakfast, the clouds began to break, the rain ceased, and weather bid fair to be fine again. At 9. we embarked, and still followed the narrow channel. When at 9.20. we got through, and once more into open water, with the Richardson Mountains very distinctly visible to the southward. Steering in their direction, for the water was still very shoal to the S.E., at 2.50. we saw Tent Island, and at 4.30. came close on it, about 5 miles S.E. of its N.W. point. We now hauled to the S.E., keeping close along shore, crossed the channel between Tent and Colville islands, and at 6. landed on the N.W. point of the latter, and encamped for the night. Since 5 o'clock the wind had been strong against us from the eastward, against which our large boat made but little way with oars.

Tent Island.

For some time I was quite at a loss here, thinking we had hardly yet reached Tent Island, for the coast is so totally different from the chart that I get puzzled; for although we came along this shore last year, I either could not have observed it so closely, or my memory is very treacherous. At all events, many of the party recognise it, and I shall keep on as we are going, as tomorrow will decide it.

Doubts about position.

Saturday, August 31st.—At 7.30. we embarked, and with the wind from N.W. ran rapidly along the land, steering east and S.E. by E. When at 9.37. we passed our old camp of August 27th, 1849, in latitude $68^{\circ} 49' N.$ All doubt of our whereabouts was now fully dispersed by the recognition of this spot. The only difference, easily detected, was that the water was higher now than then. Steering confidently for the Man-of-War Channel, we soon entered it, passed quickly through into the western branch of the Mackenzie, and at 1.15 P.M. landed, and encamped on the left bank of the river, in latitude $68^{\circ} 44' 25'' N.$, longitude $135^{\circ} 44' 42'' W.$, by lunar observation.

Camp of 1849.

Man-of-War Channel and the river.

Here our provision was once more landed to be dried, for such was the shattered and leaky state of our boats, together with the heavy rain of the 29th, (against which our oil-cloths were but little protection,) that everything was again wet. Our large boat, with only a slight ripple of the water, would make as much as 70 gallons in the 24 hours. The small one we could put nothing into, and as she was totally unfit for repair, I determined on leaving her here. By this means our progress up the river would be greatly accelerated; and as, from the severity of the weather of late, and generally throughout the voyage, there was every likelihood of an early closing-up of the river, the sooner, therefore, we reach our winter quarters, the better. The small boat was cleared of everything likely to be of use, hauled up on the bank to her last resting-

Leave the small boat "Logan,"

and begin the ascent of the river. place, after so ably performing her arduous work, and on Monday morning, the 2d of September, we began the ascent of the river.

Hunters successful. On the morning of the 4th of September, wishing to avoid, if possible, getting into the Peel, we took a narrow channel to the left, hoping thereby to get sooner into the main branch of the Mackenzie, but the next day we again got into the channel we had been trying to avoid. However, the hunters in this very channel shot a moose deer, which sufficiently compensated for all disappointment or any increased distance to our voyage. On the morning of the 7th we passed a narrow channel on the right bank which led into the Mackenzie, and which we ought to have followed; but from the circumstance of the current running contrary to what we expected, and none of the men recognising it for the usual route taken by the boats passing from the Peel into the Mackenzie, we kept on, and only discovered the mistake when we got into the long reach of the former river, at the head of which Fort M'Pherson is situated. This was annoying, as it took us out of our way, and lengthened the voyage very much, which in these regions is of great consideration, and more annoying as the two men of our crew, old servants of the company, and had frequently passed through this channel, did not recognise it, and were hardly to be convinced when we got into the long reach, where the rest of us immediately recognised trees we had marked in 1848. One thing, the features of the river were altered much, by its being higher and broader than last year, and shoals dry then were now completely covered. As we were so near the fork, and all hands in want of mocassins, I went on to it, and arrived at 9.30 p.m. where we were welcomed by a Mr. M'Kenzie, in charge of the establishment, in the absence of Mr. Peers. We remained here until Monday morning, the 9th of September, when, after getting the necessary supplies, again proceeded; passed into the Mackenzie, and at 8.50 p.m. stopped for the night at Point Separation. Just before reaching the point, we passed the spot where a most cowardly and cruel massacre was perpetrated by some of the Louchoux Indians on a small party of Esquimaux. There was now only remaining to tell of the fearful deed the skeletons of the four kyaks of the unfortunates, and numerous foot-prints.

This affair we first heard of on our way down the river in July from the Louchoux themselves, but thought it was a fair stand-up fight by their telling; but at the Peel station we got the particulars from one of the white men present, and which I have given here as taken from his lips.

Massacre of Esquimaux.

This man, Neil M'Kay, was one of a party proceeding in a small boat from Fort Good Hope to Peel's River. His companions were Manuel Herbert (a Canadian, and steersman in charge), Sanderson, and Brown, with two Indians (of whom "Maccacouce," who was on the coast with Dease and Simpson, was one). He, M'Kay, said that they were going down to Peel's River in the boat early in June 1850, and having been stopped by the ice near the site of old Fort Good Hope for two days, were short of provisions, and had thoughts of opening the cache at Point Separation. Having found geese, however, they did not do so, but landed as near to it as they could for the ice which bound the shore, to have a look at the "lobstick"*; at M'Kay's request, he having never seen it. They beached the boat about a gun-shot below the point, and just then espied an Esquimaux in his canoe coming in and along through the ice, then another, and so on, until ten were counted. Manuel was about to fire at them; but M'Kay twice or more times turned away his gun, and entreated him to withhold until they should prove hostile in intention. Manuel consented to reserve his fire until M'Kay should run back a little way, to see if a band of Louchoux, whom they expected, were near; and at a little distance he found, and told them what was the state of the case, when, as he says, they could not go fast enough, but barely hauling their canoes on shore ran along to the spot. The Esquimaux chief, or eldest of the party, told them to put down their guns, which they did, and he fixed all his arrows on the shore within a small circle, after which he held up his bow and empty quiver, to show that he had nothing more. Each of his party followed his example, after which a trade was carried on between them, buttons, knives, &c. being bartered for bone and ivory

* "Lobstick":—a tree with nothing but a few of its upper branches left remaining, the lower ones having been all cut off, so as to render it a conspicuous object.

trinkets, skins, &c. When the trade began to slacken, two of the Esquimaux went off, to bring up the larger boat, with the women, peltries, &c., and these not returning speedily, two more went off to hasten them. There were now only six Esquimaux remaining, and all unarmed, while the Louchoux were fourteen in number, and the company's party seven, having in all seventeen guns among them. The Louchoux, being apparently apprehensive of the others going off, invited them to come on shore while waiting for the boat, and have a dance, which they did, but on the opposite side of a small creek. The chief first landed, pulled off his frock, and appeared in nothing more than his breeches and moccasins; then held up his hands and slapped his body, to intimate that he had no concealed weapons. His companions did the same, in succession, and each party began to dance on either side of the creek. Presently M'Kay observed one of the Louchoux skulking round the ice, trailing his gun after him at full cock. He made him take it back, and gave him a good scolding, and going back to the bank saw all the other guns at full cock. He afterwards saw some of the Indians going round by the willows to get behind the Esquimaux. There he stopped; but observed again, that, while half were dancing, to occupy the attention of their victims, the other half were stealing round to get in ambush. He spoke to Manuel Herbert to help him in preventing this treachery; but he replied that if they wanted to kill the Esquimaux he should not stop them, but would rather push them on, and that it was no business of theirs, &c. M'Kay now went to one of the Louchoux chiefs, and told him that Mr. Peers (the company's officer in charge at Peel's River) would be very angry if they killed the others. He replied that they would not fire at them, and M'Kay thought that he had stopped all murderous intentions. The other men, Sanderson and Brown, had made a fire at a short distance off, and did not at all come near the scene. M'Kay had slipped into the water while bartering with the Esquimaux, and being very cold, and now satisfied that no evil was intended, ran off to the fire to dry himself. He had not reached it, however, before he heard a shot, then another; and before he got back again "the place was all smoke," and four of the poor deceived Esquimaux lay outstretched on the ground. The other two got off to their canoes before the second volley was fired, but were both wounded by it. They nevertheless got away. Manuel had also fired among them, but said that he killed none. The Louchoux now fired arrows into the four, and one, who had only been wounded, got to a piece of drift wood in the water, under which he dived as the arrows came at him. They at length finished him with their guns, and he sank. The other bodies they cut under the arms, and laid them over their heads; also otherwise gashing and mutilating them; then left them, and went on to Peel's River station with the whites. When they all arrived at the fort, and the Indians there (Louchoux) heard how the affair had occurred, sided with M'Kay in blaming the perpetrators, who now said that they were sorry they did not take his advice, and should have done so, but that they *were pushed on by "Manuel."*

Such is the account given by M'Kay, who appears to have done all he could to prevent the cold-blooded murder. This account was confirmed by Manuel himself, whom (by permission of Mr. Peers, in whose boat he was steersman,) I questioned, on meeting them shortly before we reached Fort Good Hope. He admitted having fired three times at the Esquimaux, and that he replied to M'Kay to let the Indians do as they pleased; also that M'Kay tried to stop them. When asked his reason for his conduct, he said that he feared an ambush.

I can now account for the fright of the two men we saw in the vicinity of Refuge Cove, and consider that we have been most fortunate in not meeting any at the mouth of the river, where they generally muster strong. Had we taken the eastern channel of the river, and met them in force, where, from the narrowness, they would have had every advantage, we might probably have had to fight a great part of the way, if not the whole, to Point Separation, and perhaps not without serious loss.

I do not doubt that they will find means of paying off the score, and make no distinction of whites or Indians, particularly as some of the former were amongst the party, and aiding in the act.

On meeting Mr. Peers and party on their way to the Peel, they did not appear to be in a very prepared condition for resisting any attack, near as they

were to Point Separation. At Mr. Rae's request, communicated by Mr. Peers, I handed over to him all our muskets and ammunition, taking his receipts, instead of carrying them to Fort Simpson, where we should have eventually left them.

I consider that by this unfortunate affair a good opportunity has been lost of establishing a friendship with the Esquimaux, had they been taken on to the fort, instead of so cowardly butchered; for it is evident they came for peace and barter, from the circumstance of their having women with them. Now, as at any time, when we have parties in the vicinity of and even among these people, it is particularly unfortunate, for the affair will soon spread, and the western Esquimaux are a more determined set than any I have yet seen.

Make a cache at Point Separation.

Tuesday, September 10th.—After making a deposit of pemmican of ninety pounds in the same place the former had been buried, we started with the tracking line, keeping the left bank of the river for a short distance, to make up for the downward set of the current in crossing to the opposite bank, and moved on, dividing the crew into parties of four, each taking hourly spells. As the wind was strong against us, we did not get on very fast; but, taking all things into consideration, twenty-five miles a day I consider a pretty fair average; and we reached Fort Good Hope on the morning of the 17th. Here I found a supply of pemmican and flour, together with a few suits of clothing, which were issued to the men as far as they would go. I discharged the Indians who had accompanied us, paying each 120 skins, at the rate of 2s. the skin, and returned a quantity of dried meat. Mocassins we were in want of, for a great part of the supply we had started with was of such inferior leather that a day's tracking would wear them out. Mr. M'Beath had nothing in store but deer-skin, and those very bad. However, we could not go without shoes, so we were obliged to take them; and there being only two Indian women at the place to make them up, it was the 19th before they could get a sufficiency ready for us to start with, so we moved on, and having a passenger, an Indian woman, employed her to keep up the supply.

Arrive at and arrangements at Fort Good Hope. 17th Sept. 1850.

On the morning of the 25th, in a heavy snow storm, we reached Fort Norman, and as the weather continued bad all day I did not go any farther; but the next day proceeded, and on the evening of the 5th of October arrived at Fort Simpson. Chief trader Bell was in charge, who gave us a hearty welcome, and handed to me their Lordships despatch of the 3d of May 1850, acknowledging the receipt of my letter announcing my arrival at this place in October 1849.

Fort Simpson.

Weather.

Tokens of the approach of a speedy closing of all navigation are very rife. Nature has donned her winter garb, for snow is lying thick around us, and the air is getting cold and frosty.

Between the entrance of the river and Fort M'Pherson on the Peel we had a succession of heavy rains, thence on to this snow storms, with very little intermission of fine weather, and a very low temperature, the thermometer on two occasions as low 5°+. All the small streams were hard frozen, with ice in many places driving along shore. In the Bear Lake River it was thick, quite sufficient to check the progress of any boats that might be going in that direction. Many wild fowl were so frozen that they could not take wing as we approached them.

I found stowed here (Fort Simpson) for our use sixteen bags of flour and fifteen of pemmican, which, together with what I got at Fort Good Hope, makes eighteen of the former and twenty of the latter. I also got at Fort Good Hope a few other articles, such as tea, sugar, and biscuit, with a small quantity of wine and brandy (two gallons of each), which Mr. Rae wrote for last year on my first arrival. These are what the company call luxuries; and in a supply of provisions are never considered or sent for men in their employ, and at one time (a short one too) but sparingly for the officers; however, now I believe they are getting a little more liberal with the tea and sugar. On the coast we had but a small supply of any, and that only through Mr. Rae's kindness, it being a portion of his supply remaining. To the want of it, (which to us are indeed necessaries,) together with the badness of much of the provision we had, I attribute all the sickness we were troubled with. For myself, nearly the whole time I was ailing I could hardly ever keep anything on my stomach, and frequently troubled with flux of the worst description; and it was only after

reaching Fort Good Hope, where I got a change or rather an addition of diet, in the shape of biscuit, flour, tea, &c., that I began to amend.

On the 18th of October I sent the steersman with ten men off to the Company's station on the Slave Lake, to pass the winter. Mr. Hooper, the two marines, and myself remaining here. The party for the lake were supplied with pemmican and flour for use, until they could get nets made and in order for service; and as last year they had but little fresh meat, I arranged for their getting an Indian hunter, adding powder and shot to what we brought back in sufficient quantity for the season. At Fort Norman Mr. Rae had left three dogs for our use, which the men took on with them, with permission to get others if actually necessary.

Winter arrange-
ments.

The clothes I found here, together with those at Fort Good Hope, were very short of being sufficient; there was a coat, waistcoat, and trousers, shirt, and handkerchief for each man, but what all most needed was very short; in fact, drawers there were none, and only seven flannels; and as the Company's stores contained none of those necessary articles I was obliged to take white cloth as a substitute, and blanket for wrappers for the feet, in lieu of the socks certainly not adapted to resist the cold of these regions.

I think this is likely to be a severe winter on the coast, from the early setting in of the cold weather, and consider that we were fortunate in getting into the river when we did. The easterly and N.E. winds which prevailed all the time we were at Cape Bathurst continued until the 18th, when it veered round to S.W. by S., and blew a gale; moderated on the evening of the 20th, wind then W. by N., veering round by north; on the 23d was again from the eastward, do., and from the N.E., blowing hard sometimes, until we got into the river. Now, if this gale on the 18th had driven the ice off Cape Bathurst, and we could have got round, we should have been certainly too late to get any distance along the shores of Wollaston Land, even if we had got there at all; and on our return by the way of Bear Lake, come upon Mr. Rae for provision, lost boats and stores, without having done any good.

Concluding
remarks.

I hardly know what to say of the position of the lost voyagers, for I cannot think they are shut up in the supposed archipelago S.W. of Cape Walker, and near Wollaston Land, without some of the Hudson's Bay posts hearing of them; for among so many, and Sir J. Franklin knowing the coast so well, some would be ready to undertake the journey, for the distance cannot be very much more than 500 miles to the nearest post, which is Fort Norman. Even could they once get to Bear Lake, Indians might be found ready to assist them. Again, Esquimaux about the Coppermine, and the coast in its vicinity, hunt on Wollaston Land, and surely, if they had been near about them, or found any traces, Sir J. Richardson and Mr. Rae would have heard of it. I am strongly inclined to think, that after visiting Cape Walker, and not finding the route practicable, they have left memorials, pushed through Wellington Channel, thence westward, and are now shut up, far from land, between Melville Island and Point Barrow. My reason for this is, that Captain Fitzjames has so confidently expressed his opinion of that being the direction to be pursued, a route I think impossible to be accomplished; but if the passage is ever to be made, it will be along shore, and only with vessels not exceeding eight feet draft, less, if possible, would be better. Cape Walker, as well as every other likely place for making deposits of their proceedings, ought to be visited at all events.

I was very confident (at least as far as a man can be from circumstances) on starting for this last trip of being able to go from Cape Bathurst to Banks Land; a thought of its impracticability never entered my mind, but I now consider it an undertaking more than boats can effect, in an ice-encumbered sea, with no certainty of falling on intervening land, for in such cases they ought not to be far off shore. People may talk as they like about there being no swell in these seas, but I have seen quite sufficient to overwhelm any such boat that have yet been employed, and have often been detained in consequence. The ice, too, I have seen in such motion, with even a moderate breeze, as to render the position of any boat dangerous that might be among it; I can only compare it (so to speak) to floating rocks, which would go through a boat like a sheet of brown paper, for, smart as you may be, you cannot always get out of its way.

The expeditions out now appear to be better adapted to ensure success than the former ones, both from their size and nature ; for steam in these seas has great advantage over sailing vessels, therefore the more fitted for it. May God in His great mercy grant them His aid, and bring all home again to their native land !

River closes.

On the 21st of October the ice was driving fast from the Liard, on the 26th it was driving from the upper part of the M'Kenzie, and on the 1st of December all was entirely closed up. This was later than it was last year by four days, but the cold did not commence so early then, or was there so much snow on the ground, when the river set fast. There appears to have been no Indian summer this year.

Voyage to fishery.

On the 20th of October Mr. Miles, one of the clerks, arrived from the Big Island fishery. This gentleman we found here on our arrival, and accompanied the men to the fishery ; he informed me that they had a long and tedious passage up, from the snow lying so deep (making the tracking heavy) and the quantity of ice they had met along shore ; they had been ten days on the voyage, the usual time being only six. His accounts of the fishery was not encouraging, and at a later period, when they met with some success, it was impossible to get the fish down to this post, so that they are very short of the usual supply.

State of fishery.

In the beginning of December I heard from the steersman, who informed me, that not only themselves but the Company's people had been badly off for provision lately, the lake freezing and opening again so constantly that it was impossible to set their nets. He had already lost one net, and had been obliged to get two more pieces of pemmican from store ; they were in better hopes now, as the lake had at last set fast.

Ice makes early to the northward.

On the latter end of January 1850 an express arrived from the northern posts Good Hope and M'Pherson. The river closed up unusually early at Fort M'Pherson on the Peel : all was fast on the 29th of September, and at Fort Good Hope the thermometer in December was down to 50° below zero ; cold weather that !

News from Fort Confidence.

In March I received a letter from Mr. Rae at Fort Confidence, who says, on one occasion the thermometer was down to 72° below zero ; so that those of Captain Austin's squadron who have never experienced an Arctic winter will have a good introduction, as I suppose we may fairly conclude that they, being so much further north, will have equally severe cold. Mr. Rae says it was fortunate I did not winter at Fort Franklin, (as was my intention on leaving him,) as the fish there this winter are very scarce, and the poor Indians in the vicinity are actually starving. He appears to have had hard work himself to feed his men, for at the date of his letter, 17th of February, they were all on short allowance.

Indians.

April 4th, 1851.—The Indians in this vicinity appear to be better off than they were last winter, for as yet only one family have come in starving ; that was in February. Rabbits are coming in season again, for we have had them frequently at our table ; and for some days last month the dog trains were continually going, bringing in deer meat the hunters had killed. On the 30th one came in and announced that he had no less than fourteen deer in cache ; and on 1st April four trains started off to bring them in, and in consequence of the heavy thaws experienced great difficulty in accomplishing their task.

Weather.

The time appears to be fast approaching, and all are looking forward anxiously for the breaking up of the ice, or some change in the monotonous and dreary landscape around us. I can truly say that in the whole course of my existence I have never wished for time to go by quickly so earnestly ; truly the life of a fur trader is not one I should choose. It is now April, and although there has been so many heavy thaws, the season does not appear to be so far advanced as one might expect, or as the last year, for the fine spells have always been followed by severe frost, so that the ground for agricultural purposes is far from being fit for the plough. On the 19th of April we saw the first wild fowl, but cold coming on again they did not remain, it appearing as if they were only the avant couriers of the larger bodies which afterwards passed ; many were shot, making an agreeable change in our fare. Ploughing commenced on the 14th of May, and it was well on for the middle of June before all the crops were fairly in the ground. They consisted of barley,

Wild fowl.

Farming affairs.

potatoes, turnips, and oats for the first time. Last year the ploughing commenced on the 6th of May, and in the first week in June both barley and potatoes were showing above ground.

On the 4th of May the ice from the River Liard made a start three days earlier than it did last year, this time rising higher when moving, and stopping alternately until the 7th; it made a vigorous rush, and soon, from about three miles above Fort Simpson and all down the Mackenzie as far as we could see, was a clear and open channel. Ice moving.

On the 13th May, Mr. Lane, one of the Company's clerks sent in to take charge of Fort Liard, went off for that post; and as the boat was to return I took advantage of the opportunity, and sent Mr. Hooper to obtain the position of the place. On the evening of the 17th the ice from the upper part of the Mackenzie broke up, and came down with a rush; it continued passing in various quantities until the 28th. On the 24th, Chief-trader Bell went off to the northern posts, Forts Norman and Good Hope, to bring their contingent of furs and provisions, the former to go out with the spring brigade. On the evening of the 27th three of the Company's men arrived from Big Island, having left there on the ice on the 30th of April. On their way down the ice broke up, which detained them until the last few days, when the river becoming clear of drifting ice they were enabled to proceed by canoes. From them I heard of our own party; both fish and meat had been very scarce lately (in April), and the men on several occasions were obliged to barter their clothes with the Indians for a meal. Send Mr. Hooper to Fort Liard.

On the 31st of May Mr. Hooper returned; and on the same evening seven of the men arrived from the Slave Lake fishery, so I hope to be able to make an early start for that country we are all anxiously longing to reach. Mr. Hooper returns, and men arrive from winter quarters.

The observations Mr. Hooper obtained at "Fort des Leards" place it in $60^{\circ} 13' 28''$ N., and longitude $123^{\circ} 29' 42''$ W.

The carpenter now commenced on the boat, making good the damages she had received on the coast, while the men were refitting the sails, and handing over all articles to the Company which were not necessary for the voyage through the country, when, on the morning of the 5th June, all was ready to proceed. This was early certainly, but as the river was apparently perfectly free of ice, and I had nothing to detain me longer, rather than wait for the company's boats, which would not start until the 20th, I determined on moving on slowly, and wait for them at the first portage, as we should not be strong enough, unaided, to get our boat over. In the afternoon all about the fort assembled on the bank to see us off, and we once more bid farewell to Fort Simpson. Our means of progress, after reaching the right bank of the river, was, as usual, the tracking line. When towards evening a breeze sprung up from the westward, and we got on a little faster. The breeze was accompanied with rain, and from this time until we got to Big Island (the fishing station on the Slave Lake) it hardly ever ceased. On the 13th we arrived at Big Island, after a passage of eight days; longer than the usual time, certainly, six being the general average; but we experienced much easterly wind. Preparation for departure.

Here I discharged one of the company's men (Gerome Saint George, dit Laport), who had accompanied us to the coast, and on Monday the 16th moved on to cross the lake for Fort Resolution. About 10 o'clock we met the ice, which was lying heavily on the south shores of the lake, extending far out to the north, and completely barring our progress in every direction. We pulled into it, in the hopes of being able to force through; but finding, after struggling with it until 4 P.M., our progress was so slow, that we made for the shore, steering among some narrow lanes to the westward of the main body. On nearing the shore we met two canoes containing an Indian family on their way to the eastward, but had been detained two days by the ice. They were entirely out of provision, and were waiting patiently for an opportunity to proceed. I gave them some dry meat, which they attacked, and were soon laughing and chatting away as if nothing was the matter. We reached the shore at 6 P.M., and found the boat had received some slight injury, for she was making more water than usual; but as there was no place to haul up we were obliged to keep constantly bailing. On Tuesday morning, the 17th, the wind was light from the N.E., when we pulled eastward to a gravelly beach, where the ice appeared clear; and on landing we were enabled to haul our boat up for repair. It was Leave Fort Simpson.

Reach the Slave Lake.

Crossing the Slave Lake.

done soon ; and as there was no appearance of being able to proceed we all lay down to sleep. About 10. there was decidedly a change in the ice, affected apparently by the light N.E. wind which had been for some hours blowing, when we again embarked, pulled for the most open part, and after a great deal of pushing managed to get through into a narrow lane of open water leading along shore. The next day we got clear of the ice entirely, and on the morning of the 20th reached Fort Resolution.

Reach Fort Resolution.

Leave Fort Resolution.

As our steersman was not acquainted with the Slave River or any of the rapids, I determined on waiting for the first brigade of boats ; but finding on Monday the 30th they did not arrive, I went on, hoping that by a slow progress they would soon catch us up.

First portage.

Monday 7th.—We reached Salt River, stopped for a day, and on the evening of the 9th reached the first portage. I could now judge for myself of the possibility of our going up the rapids, without other knowledge than that possessed by our steersman, which I saw was wanting ; and as none of our men had ever been employed in such work before, nor did I consider we were strong enough to haul the boat up the rapids (even if we knew it) or over the portages, I encamped, unloaded the boat, and carried all the cargo across, to be in readiness for the first brigade. Throughout this day we have had easterly winds, with occasional showers of rain ; but in the evening it fell calm, with a heavy down pour, and squalls at times from the westward.

Arrival of the first brigade.

First portage and rapid.

Thursday, July 10th.—About 6. this morning we were awoke up by loud shouting, and on going out saw the first brigade of boats coming up under sail with a strong N. westerly breeze. At half past 6. the first boat landed, and Mr. O'Brien (who was in charge) handed me a letter from Mr. Bell, informing me that Marsellaies, the steersman of the first boat, was an excellent guide for all the rapids, and would take us up. My attention was now directed entirely to the passage, and as I had never been up a rapid before I resolved on going in the first boats, instead of walking across the portage. As soon as Marsellaies' boat was ready, we, in their company, shoved off, pulled across an inshore rapid, and on arriving at the foot of the one we were to go up the two crews disembarked, got the main tracking line on the first boat, and much sooner than I expected got her up the rapid. All then returned for the second (ours,) and she was hauled up in like manner, and with like success.

This rapid is called the Noyé (or drowned rapid), formed by the strong current rushing over a very uneven and rocky bottom, on rather an inclined plane. There are several low rocky islands here in the river, forming many channels ; but the one we took is, I believe, the only one the company's boats use, either in passing up or down. To an experienced person it would be difficult to decide on which channel to take, and to a new hand rather appalling ; but as Marsellaies appeared to be perfectly competent, and was strongly recommended, I felt every confidence, and, notwithstanding the roaring and boiling of the angry stream, I felt the boat was perfectly safe as long as our line held on.

Rapids and portage.

The portage is on the right bank of the river, about a quarter of a mile in length. When as soon as we had got the boats to its S.E. end, and loaded again for starting, the second brigade of boats arrived at the lower end of the fall. Mr. Bell was in charge ; and from Mr. Ross, who accompanied him, I learnt that he had letters for me from Mr. Rae, but as we were ready to proceed I did not wait for them. The next portage was the Pelican, where the rapid was much stronger and more difficult ; however, we got over it safely, but not without shipping some water, the following boats preferring hauling over the land than attempting it. From this we soon reached the Mountain, which in fact is a fall of 10 feet ; but the portage is a narrow strip of high rock, over which we were obliged to haul the boat before we could again proceed. Next followed the Brule, of about 300 yards in length, over which, after unlading, the boats were to be launched ; but it was late when we reached it, therefore the cargoes were only transported, and we encamped at the upper end of it and on the right bank of the river. Weather during the day showery, with squalls of wind from N.N.W.

Friday, 11th.—This morning early the boats were hauled over the portage, which occupied the people at least an hour and a half, when we again embarked, and during the day successively passed the Embarras, Island, and Casette rapids, the second of which was only a narrow and swift run of water, where we had partially to unload the boats, and haul up with the main line.

The Embarras is a narrow and short rapid, but entirely stopped up with drift wood. Hence the necessity of hauling the boats over the land. At the upper end of the Casette we encamped, as the boats were very much rubbed and splintered in hauling over the portages, and required burning. Here we were joined by the other boats of both brigades, all encamping together for the night.

Saturday, 12th.—At 4. this morning we moved on, passing through a very narrow channel, when we soon got into the main river, and at 7. in the evening stopped for the night on the left bank of the river. At 9.35. a lunar eclipse commenced, and soon after I saw to the westward, although very light, a splendid meteor or star fall, when almost immediately Mr. Hooper saw to the N.W. by W. (compass) another more brilliant, which was directly succeeded, and from where the latter fell, by a faint light, or a large star with a comet-like tail; above it, or from the star, was a very narrow serpentine train of light very much resembling a thread of small beads, something of this shape—

Lunar eclipse and meteor to N.W.



A dark night would have shown it more distinctly; its elevation was about 20°, and was visible for about half an hour. The next night I looked for it again, but not seeing anything, although several stars were visible, concluded it was nothing more than a meteor or fire ball.

Weather, &c.

The weather is now intensely hot, the thermometer at noon standing at 104° in the sun, and under a black handkerchief as high as 112°; this, with the accompaniment of mosquitoes, is not very pleasant, or do we get much rest during the night.

At 5.30., on the morning of the 14th, we entered the "River de Rocher" (which leads into the Athabasca Lake), at the junction of the Slave and Peace Rivers; and about 3. p.m. entered the Athabasca Lake, steering eastward through an archipelago of islands; at 5. we landed at Fort Chipewayan.

At this post we remained all the next day, for the express purpose of giving the men a rest, but from the inordinate fondness for dancing which all the people of the country seem possessed of, it is greatly neutralized, for when they once begin there is no knowing when they will leave off, and many of the men showed consequence of it on again embarking.

This station is the largest of the company's establishments we have yet seen; is situated on an island, its south point, and on a very rocky foundation. From it you have a most delightful view of the lake, which is studded with islands, well earning its Indian name of Lake of the Hills, from their hilly appearance. The soil about the fort is rocky, but on the lower land is light and sandy, where I saw some potatoes growing. On another island (where now are the ruins of a station occupied in the days of the two companies) is a good garden, with other vegetables besides potatoes.

Wednesday, 16th.—Mr. Bell, with three boats, went off early this morning, and as I was not so anxious about leaving, or wishing rather to give my men as much rest as possible, for they really have heavy work, and in a broiling hot sun, with the mosquitoes so troublesome at night that it is almost impossible to get any sleep, I did not think of leaving until after breakfast. Having to provide provision for a longer period than would occupy as to the portage "La Loche" (on Methy Portage), I took from this three bags of pemmican; and at 11, with five other boats, shoved off. Four of these were of the second brigade, the fifth was of the first, but Marsellaie steered her, and as we required his services in the rapids, he of course kept with us. We left with a fair wind, which soon carried us across the lake to the entrance of a narrow and long channel, called the "Embarras," which would considerably lessen our distance

Leave Fort Chipewayan.

Cross the Athabasca Lake.

to the Athabasca River, than if we were obliged to round the more easterly islands. The entrance of this channel was rather difficult of access from shoal-water, which we heard at the fort was extraordinarily so, but with a little management and good pilotage we got snugly into it, made a good day's progress, and the next day in the afternoon, Thursday the 17th, got into the

Athabasca River.

Athabasca River.

Embarras Channel.

The "Embarras" in no place exceeds 100 yards in breadth, and with a slack current, makes it preferable as a route to the main river, where the current is very strong. Its banks in places are steep, and, like the Slave River, thickly clothed with willow and poplar, some of the latter very large. The waters are abominably dirty, so that we get a pretty good share of mud in our drink, never allowing it sufficient time to settle.

Deer killed.

Friday, 18th.—It was 4. this morning before we moved on, 3. or half past 2. previously having been the general time. The weather still continues very hot, with our particular friends, mosquitoes, as troublesome as ever. With any thing of a breeze, Marsellaies' boat and ours generally ran away from the others, and to-day, as we have been favoured, made the most of it, leaving the others far astern, and did not see them again until the morning of the 20th, when we stopped to cut up a deer one of the Indians had shot when in the act of crossing the river. This was a most acceptable prize, particularly as the pemmican last opened, which was received at Fort Chippewaw, was not good; in fact unfit for use. A small portion of our prize was given to the second brigade. When after breakfast we again proceeded. In the afternoon we stopped at the pitch springs; filled up the casks; again moved on until half past seven, when we encamped for the night, and were soon joined by the second brigade of boats.

Pitch springs.

These pitch springs issue from the face of a hill (on the right bank of the River Athabasca), and about a couple of hundred yards from the water. There are several others in the river; but it is from these the company get their supplies for the use of boats, &c. They occupy a space on the surface of about nine feet square. From the upper or higher part, the pitch issues clear and pure in a narrow stream, mixing up at the bottom or lower part with mud and sand in a thick mass, which is what the kegs are filled with, and purified by boiling.

Clear Water river.

At a quarter after 5. of the afternoon of the 21st we reached the junction of the Clear Water River with the Athabasca, turned into the former, and encamped at its mouth.

The Bonneportage.

On the afternoon of the 24th we reached the Cascade Portage. Here the boats were cleared of every thing and taken up the rapid, which was very shallow, consequently taking a long time to perform the service. The men then had to return and carry the goods, so that it was late before we reached the next portage (the Bonne). This portage is the longest we have yet had, being about $1\frac{1}{4}$ mile over; but finding here several Indians encamped, with horses for hire, I secured a number for taking the things of the party over. The boats were now perfectly light. However, from the rapid being very shallow and long, it was almost dark before they got the boat up, and encamped for the night. About 1. this afternoon we were joined by two men from the Portage "La Loche" brigade. They informed us provisions were very short at the portage, and that Isle à la Crosse, the first post on the route after leaving it, was deficient of any supplies. This was not very encouraging, for the provisions of my party was nearly exhausted.

Accounts from Portage "La Loche."

Portages and rapids.

25th July.—This morning we moved on about the usual time, and in something less than an hour reached the Bigstone Portage, a short one, where only the goods were to be carried, the boats going up the rapid by line. The next was the Pine Portage; rather a longer one, but passed in the same manner as the last. When at 7 P.M. we reached the Terre Blank, or white mud, which is the last before reaching the long Portage "La Loche." Here we were obliged to take every thing across, boats as well as goods, which took us quite until dark before the job was accomplished. However, the boats were loaded again, to be ready for an early start the next morning. The Terre Blank is a succession of falls passing between steep precipices, from which we got a view, as well as a good wetting from the long damp grass.

The second brigade arrived before we had completed the transit of our boats.

26th July.—Started at 4. this morning, and at noon reached the long-desired Portage La Loche. Portage “La Loche” (or Methey), and received from Mr. Ross (who had preceded us) a parcel of letters from dear home, which had been long most anxiously looked for. Here I learnt that a canoe was on the route from Montreal with letters, and from the Red River three boats with provisions for the expedition.

Many were the conjectures respecting these three boats, fancying they might be conveying orders to me for a further search, and that we might again be destined to another grievous disappointment. However, there was no help for it.

Our boat was now cleared of every thing; and she had all her stores handed over to Mr. Bell, and our things prepared for transportation to the other end of the portage to-morrow. L’Esperance, the person in charge of the brigade there, had arrived four days ago, and nearly completed the discharge and transport of his cargoes to the middle of the portage. During the evening and great part of the night much rain fell; a common occurrence here at this season.

27th July.—Part of our goods were taken over the portage this day on horses, the men accompanying them, Mr. Hooper and self also, and we reached the eastern end, where L’Esperance was encamped, about 6 P.M. Midway, I found all the goods for the Mackenzie River district which L’Esperance had brought in with his brigade. As we were so short of provision, I took a bag of flour for the party.

Portage “La Loche” is the longest of any, and called by the company’s people 11 or 12 miles, but I do not think it so much; nine, I should say, was the longest. After ascending a steep hill on the Clear Water River side, the road gradually descends to the eastward to “Lac la Loche,” passing through a thickly wooded country, over a light sandy soil. In fact it is the height of land; all waters sunning north of it running to the Arctic Ocean; south to the Atlantic.

30th July.—This morning L’Esperance commenced the lading of his brigade of five boats, and as I intended accompanying him, the men were divided among them. When at 11. we proceeded; and on the 1st of August, at 2 P.M., reached “Isle à la Crosse.” As provisions were here very scarce, I got a bullock, which was immediately slaughtered, divided amongst the boats, and we again started.

On the morning of the 7th of August we met the Athabasca brigade of four boats, and landed with them to get the news. Messrs. Dechambeau and Boucher were in charge, with Mrs. and Miss Lane passengers. From them we heard that Mr. Anderson was close at hand, with the three boats we had been so anxiously looking for. After half an hour we moved on again, and in a short time fell in with Mr. Anderson with four boats, stopping at the old fort of the Rapid River. We pulled across to them (as we were keeping the opposite shore); landed, and breakfasted all together. From Mr. Anderson, who is going in to take charge of the Mackenzie River district, I learnt that three of his boats were laden with flour and pemmican, to be placed in depôt at the several posts in the Mackenzie District likely to be visited by any of the searched for or searching parties, improbable as the former appears to be. Mr. Anderson also told me that Manuel, the man who acted so conspicuous a part in the massacre of the Esquimaux at Point Separation, has been ordered to Canada for trial.

At 8.40. we again proceeded; and at 8 A.M. on the 18th of August arrived at Norway House. Here we remained until 6. in the evening, when L’Esperance shoved off. Arrived at Oxford House early on the morning of the 23d, and at York Factory the morning of the 28th. The Hudson’s Bay Company’s ship was lying in the roads. We embarked on the 7th of September, sailed on the 9th, and on the 4th of October the ship entered the East India Docks, and my men were removed to H.M. Ship “Crocodile” off the Tower.

Embark, and arrive
in England
4th Oct. 1851.

W. J. S. PULLEN*, Commander R.N.

* For Lieut. Hooper’s Journal, see page 148.

No. 3.

The SECRETARY OF THE ADMIRALTY to Commander PULLEN.

Sir,

Admiralty, 2d June 1851.

I HAVE received and laid before my Lords Commissioners of the Admiralty your letter of the 29th October last, dated from Fort Simpson, reporting your proceedings, and I am commanded by their Lordships to acquaint you that they are satisfied with the exertions made by you and the party under your orders to carry out their Lordships instructions, although prevented by insuperable and unlooked for obstacles.

I am, &c.

W. A. B. HAMILTON.

No. 4.

Commander PULLEN to the SECRETARY OF THE ADMIRALTY.

Sir,

Ship Hotel, Charing Cross, 3d October 1851.

I HAVE the honour to report to you for the information of their Lordships of the Admiralty my arrival in England. I left Fort Simpson on the 5th of June 1851, and reached York Factory on the 28th of August. On the 7th September we embarked in the Hudson's Bay Company's ship "Prince of Wales," sailed on the 8th, cleared Hudson's Bay and Straits under most favourable circumstances on the 18th, and yesterday passed through the Downs. I landed at Deal, and made the best of my way to London, and beg that their Lordships will be pleased to inform me where my men are to be placed.

The ship it is likely will reach the East India Docks to-morrow, when I hope shortly to lay before their Lordships my journal of my last trip on the coast in full detail, together with such observations as I have been able to make.

In conclusion, I am happy to state that Mr. Hooper's exertions in the service I have been engaged in has been most praiseworthy, as well as that of my boats crews, whose names I herewith enclose.

I have, &c.

W. J. S. PULLEN.

John Hemmet, Sailmaker.

John Robinson, A.B.

Wm. Salmon, Captain Coxswain.

Jas. Tullock, A.B.

Jas. Whaley, A.B.

Wm. M'Carthy, A.B.

Thos. Mellish, A.B.

R. Tullock, Royal Marines.

Wm. Seymour, A.B.

J. Herd.

No. 5.

Commander PULLEN to the SECRETARY OF THE ADMIRALTY.

Sir,

16, Buckingham Street, Adelphi, 16th October 1851.

I BEG to forward for their Lordships inspection copies of a letter and enclosures I received while crossing the Lac "la Loche" (or Methy Lake) from Sir George Simpson, the Governor in Chief of the Hudson's Bay territories.

On the subject of reports relative to ships and white men having been seen to the northward, I have appended a few remarks, and in conclusion beg to say, I think many of these reports have arisen from an anxious desire to gain information. Again, the Esquimaux at that time were fully aware of what the parties wished, and knowing that rewards were to be obtained for any information, have given great stretch to their imaginations.

All information I got from them I found correct; they then knew nothing of what we were in search of, always expressing great surprise and astonishment in speaking of ships; but from the hope of having their natural cupidity gratified is the only way (other than misinterpretation) in which I can account for these stories.

The accompanying circular chart will show my idea of the course of the Youcan.

I have, &c.

W. J. S. PULLEN, Commander R.N.

Enclosure in No. 5.

Sir GEORGE SIMPSON to Commander PULLEN.

Sir,
Hudson's Bay House, Lachnie, 10th May 1851.
Late last night by the arrival of the Anjou mail, I received a letter from Captain Collinson of Her Majesty's ship "Enterprise," dated Sitka, 12th November 1850, conveying information relative to his proceedings and those of other searching expeditions, which he begs me to acquaint you with.

I lose no time in forwarding a copy of Captain Collinson's letter, which I shall send on to the Sault St. Marie with all possible expedition, in hopes it may there catch the Company's canoes, which left here on the 3d instant, but should they have passed I shall direct that this letter to be sent on by express until it overtakes them. I write in great haste, and have the honour to be, Sir,

Your most obedient servant,
G. SIMPSON.

No. 6.

Commander PULLEN to the SECRETARY OF THE ADMIRALTY.

16, Buckingham Street, Adelphi,
20th October 1851.

Sir,
As I have now handed in my journal in full detail of my last trip to the Arctic coast (in addition to the former one) in search of the missing voyagers, and though I have been unfortunately unsuccessful, yet I hope that their Lordships are satisfied with our exertions to carry out their orders, and although we were a small party, I trust their Lordships will not consider us unworthy of their approbation.

In reference to either of my journals, I think their Lordships will perceive that we have not been without our share of hardship and privation, and that with the slightest possibility of doing we have never been inactive, nor shrunk from any dangers or difficulty that we have met with.

I have, &c.
W. J. S. PULLEN.

No. 7.

The SECRETARY OF THE ADMIRALTY to Commander PULLEN.

Sir, Admiralty, 21st October 1851.

HAVING received and laid before my Lords Commissioners of the Admiralty your letter of the 20th instant, I am commanded by their Lordships to convey to you their approval of your services and conduct during the overland expedition on which you have been employed, an approval which my Lords have much satisfaction in conveying to you; and you are also to express to Lieutenant Hooper, and the men under your command, their Lordships satisfaction at having received reports of their perseverance and good conduct in the performance of the above service.

I am, &c.
J. PARKER.

VI.

Proceedings of Her Majesty's Ship "Enterprise," Captain Collinson, C.B.

No. 1.

Captain COLLINSON to the SECRETARY OF THE ADMIRALTY.

Her Majesty's Ship "Enterprise," at Atooi,
23d December 1850.

(Received 20th June 1851.)

Sir,
I HAVE the honour to acquaint you, that after leaving Port Clarence on the 14th of September I proceeded to the north, and obtained sight of Icy Cape on the 22d. A gale of wind from the N.W. on the 23d reduced the temperature to 16°, and the ship became very uneasy in consequence of the quantity and weight of ice forming on her bows and spongings. We were, however, favoured by a slant of wind, which enabled us to get off shore, and then, seeing that

it was impossible to remain any longer in this latitude without encountering serious risk, I fell back upon Cape Lisburne and Point Hope, where we remained until the 30th, experiencing very bad weather, and never having the thermometer above 25°. Feeling assured that our consort must now be shut in for the winter, and that it would be impossible for any boats now to make their way, I returned to Port Clarence, which we reached on the 2d of October. I found that the "Plover" had in the meanwhile been frozen in, the winter having set in this year three weeks earlier than it did last in Kotzebue Sound.

A thaw enabled us to complete our water, and supply the "Plover" with some additional warm clothing. Captain Moore informed me that a party of natives who visited the "Plover" had informed him that a vessel had arrived at a place called Noo-wok, some distance to the eastward of Point Barrow; that she was destroyed by the ice, and the people starved, and a number of whom are represented to have been lying on the shore. They also reported that the vessel had three masts, and the wreck had taken place on the breaking up of the ice in the spring of 1849. Feeling that an attempt might be made to reach the Polar Sea through the Russian posts communicating with Michaelowski, I availed myself of the offer of Lieutenant Barnard, and determined on proceeding to Norton Sound for the purpose of landing him. Bad weather and unfavourable winds prevented our reaching this place until 5 p.m. on the 12th, and on landing at the fort I found every disposition on the part of the Governor to afford us every assistance, and he immediately placed a portion of his own limited accommodation at Lieutenant Barnard's disposal.

Understanding that the post of Michaelowski is much visited by natives from the north during the winter, it appeared to me advisable that some person should remain here for the purpose of obtaining information; I have therefore also left there, Mr. Adams (assistant surgeon), and Thomas Cousins, (captain maintop), who was with Sir John Richardson in 1848, and who is therefore acquainted with the navigation of rapids and accustomed to Arctic travelling.

By midnight we had landed the party, together with seven months provisions, and I weighed immediately, as the anchorage is much exposed, and would not warrant my remaining any longer than was absolutely necessary. The next morning being fine we ran in, and again communicated, leaving our party as ably equipped as our means would afford.

In the event of this expedition proving futile, the value and importance that these officers will afford to this ship, by having in some measure acquainted themselves with the language, will, I trust, be a sufficient reason to their Lordships for the step I have taken in detaching them.

We also received information from a post in the interior that five Europeans and an officer had been seen by some natives, but the difficulty of communicating with the Russians rendered the information vague.

As I understood from Captain Killest that the recent Governor of Michaelowski had proceeded to Sitka, and wishing to obtain all the geographical information relative to the Russian posts on these rivers, I proceeded to that place, passing through the straits of Oorrewak on the 21st of October, and arriving at Sitka on the 2d of November. Here I was fortunate in finding that Captain Tebenkorf, who had been just relieved as governor general by Captain Rosenberg, had not left the colony, and he immediately placed all the information which a long residence in these seas had enabled him to collect before me, by which it is evident that the Russian Government have no post on any river emptying itself into the Arctic Sea. From Captain Rosenberg, the present governor general, I received the most liberal supplies in potatoes and beans; he also killed one of five bullocks, which were all the colony contained; and having supplied us with spars, plank, and fuel, for all of which he would accept no payment, has conferred a lasting obligation on the expedition, for which I cannot express myself too grateful; he also informed me that he has sent orders to Kodeak to have eighteen Aleutians and nine skin boats forwarded early next year to Michaelowski, the whole of whom are to be placed at Captain Moore's disposal should he require them, either as hunters or to explore; so that in the event of their Lordships wishing the "Plover" to proceed to sea, she will be enabled to leave these men in charge of the depôt at Grantley Harbour, and have a sufficient crew for working the vessel.

and I have also to acquaint you, for the information of their Lordships, that a Russian vessel annually leaves Sitka for the northern ports in the month of April or May, and that by forwarding despatches through the Hudson's Bay Company they would reach the "Plover" in the month of July, and that any stores or provisions they may conceive it necessary to send to that vessel could be embarked in the Russian company's ship which leaves London every year in the spring, and would reach their destination about midsummer of the following year.

I also availed myself of the Hudson's Bay Company's steam vessel, the "Beaver," to transmit to Sir George Simpson the information that the "Investigator" is most likely wintering on the shores of the Polar Sea, and an abstract of the native information procured by Captain Moore from the natives relative to white men and ships having been seen there, with a request that he would immediately forward the same to Commander Pullen.

After leaving Sitka on the 14th of November we experienced a great deal of heavy weather, and finding that on the 13th instant we were only in the meridian of the Sandwich Islands, and in latitude 28° N., I determined on visiting one of them, for the purpose of obtaining fresh beef and vegetables, and by this break in the voyage render the appearance of the scurvy less probable; accordingly I reached this port yesterday morning, and having completed our water and obtained fresh provisions, which will be done before the end of the week, I shall then proceed to Hong Kong, where I hope to arrive early in February.

I have the honour to enclose a statement of the provisions on board the "Plover," a copy of the orders to Lieutenant Barnard, and an abstract of the native reports relative to white men and ships having been seen on the shore of the Polar Sea, obtained by Commander Moore of the "Plover."

I have, &c.

Rd. COLLINSON, Captain.

No. 2.

ABSTRACT of the INFORMATION obtained by Commander MOORE relative to WHITE MEN and SHIPS having been seen by NATIVES in the POLAR SEA.

The natives of Buckland River in Kotzebue Sound report, that some northern people, who had been trading with them, say that two vessels, answering to the description of the "Erebus" and "Terror," had been boarded by natives inhabiting the coast to the eastward of Point Barrow about the latter end of the summer of 1848, whilst they were working to windward against a westerley wind. After they had been on board some time the water began to shoal, when the ships went about and stood to the northward, after which they were not seen.

Kotzebue Sound,
11th November
1849.

Reports that two officers and eight men had been on a river named the Ek-ko (which is within 35 days of the Michaelowski Redoubt), in April 1848, and that they were in a very distressed state, having bartered guns and ammunition for provisions.

Mr. Pym at Mi-
chaelowski Re-
doubt, March
1850.

The natives of Hotham Inlet reported, that four stranger natives had arrived from the northward, who had told them that there were some white people at a place called Ko-puk, which is apparently near to Point Barrow, where they were building a vessel.

Hotham Inlet,
4th March 1850.

Four natives from the north visited the Plover in Kotzebue Sound, having come from the vicinity of the river No-a-tok, one of whom reported that he fell in with a party of natives, who told them that there was a vessel and a number of white men a long way to the north with whom they had bartered knives; he also produced the wooden model of a knife he had seen in the possession of these people, marked with the letter L.

Kotzebue Sound,
1st May.

The natives of Point Barrow report, that a number of people, dressed like ourselves, had arrived at a river called the Kopuk; that they were now dead, and buried by the natives there.

Point Barrow,
27th July 1850.

The natives here reported, that two boats had arrived at the Kopuk; that the crews had quarrelled with the natives, who shot them with arrows and

Wainwright Inlet,
5th August 1850.

stabbed them with knives; one of the two boats was still at the Kopuk, but the other was driven away by the sea.

Port Clarence,
18th Sept. 1850.

Some natives visited the "Plover" yesterday, and brought information that a vessel had arrived at a place called Noo-wok, which is some distance to the east of Point Barrow; that she was destroyed by the ice, and the people starved, a number of whom are represented to have been lying on the shore. From what I am able to understand, it would appear that this vessel, which they report to have three masts, must have been wrecked on the breaking up of the ice in the spring of 1849.

RICHARD COLLINSON.

LIST of the Quantity of PROVISIONS remaining on board Her Majesty's Ship
" PLOVER " 29th September 1850.

Bread	-	-	-	-	-	26,499 lbs.
Spirits	-	-	-	-	-	1,034 gallons.
Salt Beef	-	-	-	-	-	1,637 8 lb. pieces.
Salt Pork	-	-	-	-	-	3,575 4 lb. pieces.
Flour	-	-	-	-	-	27,950 lbs.
Suet	-	-	-	-	-	1,849 lbs.
Peas	-	-	-	-	-	18 bushels.
Oatmeal	-	-	-	-	-	13 bushels.
Sugar	-	-	-	-	-	971 lbs.
Chocolate	-	-	-	-	-	2,723 lbs.
Tea	-	-	-	-	-	650 lbs.
Vinegar	-	-	-	-	-	264 gallons.
Rice	-	-	-	-	-	872 lbs.
Lemon Juice	-	-	-	-	-	1,550 lbs.
Preserved Meats	-	-	-	-	-	21,126 lbs.
Soups	-	-	-	-	-	980 pints.
Vegetables	-	-	-	-	-	1,128 lbs.
Pemmican	-	-	-	-	-	1,797 lbs.
Pickles	-	-	-	-	-	290 lbs.
Tobacco	-	-	-	-	-	3,160 lbs.
Soap	-	-	-	-	-	2,510 lbs.

(Signed) JOHN J. LINDSAY,
Clerk in Charge.

No. 3.

Captain COLLINSON to Lieutenant BARNARD.

By Richard Collinson, Esquire, C. B., Captain of H. M. S. "Enterprise,"
commanding the Arctic Searching Expedition.

As it appears to me desirable that the reports relative to white men having been seen on the shores of the Polar Sea should be thoroughly investigated, and you having volunteered your service, as well as Mr. Adams, assistant surgeon, to prosecute this inquiry through the Russian posts in Norton Sound, it is my intention to land you both, with Thomas Cousins, A. B., provisioned for seven months, at Michaelowski. By information obtained from Commander Moore, it appears that the latter place is greatly resorted to by native tribes who maintain a traffic along the coast to Point Barrow; it will therefore be desirable that one, if not two, of the party should remain at that place, while the others are proceeding to the posts in the interior, where it will be readily ascertained from the nature of the furs brought for barter, whether a communication is maintained with the Polar Sea, and if such should be the case, you will endeavour to obtain the number of days such a journey is performed in, whether the intermediate country is occupied by one or several tribes, and the feasibility of a party reaching the Polar Sea by this route in the ensuing summer.

In the event of obtaining any palpable information of the missing expedition you will endeavour to establish a communication with them, affording them

information as to the deposits of provision midway between Cape Smyth and Refuge Inlet as well as on the third Seahorse Island from the north; but unless you have the means at your command, either through the natives or the Russian authorities, of conveying provisions, you will be careful not to add distress to a famishing party by joining it. The Hudson's Bay servants being sufficiently on the alert to make every inquiry throughout their territory, there will be no object gained by your resorting to any of their posts; but if means of exchanging information are to be had, you will endeavour to ascertain the result of Commander Pullen's expedition this year. During the winter you will lose no opportunity of communicating the information you may from time to time acquire to Commander Moore, and in the course of the month of May you will repair to the "Plover" in Grantley Harbour, bringing with you, if possible, an interpreter acquainted with the dialect used to the northward.

Given under my hand on board H.M.S. "Enterprise," Norton Sound,
12th October 1850.

(Signed) R. COLLINSON, Captain.

No. 4.

Captain COLLINSON to the SECRETARY OF THE ADMIRALTY.

H. M. S. "Enterprise,"

Hong Kong, 23d February 1851.

Sir,

I HAVE the honour to acquaint you that Her Majesty's ship under my command arrived here on the 16th instant, after a passage of forty-six days, from the Sandwich Islands, and that it is my intention, after having recruited my crew and replenished my provisions, to proceed hence to the northward, in execution of their Lordships instructions, on the 1st of April.

Enclosed is a duplicate of the letter I transmitted from Hanalac Bay in the latter end of December, containing an account of my proceedings up to that period, and I have now the gratification of informing their Lordships that the means taken for avoiding the scurvy have perfectly succeeded, and that the ship's company are in a good condition for active service.

I have, &c.

R. COLLINSON, Captain.

Captain COLLINSON to Lieutenant BARNARD.

By R. Collinson, Esq., C.B., Captain of Her Majesty's Ship "Enterprise,"
commanding the Arctic Searching Expedition.

As it appears to me desirable that the reports relative to white men having been seen on the shores of the Polar Sea should be thoroughly investigated, and you having volunteered your services, as well as Mr. Adams (assistant surgeon), to prosecute this inquiry through the Russian posts on Norton Sound, it is my intention to land you both, with Thomas Cousins (A.B.), provisioned for seven months, at Michaelowski.

By information obtained from Commander Moore it appears that the latter place is greatly resorted to by native tribes, who maintain a traffic along the coast to Point Barrow. It will be desirable that one, if not two, of the party should remain at the place, while the others are proceeding to the posts in the interior, where it will be readily ascertained from the nature of the furs brought for barter, whether a communication is maintained with the Polar Sea, and if such should be the case, you will endeavour to ascertain the number of days the journey is performed in, whether the intermediate country is occupied by one or several tribes, and the feasibility of a party reaching the Polar Sea by this route in the ensuing summer.

In the event of your obtaining any palpable information of the missing expedition you will endeavour to establish a communication with them, affording them information as to the deposits of provisions, midway between Cape Smyth and Refuge Inlet, as well as on the third Seahorse Island from the north; but

unless you have the means at your command, either through the natives or the Russian authorities, of conveying provisions, you will not add distress to a famishing party by joining it.

The Hudson's Bay servants being sufficiently on the alert to make every inquiry throughout their territory, there will be no object gained by your resorting to any of their posts; but if means of exchanging information are to be had, you will endeavour to ascertain the result of Commander Pullen's expedition this year.

During the winter you will lose no opportunity of communicating the information you may from time to time acquire to Commander Moore, and in the course of the month of May you will repair to the Plover in Grantley Harbour, bringing with you, if possible, an interpreter acquainted with the dialect to the northward.

Given under my hand, on board Her Majesty's Ship "Enterprise," Norton Sound, 12th October 1850.

(Signed) R. COLLINSON.

No. 5.

Captain COLLINSON to the SECRETARY OF THE ADMIRALTY.

Her Majesty's Ship "Enterprise," Hanalae Bay, Atooi,
23d December 1850.

Sir,

I HAVE the honour to acquaint you, that after leaving Port Clarence on the 14th of September I proceeded to the north, and obtained sight of Icy Cape on the 22d. A gale of wind from the N.W. on the 23d reduced the temperature to 16°, and the ship became very uneasy in consequence of the quantity and weight of ice forming on her bows and spongings; we were, however, favoured by a slant of wind, which enabled us to get off shore; and then, seeing it was impossible to remain any longer in this latitude without encountering serious risk, I fell back upon Cape Lisburne and Point Hope, where we remained until the 30th, experiencing very bad weather, and never having the thermometer above 25°. Feeling assured that our consort must now be shut in for the winter, and that it would be impossible now for any boats to make their way, I returned to Port Clarence, which we reached on the 2d of October. Here I found that the "Plover" had in the meanwhile been frozen in; the winter having set in, this season, three weeks earlier than it did last year in Kotzebue Sound.

A thaw enabled us to complete our water, and supply the "Plover" with some additional warm clothing.

Captain Moore informed me that a party of natives who visited the "Plover" had informed him, that a vessel had arrived at a place called Noo-wok, some distance to the east of Point Barrow; that she was destroyed by the ice, and the people starved, a number of whom are represented to have been lying on the shore; they also reported that the vessel had three masts, and the wreck had taken place on the breaking up of the ice in the spring of 1849.

Feeling that an attempt might be made to reach the Polar Sea through the Russian posts communicating with Fort Michaelowski, I availed myself of the offer of Lieutenant Barnard, and determined on proceeding to Norton Sound for the purpose of landing him. Bad weather and unfavourable winds prevented our reaching that place until 5 P.M. on the 12th; and on landing at the fort I found every disposition on the part of the governor to afford us assistance; he immediately placed a portion of his own limited accommodation at Lieutenant Barnard's disposal. Understanding that the port of Michaelowski is much visited by natives from the north during the winter, it appeared to me advisable that some person should remain here for the purpose of obtaining information; I have therefore also left there Mr. Adams (assistant surgeon), and Thomas Cousens (captain of the main top), who was with Sir J. Richardson during the expedition down the Mackenzie in 1848, and is therefore acquainted with the navigation of rapids and accustomed to arctic travelling. By midnight we had landed the party, together with seven months provisions, and I immediately weighed, as the anchorage is much exposed and

would not warrant my remaining any longer than was absolutely necessary. The next morning being fine we run in, and again communicated, leaving our party as ably equipped as our means could afford. In the event of this expedition proving futile, the value and importance that these officers will afford to this ship, by having in some measure acquainted themselves with the language, will, I trust, be a sufficient reason to their Lordships for the step I have taken in detaching them.

We also received information from a post in the interior that five Europeans and an officer had been seen by some natives, but the difficulty of communicating with the Russians rendered this information vague. As I understood from Captain Kellett that the recent governor of Michaelowski had proceeded to Sitka, and wishing to obtain all the geographical information relative to the Russian posts on these rivers, I proceeded to that place, passing through the Straits of Onemak on the 21st of October, and arriving at Sitka on the 2d of November. Here I was fortunate in finding that Captain Tebenkorf (who had just been relieved as governor general by Captain Rosenberg) had not left the colony, and he immediately placed all the information which a long residence in these seas had enabled him to collect before me, by which it is evident that the Russian Government have no post on any river emptying itself into the Arctic Sea.

From Captain Rosenberg (the present governor general) I received the most liberal supplies in potatoes and beans. He also killed one out of five bullocks, which are all the colony contains; and having supplied us with spars, plank, and fuel, for all of which he would accept no payment, has conferred a lasting obligation on the expedition, for which I cannot express myself too grateful. He also informed me that he has sent orders to have eighteen Aleutians and nine skin boats forwarded early next year to Michaelowski; the whole of whom are to be placed at Captain Moore's disposal should he require them, either as hunters or to explore; so that in the event of their Lordships wishing the "Plover" to proceed to sea, she will be enabled to leave these men in charge of the depôt in Grantley Harbour, and have a sufficient crew for working the vessel.

I have also to acquaint you, for the information of their Lordships, that a Russian vessel annually leaves Sitka for the northern ports in the months of April or May, and that by forwarding despatches through the Hudson's Bay Company, who are in frequent communication with Sitka, they would reach the "Plover" in the month of July; and that any stores or provisions they may conceive it necessary to send to that vessel could be embarked in the Russian Company's ship which leaves London every year in the spring, and would reach their destination about midsummer of the following year.

I also availed myself of the Hudson's Bay Company's steam vessel, the "Beaver," to transmit to Sir George Simpson the information that the "Investigator" is most likely wintering on the shores of the Polar Sea, and an abstract of the native information procured by Captain Moore from the natives relative to white men and ships having been seen there, with a request that he would immediately forward the same to Commander Pullen.

After leaving Sitka, on the 14th of November, we experienced a great deal of heavy weather; and finding, on the 13th instant, we were only in the meridian of the Sandwich Islands, and in latitude 28° N., I determined upon visiting one of them, for the purpose of obtaining fresh beef and vegetables, and by this break in the voyage render the appearance of the scurvy less probable. Accordingly I reached this post yesterday morning; and having completed our water and obtained fresh provisions, which will be done before the end of the week, I shall then proceed to Hong Kong, where I hope to arrive early in February.

Enclosed is a copy of Lieutenant Barnard's orders.

I have, &c.

RICHARD COLLINSON.

No. 6.

Captain COLLINSON to the SECRETARY OF THE ADMIRALTY.

Her Majesty's Ship "Enterprise," Hong Kong
29th March 1851.

(Received 26th May.)

Sir,

I HAVE the honour to inform you that it is my intention to proceed from here to the Bonen Islands on Wednesday next, and having procured there as much fresh provisions as the ship will stow, I shall make the best of my way to Port Clarence. After communicating with Captain Moore, and receiving on board Lieutenant Barnard and his party, the "Enterprise" will endeavour to reach Point Barrow as soon as possible, and then penetrate to the north-east, in prosecution of their Lordships instructions.

In the event of its being Commander Moore's opinion that the stores and provisions which the "Plover" cannot stow could be left in charge of a small detachment from that ship, assisted by the Aleutians which the Governor General of Russian America has sent to Michaelowski to co-operate in the search after the missing expedition, I shall direct him (so soon as he has made the necessary arrangements for the protection of the party and care of the stores) to leave the "Owen" (the decked pinnace of the "Herald") in Grantley Harbour, and proceed in the "Plover" to Point Barrow, where he will place the ship for the winter, should a suitable place be found.

Enclosed is an account of the provisions on board this ship.

I have, &c.

RICHARD COLLINSON.

QUANTITY of PROVISIONS on board Her Majesty's Ship "ENTERPRISE,"
29th March 1851.

Species.	Quantities.	Denomination.
Bread - - -	29,402	Pounds.
Spirits - - -	2,510	Gallons.
Wine, Red - - -	—	—
„ White - - -	—	—
Beef - - -	1,647	8 lb. Pieces.
Pork - - -	4,631	4 lb. Pieces.
Flour - - -	59,515	Pounds.
Suet - - -	1,481	„
Currants - - -	336	„
Peas - - -	104	Bushels.
Oatmeal - - -	14	„
Sugar - - -	12,470	Pounds.
Chocolate - - -	4,976	„
Tea - - -	1,240	„
Vinegar - - -	276	Gallons.
Tobacco - - -	3,716	Pounds.
Lemon Juice - - -	5,187	„
Soap - - -	2,808	„
Preserved Meats - - -	33,215	„
„ Soups - - -	4,058	Pints.
„ Vegetables - - -	13,927	Pounds.
Pickles - - -	4,380	„
Mustard - - -	347	„
Pepper - - -	74	„
Fruit - - -	495	„
Scotch Barley - - -	1,469	„
Rice - - -	224	„

R. COLLINSON.

No. 7.

Captain COLLINSON to the SECRETARY OF THE ADMIRALTY.

Her Majesty's Ship "Enterprise,"
Port Clarence, 9th July 1851.

(Received 26th December.)

Sir,

I HAVE the honour to transmit an abstract from the journal kept by Mr. Adams (assistant surgeon) during the period he was detached from Her Majesty's Ship under my command at Michaelowski in Norton Sound, during the winter of 1850-51.

While I have to lament the loss of the officer in command of this expedition. I beg to call their Lordships attention to the energetic manner in which Mr. Adams (through great privations) hastened to Lieutenant Barnard's aid, and also to the inconveniences he must have suffered in passing a monotonous winter almost isolated from his countrymen, and with very indifferent accommodation.

His conduct on this occasion, and during the whole time of his service on this ship, has been entirely to my satisfaction, and I beg to recommend him to their Lordships favourable consideration.

I have, &c.

RICHARD COLLINSON, Captain.

No. 8.

Mr. EDWARD ADAMS, Assistant Surgeon, to Captain COLLINSON.

Her Majesty's Ship "Enterprise,"
Port Clarence, 10th July 1851.

Sir,

In obedience to your request, I beg to forward the following report of the proceedings of the party landed from Her Majesty's Ship "Enterprise," under your command, at Michaelowski.

In the spring of 1850 Mr. Pim, acting mate of Her Majesty's Ship "Plover," visited Michaelowski Redoubt, Norton Sound, where he heard a report of some Englishmen were living upon one of the rivers in the interior, and that they were in great distress, &c. As it appeared necessary to clear up this affair, a party consisting of Lieutenant Barnard, one seaman, and myself, provisioned for seven months, were landed at Michaelowski on the 12th October, to prosecute the inquiry through the Russian posts in Norton Sound. In the hurry of landing, many of our most important things, including furs and articles for bartering, were not sent; however, we procured a stock from the Governor, but of a very inferior description, and at an exorbitant price.

Shortly after landing we heard that a letter had been received at Darabin (a post in the interior) from this party of Englishmen. It was an answer to one which the Governor of that post had forwarded through the Indians the previous summer. It was stated that this letter was on its way to Michaelowski.

We had much difficulty in procuring dogs, as we were refused assistance by the Russians; consequently it was only by visiting distant villages that we, in the course of two months, were enabled to pick up a sufficient number for two sledges.

Whilst we were awaiting the arrival of this letter, we heard from the man in charge of the fishing station at Garishka the following report:—In the month of September 1849, a ship, said to be English, anchored off Point Barrow, and in the night the ice came down on the coast and beset her. On the following day, whilst one half of the crew was employed at the ice saws, and the other wooding from the beach, the natives went alongside, in great numbers, with skins for barter, and on the captain's refusing to trade with them, they were so enraged that they made an attack upon both parties of the crew, and succeeded in murdering them all. They afterwards plundered the ship.

This report came from the natives of the Buckland River, and is in confirmation of that obtained by Captain Moore.

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Until the middle of December we were busily employed in making preparations for travelling, and had decided upon starting for Darabin on the 1st January. However, on the 23d of December, Wassel: Maxemoff, the Governor of Darabin, arrived at Michaelowski, bringing with him the long expected letter. This proved to be from a Hudson's Bay post on the Colville. The following is a copy:—

“ Sir, River Youcow, 9th June 1850.

“ I have the honour to inform you that your note sent by an Indian has been received, but if there is anything of consequence contained therein, I regret, from ignorance of the Russian language and character, that I am unable to reply to you.

“ In case there be anything of importance to communicate to me, will you have the goodness to write in English or French, and I shall endeavour to send you an answer.

“ I am, &c.

(Signed) ALEXANDER H. MURRAY.”

Maxemoff informed us that in the summer of 1849 he was visiting the different inhabitants to the eastward of Darabin, and met with the natives of the Ekko River (a branch of the Koepak), whom he found in possession of muskets, powder and shot, English knives, beads, and tobacco, also a few preserved meat tins. On being questioned, they stated that they received them from a party of five white men who had been living for two years upon their river. Upon hearing this Maxemoff gave them a letter to take to the Englishmen from whom they received the goods, and the above letter he received in answer. All the goods appear to correspond with those used by the Hudson's Bay Company for bartering, except the preserved meat tins, which I have since found came from the “Plover” through the Buckland River natives. Maxemoff purchased one of the muskets, which corresponds exactly with the Hudson's Bay ones. Here then was the end of this affair, also of our hopes of obtaining information of our unfortunate countrymen, at least in this quarter.

Maxemoff was about to return to his post in the course of a few days, and Mr. Barnard determined upon accompanying him, for the purpose of exploring the rivers in this vicinity, giving the directions to remain with the seamen at Michaelowski, to procure information from any of the native tribes that might arrive from time to time.

Mr. Barnard, having hired Pavil Oclagook (late interpreter to the “Plover”), left Michaelowski in company with Maxemoff on the 29th December, taking two sledges and fourteen dogs. He arrived at Garishka, a small fishing station eighty miles north of Michaelowski, on the 1st January. Here he stayed until the 9th, when he started for Darabin.

But few natives from a distance visited Michaelowski during the latter part of the winter, their principal time for winter travelling being November and December; and being without dogs, I was unable to travel further than two or three days journey, so that my time was principally occupied in studying the manners, habits, and language of the neighbouring natives, &c.

I heard nothing of Mr. Barnard until the 24th February, on the evening of which day I received a letter from him, stating that he had been badly wounded, and requesting me to hasten to Darabin. I immediately demanded from the Governor of Michaelowski a sledge and dogs, and two of his men, to proceed with me to Darabin; whereupon he informed me that in seven days time he should send two sledges and five men, and that I could accompany them; it was impossible, he said, to send them before, as he had neither biscuit or sledges ready for the journey. However, after much trouble, and upon my undertaking to supply his party with bread, and everything they were in want of, (sledges excepted, of which I knew he had enough,) it was agreed that we should start in two days. The next morning the Governor discovered that he had plenty of biscuit, and a sufficient number of sledges.

We started from Michaelowski early on the morning of the 27th, our party consisting of three Russians, a Tungoose, his son, a boy (native of the Onalutof village) as interpreter, Thomas Cousins, A.B., and myself, with four sledges, and twenty-nine dogs.

We arrived at Garishka on the 1st of March, and were detained two days by the thaw, the river being flooded, and the snow fast melting. Here I endeavoured to get one of the natives to take my letters to the "Plover;" but they were all too much alarmed, both by the late attack upon Darabin, and by the nonappearance of Mr. Barnard's messenger, who had been despatched in the early part of January. They feared that he, as also the expected party from the "Plover," had been murdered.

On the afternoon of the next day (2d March) Mr. Bouchier and Nakeever (the interpreter) arrived, having left Lieutenant Cooper and his party six days, and I was glad to hear that that part of the country was all quiet. As Nakeever was willing to go to Darabin, the man in charge of the Russian party determined upon taking him instead of the native boy.

Early on the 4th we left Garishka, four of the Onalartoff Indians accompanying us, with two sledges laden with fish for the dogs. We found a thin coating of ice on the water, the sledges breaking through occasionally. The following evening we encamped near Onekok, and on a visit to the village the chief informed us that he had heard from Darabin of the deaths both of Mr. Barnard and Pavil. Here we found the river broken up, so that we had to cross in a biadar from the village.

From this place to the Koepak River our course lay through dense pine forests; here the snow was very loose, from five to seven feet in depth, and where it had drifted, considerably more. This rendered our travelling very slow and laborious, and it was not till late on the 13th that we reached Darabin. I found Mr. Barnard dead, but Pavil, contrary to my expectation, alive, and fast recovering from his wounds.

Darabin is the northernmost post on the Koepak. It is situated on the north bank of the river (here nearly a mile in breadth), about 500 yards to the eastward of the native village Onalartoff, in latitude $64^{\circ} 32' N.$, and about 170 miles from the sea coast. The inhabitants, at the time of the attack, were, the Governor, Worsle Maxemoff, or Darabin, six Russians, and a native boy, one of the Russians and a native having been sent to the Koukok River.

The two principal buildings (the Governor's house and the barracks) are fifty and sixty feet in length by sixteen and twenty in breadth; they are placed opposite each other, as if intended to form two sides of a square. The bath and storehouses form part of the side next the woods; that near the river is open. The cooking-house is in the middle of the square. A space of about sixty yards has been cleared round the buildings; beyond this is a dense forest of pines, with a few beeches intermixed.

The houses are one story high, and built of logs. That of the Governor is divided into an entrance, three lumber rooms, a room for the stove, and two living rooms, one of which was occupied by Mr. Barnard and his interpreter, the other by the Governor; the barracks into a lumber room at one end, an entrance, a large common room for the men, and two small rooms at the other end for the head men.

The village, now level with the ground, was small, consisting of only four houses and some storehouses.

Mr. Barnard arrived at Darabin on the 16th January. A few Indians visited the post from time to time, from the southern villages, for the purpose of bartering, &c.; and on the 2d of February two Indians from the Koukok River arrived with twenty-two beaver skins, which they bartered for tobacco and beads. Nothing unusual was observed in their manner; they were some time in Mr. Barnard's room, and saw him lying on his bed. He made them a few presents, and they left the following day, having slept at the neighbouring village.

On the 10th, a Russian, accompanied by a native servant, was sent to the Koukok River to trade for skins, and to bring back the chief of the village, with whom Mr. Barnard and Maxemoff wished to have some conversation.

Mr. Barnard expressed a great wish to accompany these men, but was dissuaded from doing so by his interpreter, who, mistrusting the Indians, refused to go.

Nothing further occurred until the morning of the 15th, when about 5 o'clock Maxemoff happened to go outside. He found a large party of Koukok Indians about the door, by whom he was immediately seized and stabbed with a knife. He staggered into the house, followed by the Indians, and fell dead at the door of his room. His wife, hearing the noise, made fast the door, and the Indians passed on to the room in which Mr. Barnard and Pavil were sleeping.

It appears that Mr. Barnard was awake by the noise of their approach, and asked what it was? Pavil answered, "The Indians are come; take your gun and shoot them." Both barrels of his gun had been left loaded with small shot; these were fired; but from the direction of the shot-marks on the wall, I think they must have gone off whilst he was struggling with the Indians. He then appears to have struck with the butt until the stock broke, and he fell dreadfully wounded. Before Pavil had time to get out of bed, an attempt was made to stab him; but the knife, badly aimed in the dark, passed between his arm and side. Being without a gun or other weapon, he warded off the spears with a blanket, and took five of them away, with one of which he wounded some of the Indians, and ultimately cleared the room, although badly wounded with three arrows which were sticking in his body. The Indians then left the house, and congregated on the bank of the river, planting their shields in a row so as to form a wall, as if intending to attack the other building. At the time of the arrival of the Indians, a woman was in the cooking house, boiling her kettle; she saw them, but dared not go out until they were in Maxemoff's house, when she ran to the barracks, and alarmed the men, who were all asleep. By this time the Indians had collected outside, and one of the men fired from a window and killed one of them, when the rest immediately snatched up their shields, and made off for the woods.

They then went down to the village, and finding the unsuspecting inhabitants asleep succeeded in murdering all but four; one man, who made his escape, and three women, whom they took away captives. They killed men, women, and children, fifty-three in number; and after eating part of one of the men, set fire to the houses, and took their departure, carrying one man, who had been wounded by Pavil, on a sledge. The Indian who was killed they left behind; he was pitched down upon the river, and afterwards eaten by the dogs.

The man who escaped from the village says, that they threatened to return to Darabin with more men, burn the houses, kill all the inhabitants, and then proceed to Michaelowski on the same errand. They also said that they had killed the two men who were sent to their village.

One of the Indians had remained in Maxemoff's house after the others had left. A woman saw him lying on the floor covered with his shield, and called one of the Russians, who fired a pistol at him at the distance of a yard, but he was shaking so much from fright that he missed his aim, and the man jumped up and made his escape.

The native village being overcrowded at the time of the attack by the arrival of visitors from the neighbouring villages, six men had gone to Darabin to sleep in the bath-house with the native servants, and these escaped the massacre.

The attacking party were about eighty in number, and were armed with spears, bows and arrows, and knives. They wore several coats of thick moose skin, had large strings of beads twisted round their left arms, and also across the chest and round the waist, with a kind of breast plate made of the incisor teeth of deer. They each carried a shield, a piece of rough plank $3\frac{1}{2}$ feet in length by 10 inches in breadth, at both ends of which were pierced two holes, so that they could look through them without exposing much of their bodies.

The inhabitants of a small village called Yoròkok, one day's journey east of Darabin, joined with the Koukok Indians in the attack. The inhabitants of both villages belong to the same tribe.

Mr. Barnard lived till the morning of the following day, but was too severely wounded to be able to write any account of the affair.

I found upon my arrival at Darabin that they had buried neither Maxemoff nor Mr. Barnard; and upon examining the bodies I found that the former had one wound about two inches in length, under the left clavicle; the latter had received nine wounds in all; one large one in the left side, below the ribs, from which a large bunch of intestines had protruded and become strangulated, evidently the cause of death; two in the back, $1\frac{1}{2}$ inches in length, from spears; four in the right side of the chest, one from a spear, and three from arrows; one slight cut under the chin, and another across the back of the right hand. The bodies having been kept in the uninhabited house were so firmly frozen that there was not time during my short stay to make a more minute examination.

I buried Mr. Barnard on the 16th March, in the burial ground at Darabin, some of the Russians, at my request, firing a volley over his grave, at the head of which I placed a board, inscribed with his name, the cause of his death, &c.

The Indians have been three times seen since the attack, once on a hill a little distance, once in the woods close to the back of the houses, (but finding that the Russians were keeping watch they made no attack,) and once during my stay at Darabin, a few miles up the river.

I can hear of no motive whatever for this sudden attack, and it appears that up to this time the tribe had always been peaceable and friendly, both with the Russians and the neighbouring Indians.

The following is a List of the killed.

Lieutenant Barnard and Worsell Maxemoff, at Darabin	-	2
One Russian and one Indian on the Koukok River	-	2
Natives of Olukok village	} at Onalártoff - {	11
Natives of Koltárgar village		18
Natives of Kuk-ki-ix village		7
Natives of Onalártoff village		17
	Total	<u>57</u>

Of the Indians, there were	-	20 men.
”	-	17 women.
”	-	17 children.
	Total	<u>54</u>

I left Darabin on the 18th of March, bringing Pavil (who was now sufficiently well to travel) upon one of my sledges. Four Indians accompanied us to Garishka, and several as far as Koltárgar; these last were taking home the body of their late chief for burial.

We found our old track good, although in most places filled with snow, and by pushing on reached Garishka on the 23d, late in the evening, where we were mistaken for a party of Koukok Indians, and caused some excitement amongst the inhabitants. Here I found Lieutenant Cooper and one of his men, who had been obliged to return in consequence of severe frost-bites.

We stayed at Garishka two days to repair our sledges and rest our feet, which had been much bruised by the ice forming upon our snow shoes. The Russians stayed another day; but this time, as I knew my road, I did not wait for them.

Lieutenant Cooper and his man accompanied us, and we reached Michaelowski on the 28th of March.

At Darabin I left a letter to be forwarded to Mr. Murray, if any Indians came from those parts, informing him of the recent occurrences, and naming the deposits of provisions upon the coast, in case of its falling into the hands of any party in distress.

After weighing well all the reports relative to white men having been seen in the interior, I am of opinion that they all have their origin in the presence of the Hudson Bay party on the Colville River. The Indians to the eastward

of Darabin are migratory, spending much of their time in the southern districts, and probably reach this Youcow post. The Hudson's Bay people say that the Indians there are a bad set, and fight much with some tribes who trade with the Russians. These and many other reasons, which will appear more fully in my journal, lead me to believe that no party from the missing expedition can be in the interior of Russian America.

All the way to Michaelowski the ice had shown signs of breaking up, and large pools of water forming upon it. On the 29th it began to blow from the south-east; the gale lasted five days, and drove out all the ice, except a little in the bottom of the bays. This put an end to all hopes of reaching the "Plover," as the greater part of the road lay along the sea ice, and the melting of the snow rendered sledge travelling on the land quite impracticable; I was therefore obliged to remain at Michaelowski.

The thaw now went on rapidly, and by the 10th of April the land was clear of snow, except in a few places where it had been deep.

On the 20th of April Pavil Octagook died. He had been well for a week after reaching Michaelowski, when he was attacked with fever, from which he never recovered.

As Mr. Cooper had requested Captain Moore to send a boat to Garishka in case of our not returning by land, we determined to make an attempt to reach that place, and accordingly started on the 22d of April. The ice was good in the Michaelowski Bay, but we soon came to the end of it, and then to the land and the sloping face of the cliffs, where there yet remained a little snow. With great difficulty we got halfway to the first village (ten miles), with the loss of one of our sledges. We then took what things we wanted from it, and went on with the other. We smashed this before we had got two miles further, and at last came to the conclusion that it was impossible to reach Garishka. I sent on to the village for sledges and dogs, and returned to Michaelowski the next day.

On the 22d of June we started in the Russian boat for Garishka, which we reached next morning, and to our great joy found that Mr. Martin in the "Plover's" boat had arrived the day before. I joined the "Plover" on the 30th of June.

From the short time I have had to write this report, I am unable to enter into any particulars, and have therefore confined myself to matters relating to the object of our search. My journal, with my drawings, will be at your disposal at a future period.

I have, &c.

EDWARD ADAMS,
Assistant Surgeon R.N.

VII.

Proceedings of Her Majesty's Ships "Dædalus" and "Plover."

No. 1.

Rear-Admiral MORESBY to the SECRETARY OF THE ADMIRALTY.

"Portland," at Valparaiso, 24th February 1851.

(Received 25th April.)

Sir,

I HAVE the honour to acknowledge the receipt of your letter of the 14th December 1850, conveying to me the direction of the Lords Commissioners of the Admiralty to send a ship to Behring's Straits, with provisions and stores for the "Plover," and to be equipped to act as circumstances may require, and I request you will inform their Lordships that I have selected the "Dædalus" for this service. She is now provisioning and storing with the least possible delay, and will be ready to sail on Friday next, the 28th instant.

2. Her provisions I have completed to 20 months for her own crew, and her stores to 12 months in addition to those already on board (6 months), deeming this to be ample for whatever contingency may occur. This, with the additional fuel, and stores and necessaries absolutely required to meet the possibility of her remaining in the Arctic regions until the summer of 1852, has immersed her so low that it has been necessary to remove her heavy stern gun of 84 cwt., and four of her broadside guns, and to clear her shell room for the advantage of stowage; these are placed on board the "Nereus" in the charge of Mr. Bateinan, and Captain Wellesley is directed to receive them again on his return.

3. Under the foregoing circumstances I have called Captain Wellesley's attention, in a confidential memorandum, to the 21st paragraph of their Lordships instructions to Captain Collinson.

4. I enclose herewith a copy of the orders with which I have furnished Captain Wellesley.

I have, &c.

FAIRFAX MORESBY,

Rear-Admiral and Commander-in-Chief.

Enclosure No. 1.

By Fairfax Moresby, Esquire, Companion of the Most Honourable Military Order of the Bath, Knight of Maria Theresa, Rear-Admiral of the Blue, and Commander-in-Chief of Her Majesty's Ships and Vessels employed, and to be employed, on the Pacific Station.

1.—The Lords Commissioners of the Admiralty having acquainted me that they consider it to be of the utmost importance that, in accordance with the 7th paragraph of the orders which their Lordships gave to Captain Collinson (a copy of which is hereunto annexed), there should be an efficient depôt or point of succour in the most favourable quarter within Behring's Straits, and as far in advance as possible, on which the "Enterprise" and "Investigator" may have to fall back, or where, in case of any disaster occurring to those vessels, the crews may be sure of finding a safe asylum; And whereas their Lordships have directed me to select a ship for the purpose of communicating with and assisting the "Plover," already established on the before-mentioned service,—you are hereby required and directed, so soon as Her Majesty's ship "Dædalus" under your command shall be in all respects perfectly equipped and stored for the execution of this service, according to the orders you have already received, to put to sea, and proceed in the first instance to Callao, where you will replenish your provisions and water, and from thence proceed to the Sandwich Islands, where you will again replenish.

2.—At the Sandwich Islands you may possibly obtain information respecting the "Plover;" she is at present supposed to be in Grantley Harbour, Port Clarence, where she was left, dismantled, by the "Herald" in September last. You are therefore to use your utmost endeavours to reach the "Plover" before she is afloat, and having so done, carefully to refit her for the service required of her.

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3.—Their Lordships have further directed, that I would call for volunteers from the squadron under my command, to form a crew for the "Plover" until the autumn of 1852, or to replace those who may be desirous of quitting the arctic regions; and also directed, that she be supplied with stores, fuel, provisions, and clothing, to enable her to pass a fourth winter in the ice. This you will, upon a perusal of the annexed correspondence, find has been in part executed by Captain Kellett of the "Herald," of which their Lordships could not have been aware at the date of their letter; but, with regard thereto, you must be guided by your own judgment in acting as you deem best. You will communicate to those who volunteer for the "Plover" that, besides the credit they will derive from cheerfully coming forward for such an arduous service, they will be granted double pay from the date of their joining the "Plover;" but no officer or man is to be allowed to join the "Plover" without a strict medical survey being held upon him to ascertain his fitness for the service in question. Should you, on reference to your own ship's company, find that there are not a sufficient number of persons on board the "Dædalus" to replace (if necessary) the whole of the crew of the "Plover," you will immediately acquaint me of the fact, in order that the deficiency may be supplied.

4.—In the event of your finding the "Plover" in good condition, and having carried out their Lordships intentions with regard to replenishing her stores and provisions, and replacing, if necessary, her officers and crew, you will proceed to San Francisco, for the purpose of acquainting their Lordships and myself as speedily as possible with your proceedings. You will from San Francisco return to Valparaiso, calling on your way at such of the islands in the Pacific, where there may be consuls or consular agents, as your provisions and other circumstances will allow; and as it is very desirable Pitcairn's Island should be visited, you will endeavour to call there.

5.—In the possible contingency of the "Plover" being thrown upon the shore, or otherwise disabled, and rendered unfit for the service, you are to receive her crew, and to secure Her Majesty's Ship "Dædalus" in some convenient harbour near the entrance of the Straits, for the purpose of passing there the ensuing winter of 1851, placing ample notices of the spot selected, wherever you may judge best, for the information of any parties, either from Sir John Franklin's ships, or from those of Captain Collinson, arriving in the Sound.

6.—In the event of your not hearing anything of the expeditions in question you will remain on this service until the summer of 1852, when you will probably be relieved by a vessel from this squadron.

7.—For your guidance in the important duty intrusted to you, hereunto are annexed copies of the last letters which have been received from Captains Kellett and Collinson, and Commander Moore, which will place you in possession of the latest facts connected with the expedition, and from which you will glean a general knowledge of the course pursued, and you will be guided by their general tenor; but in a service of this description, where no specific instructions can be laid down, you will of course act in the best manner your judgment and discretion may point out.

Given on board the "Portland," at Valparaiso, the 25th February 1851.

(Signed) FAIRFAX MORESBY,

Rear-Admiral and Commander-in-chief.

To George Greville Wellesley, Esq.
Captain of H.M.S. "Dædalus."

By command of the Commander-in-chief.

W. A. G. YOUNG,
Secretary.

Enclosure No. 2.

"Portland," at Valparaiso, 25th February 1851.

Mem.—It is my intention to have a ship waiting the arrival of the March mail from England at San Blas or Mazatlan, which may possibly bring instructions for your further proceedings, in which case a vessel will be immediately despatched to Honolulu, and may be expected about the 20th of May; but you are not to wait beyond the 25th May from proceeding in execution of your present orders.

(Signed) FAIRFAX MORESBY,

Rear-Admiral and Commander-in-chief.

Captain G. G. Wellesley,
H.M.S. "Dædalus."

No. 2.

Rear-Admiral MORESBY to the SECRETARY OF THE ADMIRALTY.

"Portland," River Guayaquil, 2d April 1851.

(Received 23d May.)

Sir,

WITH reference to your letter of the 11th February 1851, No. 14, conveying to me the direction of the Lords Commissioners of the Admiralty to send by the ship that visits the "Plover" this autumn a supply of officers, men, and

stores, and also a new tilt cloth for housing in for the winter of 1851-52, should it be found necessary to keep the "Plover" on her present station, I have the honour to refer you to my letters Nos. 9 and 19, of the 24th February and 17th March 1851, respecting the *Dædalus* proceeding to Behring's Straits, and also to the 3d and 4th paragraphs of Captain Wellesley's sailing orders, (copy transmitted in No. 9.) by which it will be seen that arrangements in accordance with these directions have already been made.

I have, &c.

FAIRFAX MORESBY,
Rear-Admiral and Commander-in-Chief.

No. 3.

Captain WELLESLEY to Rear-Admiral MORESBY.

Her Majesty's Ship "*Dædalus*,"

San Francisco, 27th October 1851.

Sir,

I HAVE the honour to report to you the proceedings of Her Majesty's ship under my command since my last communication from the Sandwich Islands on the 24th May, and in so doing I regret not to be the bearer of any news regarding the missing expedition.

We quitted the harbour of Honolulu on the 25th May, and hove to outside the port till dusk, in order to await to the last moment the arrival of any vessel with further orders; then bore up, and passed between Oahu and Atooi, as, in consequence of the excellent passage made last year by the "*Investigator*" by pursuing a direct course through the Straits of Amouckta, I determined to follow the same route; and our own passage having occupied the same time, though several weeks earlier in the year, I think it may be recommended for speed, as it certainly may for security.

We reached within sixty miles of Amouckta on the 12th June in very thick weather, and having had no observations for some preceding days we rounded to till the next day, when having ascertained our position, we steered through the channel to the westward of Amouckta, without seeing land, passed to the westward, and in sight of St. Paul's and Sea-Otter Islands on the 15th, and stood in to the S.W. Point of St. Lawrence Island on the 18th, having carried a fair wind since passing the Aleutian group, and our passage thus far having only occupied twenty-four days.

Here we boarded the French whale ship "*Ajax*" of Bordeaux, who gave us information that the ice extended across the Bay of Anadir from Cape Thaddeus to Cape Ichaplin, and thence across to St. Lawrence Island, and that finding it impossible to get to the northward, she was going to pass to the southward of the island, in hopes of finding clear water to the eastward.

I am sorry to add, that in endeavouring to do this, while approaching too close to the shore in the search for whales, this vessel struck, and was totally lost on a reef off the S.E. side of St. Lawrence Island, a few days afterwards. The "*Ajax*" had fallen in with Her Majesty's ship "*Enterprise*" on the 1st of June, in longitude 176° west, at the edge of the ice, which at this period appears to have extended across from Cape Thaddeus (Asiatic coast) to Cape Roumanzoff on the American coast.

On the 19th we sighted the ice, and found cruising off the edge of it several whale ships, waiting for an opening to proceed northwards. We were detained off the N.W. point of St. Lawrence Island till the 24th, when, having anchored with the stream near it, we were closely beset with the ice, which extended in every direction as far as the eye could reach, and left us no alternative but to remain at anchor to avoid being drifted towards the shore. On the 27th, the northern shore of the island being partially cleared of ice, and the ship free, we weighed and stood to the eastward, in the hope of finding a clear passage in that direction. We succeeded, however, in getting but a few miles, and from this period till the 9th July we were almost constantly beset with ice, the only clear water being occasionally close in to the shore, where we were forced to remain at anchor, sustaining a heavy pressure of ice against the bows from the strength of the tide, which made the ship drive, and it was generally found better to weigh on these occasions, and, having no ice anchors, to secure the ship with warps and the boats anchors to the largest floes of

ice, and in this manner we gained some miles to the eastward. On one occasion we made sail, and drove the ship through the ice into clear water; but the thumps and shakes she received were so great, that I should not have attempted it again, but as a last resource.

On the 5th, while at anchor, the weather being very thick, a field of ice above a mile long and half a mile broad was set across the ship's bows, and the ship, unable to withstand such a pressure, drove; our efforts to break it by degrees, by the use of our spare mizen topmast as a bumper and axes and pickaxes, being quite ineffectual. A heavy jerk about midnight, and the ice passing on clear of the ship, showed that something had given way, and next morning, finding the ship again driving, we sighted our anchor, and found both flukes gone, the shank having broken in half, about a foot from the crown. The part that came up, as well as the cable, was quite bright; but so great was the strain that I should have been surprised if neither anchor or cable had given way.

It is worth remarking that on the 12th August, or thirty-four days afterwards, we picked up the buoy of this anchor, (which was a wooden temporary one we had made to save our nun buoys while amongst the ice,) lying on the beach on the north shore of Port Clarence. It was about fifty feet from the water's edge, and about twenty feet farther up than the ordinary high-water mark, and had no doubt been drifted up on the 8th, when the tide rose unusually high in a S.E. gale which blew on that day. The distance from where it was lost was about 145 miles, which would give only about four and a quarter miles a day to the northward, but part of this time the sea was almost filled with ice and the winds prevailed more than usual from the northward. It may be considered, however, as confirming the supposition that all the large quantity of drift wood in this vicinity, and in the midst of which the buoy was found, comes from the southward.

The wreck of the American whaler "Mary Mitchell," lost about the same time on the west side of St. Lawrence Island, drifted also to the northward and through Behring's Straits, and was fallen in with by the English schooner "Eliza," of Hobart Town, in August, to the N.W. of East Cape.

In the course of the 6th we weighed, and soon after securing the ship to the field of ice above mentioned drifted with it ten miles further to the eastward. Finally, we observed, early on the 9th, clear water to the northward, and shortly after had the pleasure once more of making sail, after three weeks being obstructed and almost constantly beset with ice.

We were not, however, able to reach King's Island, as the pack extended thirty miles to the westward of it, in a nearly north and south direction; and had the weather not been so very thick in standing over to the Asiatic coast I should have gone into St. Lawrence Bay, but the fogs were so thick we could hardly see a ship's length. On the 15th we found the ice had cleared away, and succeeded in anchoring in Port Clarence, when I found that the "Enterprise" had sailed on the 10th on her arctic service, and that the "Plover" had proceeded on the 11th to Norton Sound, leaving her decked boat in Grantley Harbour in charge of the storehouse. I therefore took advantage of the fine weather to get our topmasts down and refit our rigging, and had the bows caulked, the pitch having been forced out and some copper rubbed off by the ice, which caused a trifling leakage.

On the 30th July the "Plover" arrived, and I sent the carpenter and a carpenter's mate of this ship on board to examine into her condition, and report on her defects, and I have the honour to enclose herewith (No. 1.) a copy of their report, from which it is evident that in their judgment the vessel is quite fit to continue the service she is now employed in for the period she is ordered to remain. Commander Moore had instructions from Captain Collinson to proceed to Hong-Kong in case no man of war arrived during the summer, in consequence, I imagine, of the "Plover's" crew having suffered much from scurvy in the past winter; he had also a discretionary order to proceed previously to the northward of Behring's Straits for a short period, if he thought it likely to be of any service in gaining information, and as he was anxious to do so, I delayed the repair of his defects, and supplying him with stores and provisions till his return, and I proceeded in this ship, in company with the "Plover," to St. Lawrence Bay, on the 2d August, to ascertain if any despatches had been buried on the island there in

the position pointed out by Captain Collinson in his letter to the Admiralty last year. We had parted company in very thick weather, and on the 4th on entering the bay we observed the "Plover," also running in, while we were communicating with an English lorch from Hong-Kong, out of which vessel we took a bag of letters for the "Enterprise."

The "Plover," meantime, had anchored inside the harbour, which is formed by a low sandy islet on the northern shore.

We had neither chart nor sailing directions, but as I understood that the passage was safe on either side of the islet, we steered for the eastern one, but the water shoaling very quickly, the best bower anchor was let go in $4\frac{1}{2}$ fathoms, sail shortened, and on bringing up the ship swung into 3 fathoms, and touched very lightly a few times, owing to a slight swell that was setting in. Shortening in cable, and laying out the stream anchor, we hove her into deeper water immediately, without a possibility of her having received the slightest damage, and then entering by the Western Channel, we anchored in the harbour, where we found several whale ships, principally under English and American colours.

No despatches having been found, I quite agreed with Commander Moore, that although there was very little probability of his either seeing or obtaining any intelligence of the "Enterprise," or hearing of the position in which the "Investigator" had passed the last winter, it would be satisfactory that I should be able, on my return, to carry information as to the state of the ice to the northward, as the unusual time to which the sea to the southward has been filled with ice would render it probable that the packed ice would be found much further to the southward of its position in the previous years.

To assist in working the "Plover" I sent from this ship Mr. Buckley, acting mate, and Mr. Scott, second master, with 10 seamen, (with whose conduct and exertions Commander Moore, on his return, expressed himself as much pleased,) and on the 9th August the two vessels sailed together, the "Dædalus" anchoring in Port Clarence the following day.

On the 28th the "Plover" returned, having reached only $70^{\circ} 30'$ north latitude, where he found the pack, being 160 miles further south than last year. He therefore visited Kotzebue Sound, ascertained that the cache of provisions was untouched, and made the best of his way back to Port Clarence.

We immediately commenced caulking her and repairing her defects, which, with the exception of replacing some copper rubbed off under water, was completed by the 6th September, and on the 9th she moved into Grantley Harbour to prepare for passing the winter.

I have completed the "Plover" with stores, provisions, clothing, and fuel to December 1853, as per statement, No. 2., with the exception only of some preserved soups and vegetables, and a few medicines, with a few trifling stores, none of which we had on board; and in addition I have left in her charge a supply of six months provisions, and warm clothing for 60 men; calculating that if either crews of "Enterprise" or "Investigator" should fall back in boats, they would be victualled during the winter, without entrenching on the "Plover's" own stock, and in the summer the "Plover" will have no difficulty in falling in with whalers about the Straits, any of whom would carry the crews to the Sandwich Islands, or elsewhere.

In compliance with the third paragraph of your orders I have replaced all the officers and men of the "Plover" who either were desirous of quitting the Arctic regions or were not considered, after another most careful medical examination, (a previous one having been already held by Captain Collinson's order in July,) equal to passing two more winters there. To the former I gave the option to volunteer for this ship, any petty officers for whom no vacancies might exist being borne as supernumeraries for your disposal. I have the honour to enclose (No. 3.) a general statement of all charges made, with the reasons against each name, also the documents connected with the medical surveys held on the "Plover's" crew and the volunteers from this ship for the "Plover." To supply their places, amounting to 23, an equal number have been sent from this ship, and in addition I appointed Mr. Gordon, acting mate, and a steward at the request of Commander Moore, making her complement now 41, exclusive of the interpreters; the seamen and marines selected by lot from a large number of volunteers, and all of them men of excellent character. Lieutenant Vernon of this ship, who replaced Lieutenant Cooper, is a most excellent trustworthy officer, as is also Mr. Forster, assistant surgeon, whom I

sent to the "Plover" to supersede Dr. Simpson (b), surgeon, in accordance with the Admiralty Circular, No. 17, dated 3d July 1846, and whom I received on board for a passage to England, and I have given Mr. Chads, acting mate, an order to act as lieutenant, vice Vernon.

With the exception therefore of some few medicines and preserved soups and vegetables (and to make up for the latter article this year a supply of excellent potatoes was purchased from an English schooner which visited Port Clarence), I consider the "Plover" is, as far as possible, in a condition to fulfil their Lordships instructions. I should have quitted the "Plover" with more satisfaction, however, could I have felt myself justified in replacing Commander Moore, and every one of the "Plover's" crew, even without their consent. They all either left England in the "Plover," and have therefore already passed three winters in the arctic regions, or have served in the "Herald" since 1845; and desirous as they were to remain at their posts as long as their bodily health permitted them, and at present there is no such impediment, I did not feel myself authorized to act contrary to their wishes, although it is impossible not to be anxious at leaving them for two more winters, and looking forward to the possible effect upon their health, which the monotonous nature of such a lengthened service produces in depressing the spirits. Having, however, made a fair offer to all of retiring, coupled, as I felt I might do, with an expression to them of my conviction that no possible discredit could by possibility attach to their accepting it, I did not feel it right to take any other steps.

Judging from last year's supply of venison (6,000 pounds), and several thousand head of ptarmigan, besides fish, a fair supply of fresh provisions may be reasonably anticipated this winter, although the Esquimaux have obtained such a large supply of their favourite articles of barter from the whale ships during the summer they may not exert themselves so much, in order to procure them from the "Plover."

During our stay at Port Clarence I received an urgent request, a copy of which I have the honour to enclose (No. 6.), from the master of the English schooner "Eliza," of Hobart Town, of which Mr. John Johnson, of New Wharf, Hobart Town, is owner, to remove John Thomas, second mate, from his vessel; and having personally assured myself of the truth of his statement, I have received him on board this ship, to be sent ashore at the first convenient opportunity.

From what I was able to collect from the different whaling ships we fell in with, I imagine that the past season has proved so unfavourable that not many will be tempted to try Behring's Straits next year. Very few whales have been taken, and in addition to extensive injury from the ice, which, owing to its being so far south, many attempted to force their way through, but unsuccessfully, several have been totally lost. I enclose a list of such as I heard of, but I believe there are one or two others.

We found Port Clarence a most excellent harbour, abundance of water, and wood easily procured, and our sein net, used once a week, provided enough for the day for the whole ship's company. The winds were generally moderate, the holding ground excellent; and had it been necessary for the ship to remain for the winter, although it is very doubtful if we could have got her into Grantley Harbour, there is a position near Cape Riley where she would no doubt have been perfectly secure. Grantley Harbour has proved quite secure as a winter quarter for the "Plover," and the shore abounds, in summer, with wild onions and berries,—excellent antiscorbutics.

In the belief that Commander Moore has transmitted to you a report of proceedings during the past winter, as also an account of the distressing murder of Lieutenant Barnard of the "Enterprise," at Derabin, I do not allude to these subjects.

I am sorry to say that an unfortunate affray between some natives, somewhere near Cape Chaplain, and the crews of some whalers, has occurred this summer.

The dispute seems to have originated in the endeavour of the natives to obtain possession, by force, of some property on board a whaler which was wrecked there, and ended in the loss of some lives on both sides.

The arrangements with regard to the "Plover" were completed before the last week in September, but as it was probable that in the event of the

"Enterprise" not finding it practicable to reach Point Barrow she would be obliged to return to Port Clarence, in which case she might be expected to arrive before the end of September, I delayed our departure till the 1st October, when we put to sea with a fine northerly wind, which carried us past St. Lawrence Island, and on the 7th we passed through the Straits of Amoukta; thence we steered a direct course, and arrived at this port on the 22d instant.

After a few days stay I shall proceed to sea, for the purpose of carrying out the remainder of your orders en route to Valparaiso.

I have, &c.

GEORGE G. WELLESLEY,
Captain.

No. 4.

Captain WELLESLEY to the SECRETARY OF THE ADMIRALTY.

Her Majesty's Ship "Dædalus," San Francisco,
27th October 1851.

Sir,

(Received 26th December.)

I HAVE the honour to enclose herewith, for the information of the Lords Commissioners of the Admiralty, a duplicate of my despatch to the Commander-in-Chief, Rear-Admiral Moresby, reporting the execution of his orders relative to the relief of the "Plover," which I was directed by him to forward to their Lordships on my arrival at this port.

I have, &c.

GEORGE G. WELLESLEY,
Captain.

Enclosure No. 1.

Sir,

Her Majesty's Ship "Dædalus," 31st July 1851.

ACCORDING to your directions I visited and examined the "Plover."

I find by the borings made by the carpenter of the "Enterprise," that there are several defective places, but none to say the vessel is not fit for sea service.

There was a flat place in the bluff of the starboard bow, supposed to be stove. I had one hole bored from the inside as near the place as I could get at it, fifteen inches in. I found three inches in the middle rotten, the remaining twelve inches very good. I stripped the copper on the outside, and found it to be the finishing of butts of the false bow, and very good. I bored two holes in the timbers, and found both plank and timbers very good.

I had the zinc sheathing taken off in the coal-hole to search for thorough fastenings, the butt bolts of the doubling came through, and clenched. I had three holes bored in the timbers, one was good but stained from iron, the other two were very good.

The decks require caulking very bad, the outside some places not good.

When the caulking and other casual repairs are made good I feel confident the vessel will be fit for sea service.

(Signed)

WILLIAM TUCKER,
Carpenter, H.M.S. "Dædalus."

George G. Wellesley, Esq.

Captain H.M.S. "Dædalus."

Enclosure No 2.

List of Stores, Provisions, &c. supplied from H.M.S. "Dædalus" to H.M. Sloop "Plover,"
Sept. 1851.

Species.	Quantity.
Anchors, kedge $\left\{ \begin{array}{l} \text{cwt. qrs. lbs.} \\ 4 \quad 0 \quad 0 \\ 0 \quad 3 \quad 10 \end{array} \right\}$	- One in number.
Anchors, boat	- Two in number.
Awning rain ship	- One in number.
Blocks, single, 5 inch	- Four in number.
Do. do. 6 inch	- Four in number.
Brooms	- One hundred in number.
Buckets, iron bound	- Twelve in number.
Cordage, H.L., 3 inch	- One hundred and thirteen fathoms.
Do. - $3\frac{1}{2}$ inch	- One hundred and thirteen fathoms.
Canvass, new, No. 2.	- One hundred and twenty-six yards.
Marline	- Six pounds.
Needles, sail	- Thirty in number.

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Species.	Quantity.
Shovels, iron	Six in number.
Twine	Ten pounds.
Trysails, (one 6th rate, one 4th rate, 2 sloops)	Four in number.
Spritsail course, 24. 24. 7½	One in number.
Files, of sorts	Twenty in number.
Caps, percussion	Six thousand.
Jars for caps	Six.
Brushes, paint	Ten in number.
Do. whitewash	Five in number.
Chalk	Ten pounds.
Copper, sheet, 32 oz.	Twenty-two in number.
Do. - 16 oz.	Two in number.
Files, cross cut saw	One in number.
Do. - saw	One in number.
Files, hand saw	One in number.
Glass, panes	Sixteen in number.
Grindstones	Two in number.
Hinges, cross garnet	Two pairs.
Iron, of sorts	One hundred and fifty pounds
Lime	Eight bushels.
Locks, hanging	Eight in number.
Do. spring	Three in number.
Do. stock	Two in number.
Plates, tin, single	Nine in number.
Nails, copper, boat	Seventeen pounds.
Do. rove and clench	Fourteen pounds.
Do. scarph	One and a half.
Do. tacks	Seven pounds.
Do. iron, boat	Seven pounds.
Do. ,, 20d.	Eleven pounds.
Do. ,, 10d.	Twenty pounds.
Do. ,, 6d.	Twenty-five pounds.
Do. ,, 4d.	Fifteen pounds.
Do. ,, tacks	Four pounds.
Oil, neatsfoot and salad	Two gallons.
Do. linseed	Twenty-six gallons.
Paint, black	Ninety-eight pounds.
Do. white	Three hundred and sixty-five.
Litharge	Eleven and a half pounds.
Rudder irons	Two pairs.
Tin cans for oil	One in number.
Pitch	Two barrels.
Tar, mineral	Twenty gallons.
Plank, elm, 4 inch	One hundred and thirty-eight and a half feet.
Plank, oak, 3 inch	Ten feet.
Rules	One in number.
Gimbets, small	Six in number.
Planes, smoothing	One in number.
Do. jack	One in number.
Mallets, caulking	Three in number.
Irons, spike	Three in number.
Irons, caulking	Three in number.
Stoves, cabins	One in number.
Fender	One in number.
Poker	One in number.
Shovel	One in number.
Coalskuttle, copper	One in number.
Funnel, copper, 36 feet	One in number.
Hoods	Two in number.
Flanges	Three in number.
Elbows	Two in number.
Brass funnel	One in number.
Oars, broken	Twelve in number.
Casks, iron bound	Two in number.
Casks, iron	Five in number.
Iron	Twenty pounds.
Junk	One hundred weigh

Bread	-	-	6,907	pounds.	Preserved potatoes	-	1,568	pounds.
Rum	-	-	170	gallons.	Pepper	-	112	pounds.
Beef	-	-	646	pieces, 8 lbs.	Mustard	-	237	pounds.
Pork	-	-	3,360	do. 4 lbs.	Porter	-	13	dozen.
Flour	-	-	2,081	pounds.	Sour-kroust	-	970	pounds.
Peas	-	-	170	bushels.	Vegetables	-	1,520	pounds.
Oatmeal	-	-	27½	bushels.	Onions	-	320	pounds.
Sugar	-	-	4,142	pounds.	Candles, wax	-	130	pounds.
Cocoa	-	-	1,469	pounds.	Do. moulds	-	662	pounds.
Tea	-	-	429	pounds.	Dips	-	1,173	pounds.
Tobacco	-	-	1,370	pounds.	Palmer's	-	100	pounds.
Vinegar	-	-	108	gallons.	Oil	-	50	gallons.
Lemon juice	-	-	560	pounds.	Coals	-	40	tons.

Blue cloth, No. 1. for jackets, 69 yards.
 Do. - No. 2. for trousers, 62 yards.
 Mits, 100 pairs.
 Stockings, 450 do.
 Caps, 100 number.
 Blue serge, 720 yards.

Blankets, 100 number.
 Flushing jackets, 72 do.
 Flushing for trousers, 120 yards.
 Gold lace, 10 yards.
 Wrappers, 27 number.

PURCHASED SLOP CLOTHING.

Drawers, flannel, stout, 246 pairs. Boots, large, 144 do.
 Contingent money, 366½ silver dollars.

GEORGE G. WELLESLEY, Captain.

Enclosure No. 3.

Names.	Rating.	Cause of Discharge.	How disposed of.
Lieutenant E. J. L. Cooper	- - - -	Recommended to leave Arctic regions by medical officers.	To "Dædalus" for passage to England.
Dr. J. Simpson, surgeon	- - - -	Superseded on promotion.	Do.
Alexander Cameron	Captain foretop	Desirous of quitting the Arctic regions.	To "Dædalus" as part complement.
Robert German	Quartermaster	Do. - - -	Do.
William Parsons	Captain of forecastle	Do. - - -	Do.
William Pearson	Captain of maintop	Do. - - -	Do.
Hugh Tregoning	Carpenter's mate	Do. - - -	Do.
Henry Sawyer	Blacksmith	Do. - - -	Do.
John Root	A.B.	Do. - - -	Do.
William Bryan	A.B.	Do. - - -	Do.
John Rodgers	A.B.	Do. - - -	Do.
Charles Gander	A.B.	Do. - - -	Do.
Arthur Tudor	A.B.	Do. - - -	Do.
Joseph Sugrae	A.B.	Do. - - -	Do.
George Crocker	A.B.	Do. - - -	Do.
Joseph Busbridge	Ship's cook	Do. - - -	To "Dædalus" for disposal of Commander-in-chief.
William Hull	Corporal R.M.	Do. - - -	Do.
William Bishop	Private R.M., 3d class.	Do. - - -	Do.
Edward Beard	Do.	Do. - - -	Do.
Thomas Howes	Do.	Do. - - -	Do.
J. Priddle	Do.	Do. - - -	Do.
E. Lindsay	A.B.	Recommended to leave Arctic regions by medical officers.	To "Dædalus" for passage to England.
Hugh Evans	A.B.	Do. - - -	Do.
George Harvey	Sailmaker	Do. - - -	Do.
William Berry	Orderly	Theft, &c. - - -	To "Dædalus" for disposal of Commander-in-chief.

GEORGE G. WELLESLEY, Captain.

Enclosure No. 4.

Her Majesty's Ship "Plover," Port Clarence,
15th September 1851.

Sir,

Lieut. E. J. L.
Cooper.
George Harvey,
Sailmaker.

WE have the honour to inform you that, in compliance with your order of the 12th instant, we have this day examined into the present state of health of Commander Moore and the remainder of the officers and crew of Her Majesty's sloop "Plover," and beg leave to state, that, with the exception of the officer and petty officer named in the margin, we consider them in a sound state of health at present; and having been unable to detect the signs of any disease likely to interfere with their continued efficiency, are of opinion that they will be found fit for the service on which the "Plover" is employed, bearing in mind that that service is likely to continue until the autumn of 1853.

In reference to the officer and petty officer named in the margin, the former suffering from irritability of the bladder, the latter having a tendency to asthma, we beg to state that we do not consider their health sufficient to warrant their continuance in the arctic regions, and we would recommend their removal to England as soon as the convenience of the service will admit.

We have, &c.

CECIL CRANDELL, Acting Surgeon, H.M.S. "Dædalus."
JOHN SIMPSON (b) Assistant Surgeon, (Surgeon,) H.M.S. "Plover."
THOS. B. FORSTER, Assistant Surgeon, H.M.S. "Dædalus."

Enclosure No. 5.

Pursuant to an Order from George Greville Wellesley, Esquire, Captain of Her Majesty's Ship "Dædalus," Senior Officer present, &c.

We, whose names are hereunto subscribed, have been on board Her Majesty's ship "Dædalus," and have carefully examined into the state of health of the under-mentioned officers and men (volunteers) for Her Majesty's sloop "Plover," and are of opinion that they are in all respects fit for any service.

Lieutenant C. E. H. Vernon.
Mr. T. B. Forster, assistant surgeon.
Mr. G. T. Gordon, acting mate.
George Heyden, captain after-guard,
John Saunders, boatswain's mate.
George Stephens, captain maintop.
Patrick Morgan, caulker's mate.
Henry Norkett, captain mizentop.
Thomas J. Killbery, sc. captain of mast.
Hugh M'Dowall, A.B.
William Martin, A.B.
Henry Mihell, A.B.
John Berry, A.B.
Henry J. Steward, A.B.

Robert M'Farlane, A.B.
John Wager, A.B.
John Lawson, A.B.
George Chapple, A.B.
Alexander Kerr, A.B.
George Harris, sick-berth attendant.
James Faithful, sub-officers steward.
Samuel Gould, gun-room cook.
William Heard, R.M., 3d class.
John Gilbert, ditto.
Emanuel Weeks, ditto.
Edward Clark, ditto.
Robert Diamond, ditto.

Given under our hands, on board the "Dædalus," at Port Clarence, this 18th day of September 1851.

CECIL CRANDELL, Acting Surgeon, H.M.S. "Dædalus."
JOHN SIMPSON (b), Assistant Surgeon, H.M.S. "Plover."
THOS. B. FORSTER, Assistant Surgeon, H.M.S. "Dædalus."

Enclosure No. 6.

Sir,

Port Clarence, 9th September 1851.

I BEG to forward for your inspection the following extracts from the log of the schooner "Eliza," of which I am master.

" Friday, 5th September 1851.

" At 5 P.M. the captain ordered the second mate to take his things forward, for the disobeying his orders in going into the forecastle when he was ordered not to do it, and for saying that he would not work after six o'clock."

" Monday, 8th September 1851.

" At 11 A.M. the master went on board the schooner "Rêna," leaving no board John Thomas, Thomas Smith, William Smith, and John Ross."

“ Tuesday, 9th September 1851.

“ At 2 P.M. the master returned on board. Ascertained from the steward, Henry Arbery, from a mark he had made on the hatch, that during his absence with the master the run had been entered.

“ At 10 P.M. the master observed that John Thomas was intoxicated, from which circumstance, and from hints let fall by the cook, infer that he has stolen a quantity of spirits from a cask in broach in the run. In the morning the said John Thomas refused to turn out, on the plea of illness. At 10 A.M. the captains of H.M. ships “ Dædalus ” and “ Plover ” came on board, to investigate the case. The two men, Thomas and Smith, were then intoxicated. The cook, John Ross, although not suspected of being implicated, refused to give evidence, and the two ‘ men mentioned above made use of much insulting and abusive language.’

“ Wednesday, 10th September 1851.

“ After the departure of the captains of H.M. ships, the same men, John Thomas and Thomas Smith, used language most obscene and abusive to the master and mate of this vessel; the former, John Thomas, threatening that the first opportunity given he would steal whatever he could lay his hands on, making particular reference to the money he knew to be kept in the master’s cabin.”

From what I have observed of the conduct of the man John Thomas, joined to the threats he made use of to-day, and taking into consideration the limited means of coercion at my disposal, I consider it unsafe to proceed on my voyage with him on board, and shall esteem it a favour if you will receive him on board your vessel, or otherwise dispose of him as you may deem advisable.

I beg to add that I have abundant evidence of the threatening language made use of this morning.

I am, &c.

G. G. Wellesley, Esq.,
Captain R.N., H.M. ship “ Dædalus.”

JOHN ARCHER,
Master, schooner “ Eliza.”

I, the undersigned John Simpson, hereby certify that the above are correct extracts from the log of the “ Eliza,” and I can also corroborate the above statements.

(Signed) JOHN SIMPSON,
Mate of the “ Eliza ” schooner.

Enclosure No. 7.

LIST of WHALE SHIPS lost, &c.

“ Arabella ” of New Bedford, Captain Mayfield.	} Lost in the ice between Kotzebue Sound and East Cape.
“ Henry Thompson ” of New London, Captain Holm.	
“ Mary Mitchell ” of San Francisco	- Lost on shore of St. Lawrence Island, west or south side.
“ Cosmopolite ” of Havre (French)	- Lost near Cape Tchaplín, to the south-west of it.
“ Ajax ” of Bordeaux	- - - Lost on a reef on the south-east side of St. Lawrence Island.
“ New Bedford ” of New Bedford	- - - Lost on the Aleutian Islands near Attow.
“ Armata ” of New London	- - - Lost to the southward of Metchigme Bay, among the islands near Cape Chaplin.
“ Globe ” of New Bedford	- - - Lost on East Cape, about the 10th August.
“ Amity ” of New Bedford	- - - } Doubtful.
“ New Hibernia ” of New Bedford	- - - }

No. 5.

Commander MOORE to the SECRETARY OF THE ADMIRALTY.

Her Majesty’s Ship “ Plover,” Grantley Harbour,
Port Clarence, 30th September 1851.

Sir,

I HAVE the honour to report to you, for the information of my Lords Commissioners of the Admiralty, the proceedings of Her Majesty’s ship under my command since the departure of Captain Collinson, C.B., in Her Majesty’s ship “ Enterprise ” (10th July 1851) from Port Clarence.

On the 11th July, in pursuance of instructions from Captain Collinson, I left Port Clarence for Michaelowski, Norton Sound, for the purpose of picking up a party of Aleutian islanders, whom the Governor General of Sitka had made arrangements to send up, to assist the Arctic Searching Expedition in Behrings, at which place I arrived on the 13th. On the 26th the “ Mentzkoff ” (Russian Fur Company’s ship) arrived from Sitka, by which vessel I received an inti-

mation from his Excellency Captain Rosenberg, that he was unable to send the Aleutians. On the receipt of which I landed such provisions as I could possibly spare (leaving on board sufficient only to carry me back to Port Clarence), and procured permission to land as much more as might be deemed necessary for the relief of any parties of the missing expedition, or from Her Majesty's ships "Enterprise" or "Investigator," that might arrive during the ensuing winter, in the event of the "Plover" having to proceed to the southward this season, in accordance with Captain Collinson's orders to me, a copy of which I beg to enclose.

During my stay at Michaelowski I obtained the following information respecting a party said to have been murdered by natives off Point Barrow.

Gregoria, a Russian late in charge of a small fishing station on the northern shore of Norton Sound, informed me that a native belonging to the River Kowuk (in Hotham Inlet) told him that a vessel arrived off Point Barrow in 1848, that she had been attacked by the natives, and that the whole of the crew had been killed. This report he says he heard on more than one occasion but does not believe it to be true.

On my asking him if he had heard of any persons being destroyed on the Yek-ko River, he stated that a party of one officer and ten men were descending that river about four years ago, in biadars, and that whilst they were asleep the Indians destroyed the whole party. Two muskets, two knives, a shirt, and some powder were seen by Taleshuk Nakeevar, late interpreter of the "Plover," in the possession of some of the natives on the Ko-é-pah River (near the Yek-ko) in the summer of 1849. All the articles, except the powder, which he thinks was English, are represented to be like those bartered by the Hudson's Bay Company. The natives about Point Barrow are reported to have plenty of beads, shirts, and other commodities of barter; but this is easily accounted for, two boat expeditions from this ship having passed to the eastward of Point Barrow; one under Commander Pullen in 1849, the other with myself in 1850.

On the 28th of July I left Michaelowski, and arrived in Port Clarence on the 30th, where I found Her Majesty's ship "Dædalus."

It having been arranged by Captains Kellett and Collinson that a whaler should bring up the latest mail from the Sandwich Islands, and bury it on an island in St. Lawrence Bay (on the Asiatic coast), I obtained permission from Captain Wellesley to proceed thither, and in company with the "Dædalus" arrived there on the morning of the 4th, where we found a number of whaling ships, but saw or heard nothing of the mail, except that the "America" Yankee whaler, which was supposed to have it on board, had foundered, with * ten others, in the pack, early in the month of June.

* A list is here-
with enclosed.

Having consulted Captain Wellesley as to the propriety of making the pack, for the purpose of ascertaining whether Captain Collinson had been enabled to make his way to the eastward of Point Barrow, as also to pick up any information which might possibly be obtained, I left St. Lawrence Bay on the 9th, with a fresh breeze from S.W., and made the ice in 70° 34' north, and 169° W., tracing it to 167° in nearly the same parallel, trending apparently to the E. and N., and evidently close in shore, which I did not like to approach, fearing I might get beset. The pack this year extended at least 160 miles farther south than either of the two previous summers, and I am therefore inclined to think that the "Enterprise" will be unable to make any considerable progress to the eastward this year. The only opinion I can form why the ice should make its appearance so much farther south this season is, that since the breaking up of the winter light winds and constant fogs have prevailed. Having ascertained, so far as I was able, that Captain Collinson must have made his way round Point Barrow, I thought it my duty to communicate with the natives of Hotham Inlet as well as those in Kotzebue Sound, from whom no intelligence of the missing expedition could be obtained. I also examined the cache of provisions I buried in July 1850, which I found undisturbed, as also the boat's gear, but the boat herself was literally broken to pieces by the natives of King's Island, I am given to understand. Being now satisfied that I could gain nothing further in the way of information this summer, I made the best of my way back to Port Clarence, where I arrived on the 28th August 1851.

I am sorry to inform their Lordships that the whalers have been the means of doing the natives (along the coast on both sides of the straits) a vast deal

of injury, by the introduction of a large quantity of spirits with which they have supplied them, and the barter has been so much cut up by the profuse and extravagant manner in which they have given them tobacco that I feel certain the supplies of venison, &c. which I have hitherto been able to procure for the crew will be most materially curtailed, besides which, we shall have to travel considerably farther for what little we may procure.

In conclusion, I beg to inform their Lordships of the uniform and unwearied exertions used by the officers and crew under my command, and trust that their Lordships will be pleased to meet their several claims with favourable consideration.

I have, &c.

THOS. W. MOORE, Commander.

P.S. Having received no mail since July 1850, I most earnestly beg that their Lordships will give directions that all letters for this ship be sent up next summer by a whaler, should no man-of-war be coming.

THOS. W. MOORE, Commander.

List of Whalers lost in the pack during the summer of 1851 in Behring Straits, as stated by Whaling Captains.

"Arabella" of New Bedford, Captain Mansfield	- - -	-	} Lost in the ice between East Cape and Kotzebue Sound.
"Mary Mitchell" of San Francisco	- - -	-	} Lost on shore, north or south side of St. Lawrence Island.
"Cosmopolite" of Havre	- - -	-	- Near Cape Tchaplín, S.W. of it.
"Ajax" of Bordeaux	- - -	-	} On a reef on the S.E. side of St. Lawrence Island.
"New Bedford," of New Bedford	- - -	-	- Aleutian Islands near Attoi.
"Armata" of New London	- - -	-	} South side of Metchichem Bay, among the islands near Cape Tchaplín.
"Trinity" of New Bedford	- - -	-	- Not known.
"New Hibernia" of New Bedford	- - -	-	- Not known.
"Globe" (from, not known)	- - -	-	- East Cape, 10th August.
"Henry Thompson" of New London, Captain Holm	- - -	-	} Not known.
"America" (Yankee)	- - -	-	- Near St. Lawrence Island.

THOMAS W. MOORE,
Commander.

VIII.

Journal of Mr. John Simpson, Surgeon of Her Majesty's Ship "Plover," in command of a detached Party to the Eastern Head of Hotham's Inlet, Kotzebue Sound, in May 1850.

No. 1.

JOURNEY on the ICE to the Eastern Head of HOTHAM'S INLET, KOTZEBUE SOUND, in May 1850, by Mr. JOHN SIMPSON (b) Surgeon, H.M.S. "Plover."

The object of this journey was to ascertain for Captain Moore "the extent of Hotham's Inlet to the north and east, in the direction marked 'not examined' on Captain Beechey's chart, and, if possible, to find out the number and magnitude of the rivers falling into it; also, whether the natives residing there held any direct communication by boats or sledges with those on the Arctic shores."

Being provided with five dogs and a sledge, on which were packed a small canvas tent and a week's provisions, a change of clothing against getting wet, guns, instruments, &c., I set out on the 13th of May, accompanied by

Mr. C. W. Stevenson, master's assistant, to determine the latitude and longitude of the various positions in our route not previously laid down, and attended by an interpreter and one seaman.

The temperature ranged between +44 and -8, the ordinary variation between the afternoon and early morning being 40°, and the sun was obscured from view for an hour at midnight. We were therefore compelled, from the softened state of the snow, to rest during the day, and travel at night, generally from ten P.M. to six A. M. This was also convenient for obtaining the sun's altitude before, at, and after mid-day.

On leaving the "Plover" we directed our course to the northward, crossing the land between Escholtz Bay and Hotham's Inlet, made the southern shore of the latter, and traced it on the ice for about thirteen miles to the north-east. This we found to be formed for the most part of frozen earth, from sixty to ninety feet in height, having a narrow border of small gravel and sand at its foot. A portion of this cliff, about two miles in extent, is black at this season, and already crumbling away under the heat of the sun, and forms tall heaps which at a little distance look like sharp cones standing out in bold relief against the snow still filling up the intervening hollows. Many of these heaps are from eighty to ninety feet high, and in shady spots coated with ice from one to three inches thick, occasioned by the drip from above; but in none did we observe masses of ice forming part of the cliff, nor indications of fossils in them, though there was a perceptible smell of decomposing animal matter. The northern shore is of a different nature, being almost level with the ice, marshy, and sparingly covered with bushes. Gradually approaching the opposite bank, it forms a channel three quarters of a mile wide, into which, on the north side, the Kó-wuk, a river of four hundred yards wide at its embouchure, falls. The channel is formed by the approximation of a low point on each side; that on the south also throwing out a long spit or bar of gravel and sand, beyond which it expands into a large fresh-water lake. Opposite the mouth of the Kó-wuk the depth of water was eleven feet, and the downward velocity of the stream was estimated at two miles an hour. We followed the margin of the lake, first about four miles southward, then, turning eastward for nearly thirty miles, we came close to the base of the Buckland group of hills, whence it trends northward to a small range of peaks laid down in Captain Beechey's chart. Thence again, turning westward, we followed the northern shore, until we gained the channel by which we had entered.

This lake, which we called Sel'-a-wik, from the principal river falling into it, is about twenty-five miles in length from east to west, and fifteen in breadth from north to south, of an irregular oval form, and crossed in several places by lines of ice hummocks from six to eight, and, in a few instances, reaching as much as eleven feet, in height, indicating considerable pressure from winds and currents in the early part of the winter. The northern and southern shores appear to be formed of frozen earth resembling peat, varying from twenty to forty feet high, and along their foot were exposed occasional patches of sand and gravel already laid bare by the influence of the sun's rays. At two or three points the cliffs, becoming undermined by the action of the waves, were detached in large masses, exposing their peat-like formation from base to summit, intersected by numerous cracks, vertical, or nearly so, filled up by plates of ice from an eighth to half an inch in thickness, diminishing downwards, and at the top, where the ground was uncovered with snow, these cracks might be traced as narrow ruts, three to five inches deep, containing water.

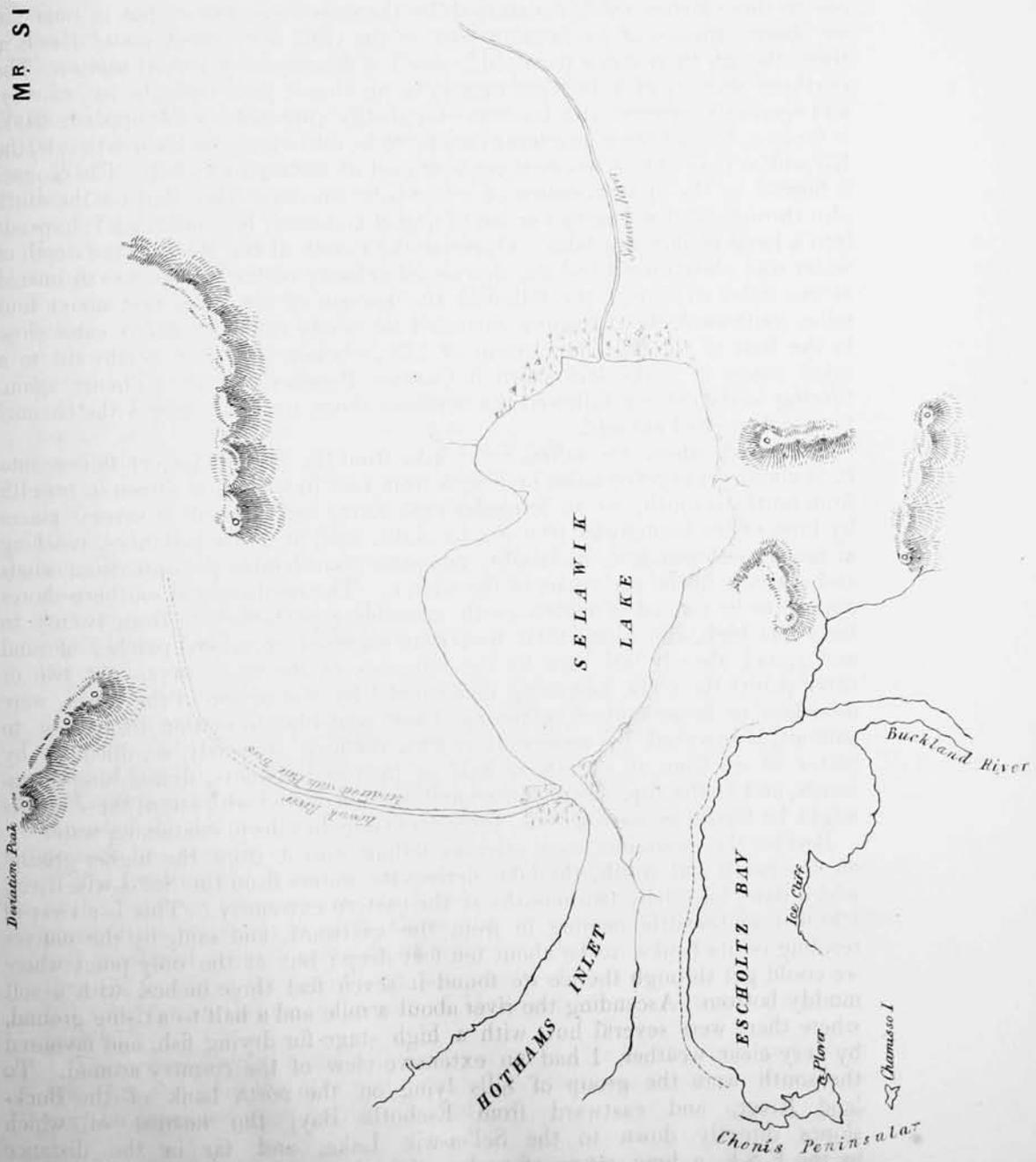
Besides the numerous small streams falling into it from the higher ground on the north and south, the lake derives its waters from the Sel'-a-wik River, which flows into it by two mouths at the eastern extremity. This is a river of 190 feet in breadth, coming in from the eastward, and said, by the natives residing on its banks, to be about ten feet deep; but at the only point where we could get through the ice we found it seven feet three inches, with a soft muddy bottom. Ascending the river about a mile and a half to a rising ground, where there were several huts with a high stage for drying fish, and favoured by very clear weather, I had an extensive view of the country around. To the south were the group of hills lying on the north bank of the Buckland River, and eastward from Escholtz Bay, the nearest of which slopes directly down to the Sel'-a-wik Lake, and far in the distance to the E.S.E. a long range of peaks. On the north the view was bounded

CHART OF
MR. SIMPSON'S JOURNEY.
MAY 1850.

Deviation Peak

Estimated Position of Northwest Hill to the East

Estimated Position of the same Hill to the East



by a line of peaks about ten miles from the margin of the lake, running eastward, and at a long interval succeeded by a similar but very distant one to the E.N.E., but between these and the distant range to the E.S.E., as far as the eye could reach, there seemed to be only an interminable alluvial plain, containing numerous small lagoons, and supporting a few alders and willows. The few natives we met were to all appearance very poor, living in temporary sheds of deer skin. They do not even possess the usual clay cooking utensils, but boil their fish in wooden vessels by throwing in hot stones. They seem to subsist at this season entirely on fish, which they catch with a baited hook let down through holes in the ice. They exhibited great pleasure at seeing us, and behaved exceedingly well, making no attempts to pilfer, and freely bartered their fish for tobacco, but spoke of having been in great distress for want of food before the fishing season commenced. They informed us that there was a large village four days journey up the river, which it would be impossible to reach at this season, on account of the thaw, and that there was another village on the river Kó-wuk, seven days journey northward beyond the hills, which, for the same reason, was at present unapproachable, without great risk, but beyond these they seemed to have no knowledge whatever of the country. Although we could find no trees growing in the vicinity, there was a good deal of driftwood about the banks of the river, twelve inches and under in diameter, which could hardly have been brought there otherwise than down the stream. On the north side of the lake there is a low point containing numerous small lagoons, now partially thawed, in which the waterfowl are collected in great numbers. Here we remarked a small solitary pine tree; the only one we saw growing near the lake.

At the western extremity of the lake, where it contracts to a narrow channel, there is an elevation on the north bank, whence may be seen running eastward from the "Deviation" group a chain of peaks having between it and the range on the north side of the lake an extensive valley, through which the Kó-wuk, a river of considerable size, takes its course, and can be traced for many miles by a broad border of tall pines. This is the river mentioned before, which empties itself into the eastern end of Hotham's Inlet, but it could not be followed up, owing to the state of the snow, in many places overflowed by streams from the thaw on the higher grounds.

At the embouchure of the Kó-wuk we found only one man with several women and children, who, like those we had seen on the Sel'-a-wik, are very poor, subsisting on fish, and living in the open air, the very picture of squalid misery, most of them suffering from inflammation of the eyes, but seemingly light-hearted withal, and thoughtless of the future. The man was evidently a stranger to us, and disposed of his fish at a very cheap rate, caring for nothing but tobacco. He told us the name of the river, and pointed to the N.E. to indicate its source. He spoke of the channel as the route by which the reindeer migrate, and described the process of spearing them from the kaí-aks or small boats, and in proof of his assertion pointed to numerous antlers and bones lying about the beach.

From this point we traced the north shore of the inlet a few miles; but finding the snow become softer and more difficult for the sledge, we directed our course to the ship, by falling into the track by which we had set out, and reached the ship on the 25th.

A portion of the sand and gravel met with was brought to the ship, and consisted for the most part of small pebbles of quartz and scales of mica, but no rock was seen *in situ*.

The trees on the Kó-wuk were not measured, but on a previous excursion to the Spafareif River on the south side of Kotzebue Sound, I had found the pines fifty-nine inches in girth above the snow, and Mr. Martin, in February, had measured several upwards of sixty inches in circumference, at not less than six feet from the ground, on the banks of two considerable streams that fall into the north-west extremity of Hotham's Inlet, within the sixty-seventh parallel.

The accompanying chart will convey a good idea of the form and extent of the lake, and from the care with which Mr. Stevenson made his observations it may be depended upon as a correct outline.

JOHN SIMPSON.

IX.

Lieutenant Pim's Proposal to conduct an Expedition to proceed through Siberia to the Mouth of the River Kolyma, and to explore the Arctic Shore from Cape Sievero Vostotchini Nos to the North Cape of Captain Cook.

No. 1.

Lieutenant PIM to the SECRETARY OF THE ADMIRALTY.

The Hermitage, Croydon,
27th September 1851.

Sir,

I HAVE the honour to request you will lay before my Lords Commissioners of the Admiralty the enclosed plan for the relief of Sir John Franklin, together with a copy of a certificate from Captain Kellett.

I have also the greatest desire to offer my services as volunteer to carry out this or any other plan it may please their Lordships to adopt, and therefore beg you will cause my name to be placed on the list of candidates for such employment.

I have, &c.

BEDFORD C. T. PIM, Lieutenant R.N.

PLAN referred to.

The Hermitage, Croydon,
27th September 1851.

ALL the plans hitherto adopted for the relief of Sir John Franklin have been based on the supposition that the Expedition has not penetrated to the northward of the Parry Islands; there are, however, various reasons to strengthen the opinion that Sir John Franklin *has* succeeded in forcing a passage through Wellington Channel into the Polymeï, or open water. In this clear sea the progress of the ships towards the west would be unimpeded until re-entering the ice in the meridian of Behring's Straits, where the difficulty of the navigation renders it problematical which continent the vessels would ultimately reach.

I am impressed with the idea they are upon the coast of Asia; the prevalent winds lead to this supposition. Vide Appendix of Baron Von Wrangell's journey to the shores of the Polar Sea.

My own researches in the overland journey, to which Captain Kellett refers in the accompanying certificate, serve to strengthen my conviction that the missing ships have attained the meridian of the Colville River, thence dispatched the two boats (of which reports were in circulation during the winter 1849-50) to reach the shore, which it is likely the winds above-mentioned as well as the shoalness of the water prevented the larger vessels from approaching.

The coast of America, and the adjacent countries, have been well searched for traces of the missing ships, that of Siberia has been totally overlooked; and yet an attentive perusal of Baron Von Wrangell's book forces upon us the conviction that ships have been wrecked on the Siberian shores. "On the western declivity of the hills there is a large quantity of drift-wood, among which the Tungusians had found fragments of a vessel, which from the iron nails adhering to it appeared to be of a different construction from the simple one in use here. Latitude about 70° North, longitude 159° 30' East. Fourteen wersts further on we halted near another river, having passed seven dried-up streams, where there was a quantity of drift wood, amongst which I found fragments of a ship with iron bolts and nails, and a boat oar on which the green paint was still visible."

I therefore propose to go in search of Sir John Franklin on the coast of Siberia (thus), leaving St. Petersburg in proper time to arrive at the Kolyma River the beginning of spring, I would in that and the succeeding one completely explore every approachable part of the Arctic shore (from Cape Sievero Vostotchini Nos to the Cape North of Cook, a distance of about 1,300 miles). and thus finally set the question at rest whether the missing ships, or any traces of them, are to be found.

It will be obvious that the accomplishment of this task completes the researches, and all that human endeavours can effect will have been exerted in their behalf.

Should the plan I have proposed be adopted, it will be found inexpensive in comparison with expeditions now absent, which (I say it with deference) with the utmost exertion of talent and bravery can only follow in the path and consequently incur a similar risk as Sir John Franklin.

Few persons would be necessary to assist in the undertaking. Two companions would be sufficient; and as the Russian Government have not hitherto been called upon to co-operate they would undoubtedly feel a pride in facilitating every endeavour to bring about so desirable a result.

Should their Lordships receive favourably this my proposition, I shall be able to furnish more detailed accounts when required.

B. C. T. PIM,
Lieutenant R.N.

CAPTAIN KELLETT'S CERTIFICATE.

Herald, June 16, 1851.

THIS is to certify my Lords of the Admiralty, that Lieutenant Bedford Pim served under my command from February 1845 to the above date, with the exception of the winter of 1849, which he served in H.M.S. "Plover," while wintering within the Arctic Circle in Kotzebue Sound (by my order) (lent).

His conduct has been steady and exemplary, meriting my highest approval. He had charge of a boat, and for a portion of the time of the "Owen" tender, while the ship was on her surveying ground, and when at sea, of a watch.

When lent to the "Plover," he performed during an Arctic spring a journey from Kotzebue Sound across the mountains to a Russian settlement in Norton Sound.

The privations that he suffered during this journey shows that Mr. Pim possesses great strength of mind, hardihood of constitution and perseverance, otherwise he could not have reached his destination. By these means also he was enabled to help the Russian interpreter, who would have perished but for him.

I shall always be glad to forward Mr. Pim's views in the service, as far as is in my power.

(Signed) HENRY KELLETT, Captain.

No. 2.

Lieutenant PIM to the SECRETARY OF THE ADMIRALTY.

The Hermitage, Croydon,
9th October 1851.

To make the proposed research for Sir John Franklin along the Siberian Arctic shore, the *time* of starting is the *all important* consideration, an impediment would otherwise arise from the setting in of the thaw, which by retarding the journey five weeks would render it impracticable to reach the Polar Sea in time for accomplishing any research that summer. I would therefore impress the urgent necessity of the attempt being commenced at latest by the 15th November.

The probability of our brave countrymen having reached the Asiatic shore being entertained as a reasonable supposition, I would observe from the abundance of Polar bear and seal in those regions there would not only be no difficulty in their sustaining life, but from the same resource they would also be supplied with fuel and clothing.

As a preliminary and important step, I would suggest being the bearer of letters from their Lordships and Lady Franklin, *at once*, to His Majesty of

Russia, soliciting his co-operation in forwarding the exploring party to the desired point, "*the Kolyma*."

Although 6,500 miles have to be traversed before arriving upon the ground whence the proposed research is to commence, the expenses would be comparatively trivial; countenanced by the Emperor, a few hundred pounds would be sufficient for the party.

Subjoined is a list of distances and probable time of performing them, from which will be seen that the last 1,200 miles are the only ones attended with difficulty.

Journey from St. Petersburg to Moscow, 485 miles by railway.

From Moscow to Irkutsk 3,544 miles ("tilegi") by small carriages; time of journey rather more than two months.

From Irkutsk to Takoutsk 1,824 miles by sledges; time of journey nearly two months.

At Takoutsk all regular travelling terminates. There are no beaten roads, and the remaining 1,200 miles are performed on horseback, occupying about fifty days.

BEDFORD C. T. PIM,
Lieutenant Royal Navy.

No. 3.

Captain KELLETT to the SECRETARY OF THE ADMIRALTY.

Sir, Admiralty, 11th October 1851.

I HAVE the honour to return Lieutenant Pim's proposition for searching the coast of Siberia, after the missing ships under Sir John Franklin.

I can with safety state that should their Lordships deem it necessary to send an expedition to that quarter, they will find in Lieutenant Pim an officer capable of leading it. He possesses great endurance, with perseverance, and bodily strength; added to which he has ability, with enthusiastic zeal in the performance of any duty he undertakes. Should their Lordships determine on sending Lieutenant Pim, it is of the utmost importance he should start at once; further, that any expedition for Behring's Straits, whether steam or sailing vessels, ought not to leave this country later than the 1st of December, to ensure their being at the ice-edge at the earliest moment of water making in the straits. The 15th July would not be too early.

I have, &c.
HENRY KELLETT,
Captain R.N., late "Herald."

No. 4.

The SECRETARY OF THE ADMIRALTY to Lieutenant PIM.

Sir, Admiralty, 21st October 1851.

HAVING laid before my Lords Commissioners of the Admiralty your memorials of the 27th September last and the 9th instant, offering your services to proceed through Russia to the north coast of Asia, in search of Sir John Franklin's Expedition, I am commanded by my Lords to convey to you their Lordships thanks for your suggestions, and to acquaint you that they decline the proposal.

I have, &c.
J. PARKER.

No. 5.

Lieutenant PIM to the SECRETARY OF THE ADMIRALTY.

The Hermitage, Croydon,
23d October 1851.

Sir,

I HAVE the honour to request you will be pleased to lay the accompanying letter before their Lordships, for their consideration.

I have, &c.

BEDFORD C. T. PIM,
Lieutenant Royal Navy.

The Hermitage, Croydon,
23d October 1851.

I HAVE the honour to inform your Lordships that Lady Franklin has applied to me to conduct a search along the shores of Asia for the missing ships under Sir John Franklin, by means of a private expedition fitted out entirely at her own cost.

Before entering upon so arduous an engagement, I feel it a duty to request from your Lordships a communication signifying a thorough approbation of my acceding to this her Ladyship's request. I beg also to acquaint your Lordships that I receive no manner of pay or emolument from Lady Franklin, and that the funds provided are barely sufficient for the equipment of the party and transporting them to St. Petersburg. With such a task, therefore, before me, it becomes a matter of paramount importance to ensure the interest of His Majesty of Russia through the countenance of my own Government.

I trust, as the risk and responsibility of the undertaking fall on me, and leave of absence alone would in this case be insufficient, your Lordships will grant the necessary documents to accredit me with the Russian Government.

I have, &c.

BEDFORD C. T. PIM,
Lieutenant Royal Navy.

No. 6.

The SECRETARY OF THE ADMIRALTY to Lieutenant PIM.

Sir,

Admiralty, 28th October 1851.

HAVING laid before my Lords Commissioners of the Admiralty your letter of the 23d instant, on the subject of a private expedition along the northern shores of Asia in search of the ships under Sir John Franklin, I am commanded by their Lordships to acquaint you that you may have any extent of leave which you may require for the purpose mentioned.

I am, &c.

J. PARKER.

No. 7.

The SECRETARY OF THE ADMIRALTY to H. ADDINGTON Esquire.

Sir,

Admiralty, 21st October 1851.

I AM commanded by my Lords Commissioners of the Admiralty to acquaint you, for the information of Viscount Palmerston, that in some quarters a hope exists that some information may be obtained of the fate of Sir John Franklin and party by a search on the north coast of Asia; and I have to request that his Lordship will communicate with the Russian minister, if he sees no objection, and represent to the Emperor the thanks of the Board of Admiralty for the interest His Imperial Majesty has always taken in the fate of our officers,

and that Lord Palmerston will state to him the expectation entertained in some quarters, and express a hope that His Majesty may be induced to issue directions that any information of wrecked vessels may be carefully investigated and transmitted to his Government.

I have, &c.
J. PARKER.

No. 8.

Lord STANLEY OF ALDERLEY to the SECRETARY OF THE ADMIRALTY.

Sir, Foreign Office, December 4, 1851.

No. 103.

WITH reference to your letter of the 21st of October, I am directed by Viscount Palmerston to transmit to you, for the information of the Lords Commissioners of the Admiralty, a copy of a despatch from Sir Hamilton Seymour, enclosing a copy of a note from M. de Séniavine, stating that orders have been issued to the Russian Authorities to make every search for traces of any vessel lost on the north coast of Asia.

I am, &c.
STANLEY OF ALDERLEY.

My Lord,

St. Petersburg, November 19, 1851.

THE note from M. de Séniavine, of which I have the honour of transmitting a copy, for the information of Her Majesty's Government, will satisfy your Lordship that the wishes which you expressed in your despatch No. 49. have been complied with, and that in the hope of obtaining some intelligence respecting Sir John Franklin orders have been sent by the Emperor's commands to the proper authorities, to make diligent search for the traces of any vessels which may have been lost upon the eastern coast of Asia.

I have, &c.

Viscount Palmerston,
&c. &c. &c.

G. H. SEYMOUR.

M. le Chancelier de l'Empire a eu l'honneur de rendre compte à S. M. l'Empereur de la démarche faite par Sir H. Seymour, &c., dans le but de recommander, par ordre de son Gouvernement, la demande formée par les Lords Commissionnaires de l'Amirauté Anglaise, qu'il plût à Sa Majesté Impériale, par suite de l'espoir manifesté par plusieurs personnes en Angleterre sur la possibilité de découvrir quelque trace de l'Expédition Polaire du Capitaine John Franklin, d'ordonner que des renseignemens fussent recueillis à l'égard de tous les vaisseaux que seraient échoués sur la côte septentrionale de l'Asie.

S. M. l'Empereur portant un intérêt véritable au sort du célèbre navigateur et de ses hardis compagnons, a daigné accueillir avec bienveillance ce vœu, et M. le Ministre de la Marine, ainsi que celui de l'Intérieur, vont, d'ordre suprême, prendre, chacun en ce qui le concerne, les dispositions nécessaires pour que des investigations très soigneuses soient effectuées dans le but sus-mentionné sur les côtes septentrionales de l'Asie, où la Russie a quelque établissement, ou même quelque support avec les indigènes. Le soussigné, &c., a l'honneur de porter cette décision à la connaissance de M. le Ministre d'Angleterre en réponse à sa note en date $\frac{23 \text{ Octobre}}{4 \text{ Novembre}}$ courant, et profite de cette occasion, &c.

(Signé) L. SÉNAVINE.

St. Petersburg,
le $\frac{2}{14}$ Novembre, 1851.

X.

Lieutenant Hooper's Offer of Service to conduct an Expedition from the Mouth of the Coppermine River across to Victoria Land, and to explore the Eastern Coast of that land from Cape Colborne (the last known point), striking North towards Lieutenant Sherard Osborn's furthest in Lat. $71^{\circ} 52'$, Long. $103^{\circ} W$.

No. 1.

Lieutenant HOOPER to SECRETARY OF THE ADMIRALTY.

19, Hampshire Terrace, Southsea,

15th November 1851.

Sir,

I HAVE the honour to request that you will be pleased to lay the accompanying "Plan for an Expedition to proceed in search of Sir John Franklin's party" before my Lords Commissioners of the Admiralty.

J. Parker, Esq., M.P.,
Admiralty.

I have, &c.
WILLIAM H. HOOPER.
Lieut. R.N.

PLAN referred to.

19, Hampshire Terrace, Southsea,

15th November 1851.

My Lords,

THE last definite traces of Sir John Franklin and party being those found on Beechy Island distinctly prove that the winter of 1845-6 was passed by them in that locality.

Beyond that period, doubt and conjecture assume the place of certainty; consequently opinions are divided into two parties, which may be designated "the despairing" and "the sanguine."

Those who belong to the first of these allege that Sir John Franklin must have been suddenly forced from his winter quarters (in the spring of 1846) on the breaking up of the ice, by the masses which poured down Wellington Channel, and carried down through Barrow's into Davis's Straits, when both ships must have been crushed in the ice, and all hands perished. "He could not," say they, "have gone through the channel to the south-west, since it was blocked up with old ice, nor could he have proceeded up the Wellington Channel without leaving at his winter quarters a notification of his intended departure and proceedings."

The sanguine party, my Lords,—those who consider that while there is uncertainty there should be hope,—advance views equally rational and supported by apparent probability.

The absence of information respecting his intended future is as great a plea *for* as *against* his having proceeded northward, since, while, on the one hand, a sudden disruption of the ice may have carried him without warning from his position, the same occurrence may, on the other, have opened up a clear channel, to neglect which chance, all conversant with the sudden and inconstant motions of ice, would, I believe, be pronounced to be imprudent, since so fortunate a circumstance might not speedily recur.

Even supposing that the ships *were* driven down into Davis's Straits, does it not seem improbable, my Lords, that both were crushed at the same instant, without one having time to evade or *prepare* for the fate of the other? and even had such been the case, is it not equally strange that not the slightest splinter, not the slightest vestige of ships, of gear, or of men, has ever been found in those seas?

It is asserted that the passage to the south-west is impracticable, because blocked up by ice of several years formation; but is there proof that this ice has not formed or even drifted there at a period subsequent to that at which Franklin may have entered it?

There appear therefore to be now only these two routes by which to search for the lost ships; by the Wellington Strait, and thence westward in a high parallel; or to the south of the Parry Islands, between them and Banks Land, or between Banks and Wollaston Lands.

Now that H.M.S. "Enterprise" and "Investigator" have entered the ice to the westward,—also to entirely set at rest any lingering uncertainty which may exist respecting the possibility of the balloon (found at Gloucester) having come from the "Erebus,"—it may be considered by your Lordships advisable to despatch an expedition over land to the southward of the Parry Islands; while others, by sea, proceed northwards through the Straits of Wellington.

For such an expedition as the former I beg to volunteer my services, and to propose as follows:

1. To proceed at such period as may be deemed most advisable to Fort Churchill in Hudson's Bay, and there engage six, eight, or more Esquimaux; with these to repair with all speed, by the most approved route, to the N.E. extreme of Great Bear Lake; strike upon and descend the Coppermine, and from its mouth proceed to the eastward, through Dease Strait, to Victoria Land, and following the eastern shore of that land from Cape Colborne (the last known point), endeavour, striking north, to reach Lieutenant Sherard Osborn's farthest, in Lat. $71^{\circ} 52' N.$, Long. 103° West; visit the position named by the balloon, and thence make for Banks Land, always preferring to proceed on ice, if possible. The route from Banks Land would be northward towards Melville Island, from the western point of which I should endeavour to push westward, in the hope of meeting one of Franklin's or of Collinson's ships, the latter event being desirable; first, to learn the space that may have been searched, and so to fix upon another line of inquiry; and, secondly, to ascertain that their safety is assured, and powers unshackled.

My reasons for desiring to have none but Esquimaux are manifold. They would be able to pick up means of subsistence where white men would perish, and relish food which whites would view with disgust; they are inured to the rigour of the climate, and expert in all necessary manœuvres for gaining shelter and warmth where fire cannot be obtained; their experience would more easily discover any, the slightest signs of recent visitors, whether on ice or land; and they would also be less likely to be molested by their brethren of the northern coast.

That which I consider the most important feature of the plan is the design of continued progression in all seasons, by land, by ice, or by water (for the summer is so brief that in it there is scarcely time to commence operations ere it is necessary to discontinue them).

My route, it will be seen, would lie to the eastward of where Dr. Rae has gone, and is a point of search not yet provided for; it would, as I have observed, connect Lieutenant Sherard Osborn's farthest with the land known as Banks Land, which it will doubtless be found to join.

This plan, if followed out, would require but a very small outlay; the expense of rewards to the Esquimaux, their outfit and a few contingent charges, being all I imagine necessary.

White men might, if it should be considered advisable, be employed in the place of Esquimaux, but they would neither be able to work in so independent a manner, nor to find food so readily as the others, and could, consequently, only make short trips to and from certain places of deposit.

Engaged for nearly four years in the searching service, I have had the great good fortune to be employed in most of its branches.

Voyaging and wintering in a vessel, travelling by land in mid-winter, with or without dogs, embarked in boats, on coasts and in rivers, and, lastly, experiencing the necessary privations incidental on two winters sojourn in a country possessing but few internal resources; it has, moreover, been my endeavour to make myself acquainted with the different modes of action employed by those who have been thrown upon themselves for the means of subsistence.

Earnestly hoping that your Lordships may be pleased to consider favourably of my proposition, I can only add, that I am ready at all times to undertake any other portion of Arctic service, and to use my unceasing efforts for the recovery of the lost ones.

I have, &c.

WILLIAM H. HOOPER,
Lieutenant R.N.

XI.

Captain Penny's Offer of Service to continue the Exploration of Queen Victoria Channel, discovered by him, to the North-west.

No. 1.

Mr. PENNY to the SECRETARY OF THE ADMIRALTY.

Sir,

Polimuir, Aberdeen, 10th Jan. 1852.

I WOULD hope that the time is now arrived when I might refer their Lordships to my letter of the 12th September last, urgently entreating that I might be furnished with a steamer to proceed in further search of Sir John Franklin during the last season, which request was declined by their Lordships on the ground of its being too late in the year to carry out my views.

Since then their Lordships have appointed a Committee to take the evidence of all persons connected with Captain Austin's and the expedition I had the honour to command, whose opinions were likely to be of value, as to the result of these expeditions, and the course to be pursued in a renewed search.

As the Committee in their report have deduced from the evidence that the channel discovered by me was the one which Sir John Franklin has probably taken, and have further recommended the search should be prosecuted in the direction which I was ardently pursuing until stopped by water, and for want of means to convey the provisions necessary for my further progress, I do hope that their Lordships will consider that I have fairly earned my title to conduct and continue a search, and from which such results may happily be anticipated.

I have, &c.
W. PENNY.

No. 2.

SECRETARY OF THE ADMIRALTY to Mr. PENNY.

Sir,

Admiralty, 17th January 1852.

HAVING laid before my Lords Commissioners of the Admiralty your letter of the 10th instant, I am commanded by their Lordships to thank you for your proposal to undertake a fresh expedition to the Arctic Seas in search of Sir John Franklin; but I am to inform you that my Lords have no intention of employing private parties in command of any expedition that may be sent out by the Admiralty.

I have, &c.
J. PARKER.

XII.

Lieutenant Sherard Osborn's proposed Plan of Search.

No. 1.

MEMORANDUM connected with the renewed SEARCH for SIR JOHN FRANKLIN'S EXPEDITION, submitted by LIEUTENANT SHERARD OSBORN, late commanding H. M. Steam Tender "Pioneer."

Memorandum connected with the renewed Search.

I THINK I can show good cause for believing that Wellington Channel is not the only route to the water to the N. W. I believe the Byam Martin Channel an equally good channel; and as in the one case a *choke* of ice may probably prevent vessels proceeding up Wellington Channel above Cape Grinnell, so in the other case the probable difficulty in reaching Byam Martin Channel will, I think, be only found in rounding Griffith's Island.

To ensure therefore the "North Water" being reached by one of these routes appears to me an essential point in any future search; and, I believe, without adding in any way to the expense of a future expedition by the purchase of vessels, this point may be fully established.

"Pioneer," "Intrepid," with "Resolute" for depôt.

The late expedition under Captain Austin, C. B., to be furnished with an exactly similar quantity of stores and provisions, with a little more variety in their nature, to be determined by a board of *medical* officers.

The *total* number of officers and men, or rather complements, to be the same, except that I would reduce the number of officers in the ships, and by diminishing the yards and sails enable them to work with fewer hands, so as to allow *two* more executive officers to the steamers and at least *six* more men.

To the ships I would suggest no alteration beyond that of the bow.

The steamers require a close examination and some repair, both hull and engines. Put an after bearing to the propellers, and have a guard iron at the water line to protect it when screwing through loose pack. Coat the bows with iron down to the *keel*, and run sheet galvanized iron round the bends for two feet above and below the water line.

Alter the rig of the "Intrepid," and make her in all respects like the "Pioneer."

"Lady Franklin" and "Sophia," with "Assistance" for depôt.

Two more steam vessels being requisite to carry out such a plan as I would suggest, the "Lady Franklin" (brig) and "Sophia" would serve very well, with a locomotive engine and propeller, as the "Erebus" and "Terror" were fitted.

Should there be any difficulty about the "Sophia," take any of our men-of-war screws of small power and consumption.

These vessels form two divisions of one squadron, the senior officer of each squadron receiving his orders from England, and responsible for the execution of them; whilst at the same time, in the event of either division failing to reach the points indicated, the fullest co-operation strictly enjoined and called for.

In connexion with these vessels, a store ship, under a pendant, man-of-war if possible, of about 800 or 900 tons burden, to leave England for the Whale Fish Islands at least three weeks before the squadron.

The searching vessels to leave England on 15th April 1852.

Each division will have orders to cross certain meridians or parallels, and sight certain points of land; but beyond that they ought to make the best of their way to Whale Fish Islands. The time occupied there profitably in clearing the store ships of their different portions of coals, stores, &c., and in procuring dogs, seal skins, and sledges from Disco, will give ample time for the *depôt* vessels to arrive. The steamers would of course not much outsail or outsteam each other.

Each vessel having procured one set of dogs, one sledge, and plenty of seal skins, and on board each of the *depôts* if possible an intelligent cross-breed native,

to show the seamen how to drive and feed the animals, I should suppose that at latest by the 25th May all would be ready to take the ice, and proceed to Barrow's Straits.

No. 2.

SEARCHING SQUADRON.

<i>1st Division.</i>		<i>2d Division.</i>	
Pioneer	- screw.	Lady Franklin	- screw.
Intrepid	- screw.	Sophia	- screw.
Resolute	- depôt.	Assistance	- depôt.

The divisions not to hurry into the ice of Melville Bay, but to range along the pack, so as to enter it where it looks most favourable, and to reach the *west* water, if possible, by running to the N.W., off the Black Hook, in latitude 72° north.

Each division to act separately.

The 1st division to have the Wellington Channel and N.W. as its line of search.

The 2d division to have "Byam Martin Channel" and N.W. as its line of search.

We will first follow the Wellington Channel Division. On reaching Beechey Island, the depôt ship was to be immediately secured; if Erebus and Terror Bay is not open, I would place her in Gascoigne Inlet or Union Bay; the former is preferable. Replenishing coal, &c., the steamers immediately to take up the Wellington Channel. If not yet open, assist the ice with powder, and manual and mechanical labour. Strong boat-parties on either shore will be of service; and keep the steamers handy in Union Bay or Barlow Inlet.

Once pass the throat of the strait, I do not conjecture detention will occur, until the point at which Victoria Channel opens into the Polar Sea be reached. However, at a distance of 250 or 300 miles from Beechey Island, I would place one of the steamers in safety for winter quarters, and then push the other up to another stage of equal distance, say 300 miles if possible. We should then have, as it were, three large depôts; one at Beechey Island, one at 300 distance, and another at 600; and in the spring the advanced vessel might easily accomplish by land-parties a farther distance of 400 miles, making 1,000 miles from Beechey Island, whilst the intermediate portions of coast between the steamers should be done by the rearmost steam vessel. The ship depôt would have to form caches of provision as far as possible on the routes taken by the steam vessels, so as to secure the retreat of the crews, if, after a *second* winter, the vessels were not liberated in an early season, under which circumstances the officers and men of the steamers should desert their vessels, and retreat to Beechey Island, so as to avoid if possible more than two or three winters.

Arguing on an *open* season, we will next refer to the 2d division. This should proceed to Byam Martin Channel, and there secure the depôt ship in one of the most promising coves or bays at its *eastern* entrance.

In every respect the movements of this division should be like those of the 1st division; and immediately that communication was opened in the "North Water," between the two divisions, the officers commanding should immediately take steps for co-operating, to extend the search by every possible means in their power, and at the same time support each other in the event of retreat.

The depôt ship of the 2d division should be directed to place a good cache of provision in the direction of Winter Harbour, Melville Island, and to place intelligence of it and its whereabouts on Cape Dundas, for the information of Captain Collinson's expedition, who fully intend, if beset in 1852, to retreat on foot by that route. Vide Captain M'Clure's despatch to the Admiralty, 20th July 1850 (Parliamentary papers, page 13).

Thus, in the event of *one* or *both* these channels being opened, and I firmly believe they are *rarely* otherwise, a search of them would be certainly ensured.

Should the 1st division be unable to pass up Wellington Channel, I should winter in Union Bay, close to the north shore off the ravine behind Cape

Spenser; and by the 20th September the *autumn* travelling parties should be away; they would then have full 30 or even 40 days working weather before them; darkness rather than a low temperature preventing an extension of that period.

I think boat navigation at this season rather dangerous, as the young ice is making very rapidly, and in one night would imprison a boat without being strong enough to bear walking upon.

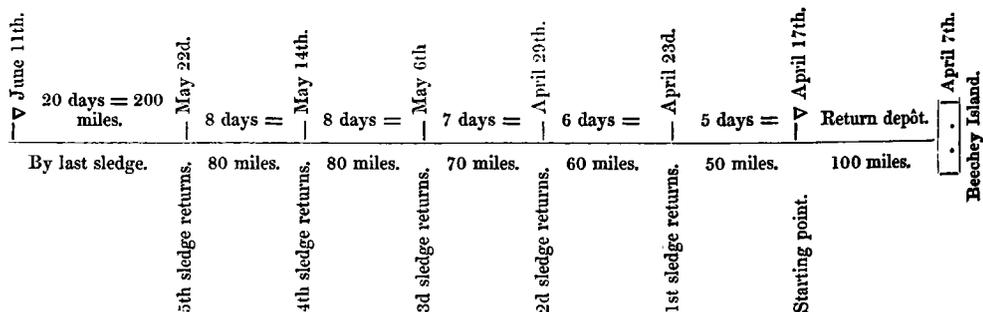
These autumn parties should principally be devoted to placing depôts, and boats in advance, for the following spring and summer operations; and by so doing the labour for all parties would be lessened, and long distances accomplished.

No. 3.

DIAGRAM, showing PLAN of Travelling, Distances, Depôts, &c.

In the event of a division (say No. 1.) wintering together,—

1. Each steamer equips three sledges; the depôt ship, six sledges. (Men, crews.)
2. This gives a grand total to each division of twelve sledge parties.
3. Having two sides to the channel, I divide these sledges into two divisions of six sledges each.
4. In the autumn only half the number of sledges should be employed, the men being required to make preparation for wintering.
5. I believe, on either side of the channel, a depôt might be formed 100 miles beyond Beechey Island, and a boat, and provision equal to about 2,000lbs., be placed in perfect safety by the autumnal parties.
6. I shall by this means attain in 1853 a distance equal to 1,000 miles on either shore; or, at least 550 miles outward from Beechey Island. Thus:—
- 7.



8. The above gives a total of 640 miles out in 64 days, and allows, out and back, for the longest party, 1,280 miles in 120 days; viz., from April 7th to July 20th. Call it, however, allowing for loss of time and distance, 1,000 miles in 100 days.

9. In the above plan, each sledge has 40 days provision, and each man drags 200 lbs.; and each limited sledge as it returns must be replenished, and return to complete the depôt at each station, so that the *long party* will find provision at every station.

10. In the above plan I have calculated that whenever a sledge parts company to return, she will leave the remainder of the division completed to their forty days.

11. I have not here allowed in any way for the facilities offered by the use of the dog-sledges in expediting the work, and I feel certain much may be done by a judicious arrangement upon this head; and it gives me the more confidence, holding them, as I do, in reserve, as well as the possibility of early boat-service, in saying that we shall not, in a future search, fall short of what I have above planned.

12. That the above system of depôts will answer I feel assured, having proposed the same to Captain Austin in the late expedition, and he caused it to be carried into effect with success in the search to the S.W., although upon a very much smaller scale.

13. The limited parties of each sledge division to be constantly employed between the various stations and the ships, with either sledges or boats, as circumstances may require, so as to ensure the safe return and utmost extended search by the long party. The necessity of this will be the more apparent when it is recollected that the state of the ice may render travelling by sledge or on foot difficult as the season advances.

14. Apart from the sledge parties, I feel confident that much may be done with boats in the Arctic regions before the sea is navigable for ships. On the 11th of July 1851, Barrow's Strait was admirably adapted for boat navigation, yet it was the 11th August before our ships were liberated.

SHERARD OSBORN.

XIII.

Commander Rochfort Maguire's Proposal to communicate with Behring's Strait with an Auxiliary Screw Steam Vessel.

Lieutenant ROCHFORD MAGUIRE to the SECRETARY TO THE ADMIRALTY.

R. N. College, Portsmouth,
30th November 1851.

Sir,

I HAVE the honour to lay before you, for the consideration of my Lords Commissioners of the Admiralty, a proposition for communicating with Behring's Strait in the forthcoming summer of 1852, should their Lordships determine upon sending new orders to the ships employed there in search of the expedition of Sir John Franklin.

The vessel best adapted, I consider, would be a steamer with an auxiliary screw; the crew to be reduced to as few in number as possible for the work decided upon. She should leave England by the 1st January 1852, and proceed by the Strait of Magellan direct to Callao, there to wait the arrival of the middle of February mail from England for her final orders, and to leave Callao by the 1st of April, proceeding to Honolulu for fuel. In 1850 there was 300 tons of coal at that place.

On arriving in Behring's Strait, which may be effected by the last week in June, quite as early as necessary, and having communicated with the Plover, or any vessel that may have wintered outside the ice barrier, the coast might be traversed to a hundred miles east of Point Barrow. If not successful in falling in with any of the searching parties, and it is determined on to alter the direction of the search, the Esquimaux of the north coast might easily be induced, by small offers of reward, to pass printed circulars containing the necessary instructions for the above. As there is an Esquimaux interpreter, a Moravian missionary, attached to the expedition, they will be in communication with the natives, who, from their known migratory habits, will form a good means of communicating with parties searching the coast.

Whilst this search is being carried out by a boat expedition, the vessel could trace and examine the packed ice as far to the west to "Herald's Land," and by that means decide the question of a continuity of land across the meridian of Behring's Strait.

The vessel should have orders to return at a certain time and appointed place, to pick up her boats, and fill up with drift wood for fuel. In case of being caught in the pack, the boats at this time would fall back upon a rendezvous of safety previously arranged upon.

The time for leaving the north cannot be better regulated than by following the dates of departure of Her Majesty's ship "Herald," which can be known by reference to her log; and by returning direct to San Francisco, despatches might be received in England by way of the United States by the middle of December 1852.

If it is determined to communicate with Behring's Strait in 1853, the vessel might be usefully employed at Vancouver's Island, during the winter months, in examining and testing the quality of the coals said to abound there, and

making surveys of the important harbours on its western face, or such as the hydrographer of the Admiralty might deem necessary. This would make the expedition doubly useful, as much information about the country might be collected.

The vessel should be ordered to return to San Francisco by the 1st of May 1853, for her orders to proceed again north, or return to England, or otherwise as their Lordships might deem necessary.

I beg leave further to add, that I should feel most happy if the Lords Commissioners of the Admiralty would be pleased to appoint me to the command of any vessel they may deem it advisable to send out for the object I have herein detailed.

I have, &c.
ROCHFORD MAGUIRE, Commander,
late Senior Lieutenant, H.M.S. "Herald."

XIV.

Letters from Captain Austin and Commander Pullen, containing
Suggestions for the Equipment of an Arctic Travelling Party.

No. 1.

Captain AUSTIN to the SECRETARY OF THE ADMIRALTY.

Sir, London, 9th December 1851.
THE Arctic Committee having acquainted me that they "have referred in their Report to suggestions furnished by me on the practicable improvements in the equipment, clothing, provisions, &c. of travelling parties, and requested that I would draw up such suggestions, and forward them to the Secretary of the Admiralty, with a view to their being annexed to the Report of the Committee;"

I have the honour to submit herewith suggestions for the equipment of a party of eight persons accordingly, which I request you will be pleased to lay before the Lords Commissioners of the Admiralty.

I have, &c.
HORATIO T. AUSTIN,
Captain Royal Navy,
(late of H.M. Ship "Resolute,"
and in charge of the Arctic Expedition.)

SUGGESTIONS for the EQUIPMENT of a PARTY of EIGHT PERSONS for travelling
in the ARCTIC REGIONS.

SCALE of PROVISIONS for each Person per Day.

Species.	Quantity.	Remarks.
Biscuit - - -	1 lb.	Of the best quality that can be procured; packed in light square tin cases with moveable lids, each to contain 56 lbs.
Pemmican - -	$\frac{3}{4}$ lb.	Made as in the last expedition, with the greatest care, mixed with one bottle of essence of herbs to render it more palatable; packed in light square tin cases, each to contain 42 lbs.
Preserved potato - -	1 oz.	To mix with pemmican; packed in light square tin cases of 14 lbs. each.

Species.	Quantity.	Remarks.	
Boiled pork - - -	6 oz.	Of the best quality, selected specially from the belly pieces, with as little salt as possible, cooked just before the departure of the party, and packed in light canvass bags of 21 lbs. each.	
Rum - - -	1 gill, of the usual strength.	Concentrated and reduced to the issuing standard as required; in square tins of $1\frac{3}{4}$ gallons each.	
Lime juice and sugar mixed, each $\frac{1}{4}$ oz.	$\frac{1}{2}$ oz.	In flat stone bottles of 7 lbs. each.	
Tea	} (Alternately, or as each Party may desire.)	} Mixed, and packed in duck bags, of 2 lbs. 10 oz. each.	
Sugar			$\frac{1}{2}$ oz.
Moore's Chocolate			$1\frac{1}{2}$ oz.
Tobacco - - -	$\frac{1}{2}$ oz.	With a little more sugar than that in the last expedition; in tin cases of 1 lb. 9 oz. each. In paper parcels of $1\frac{3}{4}$ lbs. each.	

Each party per day for fuel.

Spirits of wine, $6\frac{1}{2}$ gills, or lard 1 lb. 6 oz.; stowed, the spirits of wine in square tins of $1\frac{1}{2}$ gallons each, and the lard run into skins of 10 lbs. each.

[When considering the operation of cooking under all circumstances, I would recommend that each party should take one half spirits of wine and one half lard.]

Each party per week.

Salt, $\frac{1}{2}$ lb., stowed in light duck bags of 4 lbs. each; pepper, $\frac{1}{4}$ lb., in tins of 1 lb. each.

SLEDGE and SLEDGE EQUIPMENT.

Species.	Number or Quantity.	Remarks.
Runner sledge, with white hemp drag-ropes, hide- lashings, and two spare cross bars.	1	Of the length of the longest in the late expedition, and with rather more curve of the runners; the iron shoeing of the best wrought metal, strongly and carefully riveted, instead of screws.
Light canvass trough - -	1	Coated with oil, or some other preparation to make it water-tight, bearing in mind its tendency to crack from extreme cold.
Tent - - -	1	As in the late expedition, but a little larger, and doubled about $1\frac{1}{2}$ feet from the ground at its windward end, the lower part increased by a small goring, the upper part remaining as at present.
Pikes - - -	5	One fitted with a small ice chisel; points covered with leather sheaths before leaving England.
Floor-cloth; fitted also as a sail.	1	Light; of some prepared material that is water-tight, and will not crack from extreme cold (a dark surface preferred); to be large enough to turn up each side about three inches.
Buffalo robes - - -	2	Being superior for this service to wolf-skins, selected specially, and rendered as strong as possible; large enough to turn over a foot at each end of the tent.
Cooking apparatus in fear- naught cover, with a light strong tinder-box.	1	Of copper, with copper rivets, copper spirit and tallow lamps; stew-pans a little larger than those in the last expedition. The introduction of wicks in the spirit-lamp should, if possible, be simplified, as also the means for extinguishing the lights; one cover to the whole lamp, if practicable, instead of one to each wick.

Species.	Number or Quantity.	Remarks.
Cooking apparatus for tallow -	1	Of simple construction ; for extended parties only.
Haversack for luncheon -	1	Of duck ; light and strong as can be.
Lead (and about fifty fathoms of small line).	1	For sounding, &c.
Store bag - - -	1	Of duck ; to contain sail-needles, eight spare soles, twine, a few common sewing needles, thread, two pairs of spectacles (neutral tint), two yards green crape, two yards No. 4. canvass, two awls, shoe-tacks, skein of marline, two palms, boxes of matches, slow match, spare cotton wicks, large knife, canvass wicks for tallow lamp, one small chisel, one hammer, one strong coir tent-brush, one clothes brush, wax bristles.
Double-barrelled guns -	2	—
Ball - - -	6lbs.	—
Shot, No. 1 and 4 - -	10 lbs.	Also cleaning rod, two spare nipples, nipple screw, and turn-screw.
Powder - - -	3lbs.	—
Percussion caps - -	500	—
Wads - - -	1,000	—
Shot pouches - - -	2	—
Powder flasks - - -	2	—
Lantern - - -	1	Of small dimensions, and of as light material as can be for standing wear and tear.
Short wax candles - -	1lb.	} In a light tin case for security.
Small brimstone cotton matches	200	
Iron shovel - - -	1	Made as strong as can be.
Measures, 4 gills and 1 gill -	2	Made of copper.
Gutta percha cases, and small printed notices for depositing.	50 of each.	—
Instruments for observations :		
Telescope - - -	1	—
Artificial horizon - -	1	—
Kater's compass - -	1	—
Compass (small) - -	1	—
Tripod stand for compass	1	—
Pocket chronometers -	2	—
Small thermometer in case	1	—
Outline chart - - -	1	—
Note book - - -	1	—
Case of medicines, &c. -	1	In a tin case, specially prepared in England.
Small Bible and Prayer Book	1	—
Hand towels - - -	2	—
Soap - - -	1lb.	—
Felt sleeping bag, each person.	1	Seven feet in length.
Duck haversack for officer -	1	Made in England ; light as can be.
Duck knapsack, each man -	1	Made in England ; light as can be ; not too limited in size.
Wooden pannikin, each person	1	If these articles can be made sufficiently strong of wood, as recommended, it will be very desirable.
Wooden spoon, ditto - -	1	
Strong clasp knife, wooden handle, ditto.	1	
Small pepper box - - -	1	Of pewter.

WALKING DRESS for each Person.

Species.	Number, Quantity, &c.	Remarks.	
Inside flannel - -	1	It is proposed that over-all coat of leather, with a smooth outside surface for repelling drift, should be provided for each man, instead of one jacket (of the three) as before allowed for winter wear, with a thick lining, which could be removed, when the warm weather arrives, in travelling.	
Guernsey frock - -	1		
Serge frock - -	1		
Jumper - -	1		
Pair of drawers - -	1		
Pair of breeches - -	1		
Pair of over-all duck pantaloons, tied above the knee.	1		Considered necessary on account of snow-drift.
Pair of stockings - -	1		Double knitted at heel and toe.
Pair of blanket feet wrappers -	1		Cut according to the North American Indian fashion.
Pair of wadmill boot hose -	1		
Pair of canvass boots - -	1	Made to fit easy over all. Thick canvass soles for early spring travelling. It is, however, considered that boots made of elk or some such skin would be preferable.	
Waist belt - - -	1		
Welsh wig - - -	1		
Light south-wester - -	1		
Comforter - - -	1		
Pairs of mitts with lanyards -	2	Inside, pair of strong worsted; outside, pair of leather.	
Leather water bottle. -	1	Made flat to fit the body; no metal about it.	
Pair of spectacles - -	1	Made strong; neutral tint.	

SPARE CLOTHING each Person.

Species.	Number, Quantity, &c.	Remarks.
Inside flannel - - -	1	
Pair of drawers - - -	1	
Pairs of stockings - - -	2	One for limited parties.
Pairs of blanket feet wrappers	2	One for limited parties.
Pairs of boots, as in walking dress.	1	
Pairs of moccasins, as slippers	2	One for limited parties; of light soft leather for wearing inside tent and sleeping, and that would serve also for a short march in the event of tender feet.
Pair of light boots, strong soles.	1	For extended parties only. Are for the latter part of the season, when travelling is very wet; should therefore be made, if possible, of some material that is water-tight.
Pair of mitts - - -	1	Of leather.

It being a very important object to keep down the weights as much as possible, the greatest care should be exercised in preparing in England packages and articles of sledge equipment as light as can be, but at the same time to ensure their being of sufficient strength and substance to serve the purpose for which they are intended.

It is estimated that the total weight of the sledge, sledge equipment, and spare clothing will be about 430 lbs., leaving (at a dragging weight on starting from the ship of 250 lbs. per man, and to which each should be limited as nearly as possible,) about 1,000 lbs. for provisions, fuel, and packages.

It may not be considered out of place to remark here, how desirable it is that in the selection of the crew for a sledge they should be as nearly as possible men of similar

size, strength, and endurance; for, being so entirely dependant upon each other, the breaking down of one man would in all probability cause the failure of the whole in accomplishing the service they were appointed to perform.

HORATIO T. AUSTIN,
Captain Royal Navy,
late of H. M. Ship "Resolute,"
and in charge of the Arctic Expedition.

No. 2.

Commander PULLEN to Captain CHARLES EDEN.

6, Prospect Street, Plymouth,
12th January 1852.

Sir,

ALTHOUGH I have not the honour of a personal acquaintance with you, yet take the liberty of enclosing the accompanying remarks, in the hope of their being useful to the expedition about to be fitted out for further search for Sir John Franklin. These remarks are founded on the experience gained while employed in Arctic service, and proving, both by my men and in my own person, that such dresses are the best adapted for resisting the blasts of the icy regions. It is not a dress for rainy weather, certainly, but the blanket capote and cloth leggings sufficiently protect it then. The heavy snow boot with cork sole I consider quite a useless article, and may be dispensed with; the moccassin is preferable at all times. I have said that the men could make the dresses and moccassins themselves; the latter of which twelve pair for each man should be supplied; it would therefore require two moose skins for a dress, and one, with two deer skins, for the shoes for each man.

Pemmican we always used when travelling, and the men preferred it to anything else. The two pounds a day with barley meal was sufficient. It is also much lighter for carriage, and stows better than the preserved meats.

The nets for fishing take up very little room, so they would be but little additional weight. The best sort of sledge, I should say, would be one similar to that used in the Hudson's Bay territory, made of two or three flat pieces of birch from ten to twelve feet in length, turned upwards in front and fastened together above by transverse pieces of wood. It is generally so thin that if heavily laden it bends with the irregularities of the surface over which it passes.

If you should think these remarks worthy of attention, will you be kind enough to lay them before their Lordships, or forward them to their secretary for that purpose. Immediately on my return to England I volunteered for any expedition that might be again sent out; and although when last in town I could not see Sir F. Baring, he kindly intimated to me that he had my name before him for further employment. Hoping that you will consider my exertions in Arctic explorations are a sufficient claim for further employment in that service,

I am, &c.
W. J. S. PULLEN.

No. 3.

Commander PULLEN to the SECRETARY OF THE ADMIRALTY.

6, Prospect Street, Plymouth,
12th January 1852.

Sir,

FROM the next Arctic expedition in search of Sir John Franklin there will no doubt be many travelling parties; and having gained some experience during the two years I was in the Hudson's Bay territory and on the Arctic coast, as to the best mode of equipment, and having been obliged to adopt

the same for myself and men, first from necessity, and afterwards from preference, I therefore beg leave to offer a few remarks on the subject, as well as on the best food for travelling with; and request you will be pleased to lay the same before their Lordships, for their consideration.

A frock and trousers of the moose-deer skin is lighter, and a better protection from wind, than the heavy cloth clothing usually supplied; and with it it is not requisite to wear so much under-clothing, all of which should be of flannel; a man would, therefore travel much lighter and more expeditiously.

A dress of this sort, a pair of cloth leggings, a blanket, blanket wrappers for the feet, a blanket capote, moccasins, and snow shoes, was equipment for any journey; and men so dressed would travel throughout the winter, frequently with the thermometer forty or fifty degrees below zero.

Dresses of this sort might be substituted for some of the cloth clothing, and the heavy snow boot, with the cork sole, done away with altogether. I therefore suggest that a certain number, with moccasins and a buffalo robe, be supplied to each ship for the exclusive use of the travellers. Duffel is certainly the best for wrappers for the feet, but pursers blanket would answer the purpose. The men might make the dresses and moccasins themselves; therefore, it would only be necessary to supply the skins, &c. Snow shoes will in a great measure prevent that sinking when the snow gets soft which Lieutenant, now Commander, M'Clintock had to contend with on his return from Melville Island.

For provision pemmican is decidedly the best for travelling on; and barley meal to be eaten with it I think far preferable to flour. The best pemmican I ever eat was that supplied to the "Plover" in small cases containing about thirty pounds each, without either currants or sugar, which makes it too rich, and it does not go so far. Two pounds a day each we found sufficient allowance. It was only used when travelling, and always preferred by my men.

I also propose that the travelling parties be furnished with light nets of about forty fathoms in length, and from two and a half to three feet in depth, which in the event of any detention, or of running short, might be set under the ice, and thus obtain fish. My men were obliged to do this for the two winters we were in the Hudson's Bay territory; sometimes cutting through from four to six feet of ice before they could set the nets.

In conclusion, I beg to assure their Lordships that I readily and willingly offer my services for carrying fully into execution their orders, hoping that the service I have already been engaged in in Arctic Seas is sufficient claim on their consideration for employment in the expedition about to be fitted out.

I have, &c.
W. J. S. PULLEN, Commander.

XV.

Report from Officers appointed to examine Captain Penny and the Officers of the "Lady Franklin" and "Sophia" at Woolwich on the Subject of their Discoveries.

No. 1.

REPORT from the OFFICERS.

Sir,

8th October 1851.

WITH reference to your letter addressed to us on the 22d September, conveying the commands of the Lords Commissioners of the Admiralty to make a careful inquiry relative to certain particulars connected with the discoveries in the Arctic regions recently reported by Captain Penny in his several

Capt. Penny.
 Capt. Stewart.
 Mr. Goodsir, Surgeon.
 Mr. Marshall, Mate.
 Mr. Manson, Third in Command.
 Mr. John Stuart, Third Mate, and Assistant Surgeon.

letters addressed to their Lordships secretary, we have the honour to acquaint you, for their Lordships information, that we have carefully examined the several officers of the "Lady Franklin" and the "Sophia" (named in the margin), who either commanded or accompanied the various travelling parties, and have also minutely inspected each of the articles brought home by those ships, and supposed to have belonged to Sir John Franklin's expedition (of which a list is herewith enclosed). And we now beg leave to submit the accompanying evidence on the various points referred to by their Lordships, as well as on a few others which appear to us to possess some interest.

We likewise append to this evidence two reports by Sir John Richardson; 1st, upon the climate of the northern lands discovered by Captain Penny, comparatively with that of Assistance Harbour, as deduced from actual thermometrical observations; and, 2ndly, upon the two pieces of wood found by the travelling parties to the northward of Wellington Strait.

These several enclosures, of which a list is given at the end of this letter, comprise all the *facts* elicited in the course of our examination. We do not feel competent to offer any decided opinion as to the inferences to be drawn from these facts, until the information derived from the labours of the other expeditions is fully before us, and has received our most mature consideration.

We have, &c.

W. E. PARRY, Captain R.N.

F. W. BEECHEY, Captain R.N.

JOHN RICHARDSON, Med. Inspector.

LIST OF ENCLOSURES.

Evidence of Captain Penny and five of his officers	-	-	-	p. 113
List of Articles found at Beechey Island, &c.	-	-	-	120
Report of Sir John Richardson, climate	-	-	-	121
Report of Sir John Richardson on two pieces of wood	-	-	-	121

THE following are the subjects to which our attention has been especially directed, and we propose, as the clearest way of conveying to their Lordships the required information, to report consecutively the separate evidence of the respective officers on each subject:—

- Subject No. I. The supposed winter quarters of Sir John Franklin's expedition within Beechey Island. (See specific questions relating to this subject.)
- II. The character of the land, &c. at the principal stations visited by the travelling parties.
- III. Wood and other foreign substances found in the course of the journeys.
- IV. Cairns or other erections, traces of Sir John Franklin's expedition.
- V. State of the ice, and extent of open water.
- VI. Tides or currents.
- VII. Animals.
- VIII. Comparative climate of the northern parts visited.
- IX. In what manner the new discoveries were laid down in the chart.

Subject No. I.—The supposed winter quarters of Sir John Franklin's expedition within Beechey Island.

On this point we deem it right to put the following specific questions:—

1. What reasons have you for supposing that Sir John Franklin wintered in this place?
2. Whereabouts in this harbour do you suppose the expedition wintered?
3. Do you know if there was sufficient depth of water for the ships in that position?
4. What cairns were found in this neighbourhood? where? of what description?
5. Where did you dig to endeavour to find any records?
6. Did you (or anybody else) find any?
7. About what period of the season do you suppose Sir John Franklin left this place? and your reasons?
8. Have you any reason to suppose he left it suddenly, or in a hurried manner?
9. At what date was the ice (within Beechey Island) in the state represented in the particular plan?
10. (To Captain Penny only.) What gave you reason to suppose that "the traces were apparently of a retreating party," as stated in your letter to the Admiralty of the 12th of April 1851?

EVIDENCE of CAPTAIN PENNY, Commander of the Expedition.

Answers to Questions.

1. The whole appearance of the shore indicated this, as well as the various articles found there, and which have been brought away by us, besides others which Captain Austin's ships have on board. The little garden, of an oval form, about seven feet long, surrounded by a border of native flowers. The foundation of what appeared a store-house, dug out of the shingle, about twenty feet by seven or eight. At the S.E. point of the island there had been two or three tents; canisters had been put up to shoot at; bones of birds; all these, together with the various fragments of articles lying about (see list), and especially some coal bags, with cinders and small coals, and the block on which an anvil had been placed, leave no doubt of the wintering place. Also, between Cape Spencer and Cape Innes a long day's journey from Beechey Island, there had been a tent, with a three feet high wall of rough stones round it, and a kitchen for cooking outside. I suppose this to have been for watching the ice in Wellington Channel, and for procuring game. In this tent were found several scraps of paper, among the rest a torn fragment which I understand to have the writing of Captain Fitzjames upon it, and another having the signature of Mr. M'Donald, Assistant Surgeon of the "Terror."

2. By the position of two finger posts made of boarding pikes, one on the island, and one on the northern shore of the bay, I suppose the ships must have been near the beach, where the traces and articles above described were found.

But the position of three graves upon the beach, bearing the names (as per margin) of one seaman of the "Terror," and one seaman and one marine of the "Erebus," seem to leave no doubt of the ships having wintered very near that spot.

One of the finger posts (which I have) has a small board nailed to the top, with a hand painted on it; but both of the pikes were lying down on the ground.

3. We did not sound, on account of the ice which occupied the whole bay; but the ice was seven or eight feet thick, and in the large cracks the water appeared by its colour to be deep; seals coming up from under the ice showed water enough under it, and these were mouse-coloured seals, which never go into shoal-water. The water was deep in the entrance, except a little way to the south-east point of the island.

There seemed little, if any, water between the north tongue of the island and the main land. The ice was in grounded heaps there.

4. There was one upon the north tongue (see chart), built entirely of tin preserved-meat canisters, which were filled with shingle to make them solid. They were examined by Captain Stewart and Mr. Goodsir. All the canisters were examined to see if anything was written upon them. They dug under and near the cairn, but nothing was found.

On the hill on the south side of Beechey Island there were three cairns of stones, two of them being only a few stones thrown together, so that, properly speaking, there was only one, composed of masses of limestone. It was examined four several times; viz., by Captain Ommaney, Sir John Ross, Lieutenant Cator, and by myself. Dug twelve feet all round the cairn. No record was found. There was not one foot of the island that was not carefully examined. We could hardly bring ourselves to believe that there was not some document.

5. There were also some small surveying cairns over Caswell's Tower. (See Mr. John Stuart's report.)

6. Nothing whatever that I have heard of.

7. I think not earlier than towards the end of August. From the marks of sledges on the shingle, which were very plain, especially near Danger Point, showing little snow, and the native flowers bordering the garden, which were probably not procured till the snow had a good deal disappeared; and also because I do not think the ice about Wellington Strait would break up earlier.

8. I cannot say I have, except from the lines of the tent of observation near Cape Spencer having been cut, and the coal bags and anvil block being left; and likewise from our finding no record deposited anywhere.

9. Up to September 1850. I cannot say how it was in the autumn of 1851, as we did not pass it sufficiently near.

10. This was my first impression; but I afterwards corrected it. (See my letter of the of , addressed to the Secretary of the Admiralty.)

Jno. Torrington,
A.B.
of the "Terror."
Jno. Bartoll
A.B.
and
Wm. Braine,
R.M.
of the "Erebus."

EVIDENCE of Captain STEWART, commanding the "Sophia."

Answers to Questions.

1. The fact of the graves, and the date of the men's deaths; the articles found on the beach, especially the coal bags, with a little coal or patent fuel in some of them; the directing posts to direct the people to the ships. I think one of these was standing, but am not sure.

2. Every thing seemed to show that the ships wintered between the island and the main.

3.

P

3. I do not think it was sounded, but I travelled out on the ice about 100 yards from the shore, and found large cracks in the ice, where the water was clear, and I could see no bottom. No doubt there was water enough for the ships. The beach was steep down to the water.

4. Only one of stone, near the S.W. part of the island. I examined that cairn; it was composed of blocks of limestone; it might be six feet high, and fifteen feet in circumference. It had been taken down by the people of the "Assistance." Was taken down again by the "Resolutes."

The cairn of tin canisters on the north tongue (about 700, all carefully filled with gravel,) was well searched.

5. Under the cairns, thoroughly; but not more than the cairns covered, when I was present.

6. No, not any.

7. Not till August or September, I think, as there would be no navigation before. I have no other means of judging.

8. No particular reasons, except that he left no writing.

9. To 5th of September 1850, and it was the same in the spring of 1851.

EVIDENCE of Mr. ROBERT GOODSIR, Surgeon of the "Lady Franklin."

Answers to Questions.

1. The graves of men belonging to the "Erebus" and "Terror," and the several articles found, seem to decide this beyond doubt. (See also No. 8.)

2. Not being a seaman, cannot judge.

3. Ditto ditto.

4. Only one of stones, which was on the south side of Beechey Island, eight or ten feet high, perhaps at the base twenty feet in circumference, composed of slabs of limestone. It was examined by Captain Ommaney and Lieutenant Cator; by Captain Austin and by Captain Penny. I know it was *taken down* by the two first officers. It was also examined by Captain Penny's party, north, south, east, and west, and afterwards completely by Captain Austin and Captain Penny. The height of the hill on which it stands is not above 200 feet high.

In the cairn of canisters to the northward we found some of them not quite cleared of the meat; several filled with gravel. Mr. John Stuart examined that.

5. The digging was made north, south, east, and west of the cairn, at five, ten, fifteen, and twenty feet radius, and at several other points where the ground appeared loose.

6. Nothing was found.

7. I cannot form an idea.

8. I had no impression of any sudden departure. The lines of the tent near Cape Spencer were cut; but this was more than a day's journey from the ships. A wall of rough stones eighteen inches high was round it, and the lines were under this, so that there might be trouble to take them away. The ground was paved within, and many small stones were between the paving stones. Several scraps of newspaper and other paper were found here; and, among the rest, the scraps with Captain Fitzjames's and Mr. McDonald's writing. A small kitchen of stones outside, but touching the wall of the tent, and with two or three pieces of iron hoop that had served as bars, showing that the tent had not been used for magnetic observations.

Near the circle of stones, which appeared to be a shooting tent, near the east point of Beechey Island (which was four paces by four or about eleven feet in diameter), there was a rough portable stove for cooking, made on board, of little or no value to take back to the ships.

From the shape of the harbour it is very probable that ships would be forced out of it with the ice.

9. We never saw it in any other state.

Subject No. II.—The character of the land, &c. at the principal stations visited by the travelling parties.

EVIDENCE of Mr. GOODSIR, accompanied by Mr. MARSHALL, who travelled from the ships to the point marked in the chart "Goodsir's and Marshall's Farthest."

After passing Point Separation, the land becomes lower to the westward, with round-topped hills, but all of limestone still. Cape de Haven is a bluff headland, not more than 300 feet high. Point Decision is a low out-lying point, with very little snow upon it on the 15th of May. The land between Point Decision and Disappointment Bay is about 100 feet high, with a steep slope of snow down to the sea. From Disappointment Bay westward it is higher. Cape Austin is a high bluff headland, and from that point much lower to the "farthest," beyond which it is very low indeed, so as to make it doubtful in some parts which was ice and which was land.

EVIDENCE of Captain STEWART, who travelled from the ships to Point Separation, across the ice to President Bay, round Baring Bay, Prince Alfred's Bay, and to Cape Becher, accompanied by Dr. Sutherland.

Cape Osborne is high land. Point Eden tolerably high. The coast in Baring Bay, and up to Point Hogarth, is quite low. From Point Hogarth, round Prince Alfred's Bay, the land is high and rounded at the top. From Cape Simpkinson westward there are table bluffs very much resembling those on the north shore of Lancaster's Sound, and given in the drawing of Captain Parry's voyages.

Subject No. III.—Wood and other foreign substances found in the course of the journeys.

EVIDENCE of Captain PENNY.

In Disappointment Bay a small piece of pine wood, partially burnt, in a low flat bay, among rolled stones, where, by sea-weed, there appeared to have been, at twenty feet from the present sea, a wash of the sea. (See separate report by Sir John Richardson on this piece of wood.)

In the same place a small piece of pine not brought away.

In Record Bay (Baillie Hamilton Island) a piece of elm was found, and brought away. (See separate report by Sir John Richardson.)

On Point Surprise (Baillie Hamilton Island) a portion of an oak stave, about two feet long, with marks of five hoops; very much washed; found about ten feet from the sea on a shingle beach; not brought away.

On a flat shingle beach on the south shore of Deans Dundas Island, one piece (if not two) of pine drift wood, about two feet long and as thick as a man's arm.

In Drift-wood Bay, on Baring Island, two pieces of pine were found; one about one and a half foot long, rather crooked; the other two feet long, and straight; both about the thickness of a man's arm; neither of them brought away.

In the boat left at Abandon Bay, with the extra clothing and one case of pemmican, there were about eight pieces of drift-wood.

In travelling back from Abandon Bay, in two places, some small pieces of drift-wood were seen at some little distance from the sea.

EVIDENCE of Captain STEWART.

Found no wood at all in his journey, viz., from Point Separation, round Baring Bay and Prince Alfred's Bay, and to Cape Beecher.

There were frequent but very ancient small circles of stones, like those of Esquimaux tents; also jaw-bones and rib-bones of whales, some of them a good way up from the sea, as if carried there, but very old.

An empty wine bottle (containing no fragments of paper) was found near Cape Bowden, in Wellington Strait, by the Americans.

EVIDENCE of Mr. GOODSIR.

The only large piece found by his party was in Lady Harriett Hamilton's Bay, twelve feet long, as thick as a man's ankle; American pine; so said the carpenter's mate and cooper, who were of the party; broken at both ends, branches projecting; no bark on it.

Some very small pieces of pine in water; worn fragments from Cape Austin westward; the journeys previous to Cape Austin were made from point to point, so that there may have been more wood on the shores not seen.

In Abandon Bay two jaw-bones of a whale, partly buried; very old; might have been there a century; near the sea; may have been pushed up by the ice; it belonged to a whale such as whalers call "six foot bone;" also a crown bone, some distance from the sea, which twenty men might have carried.

In Abandon Bay some stones (probably Esquimaux) in rather an oblong form, but very doubtful; very old.

Subject No. IV.—Cairns or other erections, traces of Sir John Franklin's expedition.

On this subject there is no information of importance, beyond what is already given under the head of Subject No. I. No cairn of any magnitude appears to have been found, except that of stones described on Beechey Island.

Mr. John Stuart, third mate of the "Lady Franklin," states that he found at Cape Hurd, in Barrow's Strait, a cairn of stones with a bamboo stuck in the top of it, having a piece of tin in its cleft end. On this piece of tin was written the letters H.M.S., and

on the ground, near the cairn, another piece of tin, on which could be distinguished the letters n. t. r. e., by which he concluded that it was erected by Lieutenant Cator of the "Intrepid." Several other fragments of tin were near it.

Very near Caswell's Tower Mr. Stuart found two cairns of stones, which he examined minutely, taking them down and digging under them; they seemed more recent than any seen elsewhere, and the impression was, that they might have been left by Sir John Franklin's party, but no writing was found under them, nor any trace near them, except two empty bottles, and eight or ten tin meat canisters, which seem to have been left there by shooting or surveying parties, as there was likewise a circle of stones which had probably been the site of a tent. Mr. Stuart climbed to the top of Caswell's Tower, which is a mass of limestone eighty or ninety feet high, very steep and difficult of access on all sides, very flat at the top, with some mud there.

There was no mark of paint on any of the rocks.

In the neighbourhood of Caswell's Tower Mr. Stuart saw numerous ancient Esquimaux circles of stones overgrown with lichens and mosses; also numerous bones of whales, bears, and walrus, all very old, as old as any remains found anywhere.

Mr. John Stuart's journey was from Point Separation across the ice to President Bay, then southward to Beechy Island, across Gascoyne Inlet, Radstock Bay, and Rigby Bay, to Cape Hurd. It occupied between the 6th of May and 6th of June 1851.

Captain Penny states that there were no cairns found in the examination of Wellington Strait and the land to the northward, and all the travelling parties agree in reporting that no records of Sir John Franklin's expedition could be found in any part of their journeys.

Subject No. V.—State of the ice, and extent of open water.

EVIDENCE of Captain PENNY and Captain STEWART.

In the latter end of the month of August and in the first week in September, Wellington Strait was not accessible to ships higher than about the latitude of Cape Spencer, the ice occupying the strait between that headland and Barlow Inlet on Cornwallis Island. On 5th September Captain Penny ascended Cape Spencer with four of his officers. The cape being about 700 feet high, and the atmosphere favourable for seeing a great distance, they saw some open water to the northward of the ice which obstructed their further passage. On the 8th September about twelve miles of ice came out of the channel. From Point Separation to Snow-blind Bay was all the ice that then remained in Wellington Strait last September. The ice that remained in Wellington Channel in 1850 had been broken, but did not come out that season, but up to Point Separation the ice had been in motion until 11th March 1851. On the boat-journey they carried new ice all the way to the water, except one piece in Stuart Bay, which was old. I am of opinion that fifteen miles of ice remained in Wellington Channel last year. I also think from the appearance of the ice in Wellington Channel in September 1850 that it was two years old ice, but that did not imply that the channel had not been broken up in 1849; it might have been an old floe driven into the channel, and remained there. In the Autumn of 1851 the ice was all broken along the land where the boat was left to Point Separation, where we reached the water, 25th July 1851. We have not since seen the channel beyond Cape Hotham which we passed on the 13th of August on the outside of a floe-piece.

There is every reason to believe that the strait was not more clear of ice when Captain Penny's ships left that neighbourhood on the 12th August 1851.

In the south and north channels of the strait called Queen's Channel, which Captains Penny and Stewart visited respectively, there was a considerable space of open water or of "sailing ice" in the months of May and June 1851. On the 31st May, when Captain Stewart came to the edge of the fast ice at Cape Majendie, there was *no* ice in the north channel, and as far as he could see to the westward, from the hills, there was "sailing ice" with "water sky" about Barker and John Barrow's Islands; he made this observation from land about 700 feet high.*

Captain Penny found the water quite open on the 17th of May, in latitude 76° 2', and longitude 95° 55'. It was washing Point Surprise, and he considered it open for twenty-five miles to the north-westward. He viewed it there from a height of 150 feet, and saw nothing but clear water to the north-westward, except straggling pieces of ice. From Cape Becher (from 500 to 700 feet high), on the 19th and 20th July, nothing but clear water was seen to the north-westward, with a strong water sky in that direction.

Captain Penny has an idea that Queen's Channel was open during the winter; he judges by the fact, that in Barrow's Strait the ice was in motion up to the 11th March, and by the tides being strong.

The whole of the sea from Wellington Strait (inclusive), and in the large space eastward of Baillie Hamilton's Island, was filled with fast land ice during the whole time occupied by the several travelling parties in that direction.

* N.B.—This height would give a view not exceeding twenty-three or twenty-four miles.

Subject No. VI.—Tides and Currents.

EVIDENCE of Captain PENNY.

At Point Surprise and Disappointment Bay there was about four feet rise and fall; a pretty regular tide. The water on the ledge of grounded ice on Cape Benjamin Smith was low about the 16th July; lower than usual; a greater fall than he had observed in other parts.

Full moon having occurred on the 13th, a spring-tide may have accounted for this.

In Queen's Channel the current ran to the eastward not less than four knots on the 16th July, the wind being fresh from the westward; thinks the stream came most from the westward, that the stream of tide was not regular. No definite observations were made to ascertain which way the flood-tide came.

As seen from Assistance Harbour, the currents seemed to be influenced principally by the winds.

EVIDENCE of Captain STEWART.

Did not notice on his journey any regular rise and fall; no opportunity of doing so on account of the land ice.

In the north channel saw the ice going both ways; fastest to the eastward, three or three and a half knots, the wind being south-eastward.

It went to the westward not quite so quick; thinks that there is a set from the westward.

There appeared to be a great pressure of ice on the land from the southward and westward.

EVIDENCE of Mr. MARSHALL, Mate, who accompanied Mr. Goodsir in his journey.

Could not ascertain the exact *amount* of the rise and fall of the tide, but there was four or five feet. The tide ran at times at least four knots to the N.N.W. in the South Channel. It came back at longer intervals; that is, it seemed to run only three hours or thereabouts to the eastward and nine hours to the westward. There *was* a regularity in it. The water was longer in rising than in falling. Thought it strange to see the current running so strong against a westerly wind. We noticed this particularly from the top of Cape Austin, which is from 400 to 500 feet high. Thinks, and indeed feels confident, that the flood-tide comes *from the eastward*; can say so with certainty. When the water was falling by the shore the tide ran to the eastward, and, when rising, to the westward. There was a great deal of open water to the northward and westward, and a water-sky beyond, as seen from Cape Austin.

EVIDENCE of Mr. MANSON, third in command of Captain Penny's expedition, an experienced whaling-master.

Mr. Manson kept the log of the "Lady Franklin," and had charge of observing and registering the rise and fall of the tides in Assistance Harbour, the winter quarters of Captain Penny's ships.

He adopted an ingenious mode of observing the rise and fall, by a simple apparatus on board, of which a drawing is given in the log.

He considers the rise and fall to have been regular, the medium being about six feet two inches, and the highest about seven feet.

He cannot form any idea as to the regular *set* of the tides, having been some distance, say from two and a half to three miles from the margin of the fast ice, where the loose ice was in motion, so that he had no opportunity of observing it.

In strong gales from the S.W. or W.S.W. he noticed a greater flow than usual.

Subject No. VII.—Animals.

EVIDENCE of Captain PENNY.

On the 17th May three walruses near Point Surprise, and two eider-drakes; many seals in that neighbourhood, some on the ice, some in the water; several bears on the east side of Hamilton Island, and a good many burgomasters (*glaucus* gull).

In July, on the shores of the south channel, a great number of various kinds of drakes and brent-geese; about fourteen deer on the north shore of Cornwallis Island; several white hares and a few ptarmigan; of walruses and seals a good number, sometimes six or eight on a piece of ice.

On Baillie Hamilton Island great numbers of king-drakes and eider-ducks, and long-tailed drakes, kittiwakes, and *glaucus* gulls.

On Baring Island, a few eggs and a great many nests; thousands of king-drakes and eider-ducks. He thinks the wolves prevent the birds laying on Baillie Hamilton Island; and they saw the birds flying thence to Baring Island.

EVIDENCE of Captain STEWART.

Saw on his journey about a dozen hares, eight bears, two foxes, a great many king-drakes, a few eider-ducks near the open water; no walruses; several seals, shot one; a great many dovebies, and many common gulls.

EVIDENCE of Mr. GOODSIR.

Bears occasionally seen along the whole coast visited, especially about Disappointment Bay, where seven were seen at one time; one killed there, and one at Point de Haven. The first killed had just devoured a small seal so entire that they got the whole of the blubber for fuel. This bear was very fat; the other very lean, and making his way to the westward.

Seals very numerous about Abandon Bay and near Disappointment Bay, also abreast of the west point of Houston Stewart Island, also on the party's return off Point Separation, and about Barlow Inlet, &c., at Cape Hotham, and on the ice in Barrow's Strait.

On the 24th August 1850, Cape Hotham bearing west about ten miles, numerous white whales, narwhals, seals of different varieties, walruses, and many birds; also some bears.

Near Assistance Harbour, in a small lake, about 15 or 20 lbs. of a small salmon were caught, and in the sea a good many small whiting were caught by the men in the cracks of the ice.

Mr. Goodsir gives a detailed list of birds of many species, as well as of reindeer and hares; of some of these kinds he thinks a good many might be procured in the summer season, if pains were taken, and there was time.

EVIDENCE of Dr. SUTHERLAND.

We saw very few animals as far as I accompanied Captain Stewart, which was not all the way to Cape Becher, but a point some miles to the eastward of it. We had no open water in my portion of the journey, which may account for this.

(Dr. Sutherland being questioned as to the means of support for a party on their own resources, said),—

Had I been thrown on my own resources when we were up to the northward I could anticipate nothing but that we should all have perished in three or four days, *i. e.* between the 26th May and the 1st June, to the northward. Supposing a party of fifteen or twenty men to be placed there, with three months provisions, and left to provide for themselves for the rest of the year, I do not think they could lay in a stock which would increase their provisions one fourth more.

The question of procuring resources was frequently discussed among us in winter quarters, and I speak my own opinion.

The best chance I saw was with the brent-geese on the eastern shore which I travelled along.

On the 28th May 1851 in latitude 76° 2' the sea gulls were, for the first time, seen flying to the eastward.

In June abundance of sea-fowl were flying to the northward.

EVIDENCE of Mr. JOHN STUART.

In his journey to Cape Hurd, viz. from 6th May to 6th June, saw no reindeer. Saw five hares near Cape Bowden, and two others. No other game. The mallebacks were apparently building on the east side of Cape Ricketts.

Subject No. VIII.—Comparative climate of the northern parts visited.

EVIDENCE of Captain PENNY.

His idea of a better climate to the northward was formed in consequence of the extent of open water seen there, and the number of animals.

Cannot say whether the snow melts sooner to the northward of Wellington Strait than further south, but says positively that the vegetation was earlier to the northward. He did not use a thermometer for noting the actual temperature, but refers to the observations made on this subject by Mr. Goodsir and Dr. Sutherland.

EVIDENCE of Captain STEWART.

Did not see anything to indicate a better climate to the northward than at the winter quarters. There was no vegetation in the parts he visited by which to judge. There was a little water for drinking near Cape Majendie on the 5th June.

EVIDENCE of Mr. GOODSIR.

Could not venture to say there was any difference of climate. Registered the thermometer in the shade three times a day.

[Register not received.]

The vegetation was scanty in all the parts visited in his journey, except in marshy grounds near his "furthest;" it appeared exactly similar to what they saw in Assistance Harbour; none was in flower up to the 1st June.

The winds were principally from the westward and northward; i.e. from the 20th May to the 10th June 1851; almost always from those quarters; sometimes pretty hard breezes. No rain.

EVIDENCE of Dr. SUTHERLAND.

Kept a meteorological journal during his journey, which is drawn up in such a way that a comparison may be made at sight of the temperatures to the northward, and that observed on board the ship at Assistance Harbour at the same hours.

This journal has been carefully examined by Sir John Richardson, whose report is appended to these papers.

The vegetation met with on my journey was much the same as at Assistance Harbour as to forwardness; could not perceive any difference.

An island in latitude 75° 49' off Point Davidson, on the north side of Baring Bay, was rich in the vegetation of patches of *juncus* (rush).

Subject No. IX.—In what manner the new discoveries were laid down in the chart.

EVIDENCE of Captain PENNY.

3 observations for latitude at Disappointment Bay.

1 observation for latitude near Cape Washington.

1 observation for latitude at Point Surprise.

1 observation for latitude at Cape Becher.

For longitude at Point Surprise (by chronometer, but the rate doubtful).

The other longitudes by dead-reckoning.

The bearings were obtained by setting up two poles at noon, or at six o'clock, so as to ascertain the true direction by the sun, and the bearings then taken by the compass-card adjusted to the direction of the poles.

EVIDENCE of Captain STEWART.

The following latitudes were obtained by observation.

74	58	} in the respective positions noted in the accompanying sketch.
75	08	
75	22	
75	34	
75	42	
75	49	
75	55	
76	08	
76	15	
76	18	
76	23	

The longitudes were all by dead-reckoning.

The bearings were taken by the sun, in the same manner as described by Captain Penny.

W. PARRY, Captain R.N.
F. W. BEECHEY, Captain.
JOHN RICHARDSON, Medical Inspector.

LIST of ARTICLES found.

Date.	Description.	Place where.	By whom.
27th August 1850.	Part of a hammock No. 61. - - -	Back of Beechy Island. (Winter encampment.)	The officers and crews of the "Lady Franklin" and "Sophia."
	About ten yards of old canvass - - -		
	Part of a trysail (mark red Plymouth) - - -		
	10 pieces of old canvass (30 to 35 yards) - - -		
	1 old bread bag and piece of ditto - - -		
	1 foot-mat (half completed) - - -		
	8 pieces of painted canvass, one of which marked "Terror" - - -		
	3 coal bags - - -		
	1 coal sack, marked "C. Austin, Woolwich" - - -		
	5 pieces of iron hoop - - -		
	7 pieces of iron - - -		
	1 piece of sheet copper (Government mark) - - -		
	7 pieces of wood - - -		
	2 pieces of cask heading, marked "mixed pickles" - - -		
	1 black bottle, empty, with cork - - -		
	1 tub, apparently for butter - - -		
	3 stripes of housing in cloth - - -		
	1 old rope stopper - - -		
	6 fathoms 2½ inch rope (brown) - - -		
	4 feet 2 inch rope - - -		
	1 drag belt (toggle marked "9") - - -		
	6 feet of slow match - - -		
	6 feet of rope 1¾ inch - - -		
	3 fathoms strand rope - - -		
	About 2 to 3 lbs. spunyarn - - -		
	2 small pieces of fearnought - - -		
	1 old brace for trowsers - - -		
	1 duck waist belt (flannel lined) - - -		
	Patt of a white shirt (collar, &c.) - - -		
	1 pair old marine black cloth trowsers - - -		
	3 old stockings - - -		
	Part of a sheepskin glove - - -		
	Part of a worsted mitten - - -		
	2 pieces of a neck comforter - - -		
	2 small pieces of cotton handkerchiefs - - -		
1 small towel - - -			
Part of an old blue cloth waistcoat - - -			
3 joints of back bone of a whale - - -			
Small quantity of charcoal - - -			
1 direction post - - -			
1 block of wood for an armourer's vice - - -			
1 handle of canteen - - -			
1 piece of pitch - - -			
26th August 1850.	4 pieces of stone (conglomerate) - - -	Cape Spencer.	
	19 broken preserved meat cases - - -		
	1 old cooking tin - - -		

SECOND LIST of ARTICLES subsequently transmitted by Captain PENNY, but not examined by the officers.

2 coal bags.
 1 bread bag.
 1½ yard of old painted canvass.
 1 yard of sail cloth.
 ½ yard of deck cloth.
 1 stripe of an old white frock (seaman's).
 1 mat, ship-made.

Sir JOHN RICHARDSON'S REPORT ON "CLIMATE."

Sir,

Haslar Hospital, 3d October 1851.

I HAVE, in compliance with your instructions, examined the meteorological journals transmitted to you from the Admiralty, with the view of making a comparison of the climates of Assistance Harbour and the north part of Wellington Sound; and so far from the temperature of the latter being greater, I find, as far as the comparison extends, that the heat in the shade decreases with an increase of latitude.

The materials for comparison were the temperatures in the shade on board the "Sophia," recorded every three hours in a log kept by Mr. Donald Manson, mate, and the journal of P. C. Sutherland, Esquire, surgeon of the "Sophia," during his journey round the upper end of Wellington Sound from the time of his leaving the depôt in latitude 75° N. on the 11th May 1851 till his return to it again on the 8th June, during which time the highest latitude he reached in his journey was 76° 20' N.

The mean temperature on board the Sophia during the above period was +19° 9' Fahr.

The mean of about ten observations daily on the journey was +16° 5' Fahr.

And of the maxima and minima recorded every 12 hours +17° 1' Fahr.

The difference is equal to three degrees of Fahrenheit for a degree and a half of latitude, but some reduction should, perhaps, be made for the heating power of the ship.

The time of comparison is too short to admit of any decisive inference, but it is at least sufficient to counterbalance the vague impressions of superiority of climate in the more northern position which the presence of open water seems to have produced in the minds of one or more of the travellers.

I have, &c.

JOHN RICHARDSON.

Captain Sir W. E. Parry.

Sir JOHN RICHARDSON'S REPORT ON Two pieces of Drift Wood brought home by Captain Penny of the "Lady Franklin."

No. 1. Picked up in Record Bay of Baillie Hamilton's Island, latitude 76° 2' north, longitude 96° west.

1. This piece of wood was, when found, eighteen inches long, and of very irregular width, being an inch and a half broad at the widest part, and ending each way in splintered points. It is a fragment of an inch thick elm plank, left rough on one side as it came from under the saw, and smoother on the other, which retains portions of a thin coating of tar or mineral pitch.*

2. I entertain not the slightest doubt of the board from which this fragment has been split off having been sawn and pitched by civilized man, since neither Indians nor Esquimaux produce any work of a similar kind.

3. The roughly sawn side is everywhere decomposed into very fine white, shining, flax-like fibres, giving it a shaggy surface, and indicating long exposure to the weather. Similar fibres, but shorter and in smaller number, occur on the smeared side, that surface having been protected from the atmosphere by the pitch, and perhaps by its having lain undermost for a length of time. The other two sides are irregularly splintered in the direction of the woody fibre, the board having evidently been split into fragments by a hatchet. One of the sides actually bears at one end the marks of two or three blows of a rather blunt cutting instrument, and on this side the fibres of the wood are less decomposed than are the other three; whence I would infer that the board had been drifted, and exposed to the weather for some considerable time before it received these cuts. The other splintered surface has its woody fibres nearly as much decomposed as the shaggy sawn side. Since the board was split, the angles of the wood have been scarcely or not at all rounded by friction.

4. On the surfaces and between the interstices of the bleached fibres there are many minute black bodies (*perithecia*).

5. Judging from the length of time required in high northern latitudes to decompose and bleach the woody fibres to the extent that the process has advanced in the piece of drift-wood under consideration, and to develop the lichenoid bodies mentioned in paragraph 4, I am disposed to infer that it has been exposed to the weather for at least ten years, and probably for a considerably longer period, and that therefore it has no connexion with Sir John Franklin's expedition.

* Note.—A small piece was broken from the end of the fragment in carrying it to the "Lady Franklin" from the place where it was found, and another piece has since been sawn off, for the purpose of examination in the microscope. The tar coating was considered by Captain Penny and his officers to be lead-coloured or slate coloured paint used as a priming in shipwrights yards, but when examined through a lens it appeared to me to be mineral pitch, with bleached woody fibres shining through the interstices, giving a leaden line to the whole surface. This opinion is partly confirmed by the solubility of the coating in ether, proving it to be either tar or petroleum. I have not been able, however, to ascertain to which of the latter two substances it is to be referred.

6. After having come to this conclusion from my personal observation in Arctic regions, I have, through Sir William Hooker, had an opportunity of considering the opinions of Mr. Berkely and several other eminent cryptogamists, who think that a less time would suffice to reduce wood to the condition of the drift-elm. I was thus led to examine the action of the sea and shingle on wood forming part of the sea-wall and groining of Haslar Beach, and I find that sound Norway deal exposed to the friction of gravel for part of the ebb and flood of every tide, and to the action of the sun and weather for twenty hours out of the twenty-four during a year or fourteen months, has its woody fibres considerably unravelled and bleached, though not to the extent of the drift-elm; and that oaken groining formed of old ship-timber, when exposed to the wash of the sea in ordinary tides, for periods ranging from twelve to thirty years, rots, but the fibres of even the oldest pieces are not so much disentangled and bleached as in the drift-elm. Various *perithecia* occur in the cracks of the oak; their development seeming to depend in some degree on the rotting of the woody substance. None of these bodies are found on the fir plank that had been exposed only for one year, its surface appearing quite fresh as if newly dressed, except where its prominent points are fringed by the bleached flax-like fibres disengaged by the friction of the gravel. In comparing these effects of the surf and weather on an English beach with the breaking up of the surface of a piece of drift-timber cast on the shores of Cornwallis Island, the shortness of the summer season in the latter quarter must be kept in mind. The ground there is not denuded of snow for more than two months of the year, while at Haslar the weather operates during the whole twelve months, and one year's exposure there may be therefore taken as equal to six on the shore of Victoria Channel. Moreover the low temperature of the high latitudes retards the rotting of wood, or its decay by putrefaction, for very many years. These, added to many minute circumstances which it is unnecessary to detail, lead me to adhere to the opinion expressed above, respecting the length of time during which the elm has been exposed to the weather, notwithstanding Mr. Berkely's experience of the greater effects of the open climate of Europe. Had the edges of the drift-elm been more rounded, so as to countenance the belief that it had suffered much friction in the gravel, I should have modified my opinions, so far as to think it possible that the hatchet blows which split the board for the last time had been the act of some one engaged in Franklin's expedition. That the mere exposure to the weather has not brought the more recently split surface to its present condition *within five years* is evidenced by comparing it with a chip of ash drift timber brought home last year from Cape Riley, and then reported upon. The cut surface of that chip was then referred to a date not more distant than 1845; and the subsequent discovery of Franklin's wintering place in the neighbourhood renders its having been cut by his people prior to September 1846 nearly a certainty, yet that surface was little bleached or decomposed in comparison with the newest split side of the piece of elm.

7. The result of the preceding investigation being such as to convince me that the piece of drift-elm had no connexion with Franklin's expedition, I was desirous of ascertaining whether some information respecting the course of the flood-tide, or main set of the currents, might not be derived from it. With this view, I requested Dr. Clark to ascertain the species of the elm, from its microscopic structure. English shipwrights make extensive use of the English elm and the American white elm.* Were it ascertained to be one of these species, its drift from the continental coast of Arctic America might be considered as disproved, for neither of these elms grow on the American rivers which fall into the Arctic Sea, or are in use with the Hudson's Bay Company in Rupert's Land. There is, however, a third kind, which has its northern limit on the banks of the Saskatchewan, whose timber is occasionally used in the construction of boats that have been sometimes, though very rarely, transported across Methy Portage to the affluents of the Mackenzie. This Saskatchewan elm is supposed to be the slippery elm of the Canada's. Boards cut from it were used in 1825 for the repair of Sir John Franklin's boats, and were found to be so porous as to allow of the transudation of water. It is the recollection of this porousness which induces me to allude to this kind of elm, since without a comparison of its wood with the drift-piece the inquiry cannot be considered to be complete. It happens, however, unfortunately, that no specimen of it is accessible to us. Franklin's boats of 1825 were payed with mineral pitch, which is universally substituted for paint or tar on the Mackenzie, in boat-building; and two of them, abandoned by me at the mouth of the Copper-mine River in 1826, and subsequently broken up by the Esquimaux, had elm foot-boards in the stern sheets so pitched. As the piece of drift-elm corresponded with the general aspect of a fragment of these foot-boards, I suspected at first that such might have been its origin; but Dr. Clark's microscopic observations cause him to refer the drift-piece to the English elm. It differs, indeed, conspicuously in its

* Note.—The American white elm is used in our naval arsenals for paddle floats, hammock rails, boat gunwales and keels, boat timbers and knees, and for planking diagonal built boats. When painted its first coating is white lead and oil. This information was obtained from John Fincham, Esq, master shipwright of Portsmouth Yard. To it may be added, that the sledges employed on Captain Austin's expedition were of white elm. Sir Edward Parry did not employ elm sledges.

grain, even to the naked eye, from the white American elm, and closely resembles the English one, but seems to have rounder and more open pores when viewed through an ordinary eye-glass. As its microscopic structure, however, is identical with that of the English elm, its unusual porousness may be merely a variety, not amounting to a specific difference.

8. If it be held, then, that the European origin of the wood is established, the course in which it could have drifted is next to be considered, and the probabilities seem to be greatly in favour of the opinion that it entered Wellington Strait by way of Lancaster Sound. The finding of the blade of an oar on Cape Hotham, marked with a Davis's Straits whaler's name, indicates at least an occasional drift in that direction. Those who believe in the existence of an open polar basin may infer that a piece of board may find its way into Victoria Channel, either round the north end of Greenland, or from the coasts of Lapland or Asia, or from Behring's Straits, but as yet the existence of such a basin rests only on vague conjecture.

9. We may therefore infer, though not with absolute confidence, that this piece of elm-board drifted through Wellington Strait; and further, for reasons assigned in former paragraphs, that if it was handled by any one of Franklin's parties, which is not probable, that it was merely as a piece of drift-wood which they had split for fuel. Viewed in this light it may be considered as evidence of open water in Wellington Strait. That the western entrance of Victoria Channel is also occasionally open seems to be established by the presence, on the northern shores of Cornwallis Island, of a drift tree of American spruce twelve feet long and as thick as a man's ankle, found there along with smaller pieces by Mr. Goodsir. The great scarcity or entire absence of drift-wood in the north bay of Wellington Channel, and its occurrence on the islands in Victoria Channel and on the north shore of Cornwallis Island, led the officers of the "Lady Franklin" and "Sophia" to believe that most of the drift-wood which they found came from the westward, a belief in accordance with their opinion of the flood tide, or chief current, setting from the west, and the prevailing winds blowing from the north and north-west.

No. 2. Picked up in Disappointment Bay on the north side of Cornwallis Island, in latitude $75^{\circ} 36'$ north, and longitude 96° west, by Mr. Goodsir.

10. This piece of wood, which is about five inches long, has the external appearance of the American white spruce, which forms the bulk of the drift-wood found on the Arctic coasts of America, and Dr. Clark found it to correspond exactly in its minute structure with that species. It is partially rotten, has lost much of its original weight, is much rounded by friction, and two of its sides have the bleached silvery hue which drift-wood acquires. It differs in fact only from the ordinary morsels of drift-wood scattered over the Arctic beaches in its having been partially charred, and evidently not having been exposed to much rubbing against either ice or gravel since it was submitted to the action of fire.

As there are no natives in that quarter, nor traces of them more recent than one or two centuries ago, I cannot but consider the charring of this small piece of wood as connected with Franklin's expedition. That it is not the remnant of a fire made on the spot may be concluded, since Mr. Goodsir found no other pieces of charcoal besides it; yet it has suffered little or no friction since it was burnt, and has not probably passed the Straits of Baillie Hamilton's Island, where the strong currents would bring it into collision with pieces of drift ice. Doubtless Franklin, in accordance with the previous practice of Arctic voyagers, and his own expressed intentions, sent out exploring parties in spring from his winter quarters at Beechey Island. By one of these this piece of wood may have been charred farther to the west in Victoria Channel, and drifted to Disappointment Bay by the currents or north-west winds. It is not likely to have been thrown overboard from the ships, as parties would scarcely have been landed in Victoria Channel to pick up drift-wood without leaving some conspicuous memorials of their visit, and where wood was scarce a piece so large would scarcely be rejected among the ashes of the galley fire. The fire-wood in use on board the ships was oak, of which a fragment was left behind on Beechey Island.

JOHN RICHARDSON, Medical Inspector.

Extract of Dr. Clark's Memorandum of his microscopical examination of the pieces of drift-wood, referred to in the preceding report.

No. 1. *The drift elm.* "Perpendicular, horizontal, and tangential sections of the elm in question were compared with similarly cut sections of the English and of the American white elm. The anatomical elements of the different species are essentially the same, and it was only in the modifications of these, with respect to size, form, consistence, and colour, that a means of distinguishing the species could be found. The drift-wood differed from the American white elm in the size and character of the (a) *woody fibres*, (b) *dotted ducts*, and (c) *medullary rays.*"

"(a) In the American elm the woody fibres were much elongated, narrow, acutely pointed, and had thin transparent walls without any visible contents. The woody fibres of the drift-wood were, on the other hand, rather stunted, broad, obtusely pointed, and had rough thickened walls enclosing granular contents.

"(b) In the American elm the dotted ducts were few in number, and about $\frac{1}{1000}$ th of an inch in diameter; few of them were barred or scalariform. The circular markings on their walls were irregularly disposed in rows, had each a diameter of about the $\frac{1}{1000}$ th of an inch, and exhibited a minute central elliptical spot. In the drift-elm the ducts were numerous and large, the mean diameter of each being about $\frac{1}{1000}$ th of an inch. Almost all of them were barred or scalariform on one or two sides. The circular markings on their walls were each about the $\frac{1}{1000}$ th of an inch in diameter, and exhibited a central circular diffractive spot in their interior."

"(c) In the American elm, the perpendicular section of the medullary rays was acutely pointed, and the constituent cells contained little or no colouring matter. An analogous section of the medullary rays of the drift-piece showed that they were broader, shorter, and obtusely pointed at each extremity, and that the constituent cells contained much colouring matter.

"In the American elm the anatomical elements were closely compressed. In the elm under investigation they were loose and open.

"Those acquainted with microscopic examination of woods will perceive that the structural characteristics of the drift-wood correspond as closely as possible with those of the *English elm*, and a comparison of analogous sections of the latter wood leave little doubt on my mind of their specific identity.

"The soft, whitish, woolly appearance of the surface of the drift elm, having the aspect of a lichenous crust, was found by microscopic examination to depend on separation of the woody fibres from each other, their subsequent contraction and occasional interlacement, and the development on their free surface of minute granules. That this disintegration of the woody fibre has been produced by long-continued exposure and abrasion is probable, from the fact of the opposing edges of the woody fibre being ragged, as if separated by violence from each other.

"No. 2. *Drift-firwood*.—The result of a comparison of this wood with Italian larch, Polish larch, Riga fir, Dantzic pine, Scotch fir, Virginian red pine, American yellow pine, pitch pine, New Zealand fir, and white spruce fir from Rupert's Land, all but the last named in use in our naval arsenals, was its identification with the white spruce.

"Haslar Hospital, October 10th, 1851."

EXTRACT of a Letter from the Rev. J. M. Berkely, referred to in the preceding Report.

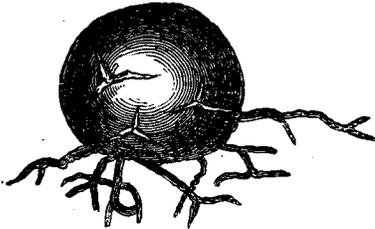
"The wood (the elm board) has been divided transversely, and the surface has evidently been exposed some time to the atmosphere. In consequence thereof the divided ends of the woody fibres have lost their connexion, and are perfectly bleached and partly decomposed. It is very easy to trace the connexion of the bleached ends with the sound portion beneath, and there is not the slightest trace of any of those green bodies which are characteristic of lichens. The black specks which are seated on the decomposed fibres are distinct *perithecia*, thin above, but thicker and of a firmer consistence below, and furnished with a few very short brownish hairs, where they are attached to the decomposed wood. They do not contain distinct *asci*, as in perfect *verrucariae*, but are filled with a white gelatinous mass, consisting of minute obovate oblong bodies, many of which are divided by a single septum. The production, therefore, though it comes from a species of *phoma*, an undoubted fungus, belongs to those anomalous bodies which Acharius has placed in the genus *limboria*, and which are exactly intermediate between lichens and fungi, differing from the former in the total absence of a crust, and from the latter in their firmer more persistent fruit. In the fissures of the wood I find a minute fungus, with distinct *perithecia*, and a highly developed *mycelium*, with very minute spores. I find also the *sporidia* of some lichen.

"As regards the time which such a piece of wood might be exposed to the atmosphere to assume such an appearance, I should say that in oak it would require several years, perhaps as many as Dr. Richardson mentions, viz. ten. I do not think, however, that a piece of elm wood exposed to constant changes of atmosphere could remain so long without having the subjacent wood decayed. There is nothing in the production to make one believe that it has outlived many seasons, as is undoubtedly possible with true lichens; and the presence of the fungus above mentioned in the fissures of the wood leads me to think that the wood has not been exposed more than two or three years. As I am leaving home again at five o'clock to-morrow, I have not time to compare the structure of the wood in a sound piece of elm, but the swollen ends of the vessels are peculiar."

"King's Cliff, October 12, 1851."



Bleached ends of the woody fibres.



Fungus in fissures of the wood.



Perithecium splitting and pouring out its spores when pressed.



Portion of wall of perithecium, with the spores.



SPORES



Spores of the fungus.



Sporidium of lichen found amongst the mycelium of the fungus.

XVI.

Miscellaneous.

No. 1.

H. ADDINGTON Esq. to the SECRETARY OF THE ADMIRALTY.

Foreign Office, 11th July 1851.

(Received 17th July 1851.)

Sir,

I AM directed by Viscount Palmerston to transmit to you, for the information of the Lords Commissioners of the Admiralty, a copy of a letter which his Lordship has received from Baron Brunnow, inclosing a report on the recherches made by order of the Russian Government after Sir John Franklin

I am, &c.

(Signed) H. W. ADDINGTON.

Enclosure 1. in No. 1.

My Lord,

Ashburnham House, 5 Juillet 1851.

Je m'empresse de transmettre ci-joint à votre Excellence les renseignements que le Cabinet Imperial m'a chargé de porter à la connaissance du Gouvernement de Sa Majesté Britannique sur la poursuite des recherches faites par les commandants des navires envoyés dans la Mer Arctique pour decouvrir la trace de l'expédition de Sir J. Franklin.

3.

Q 3

Bien que ces informations n'aient malheureusement point le mérite de nous procurer un indice quelconque sur le sort de cette expédition, elles n'ont offriront pas moins à votre Excellence la preuve certaine de l'empressement que nos autorités ont mis à seconder les généreux efforts du Gouvernement de Sa Majesté.

M. le Vicomte Palmerston,
&c. &c. &c.

Agréé, &c.
(Signé) BRUNNOW.

EXTRAIT d'un Rapport adressé par le Président de la Compagnie des Colonies Russes dans l'Amérique du Nord à M. le Ministre des Affaires étrangères, en date de St. Pétersbourg, 5 Juin 1851.

Le Gouverneur des Colonies Russes dans l'Amérique du Nord, Capitaine Rosenberg, a informé le président de la compagnie que le sloop de guerre Anglais "Enterprize," Capitaine Collinson, envoyé à la recherche de l'expédition de Sir J. Franklin, était arrivé à Movo Archangelsk le 22^{me} Octobre 1850. Pendant le séjour qu'il fit dans ce port, les autorités locales ont mis de l'empressement à venir au devant des besoins de l'équipage ainsi qu'à offrir les services que pouvait réclamer l'état du navire après une longue campagne. Désireux, autant qu'il dépendait de lui, de contribuer aux progrès de l'expédition du Capitaine Collinson, le Gouverneur des colonies mit à la disposition de cet officier neuf "bayadares," ou canots en peau, ainsi que dix-huit Aleoutes pour les servir.

Le 2^{me} Novembre "l'Enterprize" mit à la voile pour Hong Kong. Elle voulait y passer l'hiver, afin de revenir au printemps 1851 dans le détroit de Behring. Dans ce trajet elle devait toucher au Port Michailowsk, pour y prendre les "bayadares," qui, par les soins du gouverneur, y auraient été envoyés vers cette époque.

Le Capitaine Collinson, avec un autre navire, "Investigator," placé sous ses ordres, avait pour instruction de traverser le détroit de Behring pendant l'été de 1850 et de se diriger par la Mer glaciale vers l'est jusqu'au fleuve Mednajeruda (Copper-mine River), ou plus loin jusqu'à tel lieu qui pût offrir un refuge sûr pour l'hiver. De là il devait, durant deux années, envoyer des explorateurs à pied et en canot pour découvrir la trace de Sir J. Franklin.

Cependant, avant de parvenir jusqu'au détroit de Behring, les deux navires furent séparés. "L'Investigator," vu pour la dernière fois le 5 Août dans la Mer glaciale, est supposé avoir été pris dans les glaces, à moins qu'il n'ait réussi à s'abriter pour l'hiver près de quelque terre au N.O. du Cap Barrow. "L'Enterprize," empêché par les glaces de pousser jusqu'à Copper-mine River, est revenue chercher des vivres à Hong Kong.

Le détroit de Behring et la partie de la Mer glaciale au nord de ce détroit ont été de plus visités dans le cours de l'été par les navires de la marine Anglaise "Herald" et "Plover." Le commandant de ce dernier, dès l'année dernière, a envoyé en expédition plusieurs chaloupes, qui, en longeant la côte depuis le Cap Barrow vers l'est, sont parvenues jusqu'aux fleuves M'Kenzie et Copper-mine. Quelques-unes de ces chaloupes, ayant remonté le M'Kenzie, y ont passé l'hiver; les autres ont rejoint le "Plover." Celui-ci s'est stationné pour l'hiver dans la baie de Kotzebue; l'hiver prochain il compte mouiller dans la baie de Kawiaiak (Pt. Clarence) ainsi qu'en 1852, à moins d'en être empêché forcément.

Le "Herald," cette année, comme l'année dernière, n'est point resté l'hiver dans les eaux du détroit de Behring, ayant eu à faire le relèvement des côtes occidentales de l'Amérique Centrale, après quoi il devra retourner en Angleterre.

En définitive, ces diverses expéditions, quant à leur objet principal, n'ont produit que des résultats peu satisfaisants. Quelques indications vagues, recueillies parmi les peuplades des régions arctiques, la découverte de plusieurs îles nouvelles dans la Mer glaciale, celle d'un bas fond fort étendu au nord du détroit de Behring, et la description topographique de quelques baies dans le golfe de Kotzebue et aux environs du Cap Tchuksetsk, ont été jusqu'ici les seules conséquences des constants et coûteux efforts si noblement poursuivis dans un but d'humanité et de science.

No. 2.

Captain AUSTIN to the SECRETARY OF THE ADMIRALTY.

London, 8th December 1851.

(Received 18th December 1851.)

Sir,

I HAVE the honour to transmit herewith, for the disposal of the Lords Commissioners of the Admiralty, four cases containing specimens in natural history, &c., collected by the late Arctic Expedition under my charge, and arranged by Mr. Richard King, Assistant Surgeon.

I have, &c.

(Signed) HORATIO P. AUSTIN, Captain R.N.
(Late of H. M. Ship, "Resolute," and in charge
of the Arctic Expedition.)

GEOLOGICAL REMARKS, AND A LIST OF THE SPECIMENS COLLECTED.

A LIST of GEOLOGICAL SPECIMENS contained in small cases, and marked.

Specimens of Gneiss.

„	Irilobites.
„	Encimites.
„	Orthoceratites.
„	Corallites.
„	Iron stone.
„	Feldspar.
„	Quartz.
„	Granite.

And several other fossicular remains not described.

Natural History.

Colymbus Gryllæ	-	Dovekey.
Alea Arctica	-	Puffin.
Larus Eburneus	-	Ivory Gull.
Anas Molissima	-	Eider Duck.
Vulpes Lagopus	-	Blue Fox.
Larus Glaucus	-	Burgomaster.

A few GEOLOGICAL REMARKS on the different Islands and Coast-line visited by Her Majesty's Ship "Resolute," together with the List of Specimens procured, both in Geology and Natural History.—RICHARD KING, Assistant Surgeon.

The *Whalefish Islands* are principally formed of large granitic rocks in which the quartz prevailed in deep veins; gneiss intersected by veins of red feldspar, and beautiful quartz nearly approaching the rose quartz.

The strata dipping towards the N.N.E. at an angle of 23 degrees.

In the composition of the rock, the quartz predominates; the mica is also abundant, and the feldspar the most sparing.

A mass of green stone containing a number of crystals of glassy Artynolites was also observed. The yellow lichen is here in great abundance, and stunted willow. The mosses, and other cryptogamia plants are very luxuriant, particularly when found exposed to a southern aspect.

The quartz at the *Whalefish* and *Duck Islands* contained much iron and manganese, with a reddish conglomerate clay. The bluff headlands along the coast up to *Cape Dudley-diggs*, had their outer surface scaled with the red oxide of iron.

At the *Duck Islands* I have seen a slaty stone of a dark chocolate colour, which stained the hands when touched.

Both the green and grey granite examined here was studded over with garnets, some as large as a walnut, but very vitreous and difficult to extract whole.

As we advanced to the north-west the carboniferous limestone takes the place of the granite; the bluffs nearly composed of it, and becoming fossiliferous in its formation; the low coast or beach being shingly with numerous pieces of corallites, and limestone of a nodulated appearance; also remains of crustaceous animals, and numerous specimens of *Irilobites*. The larger blocks of limestone rich with "encrimotis" and "orthoceratites."

From *Cape Uonenda* along the coast to *Beechey Island* the bluff and perpendicular precipices stand out in vast masses; here and there large buttresses are thrown up. The lower part of those rocky cliffs present caverns, which testify that they have been formed by the sea dashing for an indefinite period against them; the smooth surface of the cliffs being covered with the oxide of iron.

This is more remarkable after you pass the *Beverley Cliffs*, near *Round Island*, and when the land gradually slopes towards the sea.

There are also here deep ravines filled with crimson snow, which owes its tint to the "Proto-Coculus Nivalis."

Many of those cliffs average 800 feet in height; in other places they make up for their want of altitude by their bold and picturesque combinations of form.

Possession Bay.—The land here is very high; some of the conical points appeared through the thick mist more like dense clouds (when we first sighted it). There is a broad valley gradually sloping to the beach on its right. Near *Possession Mount* a bluff promontory projects into the water, and the white foam was seen to dash for many feet against its face. The valley was very fertile with vegetation, and thickly spangled with numerous flowers. The mosses here were very abundant, and turf of a very good description was found extending between the beach and the face of the cliffs that sweep along the bottom of this semi-circular bay.

The land about *Beechey Island* very bold, less vegetation, but composed of the same primary formation; the limestone being arranged in laminated plates several feet thick, others very thin, crumbly, and easily separated.

Barlow Inlet presents the same character; here was found also the "*Circus on snow*," and a quantity of red lichen covered the smooth surface of the cliffs.

Yellow sandstone was found on the beach.

Griffith Island is entirely of limestone formation, with here and there a large boulder of granite deposited on the highest table land (and I have remarked that the larger were found at the northern and southern extremity of the island).

There are numerous fossils found here, both on the beach and table land; there is scarcely a portion of limestone picked up but which is thickly studded with fossils. A great number of *Irilobites*, *Una* and *Bi-valves* are found, the latter in great numbers on the southern bluff. The richest vegetation was also found beneath this portion of the island, abounding in *Dwarf-Poppy*, *Saxifrage*, *Scurvy-grass*, and some very pretty *Ranunculus*.

The mosses here were very thick, forming a luxuriant green slope inviting the traveller to enjoy a quiet repose.

The Carey Islands are entirely composed of granite, some of them small, and consisting of one solid rock. *Scurvy-grass* was very abundant here, owing to an immense quantity of guano deposited by the Loons.

Notes on the Natural History.—The Arctic (or Blue Fox) *Vulpes Lagopus*, "*Lin*," Aup-ash colour, or a dusty brown, always white in winter, although I have seen one shot in February and one in August, near *Beverly Cliff* not so. The under surface of the first thickly covered with short hair almost resembling wool. The fur of the female is thicker and of more value than the male. These animals during the winter have no disagreeable smell. The eye is beautifully marked with a very dark iris and wide circular pupil.

Lemmings, or *Lemming*, have very short ears and tail, their feet well adapted for digging; the species found in the arctic regions,—a little larger than the common rat,—with fur of a pale brown colour. I have seen on the shores of *Griffith Island* a long track, as if many of them were marching in a body. They are very tame when taken, and perfectly harmless. They must be in great numbers on the arctic shores, and I think the foxes principally feed on them.

The Lepus Borealis is much larger and their fur much thicker than the common hare, and the animal itself more muscular, and its ears shorter. We have not seen after the latter end of November any of them, and therefore suppose they go south; indeed the grass or moss on which they feed is so thickly covered with snow that it would be impossible for them to procure enough for food.

No. 3.

Mr. FRANCIS LEE to the SECRETARY OF THE ADMIRALTY.

6, Esther Buildings, Osborne Street, Hull,
14th June 1851.

Honoured Sir,

HAVING read the statement in the newspaper of Sir John Franklin by Captain Thomas Lee, senior, of the "*Prince of Wales*," in September 1848,

I am desired by him, being his son, to inform their Lordships, that it was not in Jones Sound that he was in in that year. It was a deep inlet in from 74° 40' N. to 75° N. as near as he can say, it having been thick weather for fourteen days, and he had not had a sight of the sun for that time.

In making the land he took it for Lancaster Sound, but after running for 150 or 160 miles N.N.E. by compass, he not having hove the log, as customary with the northern whalers, he brought the ship to with the headyards to the mast, and sent a boat on shore.

The weather clearing up he observed that he was not in Lancaster Sound, yet to the N.W. magnetic he saw a body of water as far as he could see from the mast-head. He then took the boat on board, and proceeded down the inlet, he then not having said anything whatever what they had seen until the ship was at sea on her homeward-bound voyage.

My father or me can give you all the information that can be collected from that voyage.

If an ice-master or a person that can give the requisite information that you require on the service in search of Sir John Franklin, you will find that person in Lee, late the ice-master of the "*Plover*."

Allow me to remain, Sir,

Your humble obedient servant,

FRANCIS LEE.

No. 4.

Major BENTHAM to the SECRETARY OF THE ADMIRALTY.

Shane Hill, Chorley, Lancashire,
30th August 1851.

Sir,

In the event of further search being made for the missing Arctic Expedition, I beg deferentially to suggest that the vessel or vessels to be employed in that undertaking be supplied with a number of small copper plates and some ordinary graving tools, and that on all occasions of landing in those regions one or more of these plates be deposited or affixed in conspicuous situations, with the name of the vessel engraven thereon, the date of landing, and any concise information for the guidance of any parties who might subsequently visit the spot.

In illustration of the assumed advantages that might possibly result from this expedient I beg to remark what doubts might have been dispelled, difficulties removed, and perhaps successful courses of action pointed out, if to the graves of the men who were buried at Beechey Island in 1846 had been affixed, for example, such information as the exploration vessels being together or otherwise, the state of the provisions, health of the crews, *the intended course to be pursued*, or other information of practical importance and deep interest.

Further, if by the remotest possibility the boat left by Captain Penny north of Wellington Strait, or portions of it, were drifted or fell into the possession of any of the missing navigators, or any of those in search of them, how deeply will it be to be regretted that such information as might so easily have been attached to the boat, or to several parts of her, by the mode suggested, had not been thus conveyed.

These plates might previously be stamped with the name of the vessel, and it is obvious that the rudest engraving would answer the purpose required.

I trust I may be pardoned for further venturing to suggest the consideration of to what extent it might be expedient to adopt the practice of throwing articles overboard on the chance of their being picked up and affording information of exploring vessels, and of also illustrating the courses of currents.

With this view I submit that, after the attainment of a specified latitude and longitude, it be required daily, or oftener if practicable, to be thrown overboard a common glass or stone bottle, or other vessel contrived for the purpose. The stopper to be of gutta percha, in which is inserted a small whalebone staff, having attached a little flag, also of gutta percha, coloured, in order to attract attention.

The copper plates to be put in the bottles to have the name of the vessel, the words "lat. and long.," and "to be forwarded" (the plate) "without delay" in a letter "to the Admiralty," previously stamped; the figures of the latitude and longitude, and the date, can then readily be engraved, as well as any terse information it may be desirable to convey.



As a substitute, or in addition to the foregoing suggestion, hollow spheres of gutta percha, from being more locomotive, and being capable of being driven across fields of ice, might advantageously be employed. The spheres being closed at all but one small interstice for the introduction of the copper plate, the interstice being then sealed by means of the end of a knife heated.

The foregoing suggestions may be presumptuous or puerile. I risk the chance of their incurring the charge of either, or both, on the chance of their meeting with attention, and on the remotest possibility of their being the means of attaining the object sought.

I have, &c.
J. BENTHAM, Major.

LETTER from Sir JAMES C. ROSS on the Subject of the Missing Expedition.

Aston Abbott's House, Aylesbury,
26th September 1851.

Sir,

SINCE I had the honour of attending at the Admiralty on the 18th instant, two circumstances have occurred to me, which I request you will be pleased to make known to their Lordships.

1. Sir John Franklin was directed to erect conspicuous marks in the usual manner at all the places he should visit, to mark his progress, &c. Captain Penny found on the shores of their first winter quarters two posts bearing a hand pointing in a certain direction. Did Captain Penny cause a careful search to be made in the direction indicated by the hand? For the "*usual manner*" adopted by all travellers in an inhabited country, and most likely by Sir John on this occasion, is to bury that which they wish to conceal at a certain distance from the more conspicuous mark, and to point out both the direction and distance of the cache by some means previously agreed upon, to prevent their falling into the hands of the natives. As I feel convinced that Sir John Franklin would not have left his winter quarters without attending to this order, so also I cannot doubt that if a search had been made by digging to a short distance from the posts the cylinders containing Sir John Franklin's despatches would most assuredly have been found.

2. When the report of the wreck of the "Erebus" and "Terror" and the massacre of their crews by the Esquimaux reached England, one chief reason for disbelieving the story was, that it was said to have occurred in the winter of 1846, a year after the sailing of the expedition, and therefore the calamity could not have happened on their outward voyage. It is well known that the season of 1846 was the most severe that has been known for many years; none of the whale ships attained a higher latitude than 74° on the east and 68° on the west side of Baffin's Bay, which was completely choked with heavy ice. Sir John Franklin's Expedition had made but a small advance to the westward during the more favourable season of 1845, and it must have been a source of deep disappointment to them to have wintered so far short of their expectations. Taking into consideration the character of the following season, it appears to me by no means improbable that the ships were not released from their winter quarters until too late a period for them to make any further progress to the westward, the barrier of ice in that direction, as well as that across the Wellington Channel, probably not breaking up at all that season, as they assuredly did not either in 1848 or 1849. To have wintered again in the same vicinity would have been a waste of the resources of the expedition; and if, as I have assumed, they were unable to advance, they would be compelled to return to England, with the hope of being permitted to make a further attempt the following year, with the crews refreshed and their provisions replenished, well knowing that, under ordinary circumstances, they could make sure of attaining the same position at as early a period of the season as if they had wintered on the spot, exhausting their resources, enfeebling their crews, and leaving them only one year's provisions, with which it would have been most imprudent for them to attempt the prosecution of their arduous enterprise.

Under such circumstances they would have endeavoured to round the north end of what is called the middle ice, and effect a passage to the southward, between it and the east coast of Baffin's Bay. In such a season as that of 1846, it is probable their attempt would have been frustrated, and that the ships would have been frozen in in a high latitude, and not far from the east land; and every one acquainted with Arctic navigation must feel that such a position must be one of great peril.

In the absence of any further traces of the missing expedition being found, I respectfully submit a more rigid inquiry be made of the natives of Cape York and Melville Bay, from whom the report of the loss of the two ships was obtained, for although I cannot believe them capable of murdering the crews of the ships, they might have been spectators of the last sad catastrophe without being able to afford them any assistance.

This inquiry could be the more easily and satisfactorily accomplished now, since within these last three years a communication has been opened between the Danish colonies and the inhabitants of Melville Bay by means of sledges every spring for commercial purposes; and as these Danes all speak the Esqui-

maux language they would be more able to sift the various statements they might hear connected with the wreck of the two ships, as well as other collateral evidence of the fact, or otherwise, as would put that question entirely at rest.

Capt. Hamilton, &c. &c.
Admiralty.

I have, &c.

JAMES C. ROSS, Captain, R.N.

No. 6.

Mr. J. ROOME to the SECRETARY OF THE ADMIRALTY.

Sir,

Norfolk Cottage, 28th November 1851.

IN the year 1815 being engaged in the trade between this port and Hambro', was frequently in company with the captains of vessels employed from Hambro' to Greenland, and have heard them say (two in particular) that they got so far to the northward as eighty-four degrees, with clear water and a heavy swell or sea from the northward similar to what we have in crossing the Bay of Biscay.

And I also recollect of getting a book from a circulating library, which must be thirty years back, being a narrative written by a Dutch captain either from Amsterdam or Rotterdam, of a whaling voyage, and wherein I distinctly recollect its saying that he got as far to the northward as eighty-three to eighty-four degrees, with a heavy swell from the northward and clear water as far as the eye could see to the north; but not falling in with whales, he tacked ship and came back to the coast of Greenland to prosecute his fishing.

I have given you these accounts to assist and encourage a search to be made direct (or so) north, as I am confident Sir John has gone through Wellington Strait to the northward.

I am, &c.

J. ROOME.

No. 7.

Mr. JOHN SHILLINGLAW to the SECRETARY OF THE ADMIRALTY.

Harbour Department, 15, Duke Street, Westminster,

Sir,

21st October 1851.

THE return of the recent searching expedition from the Arctic Seas, under the command of Captain Austin, although affording ample and gratifying proof of what can be done by British seamen, has been in its unsuccessful issue, I need hardly say, a cause of the greatest grief throughout the country.

Perhaps more than ordinarily interested in the subject, I have paid some little attention to the various reports of the search which have from time to time been issued; and having been struck with an idea which does not appear to have occurred to any one, I feel it my duty to venture to lay it before you, that, in case you may think it worthy of notice, it may be referred to the Arctic Council now sitting. In hazarding this suggestion I must beg, however, to state that I can only draw my conclusions from the published documents which all the world has access to, and therefore I may be ignorant of many points of *detail* connected with the late search.

Premising that their Lordships instructions to Sir John Franklin are clearly kept in mind, it follows, that if he has taken a course up Wellington Channel he has acted on that "discretion" with which he was so wisely vested. As this seems the opinion of those best capable of giving one, this position must be granted before my suggestion becomes of much value.

It seems to me, therefore, that as this was an untrodden path, a greater necessity existed for Sir John's leaving the information of his altered route at a point easily accessible in case of need. I conceive that no argument holds good against this assertion, for if Franklin was ordered, among other precautions, to throw over bottles with an account of his progress after passing the latitude of 64° N., surely when he was about to enter on *entirely new ground* he would be even *more* careful to mark his advance. That he left his winter quarters at Beechey Island in a great hurry, owing to one of those wonderful changes in the ice, may very possibly be true; but it is hard to believe that a number of young officers unemployed for eight or nine months would not leave *some* letters or journals buried, remote as was then the prospect of their disinterment at a future time. But these opinions have less weight

with me than the well-known character of Sir John Franklin as an *officer* in the navy and as an old *traveller*. He, of all men, was least likely to be hurried or thoughtless.

It being therefore granted that despatches *are* deposited at his first wintering place (which I take to be the opinion of the great mass of the people, and therefore the most common sense view of the case), the next thing is to determine *where* they are deposited.

Last year the "Prince Albert" on her return home touched at Cape Riley, three miles south of what has since been discovered as the wintering place of Sir John Franklin in 1845-6. She found some pieces of ropes, bones, &c., and five circles of stones varying from twelve feet in diameter to twice as many feet, with two or three stones "placed so as to rest a kettle on" in each circle. The bones, &c. were examined by Sir Edward Parry and Sir John Richardson, and we have seen with what admirable correctness. But the circles of stones were supposed to have been used in the place of stakes, to confine the edges of five tents, which Colonel Sabine suggested was the usual number for an astronomical party.

This was all very well as long as we had no other evidence of Franklin having touched there; but now that we have discovered that he passed a *whole winter* near this spot, it seems very improbable that he should have sent five tents, three miles to the south, when magnetic observations could be made with quite as much comfort at their winter quarters.

Does it not, therefore, seem very probable that Franklin having observed a breaking up of the ice in the Wellington Channel should have despatched a party to *bury notices of his intended alteration of route at Cape Riley, and that this party, being in haste, should have hurriedly gathered what few stones the place afforded, and formed them into circles, burying the despatches in the centre, and with a few stones in a pile to mark the exact spot. Does not the fact of no remains of fires having been found disprove the idea that these small piles of stones were used for the purpose of resting a kettle on, while the large diameter of the circles, in some cases twenty-four feet, unaccountable before, is now very easy of solution.* Add to this Sir Edward Parry's opinion, that Cape Riley is one of the most prominent points for such deposits, and *it appears to me very possible that these circles will on examination next Spring be found to contain the papers which MUST HAVE BEEN LEFT BY FRANKLIN.*

I fear I have intruded too long on your time with a simple suggestion, which without these proofs might have been said in a few words, but I trust I may be pardoned on the ground that all humanity is concerned, and that to no one could I make the suggestion better than to the First Lord of the Admiralty.

I have, &c.

JOHN J. SHILLINGLAW.

No. 8.

Mr. JOHN CHRISTOPHERS to the SECRETARY OF THE ADMIRALTY.

Sir,

Heavitree, Devon, 22d December 1851.

IN compliance with their Lordships request communicated in your letter of the 19th instant, I enclose copies of my letters to them 4th and 5th December 1849. The receipt of that of the 4th was acknowledged on the 6th by Mr. Parker.

Upon my plan for land exploration the average carrying and dragging weight for each man would probably be considerably less than half of 200 lbs., and therefore there is little doubt that fifteen miles a day would be much easier accomplished than the distances travelled by the land parties detached from the ships in the arctic regions last summer.

Kites might often be useful for signals as well as for drawing sledges.

My brief remark for the prevention of frost bites may appear trifling, but it is important to attend to the men's health, and you will have observed Commander Pullen's judicious recommendation of mocassins and blanketting in his letter from Mackenzie River, 17th July 1850.

Smith's Sound would probably be accessible before the beginning of August, and if a vessel could not force a passage through it there would be time to make some survey of its north country to serve as a guide for spring operations.

With reference to my letter of 19th December 1849, I avail of this occasion to suggest that sailing ships sailing from England for the north-west part of America from Behring's Straits down to Columbia River, including, of course, Queen Charlotte's and Vancouver's Islands, between the beginning of December and the beginning of May, should go through the China Sea, making a fair wind of it from England to the 40th degree of south latitude, and keeping south of it until they have nearly run down the longitude of the Island of St. Paul's.

But for expecting a typhoon in the China Sea in September, the period might be extended from the beginning of May to the beginning of June ; and were I dispatching sailing ships from England to San Francisco, or even the Sandwich Islands, in the months of January, February, March, and April, they should take the China Sea route in preference to encountering the boisterous weather and occasional icebergs off Cape Horn, or the intricate navigation of the Straits of Magellan.

Passing up the China Sea during the south-west monsoon would ensure safer and shorter passages from the North Atlantic to the northern part of the North Pacific than the Cape Horn route, and I am surprised that the proverbially shrewd Americans have not made the discovery.

Many a navigator is deceived by Mercator's Chart into steering a wrong course, and much too little attention is paid to great circle sailing.

I have, &c.
JOHN CHRISTOPHERS.

Enclosure 1 in No. 8.

My Lords,

Heavitree, Exeter, 4th December 1849.

ABOUT twenty years ago I suggested that the easiest mode of reaching the North Pole would be for two ships to winter in the northernmost harbour of Baffin's Bay, and early in the month of May to dispatch a pioneering party of a dozen men towards the Pole, forming stations by building a small ice hut at the end of every day's journey, which may be reckoned at about fifteen miles, and leaving a man or two at every station until replaced by other men.

On the route, at every mile, a long willow rod, displaying a small bit of red bunting, to be stuck into the ice (carrying an auger to make the holes), and a parchment notice attached to the rod, stating the compass track the pioneers intended to take.

About a score of Newfoundland dogs to draw light sledges, and conveying some stock fish for their own food, to accompany the pioneering party.

The day after the pioneers have started from the ships twelve more men to be dispatched on the same track, and then continuing to send away from the ships twelve other men every third day for five days, so as to keep up the supply of men for the stations, and as substitutes for any men who may become snow-blind or otherwise disabled.

Every man to have two pairs of cuffs made of west country swanskin doubled, his feet to be wrapped in four or five folds of flannel, and to be provided with a seal-skin sack for sleeping in, and a pocket compass.

In this manner I reckoned that the Pole might be reached by early in July, and that the explorers could ensure their return to the ships by early in September.

Having myself travelled twenty-five and thirty miles a day on foot, and in winter over snow and ice, with a bucking gun three or four pounds heavier than the Ordnance musket, and a prog-bag on my shoulder, I still believe that the fifteen miles a day towards the Pole might be accomplished, and consequently that several hundred miles could be safely explored in one summer.

As the distance from Melville Island to near Icy Cape is only about 750 geographical miles I respectfully suggest that the "Enterprise" and "Investigator" should go to Melville Island, and if Sir John Franklin's ships be not found there, that the above-mentioned mode of searching for them should be adopted ; and I venture to submit that it might probably be attended with more success than any other kind of search.

The details of the Esquimaux's report relative to four ships in Prince Regent's Inlet I disbelieved from the first, but as the celebrated Frenchman at Mauritius could tell the number of ships and their sizes approaching that island, although at the distance of 200 or 300 miles, is it not POSSIBLE that the four arctic ships may have been seen by refraction ? The secret, however, having died with him, my idea that it was from observation of refraction is of course mere surmise.

I have, &c.
JOHN CHRISTOPHERS.

To the Lords Commissioners of the Admiralty.

Enclosure 2 in No. 8.

My Lords,

Heavitree, Exeter, 5th December 1849.

IN my letter of yesterday concerning Sir John Franklin's expedition, perhaps it ought to have been mentioned that my proposed mode of keeping up a supply of provisions to the land explorers was to send forty or fifty pounds of biscuit, &c. daily from the ships to the first station ; and the men at the other stations to be employed in daily conveying on that quantity to the respective stations, commencing to do so as soon in April as the climate will admit of the probable track being determined upon.

After the pioneers and the second dozen of men have started a man or two from each station to go south one day and return to the north* on the next day, with a supply of provisions, and thus also keep up a regular chain of communication between the pioneers and the ships.

I remain, &c.

JOHN CHRISTOPHERS.

To the Lords Commissioners of the Admiralty.

No. 9.

Lieutenant-Colonel SMITH to the SECRETARY OF THE ADMIRALTY.

40, Park Street, Plymouth,

9th January 1852.

Sir,

I FEEL confident that the suggestion I am desirous of submitting to you on the painfully interesting subject of the expedition under Sir J. Franklin will meet in your mind with the consideration it may deserve, and believing it to be only a part of what is already in progress, there would be neither difficulty nor expense in what, I think, is also novel, and eventually hope may be beneficial.

I trust that all ships of Her Majesty's navy employed on the search after the missing expedition, that the parties proceeding by land, including Lieutenant Pim's arduous undertaking in Russian Asia, and even the whaling ships destined for the Polar Seas, are to be provided with pilot balloons, to be sent aloft on all appropriate occasions. It is here I wish to draw your attention to the propriety of having all the balloons to be sent up stained of the brightest *red* colours that can be applied to them, in order to attract and fix the attention of such as may see them, for while they remain white neither the European nor the savage will watch them, excepting while they are above the horizon ; but if they are *red, the most distinct of all colours*, they are sure to be watched, even while driving along the snowy surface of hill and dale, and seen at a distance where they may happen to alight. Thus it may be hoped a greater chance of their falling into the desired hands will be created ; and in each balloon I wish to suggest there should be secured a printed paper, giving an exact account of each and every *cache* or deposit of provisions made on the Polar coasts both of America and Asia. Perhaps other information might likewise be added ; and in order to protect these documents from the rapid destruction by moisture, it would be prudent to have them all coated with varnish. If even but one life were saved by these precautions, it would still be a reward worthy the attention of humanity.

I have, &c.

CHARLES HAMILTON SMITH,
Lieutenant-Colonel.

No. 10.

LIEUTENANT GILMORE to the SECRETARY OF THE ADMIRALTY.

Sir,

8, Brunswick Square, 12th January 1852.

I HAVE to apologise for intruding an opinion upon a subject that has so long engaged the consideration of Her Majesty's Government, assisted by the most experienced and scientific men of the country, but I have for a considerable time entertained a plan for the rescue or ascertaining the fate of our gallant countrymen, supposed to be frozen up in the Arctic regions.

* In the search for Sir John Franklin probably W.S.W. and E.N.E.

A most important point in an undertaking of this nature is, to give confidence in the advance by the prospect of a safe retreat, which would give great effect to the energies of those engaged in a service of so much peril.

As this will, in all probability, be the last attempt made in search for Sir John Franklin and his party, I feel assured that the country will most readily sanction an expense which may be thought necessary for the most effectual prosecution of an object of so much national interest.

I have therefore to request that you will do me the favour to submit to my Lords Commissioners of the Admiralty the following outline of my plan, and should it lead to the hoped-for result I shall feel more than amply repaid.

I would suggest that four eligible vessels, assisted by an auxiliary steamer, be selected of various sizes, the largest of which be placed as a depôt in a suitable position for communicating with Her Majesty's Government, that the vessel next in size proceed in the direction decided on, and within range of communication with the first, the others to be pushed on in a similar manner, reserving the smallest for the last.

By adopting this plan I am of opinion that a chain of communication might be kept up, and should it be found necessary to prolong the search beyond a second year, the spirits and energies of those engaged would be animated by knowing that dispatches and supplies could be forwarded, and that in case of need they could retreat from ship to ship, and thereby secure their safety.

I have, &c.

JOHN GILMORE, Lieutenant R.N.

No. 11.

The SECRETARY OF THE HUDSON'S BAY COMPANY to the SECRETARY OF THE ADMIRALTY.

Hudson's Bay House,
30th December 1851.

Sir,

I AM directed to transmit to you, for the information of the Lords Commissioners of the Admiralty, an English translation of the statement made and committed to writing in the Esquimaux language, by Adam Beck, the interpreter who accompanied the late Arctic expedition, commanded by Admiral Sir John Ross.

This translation is from a German version made by Moravian missionaries in Germany, who have been employed among the Esquimaux tribes of Greenland and Labrador. Another translation is expected from Copenhagen.

I have, &c.

A. BARCLAY, Secretary.

Enclosure in No. 11.

ENGLISH VERSION of the GERMAN TRANSLATION of an ESQUIMAUX-GREENLANDISH DOCUMENT, brought by Sir J. ROSS.

Remark of the German Translator.—"As this writing is neither Labrador Esquimaux nor South Greenlandish, it is possible the translation of all words is not correct. That written in () is remark of the translator."

Remark of the English Translator.—"As the German translator appears to have given a literal translation of the original, the English rendering is likewise literal."

Hildensborg, 3d July 1850.

After I went away I lived two days well (*happy*), I had nothing unpleasant, but the third day I experienced the first trouble, because three men seizing me at the side of the vessel threatened to throw me into the water. I was much afraid of being thrown into the water, as I did not understand the words of the Tuluktut (*so are the English called in Greenland*). Whether they intended truth or sport with me, I did not know. These three men who sought to throw me into the water, these three men, the name of the first was Alexander Indar, the second Alexander Aborra, James Fresier; the two first came

alone to me ; the third did not come again, and our great master (commodore) did not know it, whose name is Sir John Ross, because this Ross liked me much ; I liked him also. As we proceeded, and found no people, a ship came to us where many men were ; these towed us through the ice ; when we were passed the ice the next day at evening, as we proceeded round the land, we saw three men, who came towards us. Our master said to me that I should go to them. When I got out of the boat on to the ice, the distance was half a mile, when we came to them, to these men, the commodore his other Captain Fleps (Phillipps) said that I should address them like a man (native), but I said wait till we come quite to them. I went over the ice, and said to them, "How do you do?" Answering my word, one said "What! they have a man (native) with them?" And the others said, "Does he speak like us?" "Ap." (Yes.) The one man coming towards me began to talk to me. I answered, and began to inquire of them, "Have you seen no ship?" They answered, "Yes, we have seen none." Again I asked, "Have you also seen none before?" They answered, "Yesterday we saw a ship northwards." I inquired again, "The ship which you saw, where is it?" These men answered, "Landwards from us." We came to them, and they had a man (native) with them, but some of his words we did not understand. I recognised him soon and could tell his name ; it was Charles Petersen, and I said again to them, "Have you seen no ship near Allavik?" (probably the name of an island.) "No ; we have seen a ship near Omanek" (name of an island). I said again, "Have you seen none near Allavik?" "Yes, we have seen none but the ship with the many men of which the master gave to the men (natives) representations of little men, of European women" (pictures). One said to the other, "Are they not those whom we sought to kill who had the representations of women." Then I inquired directly, "Why did you seek to kill them?" They gave me no other answer, only said, "Are not the Europeans to be dreaded." "Certainly not to be dreaded ; they are to be dreaded just the same as we." "Near Omanek were two ships seen in autumn who cooked there by the men." I asked them, "Where are these gone?" These men answered me, "Unisarsol" (of the ship) "Atadarianarsig" (the last word is quite unknown to us, whether it means, "Are you the ship's father," or something else, for Atata means father in Esquimaux, but the rest does not resemble an Esquimaux termination.) I asked again "Whither?" They answered, "Seawards in the depth of the sea." The next day as we sailed we saw two ships behind us ; when they came to us we did not know who they were, but they called them Lide Falengen Sofeir (probably Lady Franklin's Sophia), on which were many men. We came alongside of them and remained there ; went in a small boat to them. I immediately recognised him whom I had seen yesterday ; the man's name Kattarsik ; he came with Carl Petersen on board our ship ; when he came on the deck he said, "Adam, you have lied." Because he said so I did not answer, but asked Kattarsik why they had killed the sailors? He answered, "I know no reason ; the great European Petersen is not ignorant of it." Such words will Petersen, according to his custom, not speak. Immediately turning to him, I begged him to speak the words quickly, because I did not know what these ships do, whether they seek whales or stones. He answered me wrong ; "Do not talk so, if we remain out many months the money we are to receive will be more." I answered, "What is that to me? If I do not get any money I shall be much more thankful if I can see my country, my father, since he lives, because I went away without telling him." On the voyage I reflected that I have forsaken him in his old age.

Farther, I say, this man Kattarsik said, to me respecting the ship goods, that four casks of peas, one cask of butter, were taken, whose name Karttat, and three casks of gritts, respecting these I, Adam, have not lied. In truth I affirm it, because I lie not, and afterwards, not if he tells me to go to Omanek, I stick to it.

It would be very thankworthy if Sir John Franklin were come (*the termination "NEET" we do not understand ; it is neither Esquimaux nor Greenlandish. "Tikkisinsavick" means "he is come ;" "neet" must probably say, "IF HE were come."*)

In the autumn, as we travelled to Pitte and came to land, we saw there a stone signal ; and what was it we saw? Three who died in the winter 1846. We remained there four days. There I was provoked with a servant Aborra. As I went thence early on the fourth day three fellows followed me, but turned round before they overtook me ; and because they turned back I went forward, and saw a piece of wood with one across (*a cross*). When I reached it I saw a shining plat (or skin) nailed on, with writing in the English language, which I did not understand, because it was not my work, only this I recognised, "3d September 1846," for which I was immediately thankful. I pulled it out of the ground that I might take it with me. As I was going home over a hill I slipped down the snow over the hill, because the snow had ice, and with that I lost the shining mark or writing that I had found, and would not go up again because I had no instrument with which I could climb up the hard ice, only I brought the wood home as a testimony in my favour, but its writing I lost, and on this wood which I had found I wrote my name, because I, Adam, wished to keep it.

In our winter quarters, I was much troubled because the wicked sailors spoke evil of me to my master, they lied and had more than I ; a cask filled with brandy they opened

and stole therefrom ; they accused me of it, and a sailor obliged me to hold the cask crooked (to tilt the cask) although I was not the guilty person. I am not uneasy on account of this lie, because after death we shall be brought before the presence of God. Ah ! if only my dear and loving Ross would remain favourably disposed to me to the end of this life. As I must part from you, I stretch out to you my hand and wish you may fare well. In future, we shall not see me another again in this life ; oh ! that we might see one another again in the joys of Heaven. Now, my dear, fare (or live) very well.

Godhaven, 30th August 1851.

I am,
ADAM BECK.

XVII.

Additional Papers.

No. 1.

R. M'CORMICK Esq. to the SECRETARY TO THE ADMIRALTY.

Apsley Cottages, Twickenham Green,
27th November 1851.

Sir,

MAY I request that you will be pleased to acquaint my Lords Commissioners of the Admiralty that I am ready and willing as ever to conduct a "boat and sledge expedition" in search of Her Majesty's ships "Erebus and Terror," under the command of Captain Sir John Franklin.

Having been the *first* to propose the mode of search by "*boat and sledge*" as well as the *first* to point out the *Wellington Channel* as the course taken by the missing expedition in the attempt to accomplish the "North-west passage," now placed almost beyond a doubt by the traces found at Cape Riley and Beechey Island,—the very spots named in the plan I had the honour of submitting to their Lordships on the 1st of January 1850 as the first to be searched for memorials, and the most likely places for striking upon the track of the missing ships,—affords the surest guarantee for the successful execution of a project so auspiciously planned.

I have, &c.
R. M'CORMICK,
Surgeon, R.M.

PLAN of SEARCH, by Boat and Sledge, for the Rescue of Captain Sir John Franklin and the Crews of Her Majesty's Ships "Erebus" and "Terror," or the Discovery of their Fate.

Expedition after Expedition, both by sea and land, have been sent forth by England and by America, by public and by private enterprise, in search of our lost countrymen, and returned again and again, leaving their fate as inexplicable a mystery as ever.

Yet, strange enough, not one of these expeditions have explored *Smith Sound*, at the head of Baffin's Bay, looked into it, or even made the attempt. Although, next to *Wellington Channel*, the most promising and important opening to the Polar Ocean, within the icebound recesses of which there can now scarcely be entertained a rational doubt that the ill-fated "Erebus" and "Terror" have been inextricably beset, or wrecked amongst the heavy packs and archipelago of islands, by which, in all probability, that ocean is encumbered.

My own opinion has ever been that Sir John Franklin went up the *Wellington Channel*, and, consequently, the surest way to find him would be, not only to follow upon his track up that channel, and to the northward and westward of the *Parry group* of land, but also to meet him in any retrograde movement he might be compelled to make to the eastward, should his ships, in the attempt to get to the westward, be driven by the strong currents from the *north-west* to the

meridian of the Sounds at the northern extremity of Baffin's Bay; a by no means improbable event, and one that should not be lost sight of. If Smith and Jones's Sounds should prove to be openings into the Polar Ocean, as I long ago anticipated, they would offer the readiest means of exit to either ships or boats, with the prospect before them of falling in with some whaler.

It was under this impression that I offered my services, as long ago as the year 1849, to go out in Her Majesty's ship "North Star," to conduct a boat expedition up those Sounds, volunteering at the same time to winter on the coast in a log-hut, if provided with a whale-boat and half a dozen hands, &c. This offer, although most favourably reported upon by Captain Sir Edward Parry, was declined by the Lords Commissioners of the Admiralty.

On the 1st of January 1850 I laid another plan before their Lordships for the exploration of the Wellington Channel by boat and sledge. In that plan I made the following remarks:—"Wellington Channel, however, of all the probable openings into the Polar Sea, possesses the highest degree of interest, and the exploration of which is of paramount importance," &c. "That Sir John Franklin's ships have been arrested in a high latitude, and beset in the heavy Polar ice northward of the Parry Islands, and that their probable course thither has been through the Wellington Channel," &c.

"I would propose commencing the search from *Cape Riley* or *Beechey Island* in a northerly direction, carefully examining every remarkable head-land and indentation of the western coast of North Devon for memorials of the missing expedition, &c."

Since these remarks were written, the cape and island have become well known as the first winter quarters of the unfortunate ships, and it may appear a striking coincidence that I should have named these very spots. The motive for my doing so, however, is easily explained. The very suitable position of the little bay at Cape Riley, so well protected by Beechey Island, which formed a natural fender for keeping off the heavy floes and pack ice, at once pointed it out as a most desirable harbour for the ships at the very threshold of their enterprise, and could not fail, on glancing over the chart, to rivet the attention of an experienced and practised eye.

Again, in a subsequent letter to the Board, dated 20th February 1850, I stated, "The route which I am the most desirous and anxious to follow is by the Wellington Channel, so strongly impressed am I with the conviction that it affords one of the best chances of crossing the track of the missing expedition, for the reasons already stated in my plan now under their Lordships consideration."

In these views of the position I had assigned to the missing expedition I believe I at the time stood alone. The generally received opinion having been that Sir John Franklin's ships had been arrested in the ice to the southward and westward of Cape Walker or Melville Island. The results of the late searching parties have, however, proved beyond a doubt the correctness of my own views, even to the finding of traces, if not a memorial, (which, however, I believe, yet remains to be discovered,) at Cape Riley and Beechey Island.

Although none could have felt more keenly than I did the disappointment in not having been permitted to carry out either of my projects, feeling as I then did so confident that success would have crowned my efforts, I nevertheless, even now, am as sanguine as ever that it is not yet too late to save some gallant fellows, if not all, from a lingering fate, too fearful to dwell upon,—from a living tomb.

My own personal knowledge of the resources available for sustaining life within the arctic regions forbids the thought that a hundred and thirty fellow beings in the full vigour of manhood have already succumbed under the effects of cold, famine, or disease, without one individual being left to tell the sad and melancholy tale.

The "snow hut" would afford them shelter from the weather, the skin of the seal protection from the cold, its blubber light and fuel. The "*Andromeda tetragona*," a plant of the heath tribe, widely spread over arctic lands, and which I have myself gathered in the northernmost known land, Spitzbergen, where it grows in considerable abundance, offers another source from which fuel may be obtained. Vast flocks of waterfowl which annually migrate to their breeding-places in the very depths of the arctic solitudes, where they can rear their young unmolested by man or beast, probably beyond even the

range of that restless wanderer of the snowy wastes, the arctic fox,—these birds would be easily captured whilst moulting and unable to fly, and with their eggs furnish a wholesome supply of food for each succeeding winter's store. Scurvy is the foe, after all, the most to be dreaded, and progressively so with the lapse of time, and gradual decline of the vital powers, but even this scourge, whilst it sweeps off the desponding and indolent, oft spares the buoyant and energetic.

My firm belief that the crews of my old ships the "Erebus" and "Terror," or a remnant of them, are still in existence, is founded on some years personal experience in frozen climes, both Arctic and Antarctic, and my observations as a naturalist on the habits and instincts of animals, with their geographical distribution over the surface of the globe, from pole to pole, leads me to the conclusion that the means of sustenance will not be wanting. Under this conviction my enthusiasm in this noble cause will never cease to prompt me to come forward to their rescue on every occasion that may offer for carrying out my plan of relief till the problem has been solved that shall decide their fate, and not till then.

Once more, therefore, and for the fourth time, I may be allowed to call the attention of my Lords Commissioners of the Admiralty to a reconsideration of my plan, and if above four years of unceasing and unwearied application to be employed in the Franklin search be any proof of zeal, perseverance, and devotedness of purpose, and these qualities, when backed by experience, considered fitting qualifications for such an undertaking, I trust that their Lordships will permit me to have some share in the search on its renewal in the forthcoming spring.

All I ask for is a whale boat and sledge, manned by six hands, with the requisite equipment of stores, fuel, provisions, clothing, &c., and the command of the party, with which it was my original intention to have proposed proceeding direct to Smith Sound, and devoting the ensuing autumn to the exploration of that inlet as far up as the season would admit of, wintering there in a log hut taken out for the purpose, so as to be enabled in the following spring to extend the search over the ice by sledging; and in the event of Smith Sound opening into the Polar Ocean, which I believe it does, and the heavy swell setting out of it (as indicated in the admiralty chart of Baffin's Bay, published in the same Return to the House of Commons in which my own former plans appeared, and dated March 1850,) is strongly in support of such an opinion, and by shaping a westerly course, a junction might possibly be effected with the searching parties employed up the Wellington Channel.

I find, however, that the Arctic Council have recommended that the future search shall be exclusively confined to the Wellington Channel, and that a squadron of ships be sent out in that direction. Moreover, an objection might be made to the attempt to explore Smith's Sound from Baffin's Bay on the ground that the entrance to it has never been seen clear of ice, but were such the fact I know not how we are to account for the heavy swell.

Under these circumstances I most willingly volunteer my services to go out in any one of the vessels to Wellington Channel, there to commence the search in the reverse order, round *Cape Sir John Franklin*, northward or eastward, as the land may trend, exploring in the direction of the meridian of Smith and Jones Sounds for any corresponding openings to the Polar Ocean, into which the missing ships may have been driven under the influence of adverse winds and currents, whilst helplessly beset in heavily and closely packed ice.

Such a branch enterprise, carried out at the same time with the still more important one to the westward round Cape Lady Franklin, and which will doubtless be the main object of the next general expedition, would, by providing for every contingency, promise the best possible chance of restoring to their friends and country all that remains to be saved of our brave and enterprising countrymen.

R. M'CORMICK, Surgeon,
Royal Navy.

Twickenham, 20th January 1852.

No. 2.

PLAN OF SEARCH proposed by Commander PULLEN.

6, Prospect Street, Plymouth,
8th December 1851.

Sir,

As I feel that we are all bound to give our best endeavours and opinions as to the means to be employed towards unravelling the fate which is now hanging over our gallant countrymen in the Arctic regions, and as this duty particularly devolves upon those who have been engaged in the many unsuccessful explorations, of which I am one, I request that you will please to lay before their Lordships the following plans for further search; and, furthermore, that you will have the kindness to state, that I am ready, to the utmost of my ability, to put into execution the following suggestions.

Captain Austin has fully proved that screw steamers are the vessels best adapted for Arctic navigation, and as my own opinion coincides with this, as may be seen by a reference to my journal written at Fort Simpson in the winter of 1849 and 1850, and sent home in June 1850, I propose to explore the coast of Arctic America from Point Barrow eastward as far as Wollaston Land with a small steamer, as I have reason to believe that it is fully practicable for a vessel of a draught of eight feet to navigate between the land and the ice without any great risk of being forced up on the shore. I am confident that the latter part of the season, the time when with my boats I made the greatest exertions to get back to the winter quarters to avoid being caught by the ice, is the best period for exploring from that coast; and judging from the open water I have then found, particularly in my last trip, a steamer might go very far to the northward for frequently from the highest land no ice has been visible as far as the eye could stretch, and a complete water sky. Along the coast many spurs of the Romanzoff and British mountains came close to the shores; these might be ascended, a long view obtained, and any lanes of water made available for getting to the northward. I do not think the ice on the coast is always in the same state as I found it; in fact we have the evidence of Sir G. Back and Sir J. Richardson to the contrary. Sir George stated, on my examination before the Arctic committee, that when he was there (mentioning the date, 15th of August), at which time he must have been near the Return Reef, that there was a complete open sea, with the exception of one piece; how different from what I found it about the same date (as to date) when it was all ice to seaward. Therefore, with a steamer on the coast to remain as long as her provision lasts, such opportunities might be taken of the open water as to allow of her getting to the northward, and, by God's assistance, finally set at rest that question which we have been so long trying to solve. As to harbours, there is one on the south-west shores of Herschel Island, and I would not hesitate about placing the ship for winter quarters even on the southern shores of Flaxman's Islands, or under the spits west of Return Reef or Jones's Islands. On referring to my journal I find the following account of Herschel Island: "About Herschel Island and as far east as Escape Reef there was apparently a set from the northward, and it was here we encountered the heaviest sea and most open water. Near this whales were seen."

From this may we not infer that a passage to the northward does exist somewhere near this; and what makes it more probable is, that the whales we saw could come from no other direction without our seeing them, particularly as the ice in Camden Bay was close in on the shore.

To get to the northward is the grand object to accomplish, for it is there that we must look for our missing countrymen. I do not think a doubt can exist of their having gone through the Wellington Channel; and as the distance between it and Behring Straits is not very great, they may have pushed on and be now checked so far from the former that their hope of getting back is not so great as getting forward, and they may even now be in the vicinity of that goal which they have so long striven to attain, and be anxiously looking for that assistance which alone can relieve them from their long toil, many dangers, and severe privations, and restore them once more to their country.

I cannot think they have perished for want of food, for we all know that numbers of whale and wild fowl visit those regions, as well as quantities of fish, and I have no doubt that Sir John Franklin knows the method of fishing employed by the Hudson's Bay people at their stations, and which my men

were compelled to adopt for the two winters during which they were in the country; cutting through, sometimes, from four to six feet of ice before they could set their nets.

I cannot think they have been crushed by the ice; indeed, from the evidence afforded of Sir G. Back's voyage, I should say that there is no possibility that a vessel equipped in so complete a manner, and provided moreover with steam power, would run the risk of meeting such a fate.

Again, I think there is another part which might be examined, namely, the land Captain Kellett discovered in his voyage, by which an exploring party might get to the northward of the ice, and into what is called the Polar Basin, and supposed to be an open sea.

Neither of these services, I think, would require a great outlay; for a small steamer, with a steam launch and a small number of men, would be quite as efficient as the larger bodies; and in the event of the crews being obliged to abandon their ships, I know from experience that it is more easy to provide for the few than the many. And should such a thing occur between Points Barrow and the Coppermine River, I should not at all dread being unable to reach the Hudson's Bay posts, however great the distance might be, and however hostile the Esquimaux whom we meet, as I am fully acquainted with their customs and habits of fighting, and, moreover, from my former experience, would be both forewarned and forearmed.

Quantities of driftwood lie on the shores between Point Barrow and points far eastward of the Mackenzie, so that a steamer would experience no want of fuel on the coast.

In conclusion, should their Lordships think fit to adopt this plan, I am ready to carry it out, or any other they may think fit, and to devote my best energies to carry their orders into execution.

I have, &c.

W. J. S. PULLEN, Commander.

No. 3.

OFFER OF SERVICE AND PLAN OF SEARCH proposed by Sir JOHN ROSS.

Sir,

267, Strand, 17th January 1852.

I AM to request you will be pleased to inform my Lords Commissioners of the Admiralty that in the event of their Lordships being desirous that the east coast of Baffin's Bay, north of Uppernavik, and the inhabited part of the west coast, should be examined to determine the fate of the missing ships, I am a volunteer to perform that important service, which from the fact of my being the only naval officer who understands the Danish language I am undoubtedly the best qualified to perform, as the Esquimaux of Greenland understand no other language but the Danish and their own.

I am to request that you will also inform their Lordships my belief of the ships under Sir John Franklin being lost in Baffin's Bay is strengthened by the fact that Adam Beck, the interpreter, has deposed that the words "3d of September 1846" were on the tin plate which was lost, as appears by the translation arrived from Germany, and which is believed to be true by the Danish authorities.

I request also you will be pleased to inform their Lordships, that Mr. Lewis Peaton, an intelligent Danish gentleman, who had been sent to Greenland to audit and inspect accounts, has volunteered to accompany me, and that we are both of opinion and confident that we should be able to *put an end* to the question, which will not be the case by the plan recommended by the Arctic Committee.

In order to perform this service I should require two small vessels (the "Lady Franklin" and "Sophia") and a small steamer. I should have no occasion to sail before the end of May, and I would return about the 1st of November in this year.

Lastly, I beg you will inform their Lordships that on purpose to perform this service I shall most willingly hoist my pendant as a *Captain*, instead of hoisting my flag as a Rear-Admiral.

I am, &c.

JOHN ROSS, Rear-Admiral.

Sir,

Admiralty, 22d January 1852.

HAVING laid before my Lords Commissioners of the Admiralty your letter of the 17th instant, placing your services at the disposal of my Lords in the event of a further expedition being fitted out for the Arctic Seas, I am to convey to you their Lordships thanks for the offer you have made them, but at the same time to acquaint you that they are not prepared to avail themselves of your proposal.

Rear-Admiral Sir John Ross, C.B.,
267, Strand.

I have, &c.
J. PARKER.

No. 4.

PLAN of SEARCH proposed by Mr. PETERMANN.

5, Camden Street North,
23d January 1852.

Sir,

I HAVE the honour to make to you the following communication relative to the search after Sir John Franklin, which I am anxious humbly to submit to the special notice of the Lords Commissioners of the Admiralty.

The subject of Sir John Franklin's expedition has so long filled the minds of the most eminent men, and excited the interest of the whole world, that I fear I am laying myself open to the imputation of great presumption in venturing suggestions respecting this subject. Nevertheless I have considered it my duty not to withhold the results of a comprehensive and earnest, yet calm, inquiry; and having been impressed with the necessity that no time should be lost in making those results as extensively known as possible, I inserted in the "Athenæum" of last Saturday (the 17th instant) the remarks of which the following is a copy.

" It is the general opinion that Franklin has passed through Wellington Channel. If so, it is beyond doubt that he must have penetrated to a considerable distance further, so as to have rendered it exceedingly difficult, if not impossible, to retrace his steps, should he have found it impracticable to proceed in any other direction. It may be idle to speculate on his probable direction and distance from Wellington Strait, but a line drawn from Melville Island to the Herald and Plover Islands (north of Behring's Straits), and another from Melville Island to Spitzbergen on the American side, would, with the Siberian coasts and islands on the Asiatic side, include the space in which he must have been arrested, a space of fearful extent, when it is considered that the whole of the regions hitherto explored by the various expeditions sent in search of him are scarcely one third of those which remain unexplored.

" It is a well-known fact that there exists to the north of the Siberian coast, and, at a comparatively short distance from it, a sea open at all seasons; it is beyond doubt that a similar open sea exists on the American side to the north of Parry group; it is very probable that these two open seas form a large navigable Arctic ocean.

" It is evident that until an entrance into this Arctic basin has been effected, that is to say, into that part of it which is comparatively open and navigable, scarcely any hope can be entertained of rescuing Franklin, or of ascertaining his fate. The determination to send another expedition to Wellington Channel is noble and generous, but it is perhaps questionable whether the present season will prove as favourable as the last, and whether, indeed, the expedition will succeed in passing through Wellington Channel to the north. In short, Wellington and Behring's Straits, the two chief entrances from the American side into the Polar basin, have, owing to the proximity of the land and accumulation of ice, hitherto frustrated the most determined advances of the various expeditions in those directions.

" There are only two other sea entrances into the Polar basin. These are between Greenland and Spitzbergen, and between Spitzbergen and Novaïa Zemlia. With respect to the former, I shall refrain from comment, as the difficulties connected with it are very great. I therefore confine myself to the latter; and, coming at once to the point, I would suggest, *that the wide opening between Spitzbergen and Novaïa Zemlia most probably offers the easiest and most advantageous entrance into the open navigable Polar sea, and perhaps the best route for the search after Sir John Franklin.*

“From those navigators who have attempted, during the summer months, to penetrate northwards in that direction,—Barentz as early as 1594,—we learn that a barrier of ice was found to stretch across the sea between these two groups of islands. And such undoubtedly is the case every year with each recurring summer. It is that immense body of Arctic ice which every spring is known to drift with a powerful current from the Siberian coast towards the Atlantic Ocean. In the 80th parallel, and beyond it to the south, it meets with the shores of Greenland, Spitzbergen, and Novaia Zemlia. Between the two latter it encounters the Gulf stream, which prevents its drifting further south in that direction, and thus renders the shores of northern Europe entirely free from that unwelcome visitor, whereas the American countries in the same latitudes are more or less encased in ice throughout the whole year. On the other hand, between Greenland and Spitzbergen, the icebearing current steadily pursues its way, passing Iceland and the southern extremity of Greenland, and reaching the shores of Newfoundland and as far as 40 degrees north latitude; so that while its course is arrested between the northern part of Novaia Zemlia and Spitzbergen,—no floating ice having ever been known to reach North Cape,—on the other side of the Atlantic it travels upwards of 2,500 miles further south.

“The barrier of ice which may justly be supposed to exist between Spitzbergen and Novaia Zemlia during every summer unquestionably presents obstacles to vessels penetrating northward, but there is no reason to consider these obstacles greater than those on the opposite American side in Davis’s Straits, Baffin’s Bay, Lancaster Sound, and Barrow Straits; and we have, moreover, the testimony of numerous whalers and other navigators in the Greenland Sea, that whenever they succeeded in pushing through this barrier of ice they found to the north of it a sea more or less open and free from ice. A vessel, then, which by watching for an opportunity should effect a passage through this ice, would, no doubt, find itself in the great open navigable “Polinya” of the Russians.

“The preceding remarks are offered to the attention of the reader, not as anything new, but as well established facts, which are submitted, by way of preparation, for the consideration of that portion of my views which I believe to be entirely new, and which without further preface I now humbly submit to public notice. My belief is, nay, I think I am able to demonstrate, *that during the Arctic winter months, namely, from September to March, an entrance into the North Polar Sea through the opening under consideration may be much more easily effected than during the summer months; and also, that the further navigation of the Siberian Sea may likewise be performed with much greater facility in winter than in summer.*

“And here the principles which regulate the distribution of the gaseous and fluid coverings of the earth must, in the first instance, be brought to bear upon the subject. It admits of little doubt that some, at least, of the currents of the Arctic Ocean, are revolving currents, the direction of which is during the summer months from the pole to the south, and in the winter months the reverse. Our actual observations of this phenomenon are, unfortunately, very limited, but we know just enough to confirm the argument as far as it relates to the Siberian Sea. According to Wrangell and others, the current there during the summer runs from east to west; but in autumn, when the cold sets in, it changes, and proceeds from west to east. Now, if we take the compasses, and place one point of them on a polar chart, between Lancaster Sound and Fury and Hecla Strait (as a centre), and the other point on the Faroe Islands, and with the latter describe a circle to the northward, this circle will touch North Cape, the northern shores of Novaia Zemlia, Cape Taimura (the extreme northern point of Asia), the northern coasts of new Siberia, and Behring’s Straits. And as we know that along the first portion of this line, from the Faroe Islands to Novaia Zemlia, and also along the last portion of it from New Siberia to Behring’s Straits, the current in the winter time flows in the direction from the Faroe to Behring’s Straits, it is hardly possible that a counter current should exist in the intervening portion between Novaia Zemlia and New Siberia. Besides, the prime movers of the great Arctic current, which flows during summer from the Siberian coasts towards the Atlantic, namely, the Siberian rivers, are frozen during the winter, and have, consequently, no

“ influence on the currents of the Siberian Sea. Hence there is every reason
 “ for concluding that this great Arctic current, bringing the drift ice from the
 “ Siberian shores, relaxes in its force by the end of summer, so that the gulf
 “ stream, which during spring and summer was checked and hemmed in by
 “ the ice between Novaïa Zemlia and Spitzbergen, makes at last its way
 “ towards the Siberian coast, carrying with it whatever drift ice may have
 “ remained in that region, actually clearing the way for an easy navigation.

“ In corroboration of this result an important physical fact relative to the
 “ distribution of temperature may be adduced. Taking the invaluable data
 “ of Professor Dove as a basis, I have laid down on twelve Polar charts
 “ the lines of equal temperature of every month in the year; and from a
 “ careful study of these lines I have deduced the following remarkable con-
 “ clusion:—There exists a moveable pole of cold, which in January is found
 “ on a line drawn from Melville Island to the mouth of the River Lena, and
 “ which gradually advances towards the Atlantic Ocean, till in July it is
 “ found on a line between Fury and Hecla Strait and Novaïa Zemlia, whence,
 “ in the succeeding months of the year, it gradually recedes to its former
 “ position. It is clearly manifest that this movement of the temperature
 “ is occasioned by the direction of the currents and the presence of the
 “ Polar ice. The greatest mass of this ice is (it is scarcely necessary to
 “ say) formed where the winter cold is the greatest, namely, in the region of
 “ New Siberia, on the Asiatic side, and in that of Parry group on the American
 “ side, and when broken up and driven away into the Atlantic the masses of
 “ ice (as is well known) in their progress reduce the temperature wherever
 “ they go. Hence, in January and February, Melville Island and Boothia
 “ Felix are the coldest stations on record on the American side, being as much
 “ as 10 to 15 degrees colder than Igloodik and Winter Island; whereas, in July
 “ they are from 5 to 7 degrees warmer than those places, owing to the ice
 “ having floated down in the direction of the latter. On the Asiatic side, the
 “ difference is still more striking. In January, the mean temperature along
 “ the north-eastern shores of Siberia is from 40 to 50 degrees lower than that
 “ of the western shores of Novaïa Zemlia, while in July it is as much as 20
 “ degrees higher. It must be borne in mind that Wrangell and Anjou, in
 “ their memorable expeditions, selected the most favourable of the winter
 “ months for their journeys over the ice, at a season when they hoped to find
 “ the ice most solid and of the greatest thickness. Nevertheless, they in-
 “ variably found the ‘ wide immeasurable ocean’ before them, at a comparatively
 “ short distance from the land; and this, too, to the north of what is actually
 “ the coldest region on the face of the earth. Now, it would be a monstrous
 “ anomaly, if at some distance to the west, where a warm current is known to
 “ prevail, and where the temperature is from 40 to 50 degrees higher, we
 “ should not find the same ‘ wide immeasurable ocean.’

“ I could adduce a number of facts from the evidence of the Russian sur-
 “ veyors and others strongly corroborative of these views, but refrain from
 “ doing so in deference to your space. But I think it important to refer briefly
 “ to what the well-known Norwegian naturalist Keilhau has informed us of
 “ with respect to the climate of Bear (called also Cherry) Island. This island
 “ is situated between North Cape and Spitzbergen, in the same latitude as
 “ Melville Island, and is exposed to the entire influence of the surrounding
 “ ocean. Keilhau tells us that in the year 1824, during the whole of the
 “ autumn and winter, the weather was mild, and at Christmas there was rain
 “ (this in the latitude of Melville Island, where the mercury is frozen during
 “ five successive months). February was cold and clear, but the cold never
 “ too great for out-door work. On the 10th of that month, the sun was seen
 “ again for the first time, its disc just rising above the sea. In March the cold
 “ increased, especially with north-east wind. April was the coldest month of
 “ all, with northerly and north-easterly wind, the sea steaming and freezing all
 “ round the island. In the middle of that month, the cold was so severe, and
 “ the vapours from the sea so overpowering, that it was with the greatest
 “ difficulty they could venture into the open air. In May, irregular winds.
 “ In June, the prevalent wind was north-east, which brought with it a quantity
 “ of drift ice. On the 1st of July a great deal of drift ice came with the north-
 “ east wind, but the weather was clear and mild. Thus, we see that during
 “ the Arctic winter, when the sun was entirely below the horizon, the weather

“ was exceedingly mild. From November till February not one instance is
 “ adduced of the winds coming from the north-east, but often from the south
 “ and south-west, with rain at Christmas. This warm wind would, of course,
 “ extend farther, precisely in the direction towards the Siberian Sea. But after
 “ the appearance of the sun, when the temperature of the whole Polar region
 “ would be raised, when the ice would begin to break loose, expand, and dis-
 “ perse to southerly latitudes, then it was that the north-east wind prevailed;
 “ and as this wind came from and brought with it the approaching ice masses,
 “ it would naturally lower the temperature gradually from February till April,
 “ when it attained the minimum. In June and July the drift ice itself had
 “ reached the island; but as the north-east wind now blew from the open sea
 “ behind the drift-ice, it became mild. Nothing can be more strikingly illus-
 “ trative of the moving pole of cold.

“ Lastly, I will adduce the direct and unimpeachable evidence of one who
 “ actually saw an open sea in winter to the north of Novaia Zemlia, namely,
 “ Willem Barentz. This able, bold, and honest seaman is the only one with
 “ his party who ever spent a winter on the northern shores of that island.
 “ Even on his first voyage, when he succeeded during the summer in tracing
 “ the coast of Novaia Zemlia as far north as Icy Cape (in 77 degrees of latitude
 “ according to his reckoning), where he was stopped by the ice, he came to this
 “ important conclusion, ‘We have assuredly found that the only and most hinder-
 “ ‘ ance to our voyage was the ice that we found about Nova Zembla, under 73
 “ ‘ to 76 degrees; and not so much upon the sea between both the landes (viz.,
 “ ‘ Spitzbergen and Novaia Zemlia), whereby it appeareth that not the neare-
 “ ‘ nesse of the North Pole but the ice that commeth in and out from the
 “ ‘ Tartarian Sea about Nova Zembla caused us to feel the greatest cold. As
 “ ‘ soon as we made from the land, and put more into the sea, although it was
 “ ‘ much further northward, presently we felt more warmth.’ On the third
 “ and last of his remarkable voyages, Barentz made the land of Novaia Zemlia
 “ on the 7th of July 1596, and reached its north-east extremity on the 16th of
 “ August. They were, however, shortly afterwards beset by ice, and obliged
 “ to winter on the north coast of the island. While employed in erecting their
 “ hut, on the 26th of September, the wind came from the west, which drove
 “ the loose ice that was afloat away from the land, and left the sea open near
 “ the coast; of this, unfortunately, they could not take advantage, as the ship
 “ was considerably injured, and was besides imbedded in a closely-packed body
 “ of ice, so that she lay as if upon a firm and solid rock. On the whole, they
 “ suffered much less from the cold of the winter than they had anticipated,
 “ and so much snow fell during the winter that the Hollanders had almost
 “ every day to clear the entrance to their hut; a proof that open water could
 “ not have been far distant. On the 8th of March, after the appearance of the
 “ sun, the great open sea to the north began to be distinctly visible to Barentz
 “ and his party. In May they had got their two boats afloat, returning along
 “ the coasts to the south. At the commencement of this voyage in the open
 “ boats Barentz, who had been declining in health, expired, believing, and with
 “ his last breath affirming, that, had he stood more between the two lands, he
 “ would have been able to enter the open sea.

“ I cannot but think, then, that on the consideration of all the circumstances
 “ it will be the opinion of those who are most competent to decide on the
 “ question, that an entrance into the Polar Basin through the opening under
 “ consideration, as well as the navigation of that ‘wide immeasurable ocean,’
 “ might be more easily effected during the Arctic winter than in the summer
 “ months. At all events, I respectfully beg to submit the point, together with
 “ the whole subject, to their serious consideration.

“ It would ill become me to offer any suggestions as to the mode in which
 “ an expedition, if decided on, should be carried out; but I may, perhaps, be
 “ allowed to remark, that as regards the time of its departure, the remaining
 “ months of the present Arctic winter would seem preferable to the first months
 “ of the next, and this for two reasons:—First, a period from six to eight
 “ months would be gained, which under the urgent circumstances of the
 “ missing expedition may be of vital importance; secondly, vessels arriving
 “ in the Polar Sea in February or March, just before or when the sun has
 “ made its appearance, might, if only once able to enter the Polar Basin,
 “ easily traverse it to the opposite side before the power of the sun had set in

“ motion the great ice-bearing current, and they would then have before them the whole summer in the fullest sunshine for carrying out the object of their voyage, namely, the search for Sir John Franklin.

“ But even if a vessel could not be despatched till later in the year, the chances of an entrance through the opening under consideration may, after all, turn out to be greater than through any other opening, inasmuch as the former is the widest of all, as much as nine times wider than Behring's Straits. And as to the great masses of drift ice, we know that they do not present insurmountable obstacles in an extensive sea. The late Sir John Barrow said, ‘ Where ice can float, a vessel can float also.’

“ Before concluding, I will merely give the distances, roughly stated, to the various points:—From Woolwich to the 80th parallel, midway between Spitzbergen and Novaia Zemlia, is as far as from Woolwich to Cape Farewell, the southern extremity of Greenland, or about 2,000 geographical miles. From the said midway point between Spitzbergen and Novaia Zemlia to the Herald and Plover Islands, north of Behring's Straits, is as far as from Cape Farewell to Beechey Island, at the entrance of Wellington Channel, or about 1,600 miles. The two distances together, namely, from Woolwich to the 80th parallel, and thence to the Herald and Plover Islands, are not more than that from Woolwich to New York, U.S.

“ A screw-steamer, at the rate of five miles an hour, would, under ordinary circumstances, reach the 80th parallel between Spitzbergen and Novaia Zemlia in seventeen days.

“ I have been under the necessity of confining my suggestions to the merest outlines, as a further development would have extended my letter to an unreasonable length. But I shall be most happy to submit the whole of my data and charts to any one who may desire further explanation and detail.

To the foregoing communication I beg now to add one observation as to the existence and nature of the barrier of ice said to stretch across the sea between Spitzbergen and Novaia Zemlia during summer. When I had recently the honour of a personal interview with you, you asked me what were my authorities on that subject. I now beg to state that it is my conviction that there is no really *good* authority decisive of the point; that in fact the passage between Spitzbergen and Novaia Zemlia has never yet been *fairly* attempted; and that, as is humbly suggested in my printed letter, the said opening into the Polar Basin may after all turn out to be the most favourable one *even during the Arctic summer months*.

I beg to submit also two charts illustrative of my views, which I hope may facilitate the consideration of my letter.

I have, &c.

AUGUSTUS PETERMANN.

Note by the Athenæum Editor on the above.

“ This plan has, we believe, been submitted to Captain Beatson, who naturally is reluctant to give up his own plan, fostered by two years consideration. If, however, the competent authorities to whose opinions Mr. Petermann has made an appeal should consider the Nova Zembla route a more advantageous one than that by Behring's Straits, he has, we are informed, expressed his willingness to adopt the former; but at the same time he has suggested that nevertheless he should be allowed to follow his own route if *another* vessel could be despatched by the Nova Zembla opening, lest no one else should be found to follow up his proposed route. The important facts brought forward by Mr. Petermann should certainly be at once investigated. If they can be contradicted,—if his conclusions can be proved to be incorrect,—why, there is an end of the matter. If not, his plan deserves, as we have said, the most serious consideration, for in that case his proposed route would seem to be the most feasible and advantageous of all; a route, as we may say, at our very doors, the gulf stream flowing past our shores; a route which nature herself seems to point out to us.

“ We have seen Mr. Petermann's charts, which give a clear view of the physical aspects of the whole polar regions, and of his views and proposed routes.

“ But even if Mr. Petermann’s views should be confirmed, the Wellington Channel and Behring’s Straits expeditions should by no means be abandoned. It is in addition to these that another through the Nova Zembla ought to be dispatched. Who knows but that Franklin, having reached a high northerly latitude, has been arrested by a neck of land or islands abreast of Behring’s Straits or the flats of Siberia, where even now he may be in view of the great open ‘ Polinya ’ of the Russians, without being able to enter it with his vessels. He may even be looking forward to a vessel coming to his succour from the side proposed by Mr. Petermann.”

No. 5.

INSTRUCTIONS TO ADMIRAL MORESBY to send up a VESSEL with SUPPLIES for the “ PLOVER.”

Sir,

Admiralty, 16th December 1851.

ADVERTING to my letter of 14th December 1850, acquainting Rear-Admiral Hornby that my Lords Commissioners of the Admiralty considered it to be of the utmost importance that in accordance with the seventh paragraph of the orders which their Lordships gave to Captain Collinson (a copy of which is enclosed), there should be an efficient depôt or point of succour in the most favourable quarter within Behring’s Strait, and as far within advance as possible, on which the “ Enterprise ” and “ Investigator ” may have to fall back, and where in case of any disaster occurring to these vessels the crews may be sure of finding a safe asylum, I am also to signify their Lordships direction to you, immediately on receipt of this despatch, to cause one of H.M.’s ships under your orders, to be equipped for the purpose of replenishing the “ Plover ” with an ample supply of stores and provisions, fuel and clothing, and for the removal of any invalids from her, and you are to order the captain of such ship to proceed forthwith to the Sandwich Islands, provisioning her to the fullest extent, and providing her with as large a quantity of fuel and anti-scorbutics as can be obtained.

The captain is to use his utmost endeavours to reach Behring’s Straits before the “ Plover ” is afloat, and carefully to refit her for the service in question.

Their Lordships further desire that you will, if you consider it necessary, call for volunteers from the squadron under your command, in order to complete the crew of the “ Plover,” till the autumn of 1853, notifying to those who may be disposed to volunteer that they will be entitled to double pay from the date of their joining the “ Plover.” In the possible contingency of the “ Plover ” being thrown upon shore by the pressure of the ice, and rendered unfit for the service, you are to direct the captain of the ship thus dispatched to receive the “ Plover’s ” crew, and to secure H.M.’s ship under his command in some convenient harbour near the entrance of the strait, for the purpose of passing there the ensuing winter of 1852–3, placing ample notices in conspicuous or known places of the spot so selected, so that any parties from Sir John Franklin’s ships, or those from Captain Collinson’s, reaching the neighbourhood of his quarters may meet with certain shelter and succour. If nothing be heard before the end of next season of either of those expeditions, my Lords will cause another vessel to be dispatched from your squadron in the summer of 1853 to relieve the one now sent.

As there is reason to suppose that the “ Plover ” will be found in winter quarters in Grantley Harbour, Port Clarence, which is about 500 miles south-west of Point Barrow, the officer to whom you may intrust the duty of revisiting the “ Plover ” must use his own discretion in proceeding to the northward to gain intelligence, but as his vessel is not strengthened for Arctic service you are to caution him on no account to endanger her safety.

A chart marked with certain known rendezvous, together with other papers and documents, accompany this, for the guidance and information of the officer charged with the above service.

W. A. B. HAMILTON.

No. 6.

JOURNAL of PROCEEDINGS of Lieutenant W. H. HOOPER, R.N., from Fort Macpherson on the Peel's River (6th September 1849) to winter quarters on the Bear Lake, and subsequently, after he had separated from Commander PULLEN; together with Copy of Instructions from that Officer.

SEPTEMBER 5, 1849.

Arrival at Fort Macpherson on the Peel River.

ON the arrival of our boats at Fort Macpherson on the Peel River, Lieutenant Pullen was informed that a portion of the party could be conveniently lodged and supported here during the ensuing winter; and, as the imposition of the whole band upon Fort Good Hope would be burdensome to that station, he decided upon leaving some of the men under my charge at this establishment, and accordingly selected five, viz.—

John Abernethy (acting ice master), John Robinson (able seaman), William M'Carty (able seaman), William Seymour (able seaman), and James Tullock (able seaman), who were ordered to make preparations for remaining.

My instructions from Lieutenant Pullen were as follows :

Instructions from Lieut. Pullen, 6th Sept. 1849.

“ As we have now arrived at the first place ordered to, and finding we cannot all remain for the winter in consequence of want of provision, I shall therefore proceed on with the “ Logan ” and “ Supply,” taking eight men and twenty days provision, leaving you the “ Louisa,” and remainder of party and all stores not likely to want, to come on at the breaking up of the season, or when the Company's party travel, and join me either at Forts Good Hope, Norman, or Simpson, so that we all may proceed together to York Factory. I shall be able to inform you, by the winter express, of where I am, and perhaps visit you. You will be particular in your intercourse with the natives, taking care not to allow your men to give them any offence, or any way barter or traffic. Be careful of what stores and provision left here, taking an account of all that may be remaining in store on your coming on to join the party. Should the men be in want of clothes, you will make a demand on the Company's stores, giving a receipt for such. Trusting, that as we have been so far successful in reaching this our first destination, that that Providence who has ever been with us will safely conduct us over the remainder of our voyage, I leave you, with a perfect confidence that you will do your best endeavour in keeping order in your party, and render all assistance to those with whom you winter.

(Signed) “ W. J. PULLEN, Lieutenant in command of boat party, this 6th day of September, 1849, at Fort on Peel's River.”

“ To Mr. W. Hooper, Matc.”

SEPTEMBER 6, 1849.

Separated from Commander Pullen, who proceeded to Fort Simpson on Mackenzie River.

At 0.20 A.M. witnessed an appearance of the “ aurora,” a broad blaze of light passing from east through the zenith to west; rays uncoloured; slight horizontal corruscations and tremors, in rapid movement, with occasional light airs from S.E.

Observed with the dipping needle.

At 2.10 P.M. Mr. Pullen departed with his party in the “ Logan,” (accompanied by one of the Company's men, William Hepburn, as a guide,) having previously addressed my party, enjoining them to order and obedience. We saluted them with three cheers, having the white ensign displayed on the hill, they responded in like manner, and soon, gliding rapidly down the placid river, were lost to our view at a turn in the stream.

There are now remaining here, besides ourselves, Mr. Hardisty, and one man only, of white people; there are also several Indians, one a fisherman, whose services in that capacity are engaged for the summer; the rest are either here with meat or furs for barter, or wives of men who are away in the boat despatched to Fort Simpson for supplies, &c., now expected to return about the

14th instant. Those Indians who have lately arrived, await her coming to receive their winter supplies of clothes, ammunition, &c., in return for the furs or meat furnished by them, and are now preparing for a grand dance upon her arrival, which is to them a most important event and season of rejoicing. There are three eagle skins hanging on a line upon the beach, with the feathers of which they will ornament themselves upon the festival occasion.

Last night we burnt a blue light and sent up a rocket ; they had never seen such things before, and their astonishment and delight were apparent ; they commenced a perfect hubbub of exclamations, and doubtless chattered away through half the night, about these, to them, new and wonderful phenomena of the "pale faces." They are to-day all painted in different ways and varieties of colour ; some with broad patches across the face, others with stripes, and some having one cheek or eyebrow of a different hue to its opposite. I saw one woman with two pieces of "wampum," which is a kind of long hollow shell, through the septum of the nose ; but Mr. Hardisty tells me, that this appendage, which, to them a great ornament, seems to us a great disfigurement, is gradually falling into disuse since the settlement of whites in this region.

The people we are among are of the large tribe of "Loucheux" or "Quarrellers," and particularly distinguished by the title of "Fond du Lac," that being the name of a wide part of this river, distant about 120 miles or five days journey, where they congregate to fish in large numbers. Some of the "Rat" Indians come across the mountains from the Rat River, with furs and meat for barter ; the two tribes speak the same language, but have a somewhat different pronunciation of it, and also, I imagine, peculiar idiomatical expressions. They are naturally very indolent and improvident, the Loucheux more so, if possible, than the Rats. They are both very great gormandizers, and will devour pure fat, or even drink grease, to surfeiting. When in provision, they pass their time in continual feasting, and of course are often in the opposite situation of deprivation, sometimes even to starvation, of which state they are not, however, so patient and enduring as the "Dogribs," "Hare," or "Slave" Indians, who are also much more prudent, taking care in the time of plenty to secure a supply against a scanty season.

A curious custom matrimonial exists among them ; when a female child becomes two or three years old, a bargain is made with the parents, in which the mother is most interested, by another Indian, that when she becomes marriageable she is to be his wife, the payment being deferred until that period ; the contract is, however, always binding, and should another step in and by any means succeed in obtaining the damsel, she is not considered his wife until he has made satisfactory compensation to the *ci-devant* bridegroom. When on hunting excursions, the future son-in-law always makes his betrothed's parents lodge his home for the time.

Polygamy is practised among them, generally in proportion to the rank and wealth of the husband, a young wife being added to the "stock on hand," when one becomes too old for the laborious employments imposed upon the females, the new acquisition being, of course, the favourite sultana.

I saw to-day an Indian who, some five years since, killed one of the "Rats," with whom the "Loucheux" were then at enmity, and his life was sought in return. The Company, however, redeemed his life for forty skins, such being the Indian currency, and the tribes are now on a friendly feeling.

The Indian currency, or that set up by the Company in their dealings with the Indians, is conducted by proportionate values to a single standard being set on all articles. This standard is a large beaver skin, and is called a skin ; thus the price paid to save this man's life was not really forty skins, but articles equal in value to their amount, as follows :

A gun	-	-	-	equal to 20 skins.
A blanket	-	-	-	" 10 "
Six measures powder	-	-	-	" 6 "
Thirty-six bullets	-	-	-	" 2 "
A large belt	-	-	-	" 2 "
Total value received				- 40 skins.

By this species of exchange or value all articles are rated on either side, the Company having an established tariff, which may not on any account be deviated from.

The Indians and Esquimaux are still as great enemies as when Dease and Simpson made their excursions round the coast, despite the strenuous endeavours of the Company to establish pacific relations between them. They are mutually afraid of each other, but the latter are now nonplussed by the guns of their adversaries. The Esquimaux say that it is only against the "Fond du Lac" Loucheux that they entertain hatred; those of the "M'Kenzie" constantly meeting and conversing with them, although at some distance, each probably standing in suspicious fear of the other.

With those of the "Peel," however, the case is very different; "war to the knife" exists between them.

The tradition accounting for this is as follows: Many winters ago, how far back is uncertain, they were friends, and used to hunt; at one time a large party was assembled, and a few of the Indians, who with a number of Esquimaux were detached from the main body, did not return with them. The Esquimaux said that they had become separated, which was not credited by the friends of the missing, who believed them to have been treacherously murdered.

Dissembling their intentions, they parted from the others, and returning by night, attacked and killed many of them, since which time the feud has been constantly kept alive.

Between four and five years since, a party of fifteen or twenty Esquimaux ascended the "M'Kenzie," and entered the "Peel," where, just at the mouth, were encamped a party of "Fond du Lac" Loucheux, consisting of three men, their wives, and five children; these they came upon secretly at night, and surrounding the lodge wherein they slept, gave a fearful yell, which awakened the inmates, who, rushing out in affright, were successively struck down by the arrows of their merciless foes. One only escaped, a little boy of nine years, who made his way up to the fort through the woods, to the surprise of both friends and enemies, the latter never expecting him to live through the journey, if even able to find his road through the tangled maze which had sheltered him. The party then continued their ascent of the "Peel," and at a couple of miles distance from the present fort encountered an Indian, since nicknamed "Bourreau" or "the hangman," his proper appellation being Vayd-sich-tchah, or the deer's brother.

The chief and three others ^(gut.) crossed a small creek, behind which the rest of the party lay in ambush, and, counterfeiting friendship with "le Bourreau," commenced to parley with him; he, however, knowing his company, kept his eyes open, and soon observed significant winks interchanged and their arrows preparing; he immediately felled the chief with his gun, discharging it at another, who was also killed; the other two ran for their canoes, but he managed to hit one of them, who, falling over, capsized his frail bark. The other tried to right him and his boat, but was at last obliged to leave him to his fate, having been also fired at, but without effect. Those in ambush also fled, and Mr. Bourreau commenced a post mortem examination of the chief, merely to see, as he expressed himself, if he was fat, letting in daylight through two incisions, length and cross ways, then pulling out the interior arrangements of the carcase; cut the cheek bones out also; these last he brought up to the fort, and presented them as a trophy to Mr. Pruden, then "postmaster" in charge of the station.

Since that period no affray has occurred between the hostile parties, no Esquimaux having ascended the river. These say, however, that they must have five lives of Loucheux for that of the chief, having told this to a party of Esquimaux who are friendly to both parties, and live somewhere about the Colville; these told the "Rats," who again retailed it to the Loucheux.

Mr. Peers, lately here in charge, made an endeavour in June last to conciliate the Esquimaux, sending down various presents to them, with a message of friendly import; but they replied that he only wanted to entrap them, and that the whites supplied the Loucheux with guns only to destroy their enemies. Thus his excellent and praiseworthy intentions and efforts proved abortive; nor would it be an easy matter to reconcile them, since even the Loucheux,

when offered presents to abstain from hostilities, would not accept them, saying that they should only break faith with their friends the whites, as they cannot restrain themselves when they see an Esquimaux, but must have at him; this is, at any rate, an ingenuous and honest confession, however much it may display the revengeful tendency of their savage nature.

♀ September 7. To-day we partly arranged our provisions and stores.

At midnight of yesterday we observed an appearance of the "aurora," different in its style to any I have ever before seen. It formed an arc from 5° in elevation at N.E. to about 10° at E.N.E., and presented much the same form and appearance as a lunar rainbow, but did not possess prismatic colours, its hue being grass green with vertical light purple rays or stripes, which were not constant. It fringed a heavy "nimbus," imparting to it a shade of ultramarine, in which the rolling folds or waves of the cloud were finely marked. It being tolerably close to the moon (rather below and to the eastward of her), I at first imagined it to be a lunar rainbow; she was, however, much obscured, and I am of a nearly decided opinion that it was not such, but an "aurora." The day overcast and gloomy, but not cold. Wind variable.

♂ 8. Party employed cleaning the "Louisa," and her gear, mustering and arranging provisions, &c. Wind light and variable; cloudy, and at night threatening rain.

⊙ 9. The morning misty and overcast; at 9. drizzle falling, and passing showers of rain until night. Inspected the party, and read prayers. The evening most close and oppressive, calm. Three Rat Indians arrived from across the mountains with meat. One of these has since last July killed ninety-six deer and one moose, the ribs of which are stowed in "caches" in the mountains until the snow falls, when dogs and sledges will be despatched for them. He brought a letter to Mr. Hardisty from the man in charge of the station (La Pierre's house) on the Rat river, who says that he has caught no fish this season, from the water having been too high.

▷ 10. Misty; the wind from northward and westward, variable; the temperature higher than usual. At midnight the clouds were driving in heavy masses from the northward.

♂ 11. The weather continues very mild, with little wind; the sky overcast, and at midnight threatened snow, the wind being from the westward.

♀ 12. A very mild day; the evening clear and calm. At 11.30 P.M. saw a faint aurora extending in an arch from S.W. to S.S.W.; centre about 10° altitude; main colour, pale green, with a few vertical purple rays.

♂ 13. Fine, clear and frosty, small streams frozen.

♂ 16. 10 P.M. observed aurora extending in an arch from S.S.W. to W. by N., central altitude about 20° .

▷ 17. 1 A.M. A very beautiful aurora extending right round the visible horizon in regular vertical rays extending to and converging in the zenith; the weather calm, very fine and clear.

At midnight a faint aurora, not having any precise tending, being dispersed in irregular lines all over the heavens.

♀ 18. On rising this morning, we found that the long expected boat was near, and on her arrival, I was informed by Mr. A. R. Peers, who had returned in her to resume charge of the station, that my party could not be supported here during the winter. He recommended me (by letter) to proceed to Fort Norman, where we should find ample subsistence; and I therefore hastened all necessary preparations for departure, making a "demand" on the Company for such articles as were needed, with which I was supplied.

Mr. Peers's Letter.

" Sir, Fort on Peel's River, Tuesday, September 18, 1849.

" Finding it impossible to maintain yourself and party at this fort during the ensuing winter, I beg to acquaint you therewith, and to recommend your proceeding up the Mackenzie to Fort Norman, where there is ample maintenance for yourself and party.

" I am, Sir,

" To Mr. W. H. Hooper, R.N.,
in charge of party from
H.M.S. "Plover."

Your most obedient servant,
(Signed) AUGUSTUS R. PEERS, Clk.
Hon. H. B. Co.'s Service."

Started from Peel's River.

§ Sept. 19. At about noon we started from Peel's River, leaving behind a considerable quantity of preserved meats and some rope, which our small boat could not conveniently carry. Two Indians in a canoe accompanied us, to point out the shortest cut to the Mackenzie. All the morning a dense fog overspread land and water; but just before we started the calm which had hitherto prevailed was succeeded by a westerly breeze, which dispelled the mist, and the remainder of the day was fine and warm, the breeze declining in the afternoon. Ten dogs of the fort followed us along the river's bank, nor could we succeed in driving them back, although sending our guides to land for that purpose. At dusk, however, we lost sight of them, and trusted that they had returned to their home; but we were not to be so easily quit of them. We halted and encamped at a late hour, and not long after were surprised and annoyed to see the dogs come running in amongst us. During the day we observed several flocks of swans and geese, the latter in great numbers, and generally going south. From about 8 P.M. until midnight there was a fine display of the aurora, which appeared in a succession of fretted waves or folds, constantly swaying and shifting about with the light variable airs occasionally springing up. Our guides during the last two hours of our journey were continually peeping and peering about among the bushes and shadows, evidently in an agony of suspense and fear lest there should be Esquimaux lurking in the vicinity. They certainly are greatly afraid of their sea-coast neighbours, who, on the other hand, stand as much in awe of them, especially since their acquisition of firearms.

¶ 20. When about to start this morning we had the very great vexation to find that the dogs had visited the boat while we slept, and eaten up every morsel of the fresh meat. Their cunning and trouble to get at this must have been great, as it was stowed in the bottom of the boat, and covered well with tarpauling. We now again endeavoured to drive them back, but without effect. In less than half an hour after quitting our encampment we entered the Mackenzie, whose great breadth and swift current presented a strong contrast to the narrow sluggish stream we emerged from. Our guides now desired to return, and landed to drive the dogs back with them, while we continued our journey, commencing to track up along the left bank. Our late guides had not succeeded in securing the dogs, for we soon espied them following as before, and although we crossed the river several times for better tracking ground, they also swam over each time, and gaily kept up the pursuit. We did not finally lose sight of them until after passing Point Separation, which we did not reach until 4 P.M. At 9. we landed and encamped, if that may be called encamping which was simply lighting a fire and squatting around it, with no other shelter than our sail, a very small affair for six people. The day was fine, and generally calm, a light air from S.E. occasionally rippling the water. Shortly after we encamped Robinson told me that he had seen an Esquimaux oomiak pulling up inshore at dusk, but, not having been quite certain, would not mention it at the time. Desiring him never to hesitate again in such a case, and seeing the arms in readiness, I set a watch throughout the night, each man taking an hour in turn.

¶ 21. Before daylight had well made, we started, with a fresh breeze from N.W., which, however, soon declined, and we took to tracking. At 9. we observed smoke from an Indian camp on the left bank, and were soon visited by five men in three canoes. From them we obtained ten fish of a good size in exchange for beads and tobacco. At 10. we again got the breeze from N.W., the sky making up for snow apparently, and at 11. the wind freshened considerably in a squall, accompanied by a heavy fall of hail and rain. The increase of wind did not last very long, but we kept a good breeze until 7., when it fell light, and we again landed to track. Reaching a deserted lodge, we encamped at 7.45., too glad to find shelter from the weather, snow mixed with sleet now commencing to fall, and the air becoming raw and chilling. During the day we observed hawks, ravens, a few ducks, geese, and swans, either singly or in small plumps, and numerous smaller birds, among which the snowbird was frequent. The tracks of moose and reindeer very numerous along the banks, some quite fresh.

¶ 22. This morning also we started before good daylight, our plan being to drink our hot cocoa just at starting, and take such food as we needed while

progressing, not halting until night. The day fine; occasional light variable airs, in which our sail was sometimes of a little service. At 10., and so dark that we could no longer see to track, we halted and encamped on the beach to leeward of a large pinetree root; a sharp frost set in, and we were not too warm during the night. During the day we passed several islands, some of which were well wooded, others displaying only thick scrub.

⊙ Sept. 23. The morning cloudy and calm. Started before daylight, tracking. Soon after noon we got a breeze from S.W., which much assisted the trackers. I remarked to-day, as also before, that the hills have been in many places overrun with fire, the trees, which thickly clothed their sides, being scathed and withered. Towards evening the wind fell light, and at dark we encamped, but had not the good fortune to hit upon another lodge, although we passed several in the day, dismantled and deserted.

▷ 24. The morning cloudy, calm, and mild. Started at daylight, and tracked until 5 P.M., when we got a fresh breeze from N.N.W., and, unwilling to lose so good a chance, continued our journey until 3 A.M., 3 25, when the wind fell light, and we tracked up to a watch-fire not far distant from us. Here we landed, and found reposing around the fire seven Indians (hunters), their canoes, guns, and other gear lying unguarded upon the beach. After taking some refreshment we laid down by the fire until morning, Abernethy excepted, he preferring to remain in the boat. At 6.15 A.M. I aroused the party, and was going down to the boat to start, a fine breeze blowing from N.W., when Abernethy came up to the fire, and as he said he was very cold I consented to wait awhile. He said that his feet were frozen, and although I did not in the least imagine that such was the case, I warned him most particularly not to go too near the fire; but he utterly disregarded my caution. At 7. I told him that I should go on and let him follow when he should think proper to get up, and accordingly started with the other men, taking also two of the Indians, one of whom spoke a little French, as guides. Proceeding for forty minutes, I then halted to wait for Abernethy, who came up in half an hour, and we then continued our journey. The wind failed in the afternoon, and the Indians, who in their canoes were at first not able to keep up with us, now overtook and passed us, we being now obliged to track. At 10. we caught sight of the camp fire of our Indian friends, and reached it in twenty minutes, having tracked since noon. I had given our new friends some trifles of tobacco, and we were therefore on the best of terms. They made room for us at the fire, and endeavoured to show that we were welcome. Snow now began to fall, melting as it dropped.

♀ 26. When we started this morning a fine westerly breeze was blowing; snow and sleet falling heavily. In the afternoon the wind fell, and we landed to track. At dusk we espied Fort Good Hope some miles distant, and reached at about 10. We were received by Mr. M'Beath, the gentleman in charge, with a very kind welcome, and every attention was paid to our comfort and accommodation. Abernethy's foot was here found to be frozen, greatly to my astonishment and that of Mr. M'Beath, who laughed at the bare idea of such a thing at this season. Upon inspection, however, he acknowledged the fact, but added that it was not severe, and kindly undertook the treatment of the injury, telling me that a poultice of the inner bark of the juniper tree was the best remedy, and superior to that which I unaided should have applied, viz., a lotion of diluted spirits. He said also that the frost-nips would not have been half so bad had the feet not been exposed to the fire, which aggravated the size and inflammation of the blisters.

♂ 27. A most lovely day; warm, clear, and sunny. Mr. M'Beath busied himself about having moccasins made for the party, all those from Peel River being worn out. Upon consideration I resolved to remain here another day to recruit the men, and also that Abernethy's feet might get better. I wished, indeed, to leave him at this post for the winter, but Mr. M'Beath said that he could not conveniently feed him. At night we observed a fine aurora, spreading all over the sky, and having very little movement.

♀ 28. The day fine and mild, with a light easterly breeze; evening cloudy and calm. We now lodged in the store such articles as we should no longer need, and which would be encumbrances in our upward journey, putting all under charge of Mr. M'Beath, and receiving his acknowledgment for the same.

Mr. M'Beath could not furnish me with white men as guides, the only two who were with him having gone up with Mr. Pullen, he therefore engaged two Indians to assist the party, and kindly lent me his own tent, which was sufficiently large to contain our small number.

↳ Sept. 29. Having received provisions, moccasins, &c., from Mr. M'Beath, whose attention and kindness, as also those of his wife, were very great, we bade farewell, and continued our journey. At 3.20. we arrived at the first rapid, and had a strong tug to ascend it. Just above, we landed to dine, and then proceeded until nearly 9 P.M., making but slow progress, the water being so shallow inshore that we were frequently aground. The day was cold and gloomy, with drizzling rain falling; but, with the tent, we were now sheltered, and reposed most comfortably.

⊙ 30. Soon after sunrise we continued our journey, tracking, and occasionally pulling to clear shoals, &c. The wind from S.E. was strong, and right in our teeth; our progress, therefore, was slow, and at 10 P.M., when we landed and encamped, having during the day only halted to dine, we were still at some distance from the "Cent Sous Rapid." The day was cloudy, the night fine and clear.

OCTOBER.

↳ 1. Starting some time after sunrise, we crossed to the left bank to ascend the rapid. From about noon till 2 P.M. we were engaged in tracking up the lower part, then halted to rest awhile, and again proceeding, were by 4 P.M. at the head of it. The latter part of this work was tedious and fatiguing, the water being shallow for some distance from the shore, and the trackers therefore obliged to wade for a long distance through it. We now landed to dine, but while preparing for the meal were gratified by the advent of a strong westerly breeze, and hastily embarked and set sail with glee, contenting ourselves with a cold repast. While crossing to the opposite shore, the wind and current being in opposition and raising a considerable bubble, our boat plunged bow under and shipped a good deal of water. The wind becoming heavy in squalls, we took in a reef after reaching the right bank, being before obliged to keep the whole sail to clear the rapid, but in an hour let it out again. The breeze carried us on at a fair pace until 8.30., when we resumed tracking, and at 9.30. landed and pitched the tent.

♂ 2. The sun had risen about half an hour when we started. A slight hoar frost was visible on the drift wood lying around, but the ground was apparently little touched. The morning was very fine, and at first calm, but soon after our departure a fresh breeze sprung up from S.E., which raised a considerable ripple on the water, and much retarded our pace. At 2.30. we landed to dine, re-embarking and proceeding at 4.30. At 9.40. we put ashore and encamped. The wind greatly decreased during the last two hours. The night most lovely, very clear, and, later, calm.

♀ 3. The calm which ensued last night gave place at about midnight to a very strong breeze from the southward, which made me fear several times that our frail habitation would succumb to its force. For the boat I entertained no anxiety, as it was always, on landing, our first and especial care to make her securely fast, generally to the trunk of some large drift tree, with the tracking line attached to the tent, so that should she by any chance start from the beach she would pull our house down about our ears, and so effectually warn us.

There was a slight hoar frost during the night. The breeze fell towards daylight, and the day became calm and very fine. We did not start until considerably after sunrise, and tracked until 4.40., when we halted to dine, resuming our labours at 6. We now found the water very shallow near the bank, and were obliged to track with the whole length of line. At 10.30. we landed and encamped. A light air now sprung up from the eastward.

↳ 4. We got away this morning before sunrise; the weather fine, clear, and calm. At about 2. a fresh breeze sprung up from the westward, to which we made sail, having now just caught sight of the hills about Bear River. In an hour the wind fell light, and we landed to dine. During the meal the wind freshened again, and we hastened to embark, and proceeded until midnight, when it once more fell light, and we landed for supper, intending, if the wind

should again increase, to proceed when the moon rose. While here we observed a fire on the opposite bank, and thinking that this might be that of Mr. Pullen's guides on their return, and that they might possibly have some communication for me, especially as we heard the reports of three guns, I sent up a rocket, but received no reply, and shortly observed that the fire was no longer visible.

♀ Oct. 5. At 2 A.M., the breeze fast freshening and the moon having risen, we embarked and hoisted sail, carrying a glorious breeze for some time. The moon was much obscured with mist, and snow and sleet fell thinly. At 4.40. the wind failing and the current having become very strong, indicating our close proximity to Bear River, we were no longer making any progress, so landed and pitched the tent, and having with much ado found a sufficiency of drift wood and kindled a fire, lay down to await morning; rain and melting snow now falling thickly. At 11 A.M. we again set forward, at first tracking, but later the wind increased, so that we were enabled to sail until reaching Bear River, where, however, the breeze failed, and we had a strong pull across its mouth, after which we landed and dined; then proceeded, tracking, and soon passed the remarkable burning banks, which sent up numerous columns of smoke, but at present showed no flame. At 6.40. we came to a bluff point, whence we crossed, by direction of the guide, to the opposite shore, along which we tracked, looking out anxiously for the fort, which our pilot assured us was close to. In the hope of reaching it we continued onwards until 10 o'clock, when, not seeing any signs of the desired post, and it being now quite dark, I called a halt, and we encamped. "Tom" was, however, so sure of the immediate vicinity of the fort, that he went on to look for it, but after a time returned, unsuccessful and despondent. The night was fine, but very cold, a hard frost setting in.

♂ 6. At 10.30. we continued our journey, tracking. There was a dense fog enshrouding us, and a piercingly cold breeze blowing from S.E., which, together, made it so cold, that our hair and beards were frozen stiff, and powdered with rime. Last night and this morning were the coldest period we experienced in the trip. At 2. by the watch, and, as I imagined, about noon of correct time, the fog cleared off, the wind decreased, and the weather became sunny, clear, and warm, affording a delightful contrast to the gloomy and chilling morning.

Arrived at Fort Norman on Mackenzie, 6th Oct

Since crossing, last night, from the right bank, we had been travelling round a deep bay, and I conjectured that "Tom," our Indian guide, had mistaken this for the next one, as the locality of the fort, and such, indeed, proved to be the case, for we shortly got into the other, and at 3. came upon four Indians who were seated around a fire, roasting fish, taken from a net near. These told us that we were close to the fort, and at 4.30. we reached our much-desired resting-place, Fort Norman, and were most kindly received by Mr. Hector Mackenzie, the gentleman in charge.

To him I made known the reason of our unexpected arrival, and had the satisfaction of learning of Mr. Pullen's having safely reached and departed from here, with his party all in good health.

⊙ 7. A fine and mild day, with a strong southerly breeze. The party resting after their late considerable fatigues. In the evening a party of Indians arrived, whose fire it appeared it was that we saw on the 4th instant, as they spoke of our wonderful fire (the rocket), and wished to see a repetition of its display.

▷ 8. The men were busily engaged to-day in fitting up bedsteads for themselves in a room which was appropriated to their use, and I was supplied with a blanket for each man. The day fine and mild, with a breeze from S.W., and a cloudy sky. At 10.30 P.M. the men, two in number, who had accompanied Mr. Pullen as guides to Fort Simpson, arrived here on their return towards Fort Good Hope. By them we received intelligence of the safe arrival of Mr. Pullen and party at Fort Simpson, where the former would winter, the men going on to Big Island on Great Slave Lake.

We now held a conversation respecting the propriety of my endeavouring to reach Fort Simpson with my party before the appearance of ice in the river, but as Mr. M. declined offering any opinion on the subject, I resolved to relinquish the idea of proceeding, for these reasons: the opinions given by the

Reasons for remaining, 8th Oct.

gentlemen of the lower posts, that we should incur risk by attempting to proceed farther than Fort Norman ; our having already experienced severe frosts, and one of the party having been frost-bitten so early as the 25th ultimo ; the great uncertainty of the weather, and the probable great trouble we should have in getting up with only four working men, when those with Mr. Pullen, nearly double the number, were, by the guide's account, completely exhausted by the voyage.

These were my reasons against proceeding, while I could find none in favour of the attempt. If safely arrived at Fort Simpson, which was in itself a dubious question, the men would be despatched to Big Island, to subsist on fish ; while from this post they would go to Bear Lake, and have the same piscatorial diet.

♂ Oct. 9. Mr. Pullen's late guides started this morning for Fort Good Hope, accompanied by the two Indians who came up with us, whom I requested Mr. M'Beath to remunerate for their services. The day fine and mild. Wind moderate from eastward.

♀ 10. Fine during the morning. The sky covered with light fleecy clouds. Wind fresh from N.E. The afternoon overcast and gloomy, threatening snow. Wind also falling.

♂ 11. Calm and overcast ; rain and snow. In the afternoon a breeze from the westward.

♀ 12. Blowing strongly from south. Weather cloudy, but mild. In the evening the wind increased greatly, and continued all night.

♂ 13. Wind from south, blowing a half gale ; increasing towards night to a fresh gale. Weather cloudy, but clear.

⊙ 14. The wind much decreased, but unchanged in direction. Weather cloudy, but mild. In the forenoon I read prayers to the party.

♂ 15. Cloudy, with occasional rain. Wind moderate from N.W. A faint aurora visible in the evening.

♂ 16. During the night there was a very hard frost. The day very fine, a few patches of " cirro stratus " clouds in the sky.

At about 10 A.M. the fishermen arrived from Bear Lake, bringing 7,000 fresh-water herrings for winter consumption.

At 11. P.M. a fine aurora extended in a broad undulating curve from N.E. to W.S.W. ; the sky was clear ; temperature considerably below freezing.

♀ 17. A slight hoar frost on land and trees ; morning cloudy and cold, wind moderate from N.E. As we should not probably have further occasion to employ our boat until the spring, we hauled her up on the bank for the winter. In the afternoon the wind shifted to S.S.E. ; the sky becoming overcast, and promising snow, which commenced to fall in the evening, and, continuing all night, thickly covered the ground. In the evening the men had a dance in the hall, one of the Company's servants here, being an excellent fiddler, volunteering his services as musician.

♂ 18. Overcast and gloomy weather ; wind light from S.E. The small lakes about the fort frozen of sufficient thickness to bear one's weight. The men assisting to haul the large boat of the fort close up to our own on the bank, where they will both remain for the winter.

♀ 19. A light breeze during the morning from the westward ; the sky overcast and gloomy. Drizzling rain began to fall at 11 A.M., and later, snow and hail, freezing hard at night.

♂ 20. Snowing nearly all day ; wind light from westward. During the morning a heavy mist hung over and about the river. The snow on the ground now about four inches deep ; weather mild ; snow falling until late at night.

⊙ 21. Very fine, but freezing hard, and a strong south wind blowing until towards noon, when it moderated, and gradually veered round to the westward. In the afternoon the sky became overcast, and snow fell, with little cessation, all night. In the early part of the evening the wind had greatly declined, but, later, a fresh breeze came from N.W. Read prayers to the party.

♪ Oct. 22. Snowing nearly all day; weather cold and raw. An old Indian, who arrived here to-day, reported that ice is drifting in the river. The night clear and fine, and freezing hard. At 11. p.m. I observed a dim aurora, extending in a segment from N.N.W. to W., at about 45° elevation.

♁ 23. A very sharp morning, freezing hard; ice formed all along the river's banks. The wind generally light, from N.W.; weather cloudy, but clear. A little snow in the evening. At midnight aurora was visible, spanning the sky in a broad belt, passing through Orion in the E., and the Pleiades at S.E. and continuing to W. and N.W. The night clear, and stars brilliant.

♂ 24. Snowing throughout the day; sky overcast; wind moderate from W.; some ice observable in the river.

♂ 25. Very cold, fine and clear weather. A considerable quantity of ice driving in the river. The wind, during the early part of the day, was from N.W., but afterwards shifted to the southward, increasing towards evening, to a very strong breeze, and continuing in a half gale all night. At 7.20. p.m. I saw a very fine aurora, forming a brilliant arch from E. to N. by W. (Tr.), the centre being about 20° in altitude. At N.N.W. a column rose from the visible horizon to the zenith, very fine below, and widely outspread above, somewhat in the shape of an open fan which has been much torn in the web. At 10. the aurora had shifted in position and form, being now extended from S.S.E. through the zenith, towards the western horizon, where it formed a magnificent scroll at about 40° elevation; it was a most superb spectacle. The rays of both of these were uncoloured, except that they seemed to possess a more brightly golden hue than usual, the moon being nearly at the full, and very bright, and the stars brilliantly displayed. The moon went down about 11., when also the aurora disappeared, and the sky became entirely overcast.

♀ 26. The wind still from S., and unabated in force; the day otherwise fine and clear. The river very thickly crowded with ice, mostly in large masses. From about 3 p.m. the wind gradually moderated until, at 8., there was very little. At 8.30. I observed an aurora, nearly similar in form and position to that first seen last night, but not nearly so brilliant, and of greater altitude, as the inner line of curve was now just above the "Pleiades," whereas, in that of last night, at an earlier hour, the upper edge intersected that constellation. The weather at night not so cold as during the day.

♂ 27. Snowing thinly nearly all day, the weather mild and cloudy; a little wind from N.W. The river very much crowded with ice, amid channel only being tolerably clear. Towards night the snow ceased.

○ 28. A very fine and cold day. The river pretty nearly covered with ice, generally in large masses. The current appears to be much stronger than of late, hurrying and tumbling the ice along at a great rate; but this is only natural, as the shallow water on each side is frozen up, and the large branch just above the fort is frozen over firmly. A sharp westerly breeze in the day; a heavy frost at night. Read prayers to the party.

♪ 29. A fine, clear, and very cold day; a few light fleecy clouds in the sky. The early part of the evening fine, clear, and cold. A faint aurora visible, very nearly in the form and position of that of the 26th instant, with an additional column, irregular, and uncertain in form and place. All day the wind was moderate from S.; but late in the evening we had a gentle breeze from N.W., and the sky became nearly covered with clouds of "cumulo stratus." The temperature rose a little (as well as I can judge, without any other standard than the sense of feeling); the moon, which was before clear and free, had now a wide halo around her.

♁ 30. Snowing all day; wind very light from westward; sky overcast; weather misty, raw, and chilling. The snow still falling in the evening; wind blowing freshly from W.N.W., raising a heavy drift. The river does not seem so much crowded with ice as of late, probably from its having met with a slight stoppage somewhere higher up the stream.

♂ 31. A fine, clear, and cold day; a light air from southward, with an almost cloudless sky; the night one of the most lovely I have seen here; perfectly cloudless; the moon high, and, with the stars, very bright; and a beautiful aurora, in waving tremors, all over the sky; its hue a pale and some-

what yellowish green. The river closely crowded with ice, and moving along at a great rate, turning up the "sludge" between the fast and the moving edges, just as a plough turns up the earth. Late in the night I observed a halo round the moon, of about 40° diameter, the weather being then also a little misty.

NOVEMBER.

¶ 1. A fine clear morning, with a strong breeze from southward. The ice driven over on the left shore. In the afternoon, the river was again covered all over with ice, the wind having shifted to the eastward. The afternoon and evening were cloudy, but at midnight (nearly) the sky was nearly clear, but the weather hazy, and the moon encircled with a halo like that of last night. An immensity of vapour rising from the river all day.

¶ 2. A raw cloudy morning, with a little snow; the wind fresh from westward. The river greatly risen, and the current much increased. The snow ceased in the forenoon, but the weather continued cloudy all day.

¶ 3. Fine, clear and cold. The river has returned to its former level, or perhaps rather below it. The night very fine and clear, and freezing intensely; a slight aurora to the north-westward.

⊙ 4. A fine morning, cold and clear; wind moderate from S.S.W. Read prayers to the party. In the afternoon the wind shifted to the westward; the sky became overcast and the weather much milder. At 4. snow began to fall thickly and so continued for several hours; the night rather finer, clouds driving in heavy masses from the southward. The ice has apparently stopped somewhere above.

▷ 5. The morning cloudy and a very dense fog hanging over the river and its vicinity; the day finer, but snow occasionally falling. The dogs were harnessed to the sledges for the first time this season. The night fine and very cold; the river is expected to "set fast" shortly.

♂ 6. A fine, calm, and very cold morning. The river not nearly so much crowded with ice as of late, owing to its being retarded somewhere above. A moderate breeze from W.S.W., in the afternoon, the evening fine, and exceedingly cold.

¶ 7. A cloudy morning, with a westerly breeze; the river again crowded with ice. Early in the afternoon it began to snow and continued for some hours, the wind shifting to south and greatly increasing towards evening.

¶ 8. The day generally cloudy, the southerly breeze continuing until towards noon, then shifting to S.W. and moderating. Less ice than usual in the river; the weather mild.

9. A cloudy day; wind moderate from S.W. The evening fine.

¶ 10. Fine, clear weather; wind moderate from S.W. The river closely crowded with ice, now moving slowly onwards; the water risen considerably. The night fine and cold; a fresh breeze from south. A slight aurora visible.

⊙ 11. A fine, sharp morning; wind fresh from eastward. Read prayers to the men. The river closely packed with ice; the water risen several feet, and the surface current very sluggish. About noon the ice stopped and set fast. Soon after noon the wind changed to N.W., and blew strongly, accompanied by snow and sleet, with a heavy drift. The night very cold and boisterous. Mr. Mackenzie and myself settled on Tuesday as the probable day of our departure for Bear Lake.

▷ 12. Blowing very strongly from N.W., with the same wretched weather as last night. In the morning the ice started and moved on a few paces, but was all fast again by noon. The wind moderated P.M. and the snow ceased. The night very fine; a fresh breeze from N.E., clear and very cold weather. A fine aurora visible, principally in the south and west quarters. Wrote to Mr. Pullen, reporting our unexpected arrival here and subsequent movements, past and future.

♂ 13. A very fine and calm day. Preparing for our journey to Bear Lake. Received twelve pairs of mocassins for the use of the party. A fine aurora at night, extending from east, through the zenith to west, in an irregular curve.

¶ 14. A very lovely day. All having been arranged and prepared for the departure of myself and party for Bear Lake, to remain there during the winter, we, (with the exception of Abernethy, who was to remain at the fort

14th Nov., departure for winter quarters on Bear Lake.

on account of his frost-bitten feet, which although healed, were too tender to be exposed to the cold,) accompanied by three of the Company's servants, who each drove a sledge laden with our goods and necessaries, started from Fort Norman at 9.30. A.M., and entered upon our journey. Proceeding a short distance down along the river's bank we then crossed over to the opposite shore; this was a lengthy and toilsome performance, the surface being most rugged, the ice thrown up in sharp points or broken lumps, and in one or two places open water lay in our course and required some caution to pass in safety. We had now a tremendous hill to surmount, being obliged from its extreme steepness, when nearly at the top, to employ our united strength and efforts in getting up one sledge at a time. This accomplished, we proceeded onwards through woods, over hill and vale, until sunset, when we halted and prepared to encamp. Choosing a spot near which dry wood abounded, we cleared away the snow with snow-shoes, laid plenty of pine brush on the earth for our couches, built up a hedge all round to shelter us from the wind, made a huge fire in the middle of the camp, thus dividing it into two compartments, and then sat down to our supper of pemmican, which discussed, and a store of logs collected for fuel during the night, we lay down to court repose, the star-lit and aurora-illuminated vault of heaven our only canopy. The night was as the day had been, very fine, but exceedingly cold, and we found a sensible difference between our late lodgings and present airy situation. Our party in all consisted of ten persons; my own party, three of the Company's servants, one of whom was appointed to remain with and fish for us at Bear Lake, and an old Indian with his son, who were to assist the fishermen. We passed a number of lakes to-day, but for the most part our journey lay through dense woods, through which our solitary narrow road has been cut, since when no one can say. The Indian and his son led the way on snow-shoes, to beat the path for the dogs. We, being unprovided with snow-shoes, followed the sledges.

¶ Nov. 15. At daylight we proceeded; the day very fine and calm. As before, our road lay through thick woods and across numerous lakes; we also passed a small river which falls into Bear River. We saw to-day a great number of birch trees, but none of great size; the tracks of hares or rabbits, martens, foxes, and other small animals were numerous; cranberries and another kind of a sharp acid were plentiful and most agreeable, being frozen hard and melting away in the mouth; the former sort we obtained by digging in the snow, the latter grew on small bushes. There were also plenty of the seeds of the wild rose, which were sweet, and a pleasant change from the acid berries.

At sunset, as is usual in such journies in this season, we again halted, and spent a busy half hour preparing our encampment, which, when finished and with a blazing heap between its divisions, afforded a most delightful resting-place, although in the civilised world it would be considered but an indifferant bedchamber in a hard freezing night. And it certainly was very cold; so long as the huge fire blazed up merrily we were all snug enough, but by and bye, when all were wrapped in the heavy slumber induced by the fatigues of the day, the large pile of logs gradually decreased, and when I at last awoke, benumbed all over, and my toes, oh! so cold! nought remained in the place of the ruddy mass I lately looked upon, but a few calcined log ends and a heap of smouldering ashes. I set to work, however, carried more logs to their destruction; and what with raking the ashes together, blowing right earnestly, and practising sundry other energetic manœuvres, had the satisfaction in about half an hour of raising another tolerable blaze; after getting thoroughly warmed at which, I again lay down to sleep; but fire is an active workman, and I was up and at it again more than once during the night, for the rest of the party, more fortunate because less sensitive, dozed and snored, growled and started, in happy unconsciousness of the rigorous temperature. The nights now are very long, the sun setting soon after four o'clock, thus there are more than twelve hours of absolute darkness. We saw another fine appearance of the aurora in the evening.

¶ 16. Up and off again at daylight, after our usual *feed* of pemmican, of which we always eat enough to carry us through the day, never again eating until encamped at night; it certainly is fine stuff for sustenance; we ate, I calculated, about 2 lbs. each per diem on an average, (having *nothing* else,

except a little cocoa in the morning, (having reserved a small case of that brought from the "Plover" expressly for this journey,) yet we never felt hungry or weak the whole day through. The day was very fine, and in the early part cold, but towards and after noon the sun gave considerable warmth; occasionally a light air sprung up from the eastward. We crossed a river to-day, but no lakes until late in the afternoon, and wound round a hill which lay in the crow's flight route to our destination. Our dogs were to-day very much fagged, owing probably to the depth of snow and the constant obstructions in our narrow path, which was also full of holes, into which, they being hidden by the snow, we plunged unawares. There was a slight but brilliant display of aurora during the early part of the night.

h Nov. 17. We were afoot earlier than usual this morning, starting well before daylight. Weather very fine and cold, and mostly calm. We saw to-day, at about 40 miles distance, a large and high mountain, called the "Roche Clarke," from a chief factor of that name, who ascended it many years since and took breakfast on the summit, leaving there a flagon of brandy, for future adventurers. Some time before sunset one of the sledges became broken, and we were in consequence obliged to halt earlier than usual, and had not the good fortune to pitch upon a well-supplied resting place, dry wood and good water being wanting. We were obliged to melt snow for drinking, and this acquired a most unpleasant flavour in the process. The Indian boy did indeed discover a swamp, from which water was brought, but its colour and taste were alike so disagreeable that we fain put up with the other sort. We passed the half-way mark of the journey at about noon.

⊙ 18. Fine but cold; a cutting wind from the southward, shifting to the eastward in the afternoon. Our old guide lost the track to-day for nearly an hour, and when we at last recovered the right path, the little boy was missing, having got into the woods in a different direction, and did not rejoin us for a considerable time. This is the first time that the old man has been at fault, unless for a momentary interval, generally conducting us through these dense forests with wonderful confidence and accuracy. The mode of marking the path is by blazing the large trees and breaking down smaller ones, and of such marks I saw many which were of old date; when about to cross lakes, they break off a number of the tops of young pines and drop them at intervals on the ice, and thickly must the snow fall to cover these fragile marks. The night was mild; and as we had plenty of dry wood and most excellent water from a neighbouring stream, we spent a most comfortable night, notwithstanding that drizzling snow began to fall in the night and continued until morning.

▷ 19. Snow drizzle all day; the weather mild; wind from S.W. At about 2.30 P.M., we fell upon Bear Lake, and striking across this in a northerly direction for about four miles, came upon a marsh which separates the great lake from a very small one which we crossed, and on whose border, on the side of a steep hill, stands our present habitation. We arrived considerably after sunset, and found located in our new tenement an Indian with his family of four boys, who little expected this unseasonable visit of the pale-faces. In the hearth was a blazing fire, before which broiled a most tempting display of trout. The Indians, however, seemed to bear the unpleasant occurrence of our arrival with either great apathy or stoical resignation, and made us as comfortable as they could, laying before us some of the fish, and directly setting about preparing a further supply for consumption. We all "pigged" it upon the floor for this night, leaving to the soon-to-be-dispossessed tenants their accustomed roosts, which, in sooth, appeared to me to be most uninviting, being dirty beyond mention.

· ♂ 20. Two of the fort men departed this morning to return to Fort Norman; the other who remains with us started for his fishing ground to put down hooks for trout, and returned in the afternoon. The Indian family removed themselves and effects to a few rods distance, where they constructed a temporary lodge, in a very brief period; thus, having a clear house, we set to work and soon made matters look a little more "shipshape;" knocking down the huge and filthy bedplaces, which occupied more than half the space of the apartment, and commencing others of more contracted dimensions; besides

having a regular clean out of the domicile. We were, however, much cramped for tools, having only axes, chisels, gimlet, and files, so did not progress very rapidly, and at night were again obliged to couch upon the floor. The day pretty fine and calm. A fine aurora in the night.

♀ *Nov. 21.* Very fine, clear and cold. Busy all day manufacturing bedsteads and giving the house another clean out. Hitherto we have been borrowing fish from our Indian predecessor and present neighbour, but this evening our fisherman brought home some fine trout, the largest of which could not have weighed less than 20 lbs., and afforded a delicious treat, being fat and rich; he also laid down nets for herrings in the lake. A most splendid aurora at night, spreading in waved lines all over the sky.

♂ *22.* Fine and clear, with a moderate breeze from N.E. Four Indians arrived from Fort Norman, bringing me a note from Mr. Mackenzie and an additional supply of twelve pairs of moccasins for the party. They betook themselves to the lodge of their own people, with whom they will pass the winter.

♀ *23.* The fisherman brought home to-day the first fruits of his nets, being about one hundred herrings. These fish much resemble the sea herring, but are generally considerably larger, being nearly the size of a small mackarel; they are very nice eating, firm, and white, but neither so delicate in flavour nor so rich as the trout, whose food they are. The trout, as it is called, appears to me to be of the salmon-trout kind; they are very large, sometimes weighing upwards of 60 lbs.; the flesh is rather lighter coloured than that of salmon.

♂ *24.* Snowing thickly and very cold; wind N.E. The Indians abandoned their temporary lodge this morning, and with bag and baggage started off to a spot higher up the lake, where they will fix their abode for the winter. It was painful to see the loads the women bore, but I am told that this is the common practice, and that it is from the manner in which the men treat their wives that they are called the Slave tribe. Among them, if a man desires to possess the wife of another, there ensues a trial of strength between them: they catch hold of each other by the hair, which they wear long, and thus contend for the mastery until one or the other cries "peccavi." Should the envious man prove the victor, the lady becomes his property upon payment of a certain number of skins, having herself no voice in the affair, but is handed over like any other piece of goods, and generally with much the same unconcern.

Our old Indian has been busy all day making a beaver net, having found out the haunts of some of those animals.

⊙ *25.* Having here neither Bible nor Prayer-book, I wrote a few prayers from memory and read them to the men, being unwilling to pass the Sabbath without some notice, however slight, of its sacred recurrence. The day tolerably fine, but cold, with an easterly wind.

▷ *26.* A moderate breeze from eastward, weather misty. In the evening commenced school with the men in reading, writing, and arithmetic.

♂ *27.* Fine and cold; a fresh breeze from eastward. The party cutting and drawing wood for fuel. In the evening held school for a couple of hours.

♀ *28.* During the night it blew fresh from the eastward, and we thought that we should have a bad day; towards morning, however, the weather cleared, and wind ceased. The monarch of day was ushered in with a golden welcome, rising in unclouded splendour. Towards noon the weather became misty, and the wind rose, soon blowing very strongly from east, accompanied by fiercely driving snow and sleet; so bad, indeed, was the weather, that our fisherman had some ado to find his way home, and but for the dogs, would not have been able to accomplish it. In the morning we had school for reading and arithmetic, and in the evening writing.

♂ *29.* About midnight, as I suppose, having neither watch nor other guide for time, the weather broke and cleared; the rest of the night was most lovely, but with daylight came snow, and about noon a fresh breeze from E.N.E. Held school morning and evening; in the latter, writing from dictation.

♀ *Nov. 30.* The weather continued bad all night, and to-day it snowed unceasingly; the wind gentle from N.E. I visited old Fort Franklin, which is close to our present dwelling. A shapeless mass of rubbish and a few stones still standing of the chimnies are all now left of poor old Sir John's resting-place for two years, and I could not help thinking how busy time has been with them both. This fort was large; the remains of eleven chimnies, mostly double, show its whilom extent; it was tenanted by about forty persons, including the people of the company. Here we gathered a quantity of "muscake," or swamp tea, which I find a tolerable substitute for orthodox hyson; it is strongly aromatic and bitter, and an excellent tonic.

DECEMBER 1849.

♂ 1. Blowing hard from eastward, and snowing all day and night. Our little Indian boy had a narrow escape from drowning to-day, having stepped into the "basin hole" cut for laying down the nets; had he gone under the ice he must have been drowned, as the nets are set in the entrance to Bear River, where the current is very strong.

⊙ 2. The day opened with drizzling snow and a cold wind from the eastward; later it improved, the snow ceasing and sky clearing. Read prayers to the party. The night was very fine, and the coldest we have yet experienced; the wind from N.E., fresh and squally, and exceedingly keen.

♂ 3. A severe day and night, snowing and blowing hard from N.E.

♂ 4. Weather stormy, wind strong and squally from N.W. Late in the evening it cleared up a little, and a curious appearance of aurora was visible to the northward, fringing the upper edge of a heavy "nimbus." I omitted to mention having yesterday, at about noon, observed a faint parhelion. On each side of the sun appeared a segment of a prismatic circle at about 25° from the body, and in the easternmost of these appeared the mock sun, faint indeed, but unmistakable, one half circle projecting from the bow at the outer edge; the gradual brightening of the prismatic colours towards its position was regular and very pretty. In the western portion of the bow only brighter colours and a slight irregularity of outline were perceptible at the same altitude as the mock sun in the other.

The night became most beautiful; wind and snow ceased and a calm ensued, with a very clear atmosphere. Held school during the day.

♀ 5. Clear, very fine and cold. Calm until towards sunset, when the wind rose from N.E., and increased much and quickly, coming in smart squalls, no doubt blowing with great force in an open space, our position being greatly sheltered. The night fine and very cold, a few windy clouds in the sky. Fantastically flitting rays and streaks of aurora visible, darting hither and thither through the heavens like lightning flashes; the stars very brig it.

♂ 6. During the night the weather changed greatly, the wind moderating and shifting to north, and snow falling; this continued all day, the temperature rising considerably. The trout are now beginning to fail, and with them our supply of oil, which is all we have for light in the periods of darkness.

♀ 7. A fine day, calm and very cold. The old Indian returned from a beaver hunting expedition, having killed but one, the tail only of which he brought with him. A most lovely aurora at night, extending from east, through north, to west, with coruscations towards the zenith.

♂ 8. As I have generally observed to be the case, the aurora of last evening was followed by a strong breeze, the weather completely changing during the night; the clear starlit sky becoming overcast with a heavy drift of clouds from N.E., from which quarter the wind was strong, accompanied by thickly falling and driving snow; the weather continued thus all day, and was moreover bitterly cold, but improved a little towards night, the wind and snow ceasing, and a few stars peeping out. School as usual during the day.

⊙ 9. During the night the wind and snow recommenced; the former now coming from N.W., and blowing very strong. Towards daylight the weather improved and the day became fine, but the wind continued unabated until sunset, from which period it gradually moderated and changed; the night was very fine, a gentle breeze from west, a cloudless sky and a beautiful aurora, which latter first formed in an arch from N.N.E. to N.N.W., but later appeared, similar to that of the seventh, in broken vertical rays, coruscating towards the zenith; the stars visible in myriads and very bright.

11. P.M. I have just come in from viewing (aye, and listening to) the aurora, which now presents a gorgeous spectacle. It has shifted from its first position, and now covers one half of the heavens, from east, through south, to west. Oh, it is exquisite; I cannot describe it, for it is too splendid for description, even if viewed by a "Byron," but I will try to set down an idea of it, although it can be but a faint one. "Orion" is now bearing about S.S.W., and on each side of that constellation to about four points rays are converging very nearly to the zenith, while they are perfectly regular in distance one from the other, and in form remind me of the lines of longitude on a globe, like which also they are cut just below the zenith. Around and about them are wreaths and rolls, lines and curves, masses and skirmishers of the luminous fluid, never still for an instant, but waving and rolling, advancing and retiring, folding and unfolding, fast and changeful as thought can fly; never twice alike, but like the fickle kaleidoscope, ever presenting some new appearance, beautiful and wondrous as those already seen and vanished. The converging curved rays, before mentioned, are just in shape, &c. as we see in those pictures where the Spirit of God is represented descending upon the Saviour in the form of a dove. I do not think nor write this with levity, for the phenomenon is too awe-inspiring to excite mirth or ridicule.

As the heavy curtain in a theatre is drawn up or let down, so are some of the flying lines expanding and contracting incessantly; others again seem heavy breakers, curling and turning under and about. There was one large mass, a perfect blaze of light, which seemed to be not twenty feet above me; others with less body appearing far far away. It was a glorious sight, and I stood gazing in rapture, although not very poetical, until I found myself chilled throughout; but one who is privileged to view a scene like this can have little soul, little of the spirit contemplative, as he feel not his very heart-strings thrill with solemn joy at the sight. And now too a question long doubted is by me doubted no more. I have *heard* the aurora, not once, nor twice merely, but many times; not faint nor indistinct, but loud and unmistakable; now from this quarter, now from that; now from on high, and again from low down. At first it seemed to me to be like the sound of a field of ice cracking, then like the distant stroke of an axe; again it resembled the noise of pile driving with a monkey, and at last like the whirring of a cannon shot when heard from a short distance. Once, three like this followed in rapid succession, and I thought I could see the mass whence the sounds proceeded trembling or vibrating.* The night is intensely cold, the sky perfectly clear, the stars showing as brilliantly through the illumined fluid as where the "lights" are not; the wind is moderate from N.N.W. I have no doubt that we shall have heavy weather after this display. I have read that in other northern voyages the sound of the aurora resembles the cracking of a whip, but to-night I heard nothing like this, to my idea.

In a few minutes the character of the phenomenon changed, the tremors and rays all disappearing, and nought now presented to view but a long low arch from E.S.E. to S.W., banking a rising mass of clouds, but I still heard occasionally the sounds as before, now much subdued and less frequent. The night continued calm, but became cloudy.

▷ Dec. 10. The day was very fine, calm and cold, the evening became much milder, and was followed by a night of heavy snow. Our house caught fire in the evening by a spark from the chimney, but by pulling away the burning portion we soon prevented its extension. We had school during the day, as usual.

♂ 11. Snowing and blowing hard all day; the sky clearing a little at night, a fine aurora was visible, and the wind increased to a strong gale, in which the squalls were very violent. We had some school during the day, but are now unable to work in the evening, our slender stock of oil being exhausted.

♀ 12. Still blowing hard all day from the same quarter, N.W., as yesterday, the snow driving fast and furious. The aurora at night was very fine, the wind having gradually decreased from sunset and the night become very calm and fine. We again heard the cracking sounds, and our fisherman had a fine laugh at my sounding aurora, saying that the noise is only that of the ice cracking

* This error respecting the aurora's sound affords a curious indication of the power of imagination in assisting delusion.

on Bear Lake, but this solution of the question was not at all to my taste, and I retired to rest perfectly satisfied that it was caused by the aurora, and not the ice.

¶ Dec. 13. Fine and cold, with little wind. All my enthusiastic ideas respecting the aurora's sound are dispelled, and I find that I have, to use a vulgar phrase, "found a mare's nest," for those noises which I before heard with so much rapture as belonging to an exquisite and wondrous phenomenon were this morning repeated in broad daylight, and are I now see unmistakably, caused by the ice cracking. A moderate breeze in the evening from N.E., weather cloudy.

¶ 14. During the morning it snowed, but the weather cleared towards noon, with a moderate breeze from N.W., "scud" flying, from the same quarter, fast and low. At about 2 P.M. the wind suddenly increased to a half gale, with very heavy squalls and the snow driving in clouds, completely obscuring the opposite shore of the small lake; the weather continued thus all night, with the addition of falling snow. The Indian family who were here when we arrived, as also those who afterwards came from Fort Norman, passed by this morning on their way to another fishery, about three days journey from this, on the same side of the lake, where they intend to sojourn for the remainder of the winter.

¶ 15. Snowing and blowing hard and very cold; the snow ceased about daylight, but the wind continued in squalls all day and very keen, blowing from N.W. The night became fine.

○ 16. Fine and mild, a moderate breeze from eastward, snow at night.

▷ 17. A moderate breeze from N.W.; cloudy and cold. The men cutting and drawing firewood. The night set in pretty clear, but with the wind strong and squally from N.W. Late in the night a fine aurora was visible to the southward.

♂ 18. We found last night very cold, and the day has also been exceedingly sharp, almost every one out of doors complaining of slight frost nips. Very fine and clear weather, breeze moderate from W.N.W. Towards evening the sky became cloudy, but in the night was clear and displayed the "merry dancers" to advantage; the wind being then fresh from westward.

¶ 19. Colder by far than yesterday, very fine and, in the morning, calm. About midday a moderate breeze sprung up from N.E., but the night was calm, fine, and clear. Aurora was visible in, at first, thin bright streaks, and later in a long arch from E.S.E. to S.W.; and another, with less length and of greater altitude, from N.N.W. to N.E.; the stars brilliant as gems.

¶ 20. This is, beyond dispute, the coldest day we have yet seen either this winter or in our winter quarters last year, not indeed that it felt so sharp as on many occasions when the weather was bad, but we could this morning hear our breath cracking, which I believe is never the case when the temperature is above 40°. The day was very fine and calm, but the cold penetrated through all covering; even our fisherman was forced to return before his usual time. At night we saw a lovely aurora; at one time it was like this, the point being to the eastward, and the flourish reaching half down to the western horizon, breaking at the extremity into perpendicular lines. The night calm and very fine.

¶ 21. In the early morning we could again hear our breath passing the ear in a little sharp whirr; the day fine and at first calm. The wind was light from N.W. in the afternoon, which, with the evening, were much milder.

¶ 22. Light mizzling snow during the day, with a light air from the westward. Last night we observed a fair aurora; masses of light rolling and tumbling over each other incessantly, and apparently very low. The weather has completely changed since yesterday, being now cloudy and very mild. A slight aurora to the westward visible this evening.

○ 23. Fine and clear, a very light air from the eastward; the day very mild. A good deal of "mirage" on the south side of the lake, making the clouds above the land look like broken hills.

▷ 24. A large halo was observable round the moon last night, the weather otherwise clear. Very fine and mild and nearly calm until dark, when the

wind rose and a halo, similar to that of last night, formed round the moon; heavy snow also fell.

♂ Dec. 25. The wind from N.W., which commenced last night, continued with increased violence, accompanied by heavy squalls and snow, until morning, somewhat abating at sunrise. It continued all day a strong squally breeze, and is now, midnight, increased considerably. There is round the moon a halo which seems to be a little squared, and to the northward there is an aurora of a yellowish green, but not of great brilliance.

♀ 26. Blowing hard all day from the westward, with a heavy snow drift, the day otherwise fine. The night most beautiful, clear, and cloudless; the wind much moderated, but still a fresh breeze from westward. Very cold.

♂ 27. Very fine, clear, and cold; a fresh breeze from W.N.W. The night like that of yesterday, wind light from west. Our breath was distinctly audible out of doors, and our fisherman got frostbitten in the cheek on return from the nets. Some time about midnight a pretty but not brilliant aurora was visible, of a pale green hue. I observed also, earlier in the night, a halo round the moon of about 4° diameter. It bore faintly prismatic colours, and seemed like a circle of gauze, so delicate and slight was it. The sky was otherwise perfectly clear, and the moon's light so strong that only planets and large stars were visible.

♀ 28. Our breath sounded louder this morning than we have before heard it, and the weather felt correspondingly cold. The day very fine, with an occasional light air from N. by E. The night perfectly calm and most bitterly freezing, even the poor dogs could not stay out for five minutes without sad complainings and piteous appeals for admittance. The freezing of the breath makes a sound similar to a small escape of steam from a boiler, but is of course very slight and only apparent when passing close to the ear.

♂ 29. Just such another day as yesterday, but, perhaps, rather colder; the night very fine in the early part, and exceeding cold, but afterwards cloudy and milder.

⊙ 30. Cloudy and mild, a light breeze from N.W. Read prayers to the party. The evening fine, a moderate breeze from west. A bright aurora visible, extending in an irregular semicircle, of considerable altitude at the vertex, from east towards west.

♂ 31. Very fine and not very cold, a fresh breeze from W.N.W. in the morning; the remainder of the day and the evening calm. A fine aurora visible this evening, extending from the horizon at N.N.W. to E. by N., its altitude in the centre about 15° , with vertical coruscations.

JANUARY 1850.

♂ 1. The aurora seen last evening changed its position as the moon neared the horizon, progressing, before she appeared, regularly and gradually towards south. The sky afterwards became cloudy, and a halo formed round the moon of great diameter, perhaps 60° . The night was nearly calm.

The morning was cloudy, with a light breeze from eastward. Towards noon snow began to fall, and continued uninterruptedly until and throughout the night, the wind ceasing, and the weather becoming very mild. The party playing at different games on the lake.

♀ 2. Cloudy, calm, and exceedingly mild. A considerable quantity of snow fell in the night, but none to-day. A light breeze from N.W. during the day, the "scud" flying from the westward very fast. In the evening it came on to blow very heavily from west, continuing all night with greater force than we have yet experienced here, particularly in the squalls, which were tremendous. The temperature singularly mild. A very heavy snow drift.

♂ 3. The breeze continued all day, but with less violence than yesterday. The weather still cloudy and mild. At night, before the moon rose, I observed an aurora from N.E. by E. to N. by W. over a heavy "incubus," at about 15° altitude.

♀ 4. Before daylight the weather was rather squally, but afterwards the wind moderated to a gentle breeze from westward. The day cloudy and

mild. In the evening an aurora visible, from N. by W. to N.E., of which I give one phase, but it was ever changing in appearance.

h Jan. 5. Fine, and tolerably sharp; a light air from east. Plastered our dwelling with snow and water, which, freezing, answers as well as mortar. The night fine, with a fresh breeze from east.

⊙ 6. Fine and nearly calm. Very light airs from the eastward. A very slight fall of mizzling snow.

▷ 7. A little snow in the morning; weather misty, with a light easterly wind. Later the wind came fresh from east, and was very keen. In the evening the wind fell, the weather became calm, mild, and misty, with snow falling.

♂ 8. Exceedingly mild; a light air from westward; fine snow falling; weather very misty. About an hour before daybreak there was a curious aurora visible. Late in the day the wind became fresh, and, accompanied by the fine driving snow, made the weather very cold.

The evening was cold, with a little snow; wind moderate from west. Aurora showing all night, flying about all over the sky.

♀ 9. Fine and sharp; a moderate breeze from N. by E. The night was at first very cold, the breath being slightly audible, but later the weather became calm, misty, and much milder. A fine aurora was visible.

♂ 10. Snowing all day. Wind moderate from west; weather cold. At night the wind was fresh, a little snow fell, and the temperature was very low. A faint aurora visible, similar in form and position to that of last night.

♀ 11. Fine, but cold, and rather hazy. Calm in the early morning; later it blew moderately from west. On the Great Lake, however, it was blowing so hard that the fisherman was obliged to return before his time. The night calm and cold. Aurora during the night to the northward.

h 12. Before daylight a fine aurora was displayed to the southward, afterwards shifting to the north. A moderate breeze from west. During the early morning a little snow. The day tolerably cold; hazy and cloudy on the horizon. Blowing fresh on the Great Lake from west. The evening calm and very cold; the breath slightly audible. The weather afterwards became milder, with a light breeze from N.W.

⊙ 13. A fine aurora was visible, about three hours before daybreak, to the southward; the sky clear.

The day very fine, calm, and tolerably mild; a haze on the horizon. Read prayers. The night fine and cold, the breath being audible. Beautiful phases of the aurora visible during the night in all parts of the sky.

▷ 14. A beautiful but very cold day, the breath making a regular whirr, like a steam-engine at a distance. Here it was quite calm, but on the lake there was a very fresh breeze from west. Very fine appearances of the aurora all night, uncoloured, and inconstant in position.

♂ 15. Nearly as cold as yesterday; very fine. A light westerly air here, but on the Great Lake a fresh breeze was blowing from the same quarter. Last night and this morning there fell a sort of rime, which was in so minute particles as to be almost invisible. I fancy this must be frozen dew; perhaps it is this which forms the auroræ, by reflection from the snow. The night fine and very cold. Beautiful auroras throughout.

♀ 16. We consider this the coldest day we have had here, the wind being strong and squally from N.E. In the sunshine to-day I observed the atmosphere crowded with frozen particles sparkling brilliantly, like motes in a sun-beam. All night beautiful phases of aurora visible.

♂ 17. Fine and sharp; rather misty; a few clouds visible; a light air from the northward, and on the Great Lake a gentle breeze from the same quarter. The night was cold and clear, auroras showing all night; it is impossible to picture them, so various and inconstant were their positions and forms.

♀ 18. Very fine, not a speck in the sky; the sun's warmth is now beginning to be perceptible, but the air is notwithstanding very cold; a light breeze from west. The night fine and cold; aurora displayed in a very beautiful manner;

all the sky from E.S.E., through north, to west was covered with broken vertical lines in waves coruscating towards the zenith and in slight motion; to the southward was a long low arch of, perhaps, 15° altitude at the centre. There was a light north-westerly air.

h Jan. 19. Misty, with very slight mizzling snow; the weather mild; wind light from westward. The night cold, with mizzling snow; cloudy and misty.

⊙ 20. Cold, with a fresh sharp breeze from westward and drizzling snow. The breath audible. Read prayers.

The snow ceased at even, but the wind continued in sharp squalls and very cold all night.

▷ 21. The same weather as yesterday, without the snow, and, perhaps, colder. We were all miserably cold last night, the wind searching through the numerous holes and cracks in our wretched tenement. Towards evening the wind moderated, but the weather remained cold. Between 6 and 7 P.M., as nearly as I could guess, we observed a curious and interesting phenomenon. Around the moon was a halo, a little flattened on the upper arc, of about 40° diameter. On each side of the moon, on the outer edges of the ring, was a mock moon, tolerably well defined, and each throwing a slight light to the eastward. From these extended a horizontal halo at about 35° elevation, and apparently quite parallel to the horizon. From the western mock moon to about N.N.E. this ring was very bright, then faint to about S.E., and the remainder to the eastern moon also bright; the ring was perfectly continued from each moon, ceasing only inside of the vertical halo. At W. by S. in the horizontal ring was another mock moon, throwing its light also to the eastward, but a little downwards withal. The sky was a good deal brightened under the moon's halo; the upper part of the heavens misty, but upon the horizon very clear. The wind gentle from west. Our old Indian said that this appearance prognosticated great cold and windy weather.

♂ 22. Very fine, very clear, and very cold; the morning calm. At about 10. A.M. a light breeze here from N.E., and on Bear Lake the wind moderate from the same quarter. Just after sunset the wind increased greatly, becoming also squally, and the weather getting correspondingly cold. Beautiful auroras during the night.

♀ 23. The wind much as last night; weather very cold; a thick mist on the horizon, the sky otherwise clear. The wind moderated in the evening, and the night was calm and very fine, and not so cold as during the day.

♂ 24. A moderate breeze from W.N.W.; cold, sky covered with "cumulus." A fresh breeze on Bear Lake from N.W. The night very fine, clear, and cloudless, with a gentle westerly breeze.

♀ 25. Very fine and clear, wind N.W., moderate; the same on the Great Lake; the weather mild. The night very fine and, late, cold. Beautiful auroras visible, one of which, extending from E.N.E. to N.W., was shaped like a huge moustache, its centre about 20° north of the zenith. Another appeared as below attempted.

h 26. Very sharp in the morning, the breath sounding loudly; the rest of the day milder and very fine. Here calm; on Bear Lake a fresh breeze from N.W. The night very fine, calm, and clear.

⊙ 27. A most lovely day, nearly calm, very clear and mild, although before sunrise the breath was loudly audible. Calm on Bear Lake; here an occasional air from N.W. Read prayers to the party. The night fine and very cold, the breath being again audible. When the moon had risen to about 12° of altitude there was a very pretty aurora about her, the rays tinted pale yellowish green, which hue I have always observed them to take when the moon is near the full.

Beautiful "tremors" all night, moving rapidly over the heavens, and of the same pale green hue. Whenever I have seen these rapid movements of the aurora wind has shortly followed.

▷ 28. Very cold, the breath sounding as loudly as ever; a fresh very sharp breeze from N.W. The night came on cloudy and misty, the moon only dimly visible, and the wind increased.

♂ 29. The weather rather improved in the night, but towards morning

became as bad as last night, and very cold; we could not, however, hear our breath this morning for the first time since the 2d instant. This has been a terribly cold month, and we may therefore hope for a fine March, as experience has noted here, that as a general rule, however strange it may seem, if January is bad, March is fine, and vice versâ. The night mild and overcast, a little snow, wind light from westward.

¶ *Jan. 30.* The morning misty, with a little thin snow; but as the sun rose the weather cleared and became colder, the breath being audible; a light westerly breeze. In the evening the wind was light from north; the night was very cold, clear, and fine; aurora slightly displayed.

¶ *31.* A most beautiful day, the morning exceedingly sharp, but the rest of the day milder. Three Indians arrived from Fort Confidence, "en route" for Fort Norman, with meat and furs. We obtained from them a small quantity of meat, which was a great treat after our constant fish diet. The ravens are now again gathering about us, having during the extreme cold retired into the thick woods; they are apparently commencing to pair.

FEBRUARY 1850.

¶ *1.* The finest day we have had since we have been here. The early morning was sharp, the breath sounding loudly, but the rest of the day was like spring time; very mild, clear, and sunny. Last night was very cold, and aurora was displayed in a beautiful manner, from N. to E. by N. in "tremors" and rolling folds. The Indians departed this morning to spear fish for their journey to Fort Norman.

The evening was very cold, fine, and clear. About 10 P.M. we viewed one of the most exquisite spectacles man ever beheld. The aurora had been for some time visible, and it now spread all over the sky, excepting to the southward, and kept in incessant motion, whirling, dancing, and darting around with lightning-like rapidity. All the colours of the rainbow were displayed by turns, visible at one instant, and in the next succeeded by another hue. There was a perpetually shifting fringe, at one moment of an exquisite violet, and then again of a grass-green tint; these were the predominant colours, but all others, in every variety of shade, were here and there shown. A more exquisite, a more gorgeous spectacle, cannot be imagined. I shall never again begrudge the time spent in our exile here, since in it I have been privileged to enjoy so perfect a specimen of the king wonder of natural phenomena. We knew very well that this appearance betokened wind, and this rose with the moon about three hours later, the aurora, of course, becoming faint as the darkness decreased.

¶ *2.* The wind blew freshly all night from the N.E., and did not abate any with sunrise. In the afternoon it increased considerably, and the sky became covered with clouds; "cumulus" above, and "stratus" on the horizon; the weather clear; a slight snow-drift.

I am more than ever confirmed in my conviction that the aurora is frozen dew or vapour, illumined by, or rather reflecting, the light of the frozen masses round the pole, or, perhaps, only by that from the surrounding snow-clad earth. That it must be congealed vapour suspended in the atmosphere, and existing in atomic particles, I hold to more than all, from its instant motion with the slightest breeze, and from the resemblance of that motion when the mass is strongly excited to that of a cloud of dust raised by a strong breeze; the same eddy-like twisting, the same rolling and folding motion, and of one volume into and over another, &c.

○ *3.* The wind decreased towards daylight, and the weather became mild as an English spring day, but cloudy. We were able to sit out of doors for hours without getting chilled, though dressed only in our indoor habiliments, and much of the frozen vapour with which the interior of the house was thickly encrusted thawed and fell off from the walls. Read prayers. The night cloudy and mild; a light N.E. wind during the day.

▷ *4.* Like yesterday, very mild; a light southerly air. The night set in rather chilly and cloudy; wind light from N.W.

♂ *5.* Fine, rather cold; a sharp breeze from N.W. At about 10 A.M. I observed a parhelion, in a prismatic segment, parallel with the sun at about 50° distance. The day generally was cloudy, and at the time the parhelion

was visible, the sky near the sun was covered with "cirrus." The mock sun was to the southward of the true, and not very distinct. The evening became overcast and threatened snow, and the wind freshened in squalls.

☿ Feb. 6. The morning cloudy, with a moderate breeze from N.W. At about 10 A.M. a slight shower of snow fell, after which the sky cleared, and the rest of the day was bright and beautiful. About sunset the wind shifted to N.E. at first light, but later blowing a moderate breeze; the night very clear and fine. For some time past I have had but one pupil, the others wearying of their studies; he, however, has persevered, and, unable in the beginning of the winter to spell a word, now reads and writes with tolerable fluency.

♃ 7. Late last night there were beautiful "tremors" visible, principally displayed near the zenith. A fresh breeze set in from N.E., but declined at day-break. The day has been fine and rather cold; calm, both here and on the Great Lake. The night rather misty, a light air from N.W.

♀ 8. Rather cloudy and sharp. On the Great Lake a light breeze from N.W.; here a light air from N.E. The night rather cloudy, a light breeze from N.E.

♄ 9. Very fine; a fresh and rather cold north-westerly breeze here, and on Bear Lake the wind strong from west. For the last month the men have been constantly and busily cutting and drawing wood, and have now amassed a stock sufficient to last until fire will no longer be needed. The night pretty fine; a fresh breeze from N.W.

☉ 10. Very fine, cold; a fresh breeze from N.W. On Bear Lake wind strong from west. Read prayers. In the afternoon the wind shifted to N.E., coming on to blow freshly. Some time after sunset, eight Indians arrived from about Fort Confidence, carrying meat and furs to Fort Norman; among them was a fine young man, who enjoys the sobriquet of "Pass-under-the-ground." Just at the time they arrived, the wind increased to a gale, continuing far into the night, then gradually decreasing until it became calm.

♃ 11. Before daylight a strong breeze set in from N.W., but the day was, notwithstanding, warm and very fine: the wind moderated in the afternoon. Late in the evening, our little Indian boy returned from across the lake, bringing from the Indians who passed this some days since, and who had now returned from Fort Norman, and were encamped opposite, most doleful news of death and starvation. By his account, an Indian man and woman had been frozen to death not far from Fort Norman, many Indians were starving to death, and the fort was full of people in a like condition. I was much surprised as well as shocked to hear of so sad a state of affairs, but hoped to find that the greater part of the relation was but an instance of Indian exaggeration, of which probability I was forewarned. I had in the morning purchased a small quantity of meat from the Indians who arrived last night, but upon hearing this distressing intelligence, put the "taboo" upon its further consumption until I should learn from Mr. Mackenzie a correct version of the story.

♄ 12. The aurora was finely displayed last night in "tremors," and this morning there was a strong breeze from west, with a heavy snow drift. By the Indians who arrived from Fort Norman, I received a letter from Mr. Mackenzie, by which I learnt that a few Indians had arrived at the fort starving, but otherwise all was well; a very old woman had died from age, and two boys from sickness. So much for Indian narration; they certainly seem determined that a story shall not lose by telling. The night fine and rather cold; wind decreased.

♃ 13. A strong breeze all day from westward, with a heavy drift, moderating at night, which was fine. Aurora dully displayed in two long arches, one to the north, the other to the southward.

♃ 14. Pretty fine; a fresh breeze from west, both here and on the lake; weather not very cold; the night mild and rather cloudy; aurora displayed in much the same manner as last night, and towards morning brightly and in various directions.

♀ 15. Very fine and very mild; the night calm and fine, displaying aurora as in the early part of last night.

Feb. 16. A most lovely day; clear, warm, and sunny; thawing in the sun. A light northerly air here; calm on the Great Lake. In the evening, the clouds gathered over to the east and south, threatening wind. In the night there was a beautiful aurora all over the sky in vertical short rays, rolling and folding over each other, while at W. by S. a segment commenced, leading towards the zenith eastward, but breaking and mingling with the mass of aurora at about 60° altitude.

☉ 17. The morning cloudy. At sunrise a strong breeze blew from N.E. here, and on the lake from N.E., accompanied by a heavy drift; it moderated in the evening; weather cloudy and mild. Read prayers. The night cloudy. A moderate breeze from N.E.

☽ 18. Snowing heavily all day. A strong breeze from W.N.W., decreasing towards night, when also the snow ceased, and weather became fine.

♂ 19. Cloudy, with some snow, and a moderate breeze from N.W. In the afternoon the last party of Indians arrived from Fort Norman, and in the evening two of the Fort men also arrived, to take fish to the Fort.

♀ 20. Very fine; cold; wind west. Having determined to return to Fort Norman with the men lately arrived thence, I desired the most educated man of the party, W. Seymour, to take notice, during my absence, of the weather, phenomena, &c., and note them down in the log, showing him how I had been accustomed to do. The night fine and cold. A moderate breeze from north.

♃ 21. The morning was very fine, clear, calm, and cold. After an early breakfast the two fort men and myself started from New Fort Franklin at a little after sunrise, each driving dog-sledges, laden, in all, with upwards of 600 fish. We crossed Bear Lake on the same road as we had first arrived by, and at about 9 A.M. met two Indians, who said that they were starving; to each of these a fish was given, to recruit them until they should reach the house on the lake. About an hour afterwards we heard the report of a gun, and presently saw another Indian, who had just killed a partridge. His complaint was of the same tenor as of those we had just left, and he also received a small supply. Four or five hours after we found two Indian women, each with two children, encamped by the way side, these clamorously assailed us for relief, and each received three fish. Some time after dusk we halted, and took lodgings for the night in a deserted Indian encampment. There were numerous tracks in our road of deer, hares, martens, partridges, and an occasional wolf or fox track.

♀ 22. Towards morning a little snow fell, but ceased long ere sunrise, by which time we were already some distance advanced in our day's journey. The day fine and pretty mild; wind light from N.E. We did not encamp until very late this evening, from the absence of dry wood in our neighbourhood, it being about 11 P.M. before we found a suitable spot for encamping.

♃ 23. Anxious to conclude our journey as speedily as possible, and to avoid another night's sojourn in the open air, we were afoot this morning before good daylight, got sight of the Mackenzie about an hour before sunset, and arrived at Fort Norman just after it. We had a good deal of wind during the day, in squalls from N.E. About noon, and for some time after, two distinct parhelia were displayed east and west of the sun in a broken prismatic circle round that body at about 20° distance. The rays from each parhelion were to the westward and horizontal, the mock being at the same altitude as the true.

☉ 24. Heavy uninterrupted snow the entire day, ceasing only in the evening; weather mild, and calm.

☽ 25. Weather cloudy, scud flying heavily from the northward, wind light from E., and at night from S.W., at which period the clouds were passing the moon from W.N.W.; the weather cold. At noon a broken prismatic semi-circle formed above the sun. We weighed thirty-two of the Bear Lake herrings to-day, and found them, in their frozen state, to be 36 lbs.

♂ 26. A fine day, with a fresh breeze from S.W.; cold; a little snowdrift. Night, fine, clear, and cold; wind fresh from S.W.

♀ 27. A very mild day, almost thawing; cloudy; wind light from southward. In the evening the wind shifted to E., and sky partially cleared.

♃ 28. Snowing all day; overcast; wind moderate from E.: snow ceased at night, but the weather still remained cloudy.

MARCH.

♀ 1. Cloudy; very mild weather; wind moderate, from south. In the early evening the aurora was dully displayed from S. to S.W. by W., in a segment of about 25° altitude at the centre, vertical short thick rays proceeding from its upper edge. About 11. the sky cleared, and wind came from E.S.E. moderate.

♂ 2. A strong breeze from south; the day very fine and warm. A considerable snow drift. In the afternoon the wind moderated, but after sunset increased to a gale, in which the squalls were very heavy.

⊙ 3. A moderate breeze from south; the sky in the morning clear, but later becoming overcast, and heavy snow fell until night, when it ceased. The sky cleared, and wind shifted to N.W.; a fresh breeze. About 10 P.M. a beautiful broad streak of aurora extended from N.W. through the zenith towards S.E., of a pale yellowish green, and very bright. Later it spread all over the sky, and, moving incessantly, threatened an increase of wind.

♂ 4. The wind blew strongly all night, abating towards morning. The day fine, clear, and sharp. Towards evening the sky became overcast, snow fell, and the wind, from N.W., freshened.

♂ 5. A cold fresh breeze from N.W.; weather cloudy. The night clear and cold. In the early part, an arch of aurora was visible from S.E. to E.N.E. of inconsiderable altitude and little brilliance; the rays coloured pale yellowish green.

♀ 6. Rather sharp in the morning. A fine sunny day, with a fresh breeze from S.S.W. The night very clear, and nearly calm. A light vein of aurora at E.S.E.

♂ 7. Very fine and clear; a fresh breeze from southward. The morning cold. The night fine, clear, and cold. Midnight, a broad wave of aurora from east, through the zenith, to west.

♀ 8. Morning fine, calm, and cold; the remainder of the day fine and mild with a moderate breeze from S.W. The evening cloudy; wind fresh from south. Night fine and clear; a slight aurora to the eastward. At 10 P.M. a broad arch of aurora from E. to N.N.W., altitude at centre about 30° . Calm.

♂ 9. The morning fine, with a moderate breeze from southward; weather cold. At 10 A.M. a strong breeze set in from south, raising a heavy drift, and continued, with occasional moderation, until 6 P.M., then fell. The sky became overcast, and snow fell heavily until 9. At midnight the wind again increased.

⊙ 10. Fine, with a fresh breeze from west, shifting during the day to north, east, and south, at which point it afterwards remained steady, blowing freshly and squally. In the evening there were visible three bright rays of aurora, all proceeding from east; later the aurora spread all over the sky.

♂ 11. During the night it blew a strong gale, with very heavy squalls; moderated somewhat towards morning, but increased again before noon, blowing very heavily in squalls, with a heavy fall of snow and a strong drift. At 5 P.M. the long and anxiously expected express arrived from Fort Simpson, its bearers having been fifteen days on the journey. By it I received Mr. Pullen's reply to my letter of November, together with a kind supply of paper and some other useful articles. The wind has been very unsteady during the day, but blew principally from N.E., especially when strongest. The weather has been exceedingly mild and even oppressive, despite the strong breeze. At 9 P.M. the sky still overcast; there was a dull but distinct arch of aurora from east to S.W., the centre having about 35° of altitude.

♂ 12. Fine and cold; wind fresh and sharp from N.W. A few clouds in the sky. The night fine and clear.

♀ 13. At 2 A.M. there was a fine aurora spread over the sky, and in particular a large mass about 20° N.E. of the zenith; the wind was also gentle from N.E., and the sky cloudless; a great deal of rime was falling, apparently from the large mass before mentioned. The day fine and rather cold. At 10 P.M. a broad and bright irregular arch of aurora extended from S.E. to W.N.W.; the centre having about 60° of altitude. There was at this time a gentle westerly breeze; from which quarter the wind has been all day, light; and a rime fell, as last night, and again, as it seemed to me, proceeded from the aurora.

♄ *March 14.* Fine and very cold. The express-men started on their return to the lower posts. About 11 P.M. there was an aurora visible of a pale green hue, extending from S.E. towards W.S.W. in a regular arch, thence swerving to W.N.W.

♀ 15. At 1 A.M. the aurora changed its position and appearance greatly, now proceeding from E.S.E. in two branches, towards north and west; these united at about 50° altitude, N.W. of zenith, and a large body of light between them passed through the zenith and joined the main branch or stem at their junction, thence a beautiful stream led nearly down to the horizon at N.W. The day fine, with few clouds; a fresh breeze from south, and consequent slight drift. The night also fine; nearly calm.

A fine aurora at 10 P.M., from E.S.E. through the zenith to W.N.W., in two broad streams in vertical waves like a heavy curtain; the lights and shades beautifully alternating, and, as last night, the rays of a pale yellowish green hue.

♄ 16. A very fine, cold day; wind blowing strongly from N.N.W. until the afternoon, when it moderated. The evening calm, mild, and overcast. A very faint appearance of aurora, at midnight, to the S.E.

☉ 17. A little snow fell in the small hours, but the day became very fine, sunny, cloudless, and calm. The night fine and very clear. A beautiful pale green "curtain" aurora from east through the zenith to west.

♃ 18. Very fine; rather cold; wind moderate from north. The night fine, with a very few thin long "stratus" clouds to the south and west.

♂ 19. Fine; a little cloudy; mild; wind gentle from N.N.E. The night cloudy and mild.

♀ 20. On rising this morning we found small snow falling thickly, and the wind fresh from N.W.; the weather continued thus until late in the afternoon, when the snow ceased, and the wind drew round to the westward, and later to the S.W. The day was very mild; the sky overcast; the evening was most oppressive.

♄ 21. A very little thin snow was falling this morning when we rose, but it soon ceased, and the day became fine and clear, a moderate breeze blowing from the N.W. The night calm and clear, with a light bank of clouds on the horizon at south and west; weather very mild. About 11 P.M. a bright and extensive aurora displayed itself, in the "falling drapery form," spreading from S.E. in a broad path, and passing about 20° west of zenith, to west; the weather also became colder.

♀ 22. A very beautiful day, but much colder than it has been of late. The evening very fine and cold. An aurora visible at midnight, similar in position and appearance to that seen last night.

♃ 23. Very fine in the early part of the day, cold and nearly calm. In the afternoon the wind came from east, moderate, the sky covering with "cumulus" above and light "stratus" on the horizon, and a little snow falling. In the evening the sky became overcast, the wind increased slightly, and snow fell fast. At 8 P.M. a halo round the moon.

☉ 24. Snowing and blowing strong from W.N.W. during the forenoon. Until late in the afternoon the sky was covered with bright "cumulus," and the sun shining brightly, despite the snow, but then the heavens became overcast and the weather much milder.

♃ 25. A little snow falling very early in the day, but sunrise ushered in most lovely weather, in which the wind was moderate from west, the temperature tolerably low, the sky cloudless, and the atmosphere very clear. The evening became somewhat milder.

♂ 26. Snowing hard all day; the wind fresh and squally from N.W.; a very disagreeable day. The weather gradually cleared up during the night.

♀ 27. Most beautiful, clear and mild; the morning only being a little sharp; the wind moderate from N.W.

I do not think that the true direction of the wind can be properly ascertained here from the confined position of the fort, surrounded as it is by high banks and thick woods, for I observe that we have the most opposite weather with an unchanging wind, sometimes fine and mild, at others just the reverse in both respects. I suppose that the wind is here diverted from its true course by the formation and position of the banks.

♃ March 28. This must be registered as the finest day we have yet seen this year, and indeed I do not think that one more lovely could be experienced; the sky cloudless, the atmosphere clear, the sun bright and warm, and, to crown all, a moderate south wind, warm in itself. A good deal of thawing about midday, The night fine, clear, and mild as the day was, and quite calm.

♀ 29. Very fine and mild; the wind moderate from east in the morning, and later from N. and N.W. In the evening, two Indians arrived who had touched at New Fort Franklin and brought me a letter from the party, reporting them "all well." The night a little cloudy, but mild.

♁ 30. A most beautiful day, and warmer than any heretofore; calm. The night fine, clear, and rather cold.

☉ 31. Very fine; a fresh south wind blowing, moderating towards evening. The evening very fine, clear, and nearly calm, and not so cold as last night.

APRIL 1850.

♃ 1. The early morning was cloudy and rather chilly, but towards noon the sky cleared considerably, and the sun shone out brightly, producing a considerable thaw. The evening again became cloudy; and the wind, which was all day moderate from north, shifted to N.W. and increased to a very strong, squally breeze. About 9. snow began to fall, and continued all night.

♂ 2. Until evening the weather was as last night; then the snow ceased, and wind moderated a good deal, and, later, veered to the eastward of north. 10 P.M. a bright aurora visible from east to west.

♀ 3. Snowing and calm in the early morning, but the weather improved during the forenoon, and the day became very fine and warm, with a smart breeze from N.N.W. At 11 P.M. a fine aurora from E. by N. to W. by N.; centre about 70° altitude.

♃ 4. The morning rather cold, the rest of the day fine and warm; wind light, and unsteady. 10.30 P.M. a fine but not brilliant aurora visible, in parallel arcs from E.N.E. to N.N.E.; centre of highest about 25°.

♀ 5. Fine and warm; the sky covered with "cirro-stratus." Wind unsteady, both in force and direction.

♁ 6. We have had to-day a complete thaw; the morning was cloudy, the wind light and unsteady. At about 10 A.M. the wind came suddenly and fresh from south, feeling quite warm, and soon making the snow soft. 11.30 P.M. calm and very mild. From east up to the zenith a fine aurora displayed, spread out above like a "sea anemone." I have generally found the weather calm when the aurora is thus shown in the zenith.

☉ 7. A general and heavy thaw; weather most lovely. Wind light and unsteady until 2 P.M., then blowing fresh and strong from south. It occasionally varied a little afterwards in force and direction, and declined during the night.

♃ 8. Very fine; wind light and warm from south. Rivulets of water forming in all directions from the melting snow. An aurora at 10 P.M., similar to that of the 6th. A slight frost during the night. The wind strong from south.

♂ 9. Blowing strongly from south in the morning, and more moderately all day. At 3 P.M. two Indian boys arrived from Bear Lake, bringing me a letter from the party, which contained the unpleasant intelligence that three of the men were attacked with violent "diarrhoea," also that an Indian woman had died there from the effects of famine and exposure. About 4 P.M. the wind shifted suddenly to west, blowing at intervals with great violence; the sky overcast; weather still very mild.

♀ 10. During the night the weather became much colder, a sharp frost setting in. Wind from N.W. moderate and occasionally fresh. Afternoon and night cloudy, and freezing. Preparing medicines, &c. to take with me to Bear Lake. I also requested Mr. Mackenzie to furnish me with a case of "expedition pemmican," as I considered a change from fish diet necessary for the men.

♃ 11. At 5 A.M. I started from Fort Norman for Bear Lake in company with two of the Company's men who were proceeding for sledge loads of fish. The morning was very fine and clear, with a sharp frost; the wind from east, moderate. At 11 A.M. we halted, and took dinner, then proceeded until about 4 P.M.

11th April revisit
Bear Lake

when, reaching the encampment which on our former journey we had tenanted for the night, we again took up our quarters in it, as dry wood was not to be found for a long distance beyond. The afternoon was warm, the wind rather decreased, but still occasionally fresh in squalls from E. and E.S.E. The snow had all fallen from the trees, and the snow was very crusted by the action of the sun by day and succeeding frost at night, but not sufficiently to bear our weight. The only sound interrupting the universal stillness was the tapping of the woodpeckers, which birds, judging from the frequent recurrence far and near of the noise, must be numerous; under the bark of the pine tree, and particularly in those partially decayed, they find a plentiful supply of worms; some trees were remarkably marked by their attacks, scarcely an inch of their surfaces being left unexamined. In our encampment we were busied in cooking our frugal repast, consisting of dried reindeer's meat boiled, with an admixture of pemmican to make a "bouillon," which, being mixed with snow, served us for drink. Repairing mocassins, snowshoes, &c., which had suffered considerable injury from the roughly coated snow.

§ April 12. Frost set in during the night, and in the morning, finding myself very cold, I set to work to make a fire, and while thus engaged had the misfortune to cut my foot badly with the axe I was using. It would have caused great delay to have returned, as my companions would not hear of my doing so alone, in case of my becoming exhausted on the way. I therefore chose the lesser of two evils, being, moreover, thereto prompted by my desire to see my ailing men; and after binding up my wound with an application of the Virginian weed, highly recommended by my brother travellers, we resumed our journey at about 4.30 A.M., first feasting sumptuously on a lump of pemmican. I had also a little green tea, but its flavour was so overpoweringly aided by that of the snow water, boiled in a greasy pot, in which it was infused, that I did not deem it a very superior accession of luxury. The wind was very strong, squally, and cold, and we had some difficulty in keeping warm; and my foot, which had bled through socks and moccasin, and on to my snow shoe, made me unwilling to ride much, lest it should be seized by the cold. Most of the hillocks in our route were denuded of snow, and a river which we passed had considerably swollen, the water now running over a second coating of ice. At about 5 P.M. we halted and encamped. Wind throughout the day from eastward; fine, clear, and cold. We started soon after 4 A.M., h 13; and after being well nigh frozen in crossing Bear Lake, over which the strong easterly wind swept with remorseless violence, we reached New Fort Franklin at noon. I found that the diarrhœa had much abated with those who were attacked by it, but still troubled them much. The men had under their care a little boy, the son of the Indian woman whose death they had before announced to me. She was one of those two whom we met when going over to Fort Norman in February, and who arrived on the south side of the lake, and encamped with other Indians. She fell ill, and her father and two brothers, who were of the number with her, her husband having died last fall, told her, on going off to hunt, that they left her there to die. Our little Indian boy going over there accidentally, found the poor creature, with her two little ones, deserted by all her relations and *friends*, and without either fire or food. She was taken across to the other side, where the men built her a lodge, cut wood, and dressed food for her, sacrificing for the latter their only delicacies, a small quantity of flour and butter, and a case of soup, the last remaining of those brought from the Plover, and which I had carefully reserved for a possible case of illness among the party. Their indefatigable and praiseworthy efforts were, however, of no avail; she died on the tenth day after her arrival. The people of her tribe who were near deserted the place immediately on her death, and did not return until after she was buried, which last service the men performed, building a caché of wood, in which they laid her with all her trifles of property. The children, a boy of four years and a girl of two, were dreadfully burnt, having often fallen into the fire from weakness, and been unable to get out again. These the kind-hearted fellows took under their care, and dressed their hurts with constant attention. The little girl was afterwards consigned to the care of an Indian family.

© 14. The wind was, in the morning, still strong from east, but afterwards shifted to south. Engaged myself in administering medicines to those who were in need of them, and arranging for the return of the party in a few weeks to Fort Norman.

▷ April 15. Before sunrise the two men of the fort and myself were again on the march to return to Fort Norman. The morning was cold and cloudy, wind northerly; later the weather became fine and warm. At sunset we halted and encamped for the night.

♂ 16. About day-break a little snow fell, weather cloudy and mild. With sunrise the weather cleared and became very warm, rendering our journey fatiguing from the melting snow. We halted at sundown, and had a fine and rather sharp night.

♀ 17. We started some time before day-light, hoping to reach the Fort before night, and pressing on arrived there at 3 P.M. The distance from Fort Norman to Bear Lake in a straight line is, I understand, upwards of 80 miles; the usual allowance for forest travelling is one third of the distance in addition; the road by which we came could not, therefore, be less than 100 miles, particularly as it makes a considerable "detour" to clear a chain of hills in the direct line. At this calculation, the dogs, three to each sledge load of fih, weighing 300lbs., besides pots, bedding, axes, &c., travelled at the rate of 40 miles a day, and this not on level ground or a good track, but over an undulating country and a track which, although tolerably beaten, was much injured by the heat.

♂ 18. The day fine, wind moderate, and occasionally fresh from south. Towards evening the sky became cloudy and weather frosty.

♀ 19. Cloudy and cool, a slight fall of snow during the morning, wind moderate from north.

♂ 20. Fine and clear, wind from N.E. moderate. About 9. we saw a parhelion to the southward of the sun; and at 5 P.M. there were two prismatic arches over that body, one bright, the other less distinct; in the lower and brightest bow were three parhelia, one right over the sun, the others to the south and north of it. There was a considerable thaw during the day; the sun set, louring and red, in heavy clouds threatening bad weather.

⊙ 21. The threatening appearance of last night's sky was justified by the weather to day, which was dark and overcast, with a strong southerly wind. In the afternoon, the sky clearing somewhat, a mock sun was visible on each side of the sun in prismatic segments of a vertical circle. The sun again set louring in clouds.

▷ 22. Blowing hard during the morning from south, and afterwards from west; a considerable fall of rain and sleet in the forenoon; later turning to snow. Thawing rapidly by day and night. In the evening the wind moderated, and the weather cleared somewhat.

♂ 23. Blowing strongly from west; weather cloudy and very mild. At noon one of my party arrived from Bear Lake, having strained his leg severely, and therefore taking advantage of conveyance by dogs which were brought over; the rest of the men will follow him in a few days, being now all well. In the evening the wind drew round to the northward, and a hard frost set in.

♀ 24. Very fine; the hard frost which continued throughout the night soon succumbed to the sun's heat, and a great thaw succeeded. Wind gentle from north. Sky overspread with fleecy "cumulus." Snow birds seen to-day for the first time this season. The evening and night were calm, with a very sharp frost.

♂ 25. Morning, wind north; afternoon, N.E. The weather very fine and mild in the forenoon; very cloudy and cold post meridian. In the evening the wind changed, and blew strongly from east, and snow fell very thickly during the night; weather very mild.

♀ 26. An increase of about four inches of snow lay on the ground this morning; the wind had gone round to north, and snow was still falling, ceasing only at noon. The weather all day overcast and mild; freezing in the evening.

♂ 27. A hard frost occurred during the night. Day fine and cold; wind fresh from east. Evening cloudy, and freezing hard.

⊙ 28. The hard frost continued during the night and early morning; but the wind having shifted to south, soon, with the sun's aid, opened the frozen pools and warmed the air. The wind was strong all day, moderating and veering

to east in the evening. At 9. 30. P.M. there were a few beautiful patches of aurora to the eastward, coloured pale yellowish green, like the autumnal tint of the fading leaf. Read prayers to the two men.

▷ April 29. A beautiful and mild day; wind moderate from south; towards evening the wind, very light, drew round to N.E. and north; the weather cloudy and very mild.

♂ 30. The day fine and sunny; the wind from south, and the weather correspondingly warm. In the afternoon the wind veered round to north, but did not seem to affect the temperature. The night fine. At 10. 30. a very faint ray of aurora, of a pale green hue, extended from the visible horizon at east towards the zenith, to about 40° of altitude.

MAY 1850.

♀ 1. Very fine, and even hot; the wind warm and fresh from south; snow melting and freshets forming merrily. The ice on the river is now getting covered with water from the surrounding melting snow. Swans were heard to day, although not seen.

♂ 2. Very fine and warm; wind moderate from south, declining in the afternoon; the evening almost calm. At 9. a thin streak of aurora, faint yellowish green, rising from the eastern horizon to within 10° of the zenith; it was of "curtain" character, but very soon faded away, as they all do at this time of the year.

♀ 3. Very fine and warm; great thaw. Wind south, fresh, drawing towards S.E. at even, and becoming lighter.

♂ 4. Ducks seen for the first time this season, as also mosquitoes. The day very fine, nearly calm, and very hot.

⊙ 5. Very fine. Wind fresh from south in the forenoon, but later moderating. Read prayers.

▷ 6. Very fine and very hot. The morning nearly calm. At noon, a fresh warm south wind. Geese first seen.

♀ 8. At 7 A.M. the men arrived from Bear Lake; all looking very well. The day very fine and exceedingly hot; being mostly calm, occasionally a light breeze coming from south. In the evening the wind came from north, and the night set in freezing. The river is now getting covered all over with water, and on each bank there is a considerable current. At midnight a very fine aurora was visible; it extended in three irregular lines from S.E., at about 10° altitude, to the "pointers" of the Great Bear, about 10° south of zenith. The rays were inconstant, and shadows flitted rapidly through the upper part; the tint, as always of late, was pale yellowish green, but very bright. I also saw a bright meteor fall from S.S.W. 50° to S.W. by W. 20°.

♀ 10. Very fine; wind moderate from S. Expecting the river to "go off" very soon, we floated the boats down to a place of safety. The "Louisa" has very much cracked by the frost, and filled directly she was floated; if she does not "take up," she will not be fit to take us up to Fort Simpson. The night rather cold; wind gentle from N.

♂ 11. The day very fine, and exceedingly hot until past 2 P.M., the wind being from S., moderate. At that time the wind shifted to N.E.; heavy clouds gathered at S. and W., and drove slowly to the eastward against the wind, which was fresh; we had also heavy thunder, and some lightning, but distant. Suddenly, a tremendous squall from S. burst over us, and continued for some minutes with unabated violence; it then ceased, and shortly after, and at intervals during the evening, we had a slight shower of rain. The night mild, overcast, and nearly calm.

⊙ 12. Fine and warm, rather cloudy, wind N.W., light; a few drops of rain fell in the afternoon. Read prayers to the party. The night cloudy and mild.

▷ 13. Rather cloudy and cool; wind varying from N.E. to N.W. In the evening the wind was fresh from N.E., the weather cool. At 6 P.M. we observed the first break of the ice in the river, and at 11. the whole body set in motion, the water rising very fast. We hastened to get the boats into safety, and when we again caught sight of the river the ice was driving rapidly down, and smashing up with great violence, the water continuing to rise.

♂ *May 14.* At about 3 A.M. the water came rushing through a gully in the bank, and rose to so great a height that we were soon surrounded by water, the store and men's dwelling houses being flooded.* The water was over the level of the banks, having risen, I should suppose, upwards of twenty feet. Large masses of ice floated in, some of several tons weight. At about 9 P.M. the river began to fall, and the water around us rushed through its only outlet with fearful velocity, carrying with it the fences of the garden, and all other stray timber. The early part of the day was very fine; wind southerly. In the afternoon the wind came from W., the sky clouded, and rain fell for a short period; the night was rather cool.

♀ 15. Both wind and weather were most variable during the day; the former blowing from all points of the compass in succession; the latter now warm and sunny, now overcast and chilly, with an occasional shower. The men were assisting the company's people to bale the water out of the cellars, and otherwise put things to rights which were deranged by the late flood.

♂ 16. Day generally fine and warm, with a few clouds; wind very variable. The men making oars, and refitting the boat and gear.

♀ 17. Very fine and clear; wind moderate and variable. The river was to-day sufficiently clear of ice for a boat to go across to the other side. The men employed as yesterday. We saw to-day numerous flocks of swans, geese of all kinds, and ducks. The mosquitoes are now getting very numerous and annoying. The night nearly calm, clear and cool.

♂ 18. The day was, in the early part, fine, but with a very strong breeze from N.E., which made the weather very cool. In the afternoon the sky became overcast. The wind moderated in the evening, which was overcast and cool.

⊙ 19. The wind was fresh from N.E. throughout the night and to-day, the sky continually overcast, and in the morning and evening a few snow flakes fell. There was a severe frost last night, and little thaw to-day; in the evening frost again set in. Read prayers to the party.

♂ 20. During the night the wind was from N.N.E. and N.E., the frost continuing. In the forenoon the wind was, for a short time, from south; and during this period there was bright sunshine and a brisk thaw, but Boreas soon returned to his old quarter, and the weather to its corresponding cold and gloomy condition. In the evening the wind made one or two attempts to get to the westward, but finally remained steady at N.E.

♂ 21. All day the wind was most variable, often apparently blowing from opposite quarters at the same time, mist and light snow drizzle being its accompaniments. At 6 P.M. the wind came suddenly from west, in a heavy squall, with thick snow and great cold. Soon the wind veered to north, whence it blew very hard, the snow continuing until 10.30 P.M. At night the wind seemed inclined to draw round to the eastward.

♀ 22. The weather continued nearly as yesterday, but with less wind. At 3 P.M. Dr. Rae, in charge of the district, arrived from Fort Simpson, on his way to visit the lower ports. He brought for me, from Mr. Pullen, the dipping needle and other instruments, together with directions to proceed immediately to Fort Simpson with my party. The wind was all day from north, inclining a little to the eastward, and in the evening drew round to N.W.

♂ 23. At 4 A.M. Dr. Rae started for the lower post. Preparing to start to-morrow for Fort Simpson. Observed with the dipping needle. The day was generally cold and overcast; the wind mostly from west, and occasionally N.W. Temperature at 4 A.M. +22°, at noon +32°, at 5 P.M. +31°.

♀ 24. We were supplied with a large boat of the company's to make the journey with, and a guide and five Indians to assist in the trip. At 6 A.M. we started, tracking from Fort Norman, and continued until 10, when we landed to breakfast, after which we proceeded until sunset, when we halted and encamped. Temp. at noon 51°; at sunset 37°·5. The great height to which the water had lately risen in some parts of the river was easily traceable by the deposit of huge masses of ice; and in a few places, where abrupt points occurred, enormous heaps were piled to the height frequently of 30 or 40 feet. Some low islands were completely overlaid by ice in huge blocks.

Departure for
Fort Simpson to
rejoin Lieut.
Pullen, 24th May.

* In the following spring the whole of this post was swept away on the breaking up of the ice.

¶ *May 25.* Early in the morning some snow fell; the rest of the day was, like that of an English April, alternate smiles and tears; the wind coming up in fresh squalls, which brought up heavy snow showers. Temp. at 6 A.M. 37°. We proceeded at 7, and carried sail nearly throughout the day. At sunset we landed and encamped. Temp. 29°. The evening calm, and very fine.

⊙ 26. At 4. 30 A.M. we proceeded tracking; the morning fine and nearly calm. Temp. 27°. At 8. 30 we landed to breakfast, afterwards proceeding under sail with a breeze from E.N.E., which carried us on until sunset, when we landed and encamped. Temp. at 9 A.M. 41°; at noon 47°; at sunset 35° 5'. At 8 P.M. we passed the "Rôche qui trempe à l'eau," a remarkable steep hill of considerable height, composed of solid rock, its base dipping almost perpendicularly into the water. Here is a mineral spring, the water of which appeared to be strongly impregnated with iron, and acted as a laxative. The day was cloudy.

▷ 27. We made sail about an hour after sunrise to a fine northerly breeze, which carried us on until near sunset, when it shifted to east, and we shortly encamped. Temperature at starting 29°; at 9, 35°; noon, 42°; sunset, 32°. The country was to-day more hilly than that we before passed, part of the Nahanie hills, one of the terminations of the rocky mountains, being visible. The banks of the river were in some parts very high, and well wooded at their summits.

♂ 28. Continued our journey at 5 A.M. tracking; the wind S.E., and therefore dead foul for us. The Nahanie hills which we passed to-day run, in one part, W.S.W. and E.N.E. (mag.); they are black and sterile, abrupt and irregular in outline. The strata of these hills, which are apparently entirely composed of rock, runs generally towards the southern horizon at an angle of about 30°, but occasionally parallel with the outlines of the hills. There is another and shorter range, running N.N.W. and S.S.E., each hill isolated and terminating in a snow-clad peak. To the north of these there is a curious black hill, lying nearly east and west, on the face of which the strata appear to run also at an angle of about 30°, but contrariwise to that before mentioned, leading in fact as if to meet it. When that part of the river is reached which is at the base of this hill, a magnificent bay is opened to view, studded with numerous islands, and finer perhaps than any other part of the Mackenzie; the sweep is on the right bank, and is formed by a succession of indentations, with jutting points. A large hill in the last-mentioned range appears to be an extinguished volcano, as there is a huge hollow with serrated edges, nearly at its summit, exactly resembling an exhausted crater. We encountered to-day two or three sudden changes of wind, which lasted for but a very brief period, the breeze then returning to its old direction; these our guide called whirlwinds; and whirling winds, they certainly were, but caused, I imagine, by the formation of the hills and banks which lay between us and the quarter whence the steady breeze blew.

♀ 29. Proceeded at 5 A.M.; temperature, 32°. We were obliged to pull nearly all day quantities of ice piled on the beach, preventing tracking; we had however a little help in the morning from a light northerly breeze, to which we hoisted sail. During the forenoon light snow fell; the wind from north, but in the afternoon the breeze came fresh from south. Temperature at noon, 50°. Half an hour before sunset we landed and encamped, finding a solitary interval in the ice on the shore, where we could haul the boat in.

♂ 30. Started at sunrise, and tracked until 8, when we landed to breakfast, after which we again set forward, but had not proceeded far, when we caught sight of the whole body of ice from the river above Fort Simpson coming rapidly down the stream, and were obliged to hasten back for a short distance to regain a small river, which we had shortly before passed. Into this we entered, and in a very brief space of time the ice was drifting by, blocking up the whole breadth of the river and the mouth of our narrow refuge. The river rose considerably in consequence. Temperature at 8 A.M. 56°; noon, 60°; sunset, 49° 5'.

♀ 31. Temperature at sunrise 43°, noon 58°. The ice had much decreased this morning, and the river fallen to its previous level. At 2 P.M. our guide

considered that we might proceed, which therefore we hastened to do. The road was very bad for the trackers, leading them now knee-deep through the water, now through soft mud, and at other times over enormous piles of ice. At 7 P.M. we came to a point where the ice completely obstructed the passage, so were constrained to halt until it should clear. Half an hour after sunset we were enabled to resume our journey, alternately tracking and pulling as necessity urged. At 11 P.M. we got a breeze from west, to which we hoisted sail. Temperature at sunset 53°.

JUNE.

July 1. During the night we passed several small rivers and numerous islands. The wind failed about 2 A.M., and we were obliged to pull, the shores being quite unfitted for tracking, until within a short distance of the island on which is Fort Simpson, which we reached at 7 A.M., and had the pleasure of finding our Commander in good health, as were also the two marines of the party who were remaining here. I enjoyed the luxury of a bed, not having had an opportunity of taking off my clothes for nightly repose since leaving the "Plover," a period of ten months.

Arrive at Fort
Simpson and rejoin
Lieut. Pullen.

WILLIAM HULME HOOPER,
Lieutenant, R.N.

LIST of ESQUIMAUX WORDS collected between POINT BARROW (Latitude 71° 23' 10" North, Longitude 156° 20' 49" West,) and CAPE BATHURST (Latitude 70° 36' 0" North, Longitude 127° 31' 30" West), 1849-50, by Lieut. W. H. HOOPER, R.N.

English.	Esquimaux.		Tchouski.	
	Western.	Eastern.	Coast.	Inland.
One	Ah ² -tow ⁴ '-zuk ²	Ah ² -tow ⁴ '-tzuk ²	Ah ² -tah ² '-seek	Ah ² -nan ⁴ '-tchak ⁴ .
Two	I ¹ '-pah ²	I ¹ '-pahng ² - Mahl ² '-roke ¹ - Ping ² -i ¹ '-tchuk ² -	Mahl ² '-roch ¹	Neer ² '-arch.
Three	Il ³ '-lahn ²	Il ³ '-lahng ²	Ping ² -i ¹ '-yo ¹	Groch ¹ .
Four	Tcheet ² '-ah-mahn ²	Tcheet ² '-ah-mahng ²	Shtah ² '-men ²	Grahch ² .
Five	Cal ⁴ '-yee-mahn ²	Cal ⁴ '-yee-mahng ²	Tach ² -lee'-mah ²	Mül-ding ² '-ah ² .
Six	Ah ² -min ² '-ran ⁴	Ar ² -wing ² '-ahng ² } Ar ² -wing ² '-ahch ² }	Ar ² -wünd ² '-lich ²	In ² -ah ² '-mül-ding ² ah ² .
Seven	I ¹ '-pahng ² (a)	I ¹ '-pah ² (a)	Mar ² '-ar-wünd ² -lich ²	E-rah ² '-mül-ding ² ah ² .
Eight	Il ³ '-lahng ² (a)	-	Ping ² -i ¹ '-yen-gloo ¹ - looch ¹ -	Ahm ² '-ge ¹ -rote ¹ .
Nine	Tcheet ² '-ah-mahng ² (a)	-	Shtah ² '-men-yen ² - gloo ¹ -looch ¹ -	Ko ¹ '-lah ² -sink ² ah ² .
Ten	Cal ⁴ '-yee-mahng ² (a)	-	Ko ¹ '-lah ²	Mün-güt ¹ -kah.
A man	Mah ² '-tah ² -lok ¹	-	-	Kal ⁴ -low ⁴ '-ohl ¹ .
A white man	Kab ⁴ -loo ¹ '-nah ² .	-	-	-

English.	Esquimaux.		Tchouski.	
	Western.	Eastern.	Coast.	Inland.
A woman		Ar'-nak. ^{2 4}	—	—
A brother ?	}	{	—	—
or				
A son ?		Noo-hahng'. ^{1 2} Noo-koo'-pe ach. ^{1 1 1 4}	—	—
A daughter		E-mun'-ha. ^{1 2 2}	—	—
A boy ?	}	}	—	—
or				
Little ?		Il-lib'-te. ^{3 2 1}	—	—
Mamma		Ah-mah'-mah. ^{2 2 2}	Ah-mah'-mah. ^{2 2 2}	—
Hair	Noo'-yane. ^{1 1}	Mit'-coyt. ²	—	—
Nose	Kang'-ah. ^{4 2}	King'-ahch. ^{1 2}	—	—
Teeth	Ke-yoo'-tah. ^{1 1 2}	Ke-go'-teet. ^{1 1}	—	—
Eyes	E'-ying. ^{1 2}	E'-yeek. ¹	—	—
Eyelashes	Kahb'-loo'ing. ^{2 1 2}	Tche-ahch'-payk. ^{1 2 1}	—	—
Eyebrows		Kahb'-loot'-kah. ^{2 1 2}	—	—
Eyelids	Ki-mur'-e-yang-en. ^{1 1 4 2}	Too-noy'-eet. ¹	—	—
Ear	Tche-yoo'-teek. ^{1 1}	Tche'-oag. ¹	—	—
Lips { upper	Kahk'-look. ^{2 1}	{	—	—
lower				
		Kahk'-a-we'-ahk. ^{2 1 1 2} Kahk'-look. ^{2 1}	—	—
Chin		Tahb'-loo. ^{2 1}	—	—
Throat		Toch'-looch. ^{1 1}	—	—
Breast		Tchah'-ke-eet. ^{2 1}	—	—
Breasts, the		Ko'-tooch. ^{1 1}	—	—
Stomach		Kahb'-li. ^{2 1}	—	—
Pit of stomach		Kahb'-li'-tchuk. ^{2 1 2}	—	—
Body	Kat'-re-gah (b). ^{4 1 2}	Tchah. ²	—	—
Arm	Tal-e'-yah. ^{4 1 2}	I'-yahk. ^{1 2}	—	—
Hand	Ahd'-ye-ganc. ^{2 1 4}	Ahd'-ye-gi'-eet. ^{2 1 1}	—	—
Fingers	In'-oo-i. ^{2 1 1}	Id'-kahn. (c). ^{1 2}	—	—
Finger, fore	Trech-yah'-rah. ^{2 2 2}	Ta-ke'-ach. ^{1 1 2}	—	—
Finger, middle	Ka-duk'-luk. ^{2 2 2}	Ka-duk'-luk. ^{2 2 2}	—	—

English.	Esquimaux.		Tchouski.	
	Western.	Eastern.	Coast.	Inland.
Finger, ring	{ Meech-et'-ah- rah - - }	{ Tchoo-nab-to-ko'- nah - - - Mah-kil'-e-rah - }	{ Mah-kil'-e-rah.	—
„ little	Ah- ² chet'- ² quah -	Air-kite'- ¹ koke.	—	—
Thumb -	Koob-loo'- ¹ ah -	Koob'- ¹ lok.	—	—
Nails, the -	Ko-ke'- ¹ ah -	Ko'- ¹ kayt.	—	—
Leg -	Ne'- ¹ ahn -	Kah'- ² mähk.	—	—
Foot - -	It'- ² da-kahn -	Koo-mi'- ¹ eet.	—	—
Toes - -	In'- ² oo-i	{ Ke-he'- ¹ yat. In'- ² oo-i.	—	—
Toe, great	Poo-too'- ¹ gwah.	—	—	—
Toe, second	Teech-ye'- ¹ rah.	—	—	—
Toe, third	Kah-dok'- ² leech.	—	—	—
Toe, fourth	Mah-kil'- ² e-rah.	—	—	—
Toe, little	Air-et'- ² quah.	—	—	—
Beard -	{ Ome'- ¹ chen. Tek'- ² loor-ane. Kang-ahk'- ² toong	—	—	—
	O'- ¹ kah.	—	—	—
	At'- ⁴ e-gah	—	—	{ Eer'- ⁴ an. Eet'- ⁴ zan.
Coat, or frock	—	Nah'- ² tchak	—	Ki'- ¹ le.
Cap - -	Kar'- ² le.	—	—	—
Breeches -	Tib-loo'- ² yang -	Kah-ow'- ² wak.	—	—
Boots - -	Ah-lek'- ² te	—	{ Pähm'- ² jat. Pähm'- ² yat.	—
Stockings -	Id'- ¹ kah-ding.	—	—	—
Gloves or mits	Kam-le- ⁴ kur	—	{ Ö'- ¹ köntch. Ö'- ¹ könce. Ö'- ¹ kön-se.	—
Skin frock -	—	—	—	—

English.	Esquimaux.		Tchouaki.	
	Western.	Eastern.	Coast.	Inland.
Snow shoes	- - -	Tahg' ² ah' ² look. ¹	-	-
Beads	E-mah' ¹ chin' ² ning ²	E-mah' ¹ chin-e' ² gok. ¹	-	-
		E-mah' ¹ chin-e' ² gon. ¹	-	-
Labrets	Too' ¹ tang ⁴	Too' ¹ tah' ² gok. ¹	-	-
		Too' ¹ tayt. ¹	-	-
A bear, white	- - -	Nah' ² nok. ¹	-	-
A bear, barren ground	- - -	At' ⁴ lah. ²	-	-
A whale	- - -	Ar' ² wak ⁴	Ar' ² wuk ²	Ka' ¹ pooch. ¹
A walrus	Hi' ¹ pahk ²	- - -	I' ¹ wuk. ² I' ¹ fwuk. ²	- -
A deer	- - -	Took' ¹ took. ¹	-	-
A deer's horn	- - -	Took' ¹ took-nar' ¹ ge-yok. ²	-	-
A dog	- - -	Ki' ¹ mahk ² Ta' ¹ me ¹	-	Tzo-bak' ¹ kah. ⁴
A crow	- - -	Too-loo' ¹ ach. ²	-	-
A gull	- - -	E-tchoong' ¹ ahk. ²	-	-
A herring	- - -	E-le' ¹ gah. ²	-	-
A duck	- - -	Mahl' ² a-ra. ¹	-	-
A louse	- - -	Mum' ² milch ²	Mum' ² milch. ² Mum' ² lah. ²	-
A fish	Tchah' ² look ¹ Kah' ² look ¹	Air' ² kah' ¹ lok. ¹	-	-
Fire	- - -	Nah-ne' ² ach. ¹	A' ¹ yak. ⁴	-
Water	- - -	E-ma' ¹ ak. ⁴	Me' ¹ milch. ² Me' ¹ mil. ²	-
Earth	- - -	Noo' ¹ nah. ²	-	-
The sun	- - -	Tzeer-ka-nok ¹	Tzeer-ka'-nuk ¹	Teer'-ke-teer. ¹ Tzeet'-ze-tzeet. ¹

English.	Esquimaux.		Tehouski.	
	Western.	Eastern.	Coast.	Inland.
The moon	- - -	Taht'-koeuk (d)	—	—
Wood	Ki' ¹ -yoke	Ka' ¹ -yoke	- - -	Woo' ¹ -too-it.
Stone	Ko' ¹ -yoke.	—	—	—
Ice	- - -	{ Noo-woo-ra'- me-oh't Noo-woog'-yak E'-mah-lok	- - -	Tin' ² -tin.
Copper	- - -	Kar-no-je'-ach.	—	—
Feathers	Mit' ² -koyt.	—	—	—
A pipe, tobacco	Koyn'-gah	Ko' ¹ -ing-ah	- - -	Ko' ¹ -ing-en.
A bird	Ah-kahd'-yeet.	—	—	—
A net	- - -	Koob'-yak	Koob'-tra.	—
A boat	{ Ung'-yak Oong'-yak	{ Oon'-yak	- - -	At'-woyt.
A tent or Dwelling	{ Mun'-tah-ahk. Moon'-tah-ahk.	—	—	—
A knife	{ Tchah'-wüng- müng	{ Tchah-wüg- mük	- - -	Wahl'-da.
A kettle	- - -	O-kang'-ah.	—	—
A dish or bowl	- - -	E-mo'-tzuk.	—	—
An oar	- - -	E-po'-tuk.	—	—
Canoe for one man	- - -	Ki' ¹ -ahch.	—	—
Yes	- - -	Ahm	Um-um	Ki'-wah.
No	- - -	Shoo-e'-toke	- - -	{ Tahm. Ei'lo. Kur-rum.
Far	Ah-wek'-ne.	—	—	—
Near	- - -	Ay'-coke.	—	—
To fall	- - -	Kay-a'-ruk.	—	—
To sleep	- - -	Tchin'-ning.	—	—

English.	Esquimaux.		Tchouski.	
	Western.	Eastern.	Coast.	Inland.
To awaken	- - -	Tche-kin'-ning. ^{1 2 2}	—	—
To eat	- - -	Ne-ge'-yok ^{1 1 1}	- - -	Kah-met'-wok. ^{2 2 1}
Come here	- - -	Ki'-le. ^{1 1}	—	—
Give	Mah-mahk'-poke ^{2 2 1}	Ki'-le-ke. ^{1 1 1}	—	—
Put it down or Let it go	- - -	Ti-e-mah'-go. ^{1 1 2 1}	—	—
It burns	- - -	O-ke'-og. ^{1 1 1}	—	—
Take care	Cah'-go ^{2 1}	Cah'-go. ^{2 1}	—	—
What's your name?	- - -	El-we-se-oon'-ah. ^{2 1 1 1 2}	—	—
What is his name?	- - -	At-tah-se-oon'-ah. ^{4 2 1 1 2}	—	—
I do not know	- - -	Shoo-e'-toke. ^{1 1 1}	—	—
It is going to blow	- - -	Ah-kl'i'-tchoke. ^{2 1 1}	—	—
North wind	- - -	Ah-nor'-a. ^{2 3 1}	—	—
South wind	- - -	Ah-nor'-a. ^{2 3 1}	—	—
East wind	- - -	Tche'-ko. ^{1 1}	—	—
West wind	- - -	Tahk'-toke. ¹	—	—
Near, or wonderful	- - -	A'-koke. ^{1 1}	—	—
An ejaculation of surprise or plea- sure.	- - -	Now! now! ^{4 4}	- - -	{ Kah-kah-ka-ka- ka-ka-ka-ka.
A needle	- - -	Too-pahch'-te. ^{1 2 1}	—	—
Do it, or show it again.	- - -	Ke-khe. ^{1 1}	—	—
A day	- - -	E'-noke ^{1 1}	- - -	A-oo'-neet. ^{1 1}
An arrow	- - -	Kahk'-a-yoke. ^{2 1 1}	—	—
A bow or gun	- - -	Pe-teek'-tche ^{1 1}	- - -	Air'-ret. ²
Wind	- - -	Ah-kl'i'. ^{2 1}	—	—
A file	- - -	Ahg-e-yak. ^{2 1 4}	—	—

NAMES of ESQUIMAUX PERSONS.

1.	² Kin-nah-we'- ² nah ⁴ Kan-ah-run'- ² ah	-	-	Man	A chief.
2.	⁴ Kab-ree'- ¹ nah ¹ Oo'- ¹ loon			"	
3.	¹ Ka-we-oo'- ¹ nah ² Kahb-loo-tche'- ¹ ach			"	
4.	² Ah-roo'- ¹ teek-Ka-we-oo'- ¹ nah			"	
5.	² Kah-nach'- ¹ te-gach ² In-ook-tche'- ¹ wahg'- ² nach			"	
6.	¹ Me-moo-ran'- ⁴ ah	-	-	-	"
7.	² Ar-net'- ¹ ook ² Nah-wahl'- ¹ ook	-	-	Woman	Wife of No. 2.
8.	² Il-ro-tche'- ¹ ach	-	-	-	"
9.	² Ah-nah-koh'- ¹ nah	-	-	-	"
10.	² Ah-now'- ⁴ e-gach	-	-	-	"
11.	¹ Tchook-ti'- ¹ yahk	-	-	-	"
12.	² Ar-nah-ka-e'- ¹ nah	-	-	-	"
13.	¹ Oo-wahng'- ² ah	-	-	-	"
14.	² Ar-ne-gah'- ² tchahk	-	-	-	"
15.	² Ah-now'- ⁴ e-gach ¹ Oo-koo'- ¹ nach	-	-	Girl	Child of No. 2.
16.	⁴ Natch-e-ro'- ¹ nah ¹ Ne-peel-goo'- ¹ muk	-	-	-	"
17.	² In-oo-wi'- ¹ loo-ach	-	-	-	"
18.	² Ar-nah-goo'- ¹ ne-ach	-	-	-	"
19.	² Ah'- ¹ toke	-	-	-	"
20.	⁴ Tow-le'- ¹ lah ² Kah-kah-mah'- ² na	-	-	Man	Brother of No. 1.
21.	² Mah-mi'- ¹ yak	-	-	Boy	
22.	⁴ Mang-il-ahn'- ² ah ² Ah-koh'- ¹ toke	-	-	-	"
23.	² It-ah-ga'- ¹ ach ¹ E-koo-gah'- ² nah	-	-	-	"
24.	¹ Koo-tsal-run- ⁴ ah	-	-	Woman	

KEY TO PRONUNCIATION, &c.

The figures over the vowels denote their sound, as follows :

¹ a as in made.	¹ e as in glebe.	¹ i as in time.	¹ o as in note.	¹ u as in cubic.
² a „ far.	² e „ men.	² i „ him.	² o „ not.	² u „ fun.
³ a „ salt.	—	³ i „ spirit.	³ o „ prove.	³ u „ bull.
⁴ a „ man.	¹ oo „ fool.	—	⁴ o „ vow.	⁴ u „ fur.

Those syllables are emphasised on which the accent is placed.

The words printed in italics are those of which the correct meaning is doubtful.

The small letters in parentheses refer to the notes.

Cʰ marks the guttural commencement or termination of the word or syllable.

Tch is sounded as in "chat" or "latch."

G is always hard.

H when before a vowel is, of course, aspirated; but when placed after a vowel is intended only to assist in the conception of its true sound.

R is always strongly pronounced.

Ū has the German diphthongal sound of that letter, to which I know no English equivalent.

Ö sounds as "œu" in the French word "cœur."

Words written half in each of two columns are the same in both.

NOTES.

- (a) These numbers were asked by the fingers, and are therefore possibly only repetitions of the numbers two, three, four, and five; the distinctive difference in the terminal sound may also have been accidental, or even fancied.
- (b) It is doubtful whether this word means "body" or "coat."
- (c) This means either "fingers" or "gloves."
- (d) "Oeu" in the last syllable are pronounced as in the French word "cœur."

REMARKS.

The words in the two Tchouski dialects, of synonymous meaning with those of Esquimaux to which they are attached, are appended to show the resemblance of one, and difference of the other, between them and that language, and thus to offer some aid, however slight, towards the solution of the much disputed question respecting the origin of the American Esquimaux.

The languages of the Esquimaux, of the natives of the island of St. Lawrence, in Behring's Straits, and of the fishing tribes on the immediate sea coast of Asia, near and about the Tchouski Noss, are so very similar that the people must almost assuredly be of the same original stock, and are even, perhaps, not long separated.

The speech of the inland or deer-tending Tchouski is essentially different from that of the coast tribe, although from constant communication and association many words may have crept into either dialect from the other.

It would thus appear that the sea coast tribes of that small part of Asia are emigrants; but, on the other hand, the characteristics of the Esquimaux who inhabit the American coast between Kotzebue Sound and the Mackenzie are apparently entirely Asiatic, while those to the eastward of that river assimilate more to the Indian race.

In the foregoing catalogue the Esquimaux words under the heading "Western" were collected between Point Barrow and the Mackenzie; those under the term "Eastern" were obtained between the Mackenzie and Cape Bathurst, principally near the latter. The Tchouski headings explain themselves without necessity for further comment.

WILLIAM H. HOOPER, Lieutenant.

No. 7.

LETTER to Captain MOORE informing him of his Promotion, and conveying Approval of his conduct while in command of H.M.S. "Plover."

Sir,

Admiralty, 31st January 1852.

I AM commanded by my Lords Commissioners of the Admiralty to acquaint you that they entirely approve of your conduct during the period you have been in command of H.M.S. "Plover," and that they have promoted you to the rank of captain.

My Lords desire that you will express to the officers, seamen, and marines who have served under your orders their approbation of the uniform good conduct that has characterized their service. That Mr. Lindsay, clerk, in charge of the "Plover," has been promoted to the rank of paymaster and purser; and that it is further the desire of their Lordships to advance Mr. Martin, the second master, when he shall have passed the requisite examination.

Captain Moore,
H.M.S. "Plover," Behring's Straits.

I have, &c.
J. PARKER.

COPY of ORDERS to Commander MAGUIRE, appointed to the command of Her Majesty's Discovery Ship "Plover," vice Moore, promoted.

By the Commissioners for executing the Office of Lord High Admiral of the United Kingdom of Great Britain and Ireland, &c.

1. Having appointed you to succeed Captain Moore in the command of Her Majesty's Ship "Plover," that officer having been promoted to the rank of captain, you will proceed, by the packet which leaves Southampton on the 2d proximo, (together with such other officers as are also appointed to the "Plover," and whose names are in the margin,) to Panama, and thence by the first available route to the Sandwich Islands, where you will wait the arrival of the ship which Rear-Admiral Moresby has been directed to despatch with stores and provisions sufficient to enable the "Plover" to maintain her station, as a means of refuge and supply for returning parties of the Arctic Expedition.

Mr. J. Simpson,
Surgeon.
Mr. Hull,
Second Master.
Mr. Jago,
Clerk in Charge.

2. You, and the officers accompanying you, will embark in the ship that has been detached, the commanding officer of which has directions to proceed the moment he has completed supplies at Oahu to the winter quarters of the "Plover."

3. On joining the "Plover," you will receive from Captain Moore the orders of which we furnish you with copies, together with whatever subsequent directions he may have received, and which it will be your duty to see fulfilled. And for your better guidance in carrying out the object for which the "Plover" has been stationed within Behring's Straits, copies of all the orders issued to the several officers in command of Arctic ships will be supplied to you.

See Parliamentary
Papers given to
you.

See Parliamentary
Papers.

4. You are well acquainted with any circumstances that may have occurred subsequent to the issuing of these several orders that would in any way call for their revision, or for a diversion from them, so far as the "Plover" is concerned, from any part of the instructions given to Commander Moore; and in calling your attention to art. 12. of Captain Collinson's orders a case will at once present itself to you, in which, from altered circumstances, an existing instruction will not in the present instance absolutely apply; for although you will consider all orders as *most binding* which require you to provide for the safety of your own crew, and which impose upon you the necessity of quitting the Arctic Seas, and getting to the southward of Behring's Straits, yet as the "Plover" has been remanned last summer by Captain Wellesley, and is in all respects fitted for further service, the directions conveyed to Commander Moore in art. 12. of Captain Collinson's orders are not to be considered as obliging you to make good your retreat in the summer of 1853, if, according to the best of your judgment, the continued presence of the "Plover" in an extreme northern position should be essential for the succour and safety of parties known to be still in the Arctic Seas; and if the state of the "Plover," the health of her crew, and the amount of your own supplies, should justify you in continuing her in a serviceable position beyond that period.

5. It is presumed that you will find the "Plover" in Port Clarence. It is a question, however, whether her position might not be advantageously changed to the northward.

6. The "Investigator" has been two winters in the ice, and the "Enterprise" one year, and if they should fail in making progress to the eastward, or if from any cause they should be obliged to desert their ships, it may be assumed that they will fall back upon Point Barrow, where, from an expression in Captain Collinson's letters received here, they may hope to find assistance; and to this point they would probably direct their course, rather than at once hazard a journey of 500 miles through a country destitute of supplies in an attempt to reach Chamisso Island.

7. You are therefore fully authorized to proceed with the "Plover," and to endeavour, if possible, to find winter quarters at Point Barrow, in the spot recommended by Captain Moore as suitable for that purpose, and if in your opinion such proceeding should be advisable; but you would take care in such case to leave distinct notices of your intentions at Port Clarence, and

at some of the intermediate points of land in your progress to Point Barrow ; being careful also, should Point Barrow be found unsuitable as a winter quarter, to destroy all such notices on your return.

8. You will not in any case, considering the hazard of being unable to recover your position in Port Clarence before the winter sets in, leave the place without a caché of pemmican, as also as large a supply as you could prudently spare, to be stored at Michaelowski, under charge of the Russian authorities, which spot Captain Collinson has reported to be as available as Port Clarence for any party returning from the north.

9. For all details necessary for your guidance in carrying out the object for which you have been appointed to the command of the "Plover," and for which that ship is being continued within Behring's Straits, we refer you to our orders to Commander Moore, dated January 3, 1848.

10. The production of these orders will be authority sufficient to the officer commanding the ship which has been despatched by Admiral Moresby to replenish the "Plover," to receive you and the officers accompanying you on board of such vessel ; and for your further information a copy of our orders to Admiral Moresby, directing him to detach a ship on such service, is herewith enclosed.

11. The accompanying despatch will be delivered, by you, to Captain Moore.

Given, &c., 31st January 1852.

(Signed) F. T. BARING,
JN. D. DUNDAS.

To Rochfort Maguire, Esquire, Commander,
Her Majesty's Sloop "Plover."

By command, &c., (Signed) W. A. B. Hamilton.

No. 9.

REPORT of the AMERICAN ARCTIC EXPEDITION, by Lieutenant DE HAVEN of
the United States Navy, 5th February 1852.

The following Report has been forwarded to the Admiralty by the American
Minister :

Sir,

U.S. Brig, "Advance,"
New York, 4th October 1851.

I HAVE the honour to submit the following as the proceedings of the squadron under my command subsequently to the 22d August 1850, up to which time the department is already advised of its movements.

We now stood over for the north shore, passing to the eastward of Leopold Island, threading our way through much heavy stream ice. Barrow Straits to the westward presented one mass of heavy and closely packed ice, extending close into the coast of North Somerset. On the north shore we found open water reaching to the westward as far as Beechey Island.

At noon on the 25th we were off Cape Riley, where the vessel was hove to, and a boat sent ashore "to examine a cairn erected in a conspicuous position." It was found to contain a record of H.B.M.'s ship "Assistance," deposited the day before. Another record informed us that our consort had visited the cape at the same time with the "Assistance."

Fragments of painted wood and preserved meat tins were picked up on the low point of the cape ; there were also other indications that it had been the camping ground of some civilized travelling or hunting party. Our speculations at once connected them with the object of our search.

Whilst making our researches on shore, the vessel was set by a strong current near the point, where, becoming hampered by some masses of ice, she took the ground. Every effort was made to get her off, but the falling tide soon left her "hard and fast." We now lightened her of all weighty articles about deck, and prepared to renew our efforts when the tide should rise. This took place about midnight, when she was hauled off without apparent injury.

The "Prince Albert" approached us whilst aground, and Commander Forsyth tendered his assistance. It was not, however, required. Soon after, the "Rescue" came in sight from around Beechy Island, and making us out in our awkward predicament, hove to in the offing, and sent a boat in. She had been up Wellington Channel as far as Point Innes. The condition of the ice prevented her from reaching Cape Hotham (the appointed place of rendezvous); so she had returned in search of us.

On the 26th, with a light breeze, we passed Beechy Island, and run through a narrow lead to the north. Immediately above Point Innes the ice of Wellington Channel was fixed and unbroken from shore to shore, and had every indication of having so remained for at least three years. It was generally about eight feet thick, and the sharp angular hummocks, peculiar to recently formed ice, had been rounded down to gentle hillocks by the action of the weather for several seasons. Further progress to the north was out of the question. To the west, however, along the edge of the fixed ice, a lead presented itself, with a freshening wind from S.E. We ran into it, but at half way across the channel our headway was arrested by the closing ice. A few miles beyond this two of the English vessels (one a steamer) were dangerously beset. I deemed it prudent to return to Point Innes, under the lee of which the vessels might hold on in security until a favourable change should take place.

On Point Innes distinct traces of an encampment were found, together with many relics similar to those found at Cape Riley. Captain Penny (whose squadron we met here) picked up a piece of paper containing the name of one of the officers of Franklin's expedition, written in pencil, thus proving beyond a doubt that some of his party had encamped here; but when, or under what circumstances, it was difficult to say. The preserved meat cans, moreover, bore the name of the person who had supplied his ships with that article.

On Point Innes we also found the remains of an Esquimaux hut, but it had evidently been abandoned for many years. No recent traces of this people were found on any of the shores of Lancaster Sound that we visited.

The weather becoming more favourable, we retraced our steps as far as Beechy Island, in order to make more minute investigations in that quarter. The vessels were made fast to the land ice on the N.W. side of the island on the 27th August. The schooner "Felix," Captain Sir John Ross, R.N., and the squadron under Captain Penny joined us at this point. Consulting with these gentlemen, a joint search was instituted along the adjacent shores, in all directions. In a short time, one of Captain Penny's men returned, and reported that he had discovered "several graves." On examination, his report proved to be correct. Three well-made graves were found, with painted head boards of wood; the inscriptions on which were as follows:

1st.

"Sacred to the memory of W. Braine, R.M., Her Majesty's Ship 'Erebus,' Died April 3rd, 1846, aged 32 years. 'Choose ye this day whom you will serve.'"

(2d.)

"Sacred to the memory of Jno. Hartwell, A.B., Her Majesty's Ship 'Erebus,' aged 23 years. "Thus saith the Lord of hosts, consider your ways.'"

(3d.)

"Sacred to the memory of Jno. Torrington, who departed this life Jan. 1st, A.D. 1846, on board Her Majesty's Ship 'Terror,' aged 20."

Near the graves were also other unmistakable evidence of the missing expedition having passed its first winter here. They consisted of innumerable scraps of old rope and canvas. The blocks on which stood the *armourer's anvil*, with many pieces of coal and iron around it, the outlines of several tents or houses, supposed to have been the site of the observatory, and erections for sheltering the mechanics. The chips and shavings of the carpenter still remained. A short distance from this was found a large number of preserved meat tins, all having the same label as those found at Point Innes.

From all these indications the inference could not fail to be arrived at that the "Erebus" and "Terror" had made this their first winter quarters after leaving England. The spot was admirably chosen for the security of the ships, as well as for their early escape the following season. Everything, too, went

to prove up to this point the expedition was well organized, and that the vessels had not received any material injury.

Early on the morning of the 28th of August, Her Britannic Majesty's ship "Resolute," Captain Austin, with her steam tender, arrived from the eastward. Renewed efforts were made by all parties to discover some written notice which Sir J. Franklin ought to have deposited at this place in some conspicuous position. A cairn of stones erected on the highest part of the island was discovered. A most thorough search with crows and picks was instituted at and about it, in the presence of all hands. This search was continued for several days, but not the slightest vestige of a record could be found. The graves were not opened or disturbed.

Captain Sir John Ross had towed out from England a small vessel of about 12 tons. He proposed leaving her at this point to fall back upon in case of disaster to any of the searching vessels. Our contribution to supply her was three barrels of provisions.

From the most elevated part of Beechey Island (about 800 feet high) an extensive view was had, both to the north and west. No open water could be seen in either direction.

On the 27th of August we cast off from Beechey Island, and joined our consort at the edge of the fixed ice near Point Innes. Acting-master S. P. Griffin, commander of the Rescue, had just returned from a searching excursion along the shore, on which he had been despatched forty-eight hours before. Midshipman Lovell and four men composed his party. He reports that, pursuing carefully his route to the northward, he came upon a partially overturned cairn of large dimensions, on the beach, a few miles south of Cape Bowden. Upon strict examination it appeared to have been erected as a place of depôt of provisions. No clue could be found within it or around as to the persons who built it, neither could its age be arrived at.

At 2 P.M. of the 28th reached Cape Bowden without further discovery. Erecting a cairn, containing the information that would prove useful to a distressed party, he commenced his journey back.

Until the 3d day of September we were detained at this point by the closing in of the ice from the southward, occasioned by strong N.E. winds, accompanied with thick weather and snow. On this day the packed ice moved off from the edge of the fixed ice, leaving a practicable lead to the westward, into which we at once stood. At midnight, when about two-thirds the way across the channel, the closing ice arrested our progress. We were in some danger from heavy masses coming against us, but both vessels passed the night uninjured. In the evening of the 4th we were able to make a few more miles westing, and the following day we reached Barlow's Inlet. The ice being impracticable to the southward, we secured the vessels at its entrance. The "Assistance" and her steam tender were seen off Cape Hotham, behind which they disappeared in the course of the day.

Barlow's Inlet would afford good shelter for vessels in case of necessity, but it would require some cutting to get in or out. The ice of last winter still remained unbroken.

A fresh breeze from the north on the 8th caused the ice in the channel to set to the southward. It still remained, however, closely packed on Cape Hotham. On the 9th, in the morning, the wind shifted to the westward, an opening appeared, and we at once got under way. Passing Cape Hotham, a lead was seen along the south side of Cornwallis Island, into which, with a head wind, we worked slowly, our progress being much impeded by bay ice; indeed, it brought us to a dead stand more than once. The following day we reached Griffith's Island, passing the southern point of which the English searching vessels were descried, made fast to the ice a few miles distant. The western lead closing at this point, we were compelled to make fast also.

The ice here was so very unfavourable for making further progress, and the season was so far advanced, that it became necessary to take future movements into serious consideration. A consultation was had with Mr. Griffin, and after reviewing carefully all the circumstances attending our position, it was judged that we had not gained a point from which we could commence operations in the season of 1851 with decided advantages. Therefore, agreeably to my instructions, I felt it an imperative duty to extricate the vessels from the ice, and return to the United States.

The state of the weather prevented our acting immediately upon this decision.

September 11.—Wind from the eastward, with fog and snow; we were kept stationary. Much bay ice forming. Thermometer 26° . Early in the morning of the 12th the wind changed to the N.W., and increased rapidly to a heavy gale, which coming off the ice brought with it clouds of drift snow.

The "Rescue" was blown from her ice anchors, and went adrift so suddenly that a boat and two of her men were left behind. She got under sail, but the wind was too strong for her to regain the ice. The driving snow soon hid her from us. The "Advance" came near, meeting the same fate. The edge of the floe kept breaking away, and it was with much difficulty that other ice anchors could be planted further in, to hold on by. The thermometer fell to 8° ; mean for the twenty-four hours, 14° .

On the morning of the 13th, the wind having moderated sufficiently, we got under weigh, and working our way through some streams of ice, arrived in a few hours at Griffith's Island, under the lee of which we found our consort made fast to the shore, where she had taken shelter in the gale, her crew having suffered a good deal from the inclemency of the weather. In bringing to under the lee of the island, she had the misfortune to spring her rudder, so that on joining us it was with much difficulty she could steer. To ensure her safety and more rapid progress, she was taken in tow by the "Advance," when she bore up with a fine breeze from the westward. Off Cape Martyr we left the English squadron under Captain Austin. About ten miles farther to the east, the two vessels under Captain Penny, and that under Sir John Ross, were seen secured near the land. At 8 P.M. we had advanced as far as Cape Hotham. Thence, as far as the increasing darkness of the night enabled us to see, there was nothing to obstruct our progress, except the "bay ice." This, with a good breeze, would not have impeded us much; but unfortunately the wind when it was most required failed us. The snow with which the surface of the water was covered rapidly cemented, and formed a tenacious coat, through which it was impossible with all our appliances to force the vessels. At 8 P.M. they came to a dead stand some ten miles to the east of Barlow's Inlet.

The following day the wind hauled to the southward, from which quarter it lasted till the 19th. During this period the young ice was broken, its edges squeezed up into hummocks, and one flue overrun by another until it all assumed the appearance of heavy ice.

The vessels received some heavy nips from it, but they withstood them without injury. Whenever a pool of water made its appearance, every effort was made to reach it, in hopes it would lead us into Beechey Island, or some other place where the vessel might be placed in security, for the winter set in unusually early, and the severity with which it commenced forbade all hopes of our being able to return this season. I now became anxious to attain a point in the neighbourhood from whence, by means of land parties, in the spring, a goodly extent of Wellington Channel might be examined.

In the meantime, under the influence of the south wind, we were being set up the channel. On the 18th we were above Cape Bowden, the most northern point seen on this shore by Parry.

The land on both shores was seen much farther, and trended considerably to the west of north. To account for this drift, the fixed ice of Wellington Channel, which we had observed in passing to the westward, must have been broken up, and driven to the southward by the heavy gale of the 12th.

On the 19th the wind veered to the north, which gave us a southerly set, forcing us at the same time with the western shore. This did not last long, for the next day the wind hauled again to the south, and blew fresh, bringing the ice in upon us with much pressure. At midnight it broke up all around so that we had work to maintain the "Advance" in a safe position, and keep her from being separated from her consort, which was immoveably fixed in the centre of a large floe.

We continued to drift slowly to the N.N.W. until the 22d, when our progress appeared to be arrested by a small low island which was discovered in that direction, about seven miles distant. A channel of three or four miles in width separated it from Cornwallis Island. This latter island, trending

N.W. from our position, terminated abruptly in an elevated cape, to which I have given the name of Manning, after a warm personal friend and ardent supporter of the expedition. Between Cornwallis Island and some distant high land visible in the north appeared a wide channel leading to the westward. A dark misty-looking cloud which hung over it (technically termed frost smoke) was indicative of much open water in that direction.

This was the direction to which my instructions, referring to the investigations at the National Observatory concerning the winds and currents of the ocean, directed me to look for open water.

Nor was the open water the only indication that presented itself in confirmation of this theoretical conjecture as to a milder climate in that direction. As we entered Wellington Channel, the signs of animal life became more abundant, and Captain Penny, commander of one of the English expeditions, who afterwards penetrated on sledges much towards the region of the "frost smoke," much farther than it was possible for us to do in our vessels, reported that he actually arrived on the borders of this open sea.

Thus these admirably drawn instructions, deriving arguments from the enlarged and comprehensive system of physical research, not only pointed with emphasis to an unknown open sea into which Franklin had probably found his way, but directed me to search for traces of his expedition in the very channel at the entrance of which it is now ascertained he had passed his first winter.

The direction in which search with most chances of success is now to be made for the missing expedition, or for traces of it, is no doubt in the direction which is so clearly pointed out in my instructions.

To the channel which appeared to lead into the open sea, over which the cloud of "frost smoke" hung as a sign, I have given the name of "Maury," after the distinguished gentleman at the head of our National Observatory, whose theory with regard to an open sea to the north is likely to be realized through this channel. To the large mass of land visible between N.W. to N.N.E. I gave the name of "Grinnell," in honour of the head and heart of the man in whose philanthropic mind originated the idea of this expedition, and to whose munificence it owes its existence.

To a remarkable peak bearing N.N.E. from us, distant about 40 miles, was given the name of "Mount Franklin." An inlet or harbour immediately to the north of Cape Bowden was discovered by Mr. Griffin, in his land excursion from Point Innes on the 27th of August, and has received the name of "Griffin Inlet."

The small island mentioned before was called "Murdaugh's" Island, after the acting master of the "Advance."

The eastern shore of Wellington Channel appeared to run parallel with the western, but it became quite low, and, being covered with snow, could not be distinguished with certainty, so that its continuity with the high land to the north was not ascertained.

Some small pools of open water appearing near us, an attempt was made about fifty yards, but our combined efforts were of no avail in extricating the "Rescue" from her icy cradle. A change of wind not only closed the ice up again, but threatened to give us a severe nip. We unshipped his rudder, and placed it out of harm's way.

September 23d was an uncomfortable day. The wind was from N.E., with snow. From an early hour in the morning the floes began to be pressed together with so much force, that their edges were thrown up in immense ridges of rugged hummocks. The "Advance" was heavily nipped between two floes, and the ice was piled up so high above the rail on the starboard side as to threaten to come on board and sink us with its weight. All hands were occupied in keeping it out. The pressure and commotion did not cease till near midnight, when we were very glad to have a respite from our labours and fears. The next day we were threatened with a similar scene, but it fortunately ceased in a short time.

For the remainder of September, and until the 4th of October, the vessels drifted but little. The winds were very light, the thermometer fell to minus 12, and ice formed over the pools in sight, sufficiently strong to travel upon.

We were now strongly impressed with the belief that the ice had become fixed for the winter, and that we should be able to send out travelling parties

from the advanced position, for the examination of the lands to the northward. Stimulated by this fair prospect, another attempt was made to reach the shore, in order to establish a depôt of provisions at or near Cape Manning, which would materially facilitate the progress of our parties in the spring; but the ice was still found to be detached from the shore, and a narrow lane of water cut us from it.

During the interval of comparative quiet, preliminary measures were taken for heating the "Advance," and increasing her quarters, so as to accommodate the officers and crews of both vessels. No stoves had as yet been used in either vessel; indeed they could not well be put up without placing a large quantity of stores and fuel upon the ice. The attempt was made to do this, but a sudden crack in the floe where it appeared strongest, causing the loss of several tons of coal, convinced us that it was not yet safe to do so. It was not until the twentieth of October we got fires below. Ten days later the housing cloth was put over, and the officers and crew of the "Rescue" ordered on board the "Advance" for the winter. Room was found on the deck of the "Rescue" for many of the provisions removed from the hold of this vessel. Still a large quantity had to be placed on the ice.

The absence of fires below had caused much discomfort to all hands ever since the beginning of September, not so much from the low temperature, as from the accumulation of moisture by condensation, which congealed as the temperature decreased, and covered the wood-work of our apartments with ice. This state of things soon began to work its effect upon the health of the crews. Several cases of scurvy appeared among them; and, notwithstanding the indefatigable attention and active treatment resorted to by the medical officers, it could not be eradicated; its progress, however, was checked.

All through October and November we were drifted to and fro by the changing wind, but never passing out of Wellington Channel. On the 1st of November the new ice had attained the thickness of 37 inches. Still frequent breaks would occur in it, often in fearful proximity to the vessels. Hummocks consisting of massive granite-like blocks would be thrown up to the height of twenty, and even thirty feet. This action in the ice was accompanied with a variety of sounds impossible to be described, but when heard never failed to carry a feeling of awe into the stoutest hearts. In the stillness of an Arctic night they could be heard several miles, and often was the rest of all hands disturbed by them.

To guard against the worst that could happen to us—the destruction of the vessels—the boats were prepared, and sledges built. Thirty days' provisions were placed in for all hands, together with tents and blanket bags for sleeping in. Besides this, each man and officer had his knapsack containing an extra suit of clothes. These were all kept in readiness for use at a moment's notice.

For the sake of wholesome exercise, as well as to inure the people to ice travelling, frequent excursions were made with our laden sledges. The officers usually took the lead at the drag ropes, and they, as well as the men, underwent the labour of surmounting the rugged hummocks with great cheerfulness and zeal. Notwithstanding the low temperature, all hands usually returned in a profuse perspiration. We had also other sources of exercise and amusement, such as foot-ball, skating, sliding, racing, with theatrical representations on holidays and national anniversaries. These amusements were continued throughout the winter, and contributed very materially to the cheerfulness and general good health of all hands.

The drift had set us gradually to the S.E., until we were about five miles to the S.W. of Beechey Island. In this position we remained comparatively stationary about a week. We once more began to entertain a hope that we had become fixed for the winter; but it proved a vain one, for on the last day of November a strong wind from the westward set in, with thick snowy weather. This wind created an immediate movement in the ice. Several fractures took place near us, and many heavy hummocks were thrown up. The floe in which our vessels were imbedded was being rapidly encroached upon, so that we were in momentary fear of the ice breaking from around them, and that they would be once more broken out, and left to the tender mercies of the crashing floes.

On the following day (the 1st of December) the weather cleared off, and the few hours of twilight which we had about noon enabled us to get a glimpse

of the land. As well as we could make it out, we appeared to be off Gascoigne Inlet.

We were now clear of Wellington Channel, and in the fair way of Lancaster Sound, to be set either up or down, at the mercy of the prevailing winds and currents. We were not long left in doubt as to the direction we had to pursue. The winds prevailed from the westward, and our drift was steady and rapid towards the mouth of the sound.

The prospect before us was now anything but cheering. We were deprived of our last fond hope, that of becoming fixed in some position whence operations could be carried on by means of travelling parties in the spring. The vessels were fast being set out of the region of search.

Nor was this our only source of uneasiness. The line of our drift was from two to five miles from the north shore, and whenever the moving ice met with any of the capes or projecting points of land the obstruction would cause fractures in it, extending off to and far beyond us.

Cape Hurd was the first and most prominent point. We were but two miles from it on the 3d of December. Nearly all day the ice was both seen and heard to be in constant motion at no great distance from us. In the evening a crack in our floe took place not more than twenty-five yards ahead of the "Advance." It opened in the course of the evening to the width of a hundred yards.

No further disturbance took place until noon of the 5th, when we were somewhat startled by the familiar and unmistakeable sound of the ice grinding against the side of the ship. Going on deck, I perceived that another crack had taken place, passing along the length of the vessel.

It did not open more than a foot; this, however, was sufficient to liberate the vessel, and she rose several inches boldly, having become more buoyant since she froze in. The following day, in the evening, the crack opened several yards, leaving the sides of the "Advance" entirely free, and she was once more supported by and rode in her own element. We were not, though, by any means in a pleasant situation. The floes were considerably broken in all directions around us, and one crack had taken place between the two vessels. The "Rescue" was not disturbed in her bed of ice.

December 7th. At 8 A.M. the crack in which we were had opened and formed a lane of water fifty-six feet wide, communicating ahead at the distance of sixty feet with ice of about one foot in thickness, which had formed since the 3d. The vessel was secured to the largest floe near us (that on which our spare stores were deposited.) At noon the ice was again in motion, and began to close, affording us the pleasant prospect of an inevitable "nip" between two floes of the heaviest kind. In a short time the prominent points took our side on the starboard, just about the main rigging, and on the port under the counter, and at the fore-rigging; thus bringing three points of pressure in such a position that it must have proved fatal to a larger or less strengthened vessel.

The "Advance," however, stood it bravely. After trembling and groaning in every joint, the ice passed under and raised her about two feet and a half. She was let down again for a moment, and then her stern was raised about five feet. Her bows being unsupported were depressed almost as much. In this uncomfortable position we remained. The wind blew a gale from the eastward, and the ice all around was in a dreadful commotion, excepting, fortunately, that in immediate contact with us. The commotion in the ice continued all through the night, and we were in momentary expectation of witnessing the destruction of both vessels. The easterly gale had set us some two or three miles to the west.

As soon as it was light enough to see on the 9th it was discovered that the heavy ice in which the "Rescue" had been imbedded for so long a time was entirely broken up, and piled up around her in massive hummocks. On her pumps being sounded I was gratified to learn that she remained tight, notwithstanding the immense straining and pressure she must have endured.

During this period of trial, as well as in all former and subsequent ones, I could not avoid being struck with the calmness and decision of the officers, as well as the subordination and good conduct of the men, without an exception. Each one knew the imminence of the peril that surrounded us, and was prepared to abide it with a stout heart. There was no noise, no confusion. I did

not detect, even in the moment when the destruction of the vessels seemed inevitable, a single desponding look among the whole crew; on the contrary, each one seemed resolved to do his whole duty, and everything went on cheerily and bravely.

For my own part, I had become quite an invalid, so much so as to prevent my taking an active part in the duties of the vessel, as I always had done, or even from incurring the exposure necessary to proper exercise. However, I felt no apprehension that the vessel would not be properly taken care of, for I had perfect confidence in one and all by whom I was surrounded. I knew them to be equal to any emergency; but I felt under special obligations to the gallant commander of the "Rescue" for the efficient aid he rendered me. With the kindest consideration and most cheerful alacrity, he volunteered to perform the executive duties during the winter, and relieve me from everything that might tend in the least to retard my recovery.

During the remainder of December the ice remained quiet immediately around us, and breaks were all strongly cemented by new ice. In our neighbourhood, however, cracks were daily visible. Our drift to the eastward averaged nearly six miles per day, so that on the last of the month we were at the entrance of the *sound*, Cape Osborn bearing north from us.

January 1851. On passing out of the sound, and opening Baffin's Bay, to the north was seen a dark horizon, indicating much open water in that direction.

On the 11th, a crack took place between us and the "Rescue," passing close under our stern. It opened, and formed a lane of water eighty feet wide. In the afternoon the floes began to move, the lane was closed up, and the edges of the ice coming in contact with so much pressure, threatened the demolition of the narrow space which separated us from the line of fracture. Fortunately the floes again separated, and assumed a motion by which the "Rescue" passed from our stern to the port bow, and increased her distance from us 700 yards, where she came to a stand. Our stores that were on the ice, were on the same side of the cracks as the "Rescue," and of course were carried with her.

The following day the ice remained quiet; but soon after midnight, on the 13th, a gale having sprung up from the westward, it once more got into violent motion. The young ice in the crack near our stern was soon broken up, the edges of the thick ice came in contact, and fearful pressures took place, forging up a line of hummocks which approached within ten feet of our stern. The vessel trembled and complained a great deal.

At last the floe broke up around us into many pieces, and became detached from the sides of the vessel. The scene of frightful commotion lasted until 4 A.M. Every moment I expected the vessel would be crushed or overwhelmed, by the massive ice forced up far above our bulwarks. The "Rescue" being farther removed on the other side of the crack from the line of crushing, and being firmly imbedded in heavy ice, I was in hopes would remain undisturbed. This was not the case; for, on sending to her as soon as it was light enough to see, the floe was found to be broken away entirely up to her bows, and there formed into such high hummocks that her bowsprit was broken off, together with her head, and all the light wood work about it. Had the action of the ice continued much longer, she must have been destroyed.

We had the misfortune to find sad havoc had been made among the stores and provisions left on the ice; and few barrels were recovered, but a large portion were crushed and had disappeared.

On the morning of the 14th there was again some motion in the floes. That on the port side moved off from the vessel two or three feet, and there became stationary. This left the vessel entirely detached from the ice round the water line, and it was expected she would once more resume an upright position. In this, however, we were disappointed, for she remained with her stern elevated, and a considerable list to starboard, being held in this uncomfortable position by the heavy masses which had been forced under her bottom. She retained this position until she finally broke out in the spring.

We were now fully launched into Baffin's Bay, and our line of drift began

to be more southerly, assuming a direction nearly parallel with the western shore of the bay, at a distance of from 40 to 70 miles from it.

After an absence of 87 days, the sun, on the 29th of January, rose his whole diameter above the southern horizon, and remained visible more than an hour. All hands gave vent to delight on seeing an old friend again, in three hearty cheers.

The length of the days now went on increasing rapidly, but no warmth was yet experienced from the sun's rays; on the contrary, the cold became more intense. Mercury became congealed in February, also in March, which did not occur at any other period during the winter.

A very low temperature was invariably accompanied with clear and calm weather, so that our coldest days were perhaps the most pleasant. In the absence of wind we could take exercise in the open air without feeling any inconvenience from the cold. But with a strong wind blowing, it was dangerous to be exposed to its chilling blasts for any length of time, even when the thermometer indicated a comparatively moderate degree of temperature.

The ice around the vessels soon became again cemented and fixed, and no other rupture was experienced until it finally broke up in the spring, and allowed us to escape. Still we kept driving to the southward along with the whole mass. Open lanes of water were visible at all times from aloft; some times they would be formed within a mile or two of us. Narwhales, seals, and dovekeys were seen in them. Our sportsmen were not expert enough to procure any, except a few of the latter, although they were indefatigable in their exertions to do so. Bears would frequently be seen prowling about; only two were killed during the winter; others were wounded, but made their escape. A few of us thought their flesh very palatable and wholesome, but the majority utterly rejected it. The flesh of the seal, when it could be obtained, was received with more favour.

As the season advanced the cases of scurvy became more numerous, yet they were all kept under control by the unwearied attention and skilful treatment of the medical officers. My thanks are due to them, especially to Passed Assistant Surgeon Kane, the senior medical officer of the expedition. I often had occasion to consult him concerning the health of the crew, and it is in a great measure owing to the advice which he gave, and the expedients which he recommended, that the expedition was enabled to return without the loss of one man. By the latter end of February the ice had become sufficiently thick to enable us to build a trench around the stern of the "Rescue," sufficiently deep to ascertain the extent of the injury she had received in the gale at Griffith's Island.

It was not found to be material; the upper gudgeon alone had been wrenched from the sternpost. It was adjusted, and the rudder repaired in readiness for shipping, when it should be required. A new bowsprit was also made for her out of the few spare spars we had left, and everything made seaworthy in both vessels before the breaking up the ice.

On the 1st of April a hole was cut in some ice that had been forming since our first besetment in September. It was found to have attained the thickness of 7 feet 2 inches.

In this month (April) the amelioration of the temperature became quite sensible. All hands were kept at work, cutting and sawing the ice around the vessels, in order to allow them to float once more. With the "Rescue" they succeeded, after much labour, in attaining this object; but around the stern of the "Advance" the ice was so thick that our 13-foot saw was too short to pass through it. Her bows and sides, as far aft as the gangway, were liberated.

After making some alteration in the "Rescue," for the better accommodation of her crew, and fires being lighted on board of her several days previous, to remove the ice and dampness which had accumulated during the winter, both officers and crew were transferred to her on the 24th of April. The stores of this vessel which had been taken out were restored, the housing cloth taken off, and the vessel made in every respect ready for sea. There was little prospect, however, of our being able to reach the desired element very soon. The nearest water was a narrow lane more than two miles distant. To cut through the ice which intervened would have been next to impossible.

Beyond this lane, from the masthead, nothing but interminable floes could be seen. It was thought best to wait in patience, and allow nature to work for us.

In May, the noon-day sun began to take effect upon the snow which covered the ice; the surface of the floes became watery, and difficult to walk over. Still the dissolution was so slow, in comparison with the mass to be dissolved, that it must have taken us a long period to become liberated, from this cause alone. More was expected from our southerly drift, which still continued, and must soon carry us into a milder climate and open sea.

On the 19th of May the land about Cape Searle was made out, the first that we had seen since passing Cape Walter Bathurst, about the 20th of January. A few days later we were off Cape Walsingham, and on the 27th passed out of the Arctic zone.

June 6th, a moderate breeze from S.E., with pleasant weather, thermometer up to 40° at noon, and altogether quite a warm and melting day. During the morning a peculiar crackling sound was heard on the floe. I was inclined to impute it to the settling of the snow drifts as they were acted upon by the sun; but in the afternoon, about 5 o'clock, the puzzle was solved very lucidly, and to the exceeding satisfaction of all hands. A crack in the floe took place between us and the "Rescue," and in a few minutes thereafter the whole immense field in which we had been imbedded so many months was rent in all directions, leaving not a piece exceeding 100 yards in diameter. This rupture was not accompanied with any noise. The "Rescue" was entirely liberated, the "Advance" only partially. The ice in which her afterpart was imbedded, still adhered to her from the main chains aft, keeping her stern elevated in its unsightly position. The "pack" (as it may now be called) became quite loose, and but for our pertinacious friend acting as an immense drag upon us, we might have made some headway in any desired direction. All our efforts were now turned to getting rid of it. With saws, axes, and crowbars, the people went to work with a right good will, and after hard labour for 48 hours, succeeded. The vessel was again afloat, and she righted. The joy of all hands vented itself spontaneously in three hearty cheers. The after part of the false keel was gone, being carried away by the ice. The loss of it, however, I was glad to perceive, did not materially affect the sailing or working qualities of the vessel. The rudders were shipped, and were once more ready to move, as efficient as on the day we left New York.

Steering to the S.E., and working slowly through the loose but heavy pack, on the 9th we parted from the "Rescue" in a dense fog, she taking a different lead from the one the "Advance" was pursuing.

On the morning of the 10th, with a fresh breeze from north, under a press of sail, we forced a way into an open and clear sea, in latitude 65° 30', about 35 miles from the spot in which we were liberated.

The wind, which in the ice was merely fresh, proved to be in clear water a gale, with a heavy sea running. Through this we laboured until the next morning. When it moderated, the coast of Greenland was in sight.

Our course was now directed for the Whale Fish Islands (the place of rendezvous appointed for our consort), which we reached on the 16th, not, however, without having some difficulty in getting through the unusual number of bergs which lined the coast. In an encounter with one we lost a studding sail boom.

I had two objects in visiting these islands, that of verifying our chronometers, and to recruit our somewhat debilitated crews. The latter object I learned, on arriving, could be much better obtained, and the former quite as well, at Lievely, on Disco Island, for which place I bore up, leaving orders for the "Rescue" to follow us. We arrived on the 17th, and the "Rescue" joined us the day after.

The crews were indulged with a run on shore every day that we remained, which they enjoyed exceedingly after their tedious winter confinement. This recreation, together with a few vegetables of an antiscorbutic character which were obtained, was of much benefit to them. There were no fresh provisions to be had here at this season of the year. Fortunately, one of the Danish company's vessels arrived from Copenhagen whilst we remained, and from her we obtained a few articles that we stood much in need of. The company's

store was nearly exhausted, but what remained was kindly placed at our disposal.

On the 22d, our crews being much invigorated by their exercise on terra firma, and the few still affected with the scurvy being in a state of convalescence, we got under way, with the intention of prosecuting the object of the expedition for one season more, at least.

From the statement made to us at Lievely, the last winter had been an extraordinary one. The winds had prevailed to an unusual degree from the N.W., and the ice was not at any time fixed. The whaling fleet had passed to the northward previous to our arrival.

On the 24th we met with some obstruction from the ice off Hare Island, and on the following day our progress was completely arrested by it at Stovoe Island. In seeking for a passage we got beset in a pack near the lee shore, near to which we were carried by the drifting ice, and narrowly escaped being driven on the rocks. After getting out of this difficulty, we availed our-elves of every opening in the ice, and worked slowly to the northward, near the shore.

On the 1st of July we were off the Danish Port and settlement of Proven, and as the condition of the ice rendered further progress at present impossible, we went in and anchored to wait for a change.

Here again some scurvy grass was collected, and the men allowed to run on shore.

On the 3d we got under way, and run out to look at the ice; but finding it still closely packed, returned to our anchorage.

On the sixth the accounts from our look-out on the hill near us were more favourable. Again we got under way, and finding the pack somewhat loose, succeeded in making some headway through it. The following day we got into clear water, and fell in with two English whaling vessels, the "Pacific" and "Jane." To their gentlemanly and considerate commanders we are much indebted for the supplies furnished us, consisting of potatoes, turnips, and other articles, most acceptable to people in our condition. Much interesting news was also gained from them, respecting important events which had occurred since we left home.

Their statements as to the condition of the ice to the northward was anything but flattering to our prospects. They had considered it so very unfavourable as to abandon the attempt to push through Melville Bay, and were now on their way to the southward.

On the 8th we communicated with the settlement of Uppernavik. The next day two more English whaling vessels passed on their way to the southward. At the same time the "M'Lellan," of New London, the only American whaler in Baffin's Bay, was descried, also standing south. On communicating with her, we were rejoiced to find letters and papers from home, transmitted by the kindness of Mr. Grinnell.

We remained by the "M'Lellan" several hours, in order to close our letters, and despatch them by her. Several articles that we stood much in need of were purchased from her.

On the 10th, the Baffin's Islands being in sight to the north, we met the remainder of the whaling fleet returning. They confirmed the accounts given us by the "Pacific" and "Jane," in regard to the unfavourable condition of the ice for an early passage through Melville Bay.

The following are the names of vessels communicated with; viz., "Joseph Green" of Peterhead, "Alexander" of Dundee, "Advice" of Dundee, "Princess Charlotte" of Dundee, "Horn" of Dundee, "Ann" of Hull, "Regalia" of Kirkaldy, "Chieftain" of Kirkaldy, and "Lord Gambier" of Hull. My notes are unfortunately at fault as to the names of their enterprising and warm-hearted commanders, each of whom vied with the other in showering upon us such articles as they knew we must be in want of, consisting of potatoes, turnips, fresh beef, &c. My proposition to compensate them they would not entertain for a moment; and I take this occasion of making public acknowledgment of the valuable aid rendered us, to which, no doubt, much of our subsequent good health is owing.

On the 11th, in attempting to run between the Baffin's Islands, the "Advance" grounded on a rocky shoal. The "Rescue" barely escaped the same fate by hauling by the wind on discovering our mishap. Fortunately

there was a large grounded berg near, to which our hawsers could be taken for hauling off, which we succeeded in doing after twenty-four hours hard work. The vessel had not apparently received any injury; but a few days later another piece of her false keel came off, supposed to have been loosened on this occasion.

The ice to the north of the islands was too closely packed to be penetrated, and the prevalence of southerly winds afforded but little prospect of a speedy opening.

On the 16th, the searching yacht "Prince Albert" succeeded in reaching near to our position, after having been in sight for several days. Mr. Kennedy, her commander, came on board, and brought us letters.

The berth in which our vessels were made fast in this place was alongside of a low tongue of an immense berg, which, by accurate measurement, towered up to the height of 245 feet above the water level. It was aground in ninety-six fathoms water, thus making the whole distance, from top to bottom, 821 feet. We saw many bergs equally as large as this, and some much larger; but this was the only one we had so good an opportunity of measuring with accuracy.

On the 17th the ice opened a little, and we got under way. Hence till the 27th, with almost incessant work, by watching every opening, we continued to make a few miles each day, the "Prince Albert" keeping company with us. On this day, while running through a narrow lead, the ice closed suddenly. The "Advance" was caught in a tight place, and pretty severely nipped. We managed to unship the rudder, but before it could be secured the crashing ice carried it under. We had lines fast to it, however, and after the action of the ice ceased it was extricated without injury. The "Rescue" and "Prince Albert," although near us, were in better berths, and escaped the severe nip the "Advance" received.

We were closely beset in this position, and utterly unable to move, until the 4th of August, when the ice slacking a little, we succeeded in getting hold of the land ice one mile further to the north. The "Prince Albert" was still in the pack, a mile or two to the southward of us. Mr. Kennedy informed me that it was his intention to abandon this route, and return to the southward, as soon as his vessel could be extricated from her present position, in hopes of finding the ice more practicable in that direction. Some letters and papers that he had brought out for the other English searching vessels he placed on board of us. Unfortunately we were unable to deliver them.

We lost sight of the "Prince Albert" on the 13th. For our own part there was no possibility of moving in any direction. The berth we had taken up, under the impression that it was a good and safe one, proved a regular trap, for the drift pack not only set in upon us, but innumerable bergs came drifting along from the southward, and stopped near our position, forming a perfect wall around us at not more than from 200 to 400 yards distance. Many unsuccessful attempts were made to get out. The winds were light, and all motion in the ice had apparently ceased. The young ice, too, began to form rapidly, and was only prevented from cementing permanently together the broken masses around us, by the frequent undulations occasioned by the overturning or falling to pieces of the neighbouring bergs.

My anxiety daily increased at the prospect of being obliged to spend another winter in a similar, if not worse situation, than was that of the last.

On the 18th the ice was somewhat looser. We immediately took advantage of it, and managed to find an opening between the large bergs, sufficiently wide to admit the passage of the vessels. Outside the bergs we had open water enough to work in.

We stood to the N.W., but the lead closing at the distance of a few miles, and the ice appearing as unfavourable as ever, I did not deem it prudent to run the risk of their besetment again at this late period of the season; and considering that, even if successful in crossing the pack, it would be too late to hope to attain a point on the route of search as far as we had been last year, therefore, in obedience to that clause in my instructions which says, "You are especially enjoined not to spend, if it can be avoided, more than one winter in the Arctic regions;" accordingly, with sad hearts that our labours had served to throw so little light upon the object of our search, it was resolved to give it up, and return to the United States.

We therefore retraced our steps to the southward. The ice that had so much impeded our progress had entirely disappeared. We touched for refreshment by the way at some of the settlements on the coast of Greenland, where we were most kindly and hospitably received by the Danish authorities.

Leaving Holsteinberg on the 6th September for New York, the two vessels were separated in a gale to the southward of Cape Farewell. The "Advance" arrived on the 30th ultimo, and the "Rescue" on the 7th instant, with grateful hearts from all on board to a kind superintending Providence for our safe deliverance from danger, shipwreck, and disaster, during so perilous a voyage.

I have, &c.

(Signed) EDWIN J. DE HAVEN,
Lieutenant commanding Arctic Expedition.

To the Hon. Wm. A. Graham, Secretary
of the Navy, Washington.

No. 10.

FURTHER PROCEEDINGS of Captain COLLINSON, C.B.

H.M.S. "Enterprise," Port Clarence, 9th July 1851.

(Received, 26th December.)

Sir,

I HAVE the honour to acquaint you that H.M. ship under my command reached this port on the 3d instant, having been much delayed by the ice, which this season is much closer packed to the southward than it has been the last four years. This will, I believe, prove rather an advantage than otherwise, as it appears to be owing more to the prevalence of north-easterly winds than the severity of the season, and I have every hope of reaching Point Barrow previous to the end of the month.

The accompanying documents will afford their Lordships the full detail of the untimely fate of Lieutenant Barnard, who was, together with the Governor of the Russian post at Darabbin, murdered by a sudden onslaught of the Konkok Indians. The melancholy result of this expedition, which has set at rest the possibility of communicating with the Polar Sea by means of the Russian posts, has, beyond a doubt, been too dearly bought by the sacrifice of a young officer of great promise.

It appears by the account of Mr. Adams, that the post has been established fifteen years, and no disturbance having occurred during that period, such was the confidence that the Russians reposed in this people, that it was not even stockaded, nor did it appear that they thought it necessary to secure the doors. This will sufficiently account for his not being on his guard. When, however, the attack was made, he defended himself as a British officer should do, and the fragments of a double-barrelled gun (the discharge from which most probably roused and saved the Russian garrison in the other house) prove that the struggle was continued to the uttermost. This distressing event has deprived the expedition of a most valuable officer, whose anxiety to succour those in need prompted him to volunteer his services, under the impression that no means of getting to the shore of the Polar Sea should be left unexplored.

I have also to transmit a medical report upon the state and condition of the health of the officers and crew of the "Plover," by which their Lordships will perceive that there has been no less than eighteen cases of scurvy during the winter; and although the crew are now in an improved condition, in consequence of change of diet, yet I conceive it necessary, unless a reinforcement arrives, that they should undergo a change of climate; and as it appears by the accompanying report of the carpenter of this ship, that her planking is rotten, as well as several of her timbers, I have directed Commander Moore (in the event of no vessel arriving whereby he can exchange those of his crew that have suffered from scurvy) to proceed to Hong Kong, where he will be better able to refit his vessel and obtain another crew than at the Sandwich Islands.

The stores and provisions deposited here will be taken care of, either by the detachment of Aleutian islanders which the Russian Governor-General

promised to send up, or, failing that, removed to Michaelowski, and a cache made here, so as to assist any parties that may fall back on this post in reaching Norton Sound, where they will find accommodation for the winter.

The journals of Lieutenant Cooper and Mr. Bouchier will show their Lordships the hardships these officers had to undergo during the winter; and I beg also to call their attention to Mr. Adams, the assistant-surgeon of this ship, who has been detached now eight months, the greater part of which time he was (with the exception of Thomas Cousins) entirely isolated from his countrymen, and to the prompt manner in which he hastened to the aid of Lieutenant Barnard.

It is my intention to leave here, in execution of their Lordships instructions on the 10th instant.

I have, &c.
(Signed) RD. COLLINSON,
Captain.

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CAPTAIN MOORE'S Report of his proceedings.

Her Majesty's Brig “ Plover,” Grantley Harbour,
Port Clarence, 30th April 1851.

Sir,

I HAVE the honour to report to you, for the information of the Lords Commissioners of the Admiralty, the proceedings of Her Majesty's ship under my command, since your departure from this place on the 8th of October 1850.

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Immediately you left Port Clarence, as the temperature had fallen considerably, and there being every indication of the near approach of winter, I dismantled the ship, completed water, and stacked a large quantity of wood, sufficient for consumption during the severest part of the season. So soon as I had accomplished these matters the ship was laid abreast of the house (with her head to the N. E.) for the purpose of commanding it in the event of any natives attempting to force an entrance, although I cannot say I had any reasons for anticipating such an occurrence. I then sent all the spare gear, sails, and most bulky stores on shore to the house, hauled the boats up and covered them in, housed the ship on the 18th of October, and on the following days was frozen in, the ice being sufficiently strong to allow several natives to walk off to the ship. Travelling was found dangerous on Port Clarence till the beginning of December.

Numbers of natives visited the ship during the months of November and December, from whom I was enabled to procure sufficient venison and fish to furnish an excellent dinner for the whole ship's company on Christmas and New Year's days, when, as on two former and similar occasions, they dined together at one table on the lower deck.

Theatricals were again brought into requisition, and the school re-opened under the superintendence of the two gentlemen who had conducted these arrangements the two previous winters; these occupations, together with occasional shooting excursions, which I allowed them to make until the game had all disappeared from the neighbourhood, and now and then a round game at foot-ball, afforded both officers and men as much recreation as the isolated position of the ship would permit.

Thinking it necessary to ascertain as far as I possibly could how the natives were disposed toward myself and those under my command before I allowed any parties to leave the "Plover," I, accompanied by several of the officers, visited two of their villages on two or three occasions during the latter end of December; one of these is situated on the north side of Port Clarence, and the other about sixteen miles up the river E-mow-rook, at both which places we were received in the most friendly and welcome manner. Having satisfied myself of the peaceable habits of these people, I was able to send up a party with a sledge and dogs to the village of Ko-groo-pak, a distance of about sixty miles from the ship, where a reasonable quantity of venison could always be procured. Later in the season, when the reindeer advanced to the northward, an abundant supply was brought to the ship by the natives, together with large quantities of fish, ptarmigan, berries, and a few hares. Previous to the arrival of these supplies, scurvy had made its appearance amongst the crew, but which seems to have since entirely disappeared, no fresh instances of that disease having been added to the sick list since the month of March. For further information on this subject I have the honour to refer you to the enclosed letter, furnished me at my request by Mr. J. Simpson (surgeon), which will satisfy you of the present healthy state of the ship's company in general, though it would be expedient, if an opportunity offered, to remove several individuals who are considered liable to a return of that complaint on the approach of winter, if allowed to remain in this climate.

Early in the year several parties of natives, whom we all well knew, arrived from Hotham Inlet, Kotzebue Sound, who reported that the people of Shaffarief Inlet had broken up the boat left by this ship on Chamisso Island; also, that they had made inquiries relative to the missing expedition, respecting which they had heard nothing.

Being of opinion that intelligence of importance might be obtained at Michaelowski Redoubt, (a Russian post in Norton Sound,) I made arrangements in the middle of January for a party to start for that place. On the 29th a native arrived, bringing a letter from Lieutenant J. Barnard, at Gariska, another Russian post in Norton Sound, about three days journey from Michaelowski, a copy of which, with the information elicited by him, I beg to forward herewith.

The party I had formed and placed under the directions of Lieutenant Edward James Lloyd Cooper, consisted of Mr. Thomas Bouchier, acting second master, Taleshak Nakeev, interpreter, Thomas Brooker, private R.M., and George Croker, A.B., being in all respects provided and ready for the journey by the 1st of February; they left the "Plover," accompanied by the native who brought Lieutenant Barnard's letter as guide. (A copy of Lieutenant Cooper's orders from me is enclosed.)

Although a great number of natives have visited the ship during the winter, and constant inquiries made of them relative to Sir John Franklin and his expedition, nothing beyond the following, obtained through the medium of the interpretress, has been heard.

She states that the natives have told her of a party of "English" with one or two boats having visited the river Ko-puk, which from description I conceive to be the You-con or Colville; that they have been destroyed by the Indians somewhere near its mouth, who have been seen with the clothes, knives, and other articles belonging to the people.

You will at once perceive that this report strongly corroborates those made to me by the natives at Point Barrow, Wainwright Inlet, and Kotzebue Sound last year, there being but a very slight difference in the several communications, and that I think of so trifling a character as not to affect the general purport. As to the contents of Lieutenant Jno. Barnard's letter, although circumstantially different, it bears immediately upon the most important part of the information I have from time to time obtained; that is, as to "a party of English having been destroyed," and has the advantage also of being precise as to date.

From the frequent recurrence of these reports, and the variety of their sources, I often

inclined to think that the people referred to may possibly have formed a part of the crews of the missing expedition.

The end of February having now arrived, and the temperature become comparatively warm, I began to prepare the gear for fitting out; and having a continuance of fine, mild weather, by the end of March the "Plover" was in all respects ready for sea, with the exception of bending sails, and on the 5th of April the sun became so warm that I was induced to take the housing off.

On the 6th of April, Mr. Thomas Bouchier, acting second master, with George Croker, A.B., returned, reporting having left Lieutenant Cooper and Thomas Brooker, private R. M., at Gariska, severely frost-bitten; also, that in the month of February the Russian Fort Darabin had been attacked by a large party of the Ko-u-kuk Indians; that Lieutenant Barnard and Pavalo Octagook, (the late interpreter of the "Plover," who was with him as guide,) being there at the time, were severely wounded, and said to have died some days after in consequence. For the particulars of this distressing occurrence I beg to refer you to the enclosed copies of the correspondence of Lieutenants Cooper and Barnard, and Mr. Adams, assistant surgeon.

I beg further to acquaint you that it is my intention to send the launch belonging to this ship round to Gariska, as soon as open water will allow, should Lieutenant Cooper and Mr. Adams be prevented returning before.

In conclusion, I beg further to report to you that the salt beef on board has been so repeatedly complained of by the ship's company, that I have been under the necessity of discontinuing its issue. Since the departure of Lieutenant Cooper for Michaelowski, I have not had the proper number of officers on board to hold a survey, but I directed those remaining to examine several casks, which has been done, and a piece from each boiled, all of which have been found wasted, shrunk, and bitter to the taste, and altogether considered unserviceable, apparently from long keeping and loss of pickle; the casks are much injured, the chimes and hoops being broken, in which state I am informed they were reported to have been put on board Her Majesty's Ship "Herald" at Woahu, from which ship they were removed.

(Lieutenant Cooper's journal to Gariska, as well as Mr. Bouchier's from thence to the "Plover," is enclosed.)

I have, &c.

THOS. E. L. MOORE, Commander.

Captain R. Collinson, C.B., Senior Officer, &c.
Her Majesty's Ship "Enterprize."

The ice left Grantley Harbour on the 17th instant, and Mr. Martin, second master of this ship, Point Spencer, for Michaelowski the same day.

Enclosure 2 in No. 10.

MEDICAL REPORT ON THE HEALTH OF THE OFFICERS AND CREW OF THE "PLOVER."

Her Majesty's Ship "Plover," Grantley Harbour,
Port Clarence, July 5, 1851.

Sir,

In compliance with your order, we have this day carefully examined the present state of health of Commander Moore, the officers, and crew, of this ship, and inquired into the medical history of the ship for the last year.

It will be necessary to send home the two men named in the margin by the first opportunity; the one suffers from secondary syphilis, the other from scurvy, and there is no prospect whatever of either becoming efficient without a change of climate.

It appears that eighteen individuals have been affected with scurvy in the course of the winter, in a more or less severe form, a large proportion for a complement of thirty-nine; that the disease appeared early in the winter, after the men had been fed upon scant and innutritious provisions, and gradually increased in severity until better victual was obtained; and that from that time the disease rapidly declined and finally disappeared, except in one case, when the vigour of the constitution has been much wasted by protracted service within the tropics.

Had the crew of the "Plover" been fed throughout the winter upon the provisions supplied by the ship, and in the usual quantities, it is all but certain that the disease would have extended to almost every individual in the ship, and have proved fatal to many.

At this time, with the two exceptions already noticed, the crew is in good health, though it cannot be doubted there exists among them a certain predisposition to scorbutic disorders, likely to be called into dangerous activity by the people again being placed upon insufficient food.

It is also well to bear in mind the mental prostration brought forth by three monotonous Arctic winters in succession, and its true bearing upon the bodily condition.

As it is sure that for nine months in the year abundance of fresh animal food can be obtained in Grantley Harbour (venison, ptarmigan, and fish) another winter may be passed there in comparative safety, more particularly as wild onions abound in the low shingly

tracts that surround the harbour ; but we would hesitate to recommend the ship to be placed farther to the north, or where large supplies of fresh meat cannot to an absolute certainty be procured.

We have, &c.

ROB. ANDERSON, Surgeon, H.M.S. "Enterprise."
JOHN SIMPSON, (b) (Surgeon), Assistant Surgeon, H.M.S. "Plover."
EDWARD ADAMS, Assistant Surgeon, H.M.S. "Enterprise."

Enclosure 3 in No. 10.

A REPORT of the STATE and CONDITION of H.M.S. "Plover."

Between edge of copper and under part of sponson.	State.
Doubling - - - - -	Good.
Plank under doubling - - - - -	Rotten and bad.
Timbers - - - - -	Several rotten and defective.
Stem - - - - -	Good.
Breast hook - - - - -	Defective.
Wooden ends and midship	Bad.
Counter timbers - - - - -	

The doubling is not bolted through, and the main plank rotten and defective. I should recommend her to be properly surveyed by opening her into the timbers.

App^d, R. Collinson, Captain,
5th July 1851.

W. B. WALDRON,
Carpenter, H.M.S. "Enterprise."

Enclosure 4 in No. 10.

Lieutenant BARNARD to Captain COLLINSON.

H.M.S. "Enterprise," off Port Hope,
20th September 1850.

Sir,

It being of great importance that all doubt relative to the information gained by Mr. Pim, mate of H.M.S. "Plover," in March last at Michaelowski should be cleared up, I beg to volunteer for that service, and suggest the following scheme for carrying it out.

That the ship on her passage to the southward shall put into Norton Sound and leave me at Michaelowski, with the requisite stores, &c., for prosecuting a journey to the Russian Fort Darabin. I propose starting with the first party of Russian traders in the ensuing spring, and on my arrival at the above-mentioned fort wait for the arrival of the same party of Indians from whom the information was gained, and who doubtless visit the fort annually. From them I should endeavour to get a guide to conduct me to the head waters of the river, at which place the supposed party were said to be, and where no doubt many circumstances would transpire to show who and what they were.

After clearing up all doubt as to the truth or falsity of the report, I could either retrace my steps back to Michaelowski, and go from thence to Sitka in the Russian trader, or make the best of my way to any of the Hudson Bay forts which it might be possible to reach.

The winter months might be usefully spent by me in acquiring a knowledge of the language, which would render me in a great measure independent of an interpreter. Hoping that this will meet with your favourable consideration,

I have, &c.

JOHN BARNARD,
Lieutenant.

Captain Collinson, C.B.
H.M.S. "Enterprise."

Enclosure 5 in No. 10.

Lieut. BARNARD to Commodore MOORE.

Sir,

Michaelowski Redoubt, December 26, 1850.

In obedience to orders from Captain Collinson, I beg to acquaint you that I was landed at this place from H.M.S. "Enterprise," on the 12th of October, and herewith enclose a copy of my instructions.

Worselie Maxemoff, the chief trader of the Russian fort Darabin, arrived here on the 23d instant, bringing a letter from the English, who are said to be living on the head waters

of the Ekko, a copy of which I enclose. I have gained the following information from him. It appears from Indian report, that a party of five Englishmen have been settled on the head waters of the Ekko since the year 1848, and are carrying on a brisk trade with them for their furs, giving in exchange muskets, powder, shot, knives, small axes, small blue beads, tobacco, and soup and bouillie tins; the whole of these goods are exactly of the same description as the Hudson Bay Company trade with, the muskets, one of which Maxemoff is in possession of at Darabin, being the same as the long ones on board the "Enterprise," and are all flint locks; the powder is similar to ships fine grained; the soup and bouillie tins I should judge to be six or eight pound tins. From the above facts, together with the letter, it is quite evident that they are not a party from the missing expedition. I see, on referring to the parliamentary papers, that Sir George Simpson, in a despatch to Doctor Rae, dated the 2d of February 1850, recommends that if a party be sent to the westward by way of the Youcon, that a Mr. Murray would be a very fit man for leader of it; I therefore conjecture that the letter may have come from him.

With respect to a communication being carried on with the coast of the Polar Sea, and the Russian post, I find that there is none, the only natives that visit Darabin coming from the under-mentioned rivers in the summer by water, Cu-u-kuk, Ekko, Tun-nun-nah, Buckland, Youcon, and a large lake named Oiserah. The tribes are of the same names as the rivers from which they come, and, with the exception of the Buckland and Cu-u-kuk, are migratory, spending the winter months to the southward; the whole of them bear indifferent characters, and it is necessary to keep a strict watch on them. You will see, on reference to the enclosed tracing, the positions of these places, and also all the Russian forts, which information I have obtained from Maxemoff, who has been fifteen years in the country, and is well acquainted with all the rivers and villages between Darabin and the river Youcon, having been several times to the latter river for the purpose of trading. I have also ascertained that it is practicable to reach the Polar Sea by the route marked in red on the tracing; this journey could be accomplished by two boats, similar to our whalers, in fifty days; it would taken them thirty days to Darabin, and from thence to the Youcon sixteen more; the Russian lannah, a boat about the size of a line of battle ship's launch, is forty-four days going to Darabin, and usually leaves this in the last week of May. I am unable to ascertain accurately where the source of the Coépark is, but I imagine that it must be from the large lake Oiserah. The stream runs strong to the southward. The Tun-nun-nah empties itself into the Youcon. There is no portage between Michaelowski and the Youcon. Fish can be procured in abundance from the natives, also a good supply of game by guns.

It is my intention to accompany Maxemoff back to Darabin on the 29th instant, for the purpose of exploring the rivers in that vicinity. I intended to endeavour to reach the Ekko, but I regret to find it is wholly impracticable, there being no guides, no provision for dogs, and the snow lying very deep; the journey occupies fifteen days by summer, so that the distance must be between 200 and 300 miles.

I have given Mr. Adams directions to remain at this place for the purpose of gathering information from any natives that may arrive during my absence. Pavil Olayak, the late interpreter of the "Plover," accompanies me as guide and interpreter.

The information obtained by Mr. Pim relative to the head man at Darabin having been attacked by the Indians, and losing five of his men, I find to be totally incorrect; the party alluded to consisted of four men under the command of a lieutenant of the imperial service, named Rouf; it appears that they were exploring the interior of the country in the vicinity of Sitka, and were treacherously murdered whilst sleeping at a village named Madnaker, by a tribe named the Calchan Indians. This took place in year 1842, since which period nothing of the kind has taken place.

The following is a list of furs brought for sale at Darabin by the different tribes: beaver, wolf, wolverine, black fox, lynx, sable, river otter, and musk rat.

Very few natives have been here since my arrival, and I find they are not expected from the northward before April.

You will perceive by my instructions that I am ordered to join Her Majesty's sloop under your command in the month of May, but this will be quite impossible by a land journey, as the ice breaks up at this place in the beginning of that month; I therefore beg to suggest that the "Owen" may be despatched to this place as soon as is practicable. Under any circumstances I think that this service might be performed in a week, and we should have the advantage of getting all our clothes back to the ship, and also of communicating with the trading vessel (Russian), which arrives here in the latter end of May; the Governor-General is expected in her. There is a snug, well sheltered bay for boats of any size at this place.

I have experienced much difficulty in procuring dogs, having had to travel as far as Partolik, a large native village about seventy-five miles to the southward; however, I have at last succeeded in getting a sufficient number for the service I am employed upon.

It is my intention to return to this post in the beginning of March.

Commander T. E. L. Moore,
Her Majesty's Sloop "Plover,"
Grantley Harbour.

I have, &c.,
JOHN BARNARD, Lieutenant.

Kaliska, January 1, 1851.

Since writing the above I find that I was not informed accurately about the tribes being of the same names as the places from where they come; it appears that the following is correct: those from Cu-u-kak, Cu-u-cun-sun; Ekko, Ekko-o-tanah; Tun-nun-nah, Tun-nun-nah-o-ta-nah; Oiserah, Mun-tok-o-ta-nah; and Yoncon, Yonconah, Buckland Ke-et.

(Signed) JOHN BARNARD.

Enclosure 6 in No. 10.

Lieutenant BARNARD to Commander MOORE.

Kalishka Fishing Station, Norton Sound,
1st January 1851.

Sir,

I BEG to acquaint you with the following information which was obtained by Gregoria Wanoff, the Russian in charge of this station, from O-tuk-tah-rok, a native of the Buckland River.

It appears that some day in the month of September 1849, that a ship, said to be English, anchored off Point Barrow, and that in the night the ice came down on the coast and beset her. On the following day, whilst one half the ship's company were employed at the ice saws, and the other half wooding from the beach, the natives went alongside in great numbers, taking skins for barter, demanding in return for them axes, knives, beads, &c.; on the captain refusing to trade with them, telling them that they did not want to buy skins, they were so enraged that they made an attack on both parties, and succeeded in murdering every soul of them, afterwards plundering and breaking the ship up. The ship's company are said to have been numerous. He did not say whether or not any of the natives were killed.

I am sorry that I am unable to give a more detailed account than the above, that being the total sum of information obtained.

I must not omit to state I saw O-tuk-tah-rok at Michaelowski, where he came for the purpose of selling some beaver skins. I learned from him that there were two ships in Grantley Harbour, but nothing more. He also told me that he was well acquainted with the "Plover," having slept on board one night when she was at winter quarters in Kotzebue Sound.

I have engaged a native of this village, named Yaw-ma-gah-ma-chick, to take these despatches to Grantley Harbour, promising that on delivery you will pay him five pounds of tobacco. He is to start on the 4th, and goes by the coast. Any despatches you may wish to send me by him will about meet me at this place on my return from Darabin.

I have, &c.

Commander T. E. L. Moore,
H.M. Sloop "Plover," Grantley Harbour.

JOHN BARNARD, Lieutenant.

I forgot to state that Maxemoff has promised to exchange the musket he is in possession of, for a ship's percussion musket that I have with me, as I have few very caps with me for it. I have promised to ask you to send back 1,000 by the bearer of this letter, which if you approve of, can be safely trusted.

Enclosure 7 in No. 10.

Lieutenant BARNARD to Commander MOORE.

Dear Sir,

Kalishka, 3d January 1851.

I MUST write you a few lines to apologize for having unconsciously detained a parcel belonging to you; it was entirely owing to the stupidity of my servant, who had removed it from the place where I put it, with sundry others, for ships on the Pacific station; it is at present at Michaelowski, at which place I have been daily expecting you or some of your officers, but I suppose last month's boisterous and uncommonly mild weather kept you back. We do not leave this for Darabin until the 8th, the Russians wishing to spend their Christmas day here. The greater part of my time since landing from the ship has been employed in procuring dogs, which I have had much difficulty about, and it was not until the latter end of November that I succeeded in getting a sufficient number, and those but an indifferent lot. I have at present fourteen and two small sledges with me. We can manage to get over between 30' and 40' on good ice. I have had very little assistance, and a good deal of incivility from the head man at Michaelowski, so much so that I have serious thoughts of making an official report of his conduct; he appears to me a very unfit man for the station he holds, and is much disliked by the man under him. I have left Mr. Adams and the man Cousens in anything but comfortable quarters, and I do not think they will get much information at the present time. I suspect that the report relative to ships being in Grantley Harbour referred to the "Enterprise" and "Plover." I scarcely know what to make of the last information I sent; I wish I could obtain a more detailed account, as what facts we are in possession of seem to me to hold together very well. I am sorry to say that the chronometer I am supplied with is perfectly useless, owing to some defect in the works. Of course you must not expect to find that the rivers

laid down in the tracing are very correct with regard to distances, but I believe the directions of them to be tolerably correct. Captain Collinson desired me to mention that he had made inquiry about the report made of Mr. Pim's having killed a native, and that there is not the slightest foundation for it.

Bosky tells me that there is some money owing to him for the sale of his clothes; if such should be the case, and if you will authorize me, I will pay him the amount.

With respect to the natives of this sound I can make a most favourable report; they are an uncommonly honest, well-disposed people, and very different from the character they have got by many authors; they can be safely trusted, and I should think myself as safe amongst them as I would amongst my own countrymen.

My messenger starts to-morrow, or the next day, and I suppose will reach Kabrook or Grantley Harbour in about ten days time.

In conclusion, I beg to be remembered to the officers.

Commander Moore,
"Plover."

I have, &c.
JOHN BARNARD.

Enclosure 8 in No. 10.

Commander MOORE to Lieutenant BARNARD in reply to previous communications.

Her Majesty's Brig "Plover," Grantley Harbour,
1st February 1851.

Sir,

I HAVE the honour to acknowledge the receipt of your letters of the 26th December 1850 and 1st January 1851, which arrived here on the 29th ultimo.

With respect to the five English reported to be bartering on the river Ekko, I am fully satisfied that they are a party belonging to the Hudson's Bay Company from various reports I received from the natives of Kotzebue Sound similar to the one you have heard, but I would strongly advise you to write to Mr. Murray on this subject. It is evident that up to the date of his letter, 9th June 1850, nothing could have been heard of the missing expedition in the vicinity of his post, or I should think he would have mentioned it in the event of its falling into the hands of any of the searching expeditions.

As to the second report, it is strongly corroborative of the one I obtained last summer, both at Point Barrow and Wainwright Inlet, with the exception that the boats or ships were attacked near a river called the Ko-puk, supposed to be a short distance to the westward of the Mackenzie.

In reply to your proposition that the "Owen" be sent to Michaelowski in the spring, I have to acquaint you that it will not be possible for me to comply with it, her service at that time being most particularly required.

In consequence of your report to me that no stranger natives arrive at Michaelowski before the month of May, and feeling assured that if any were travelling thence from the northward during the winter that they would first visit the "Plover," I am of opinion that it would on the whole be advisable for you to make the best of your way to this ship in company with Lieutenant Cooper and his party, as the rivers begin to thaw in the month of April, after which you would be unable to reach the "Plover" in compliance with your instructions from Captain Collinson, C. B.

As to the musket in possession of Maxemoff it would be useless bartering for it should you find that the natives from whom he got it received it from the party on the Ekko; under other circumstances it would be valuable.

Pavalo Octagook I found totally useless as an interpreter to the northward of Kotzebue Sound, and I much fear your being able to procure one acquainted with the dialect.

Lieutenant John J. Barnard, R. N.,
of Her Majesty's ship "Enterprise" at
Michaelowski redoubt.

I have, &c.
T. E. L. MOORE, Commander.

Enclosure 9 in No. 10.

Mr. ADAMS to Commander MOORE.

Michaelowski redoubt, Norton Sound,
26th February 1850 (1851).

Sir,

I HAVE the honour to inform you that I received a letter from Lieutenant Barnard, of which the enclosed is a copy, on the 24th instant. As the original was written on the back of the Russian letter forwarded to this place, I was unable to obtain it.

I immediately demanded from the governor to this redoubt a sledge and dogs, and two Russians to proceed with Thomas Cousins, A. B., and myself to Darabin, whereupon he informed me that in seven days time he intended to send five men with two sledges to the above place, and that I could accompany them. They could not go before as they had no bread made, nor were the sledges ready.

At my earnest request, however, and on undertaking to supply them with bread, it was agreed that the party should start in two days. We accordingly leave this to-morrow at

5 A.M. The party to consist of five Russians, a Tungoore, his son, Cousins, and myself, with three sledges. The Russians, however, finding their own bread.

Mr. Barnard left this redoubt for Darabin on the 29th of December 1850; he remained at Garishka until the 9th of January 1851, when he set out with the governor of the Darabin redoubt for that place. He was accompanied by Boskey (late interpreter of the "Plover").

From the information I have been able to obtain it appears that Mr. Barnard arrived at Darabin about the middle of January, and shortly after despatched one of the Russians and a native to a village on the Ko-ú-kuk or Co-u-kuk river, four days journey from Darabin, with a letter to be forwarded to the Englishmen said to be on the Ekko river. That these two men were murdered by the Indians of the Co-u-kuk, who afterwards made a descent upon the Darabin redoubt, on or about the 16th of February. On that morning about 5 o'clock the governor, Worsele Maxemoff, had occasion to go outside, when he found the Indians just arriving; he was immediately seized and killed. The other inhabitants hearing his cries loaded their guns and went to his assistance. A fight then took place between the two parties, and was continued for some time. Many of the Indians were killed, Mr. Barnard wounded in the chest and arm by three arrows, and in the abdomen very badly by a javelin, and Boskey wounded badly with two arrows.

After this the party retreated to a house in the fort, and cutting a hole in the door kept up a fire upon the besiegers until they withdrew.

When the Indians left the redoubt they proceeded to the village near by, and there killed nearly every soul, only six out of about 160 escaping. They cut off the noses and ears of the dead and threw them to the dogs, burnt the houses, and threatened to return with plenty of men and burn the redoubt. The weapons used were, by the Europeans, guns loaded with small shot; by the Indians, bows and arrows, large javelins and knives.

The Darabin redoubt is a small establishment; the inhabitants at the time of the attack were the governor, seven Russians, two natives, Mr. Barnard, and Boskey.

The Russian letter was dated 5th February, their time being twelve days later than ours. It was eight days coming here, and appears to have been despatched on the afternoon of the day of attack by five of the surviving natives, the sixth being wounded remained at Darabin redoubt. These five men stopped at Onq-ai-tak-lik, and the letter was brought on by a native of that village.

I have enclosed a rough tracing, by which you will see the situation of the river Co-u-kuk.

The party who attacked the redoubt were about eighty in number.

The length of my stay at Darabin must of course depend upon the condition in which I find the wounded. The Russian party stay there four days. From the nature of Mr. Barnard's wounds I imagine he must long ere this be dead, in which case I shall return with the Russian party.

I beg to request that a party may be despatched from Her Majesty's Ship under your command to meet me at Garishka on my return, which will probably be about the 18th or 20th of March.

This affair has thrown the whole country into alarm, and it will be impossible for me to join the "Plover" with one man as the natives between Garishka and Grantley Harbour are hostile to Europeans, therefore, unless I find a party at Garishka on my return from Darabin, I shall proceed to Michaelowski, and there await the arrival of the ship or boat, unless I can get some of the Russians from this place to accompany me to Grantley Harbour, which from the general incivility of this redoubt I do not think probable.

A small quantity of provisions may be obtained at Garishka, and plenty here, but of inferior quality.

Since the departure of Mr. Barnard I have received no information relative to the missing expedition.

Commander T. E. L. Moore,
H.B.M.S. "Plover," Grantley Harbour.

I have, &c.

EDWARD ADAMS,
Assistant Surgeon, R.N.

Dear Adams,

I AM dreadfully wounded in the abdomen, my entrails are hanging out. I do not suppose I shall live long enough to see you. The Cu-ú-chuk Indians made the attack whilst we were in our beds. Boskey is badly wounded, and Darabin dead.

I think my wound would have been trifling had I medical advice. I am in great pain; nearly all the natives of the village are murdered. Set out for this with all haste.

(Signed) JOHN BARNARD.

This was badly written, and some parts were nearly illegible. Darabin or Worsele Maxemoff was governor of the redoubt.

The Russian letter on which this was written bore the date of 5th February, Darabin redoubt, their time being twelve days later than ours.

Enclosure 10 in No. 10.

Mr. ADAMS to Commander MOORE.

Garishka, Russian Fishing Station, Norton Sound,
3d March 1851.

Sir,

I BEG to inform you that I arrived at this place yesterday on my way to Darabin.

One party consists of three Russians, a Tungoose, his son, a native of the Oomalartof village (who has been some years at Michaelowski) as interpreter, Thomas Cousins, A. B., and myself. We have four sledges and twenty-eight dogs, but we take on four from this, two other small sledges to carry fish.

We were three days reaching this place, the travelling being very bad, on account of the ice having broken up.

The thaw here is going on rapidly and the rivers are broken up, so that I am afraid we shall have some difficulty in reaching Darabin.

The information I have been able to obtain here appears to be more probable than that which I gained at Michaelowski. It is to the following effect :

Soon after Lieutenant Barnard's arrival at Darabin a Russian and two natives were sent to the Koukuk river to trade for skins, and they took a letter from Mr. Barnard to be forwarded to the Englishmen on the Ekko. These three men were murdered by the Indians.

On the morning of the 16th of February the governor of the redoubt (Maxemoff or Darabin) who was sleeping in the same room with Mr. Barnard and Boskey, hearing a noise outside, went to the door, immediately on opening it he was killed by a spear.

The Indians then rushed into the room, Mr. Barnard seized his gun, one barrel of which happened to be loaded with a cartridge, and wounded a man in the arm; he then struck with the butt, until the stock broke; he was severely wounded in the abdomen by a spear, but I cannot learn that he received any wounds from arrows.

Boskey was badly wounded in the abdomen by two arrows, in the hands by a spear being drawn through them in attempting to wrest it from an Indian, and in the arms by a knife. I can learn nothing of the other Indians, except that they killed one native.

The inhabitants of the two villages, Tollukok and Koltargar, were at Oomalartof at the time of attack, and all were killed, men, women, and children, to the number of about fifty. The six who escaped were sleeping in the bath house at the redoubt.

I cannot ascertain the number of the attacking party, only that there were "plenty" of them. Each man carried a shield of thick wood, which was musket proof, and after the first attack they appear to have planted them in a line so as to form a wall, from behind which they fired at the surviving inhabitants.

There appears to have been no motive for the attack, and so unexpected was it that they were sleeping with their doors unfastened.

I have seen some of the spears here, they are large, and appear to be of European manufacture; they are inlaid with brass and copper.

I have added to the enclosed tracing all the information I have been able to obtain relative to the situation and names of villages and rivers.

On the 5th of January last Mr. Barnard sent a native of this village to the "Plover" with despatches; he has not been heard of since, and the natives are all so much frightened that I cannot get another to go. I therefore leave these papers with the Russian in charge of this station, to be forwarded if possible.

We leave this to-morrow.

I have, &c.

Commander T. E. L. Moore,
H.M.S. "Plover," Grantley Harbour.

EDWARD ADAMS,
Assistant Surgeon, R.N.

Enclosure 11 in No. 10.

Mr. ADAMS to Lieutenant COOPER.

Sir,

Garishka, 2d March 1851.

I BEG to inform you that I arrived at this place yesterday on my way to Darabin. I intended to have started to-morrow, but am detained by the breaking up of the rivers, and I cannot get the Russians to proceed.

It appears that a party of Indians attacked the Darabin redoubt on the evening of the 15th February, killed the governor, and severely wounded Mr. Barnard and Boskey, who had accompanied him to that place as interpreter. From the nature of the wounds I am afraid they must be both dead before this.

The whole country is in a very disturbed state, and I should strongly recommend you to be on your guard when you meet with natives in any numbers.

From the state of the weather I think it is possible I may be here when you arrive, but under the circumstances I do not consider I should be warranted in staying here a day longer than I am obliged to.

3.

D d

Mr. Bouchier and Nakeevar arrived here about two o'clock to-day, both much fatigued, the former will be able to give you all the information relative to the unfortunate affair at Darabin.

Lieutenant Cooper, R.N.

I have, &c.
EDWARD ADAMS.

Sir,

Garishka, Norton Sound, 3d March 1851.

I HAVE the honour to inform you that I leave this place for Darabin early to-morrow. My return must of course depend upon the condition in which I find Lieutenant Barnard. In all probability I shall reach Michaelowski about the end of this month.

As it is extremely improbable that I shall be able to procure either a guide or interpreter to proceed with me to the "Plover," I beg to request that, if possible, you will remain at Michaelowski until my return, or at least leave one of your party acquainted with the natives and route between this place and Michaelowski. (Query, Grantley Harbour.)

I have left provisions, of which the enclosed is a list, in the hands of the governor of Michaelowski redoubt. Three large tins of pemmican were left by Mr. Barnard at Kik-e-tor-ok, a village two days journey from this, and one from Michaelowski. I have sent directions by a man, who leaves this place to-morrow, for these to be sent here for your use. Two of them, with flour and salt fish, which may be procured here, would probably suffice for your return.

Should you remain at Michaelowski, there will be sufficient provisions for your party, with flour, tea, and salt fish, which may be procured from the governor, and the pemmican could be left for our return.

The Russian in charge of the party proceeding to Darabin, has taken Nakeevar in spite of the protestations both of Mr. Bouchier and myself, telling me that as he was a servant of the Russian Company he had a right to demand his services.

I have, &c.

Lieutenant J. L. Cooper, R.N.

EDWARD ADAMS,
Assistant Surgeon, R.N.

Enclosure 12 in No. 10.

Mr. ADAMS to Commander MOORE.

Sir,

Garishka, Norton Sound, 3d March 1851.

I BEG to acknowledge the receipt of your letter of the 1st February, which in the absence of Lieutenant Barnard I opened.

Under the circumstances mentioned in the enclosed letters it will be impossible for me to return to the "Plover" at present. I have therefore requested Lieutenant Cooper either to remain at Michaelowski until my return, or at least to leave one of his party acquainted with the natives and route between this place and Grantley Harbour, as I think it very improbable that I shall be able to obtain either a guide or interpreter to proceed with me to that place.

My return to Michaelowski must of course depend upon the state in which I find Mr. Barnard. In all probability I shall return with the Russians about the end of this month.

Mr. Bouchier and Nakeevar arrived at this place yesterday, having left Lieutenant Cooper and his party five days since.

The man in charge of the Russian party proceeding to Darabin has taken Nakeevar in spite of the protestations both of Mr. Bouchier and myself, telling me that as he was a servant of the Russian Company he had a right to demand his services.

I have received no further information relative to the affair at Darabin.

I have, &c.

Commander T. E. L. Moore,
H.M.S. "Plover," Grantley Harbour.

EDWARD ADAMS,
Assistant Surgeon, R.N.

Sir,

Olúkok, 5th March 1851.

I BEG to inform you that we encamped at some distance from this village to-day. I learn that a boy has come from Darabin with the intelligence that Mr. Barnard and Boskey are both dead. I cannot learn when they died, but they say "many days" since.

I hear nothing of any second attack.

I shall continue my journey to make some inquiry into this melancholy affair.

I have, &c.

Commander T. E. L. Moore,
H.M.S. "Plover," Grantley Harbour.

EDWARD ADAMS,
Assistant Surgeon, R.N.

Enclosure 13 in No. 10.

Commander MOORE's Orders to Lieutenant COOPER.

BEING anxious to ascertain if any intelligence has been elicited from the northern natives by the authorities at Michaelowski redoubt in Norton Sound this winter,

You are hereby required and directed (accompanied by Mr. J. Bouchier, acting second master, two men, and the interpreter,) to proceed with all possible despatch to that place for the said purpose, taking to leave the fort in proper time to enable you to reach the "Plover" before the thawing of the rivers you will have to cross on your journey.

You will be provided with provisions to last thirty days for yourself and party, together with such presents as may be necessary to barter with the natives for dogs, food, &c.

In the event of your incurring any expense during your stay at the fort, you will also be provided with a blank bill of exchange, signed, which you will fill up with the amount necessary, taking care to keep a strict and clear account of sums paid by you on the part of Government.

Every observation relative to science that can be made during your absence I would strongly recommend to you when the weather and circumstances will permit, together with the trending of the river, which you will follow down to Norton Sound.

Should Lieutenant Barnard, or any party from Her Majesty's ship "Enterprize," be at the fort, you are desired to acquaint them that if it be part of their instructions to join the "Plover" it would be advisable for them to take advantage of your return to do so.

The interpreter, Taleshak Nakeevar, having made a request to be allowed to proceed to the southward when this ship leaves these regions, you are directed to make such arrangements as may be necessary to effect that purpose, assuring yourself before you leave that the Russian authorities have given their permission or otherwise.

Given under my hand on board the "Plover" in Grantley Harbour, Port Clarence,
1st of February 1851.

T. E. L. MOORE, Commander.

Lieut. Edward James Lloyd Cooper,
Her Majesty's Brig "Plover."

Enclosure 14 in No. 10.

Lieutenant COOPER to Commander MOORE.

Dear sir,

Gariska, 17th March 1851.

No doubt you will be surprised at not seeing me return with Mr. Bouchier, who I have sent back with all possible despatch to inform you of the death of Lieutenant Barnard, as also Bosky, from wounds received whilst at Darabin, the whole of the particulars of which I have forwarded as far as we can learn at this place as yet. Poor fellow! he must have died some days after the attack, as the Indian who brought me Mr. Adams's note said, "he had been dead some days;" how many we cannot find out; however we shall know all about it when Mr. Adams returns on the 26th of this month. The country (at least this part of it) is in a very disturbed state, and it is considered highly dangerous meeting natives in any numbers; so much so, that did I not consider it essential that you should know of Lieutenant Barnard's melancholy end, as also my own unfortunate business, I would detain Mr. Bouchier until we can all start together, which I hope may be about the second or third of next month. As you will gain all the information relative to the Michaelowski party from the several notes and letters enclosed, I shall confine myself to our proceedings since leaving the "Plover" on the 1st February. We travelled the three first days in company with Martin, who left us at Tia-to-a-lukh. On the morning of the 4th we started across country between two ranges of high land, and got to an uninhabited hut in the afternoon (Mat-nak). The following morning we again proceeded across country, and slept two nights on the snow, when we got to the source of the river E-cath-la-ik, down which we continued until we arrived in the large bay called Ta-chik on the 17th. Here we again slept on the snow. On the 18th we made the salt water, or more properly got on the sea coast, and on the 19th met Caimoke at a village called Ta-nich-tok, to whom I gave a note, as he told me he was shortly going to the ship. This village is within a couple of miles of the extreme west point of Ta-chik Bay. On the 20th we crossed the bay, and the same evening got to At-nuck, a good sized village, where we got plenty of fish and ptarmigan, &c., and dirt cheap. The following morning we again started, when our troubles increased tenfold; we certainly had very bad weather to contend against before we got off the land, but nothing to what we had here, and indeed almost the whole way on to Gariska; however, to continue, on the 24th of February, finding we made such little progress from the depth of the snow being so great, I despatched Mr. Bouchier on, accompanied by Maciver, giving them what provisions I could spare and they could carry. This night we again slept on the snow; on the 26th we arrived at Unq-cu-shen. 28th crossed the river that runs north, and on the 1st March arrived at Choc-too-luk, after another night on the snow. On the 3d, on my arriving at a hut called Top-ca-ma-sua, a note was put into my hands from Mr. Adams, dated Gariska, 2d March, containing a brief account of Mr. Barnard's being wounded, ("which you will find with the others") and of course the necessity of his getting to Darabin with all haste. Owing to the ice having gone off the beach I was necessitated to travel

over the land, so did not reach this until the evening of the 5th, when I found Mr. Adams had left for Darabin on the 3d, accompanied by a party of Russians. Mr. Bouchier had arrived the day before, and had given Mr. Adams your letter, who availed himself of the contents. On the 8th I received Mr. Adams's note of the 6th, announcing the death of Lieutenant Barnard and Bosky. On the 10th, having had some bread baked, as also taken a small quantity of biscuit that was left here by Lieutenant Barnard, I commenced the return to the ship, not deeming it prudent remaining until the 2d of April, the earliest period that Mr. Adams could be ready to start by, (having written to the above requesting him to use his utmost endeavours with the governor of Michaelowski to let Maciver return to your ship, more particularly now that the other interpreter is gone,) and got to Choc-too-tok on the 14th. It blew a heavy gale on that day from the north-west, piercingly cold, so much so that I got terribly frost-bitten, the particulars of which Mr. Bouchier will tell you. Brooker (private R. M.) is also much bitten about the face and ears; his right ear has an immense blister on it, with his cheeks, chin, and both nostrils badly wounded; for my part I have been in pain ever since, cannot walk, and am most anxious to see Mr. Adams. Not a native could I get from Choc-too-tok to assist me back, or I would have sent Mr. Bouchier on with Croker (A. B.). As it was blowing as hard on the 15th, and nearly as cold as yesterday, I put both sledges before the wind, and got to Tor-que-ma-sua the same evening; hired a sledge on the following morning, and came on over the sea ice the whole way, arriving before sunset at Gariska, Bouchier coming in about three hours after me. One great reason I had for bringing him back was, that he would have had to sleep in the snow the night after leaving Choc-too-tok, and the weather was a good deal too cold for any person to attempt such a thing, particularly after two of the party had been nipped the day before.

The morning after to-morrow I shall have a good stock of bread ready, when Mr. Bouchier with Croker, a light sledge, and seven out of ten dogs will start, and I trust reach the "Plover" in twenty days by going a slightly different road to that which we came; beside, the travelling must be better now, and he is by no means slow on the road. Brooker's face is still so bad that he cannot bear even the open air for any time, so I judge it prudent to keep him here with me.

My expenses here have been small, although what we have had they have charged most immoderately for; viz.

			£	s.	d.
10 pounds of Russian tobacco	-	-	3	8	0 12 6
10 pounds of flour	-	-	2	8	0 8 4
Bread	-	-	4	8	0 16 8
Tea	-	-	2	8	0 8 4
			11	8	or 2 5 10

for which amount I filled up the bills you gave me; it is so trifling that should I be well enough when Mr. Adams returns I will try and get them again, and transfer the debt, as well as what I incur hereafter, to his account at Michaelowski.

Your parcel I desired Mr. Adams to bring on, as also the seeds, but will now take them myself should I be well enough to proceed to Michaelowski. I will also endeavour to get Merciver, although I believe the villain had no idea of coming when he left the "Plover" with me, for he brought every rag he had to his name with him, and he has been heard to say that he was a Russian, no English, that he did not like dragging our sledges about, that he had no one to talk to on board the "Plover," and that the Russian Government would pay him the residue of his pay if we did not.

Mary's father and mother have got the bag of clothes she sent, her brother is away up the country, I believe after deer.

I have questioned Gregoria regarding the party supposed to have been murdered to the northward, which he fully confirms, and as far as Mr. Bouchier and Bean make out it appears that they were attacked and murdered by the Co-u-kuk Indians; further than that he has not heard, except that it occurred in the middle of 1849. This was told to a man now in this house whilst up the Coē-park last year, and by one of the Co-u-kuk Indians. When Maciver returns perhaps I may learn more.

18th March, 8 P.M. I have deferred closing this until I had everything ready for Mr. Bouchier's departure, which will be early in the morning, and would to God, sir, I was going with him. I am sick and tired of this miserable dirty den, and shall be lonely indeed when he is gone; however in eight days Mr. Adams will be back, when I hope to be nearly well. I shall put myself entirely in his hands; if he considers me unfit to travel I hope you will send a boat, the launch if you can spare her, as she draws little water, and can come into this river with safety. Gregoria tells us it is bad travelling in April. However make the attempt I will, even should Mr. Adams be detained longer than he expects at Darabin. Should we not be back by the 10th of May, you may be sure that we have not succeeded. Of course I shall write by any opportunity that may occur, but at this place and indeed on the Choc-too-tok. I could not get a native to carry you a letter were I to offer them all the presents and tobacco in the "Plover," otherwise I would have written immediately on my arrival at this place. I forgot to mention that I considered it waste of time proceeding on to Michaelowski, all the party having left that place.

I am sorry to say I cannot get you a glutton's skin under seven dollars, which is a sum I do not think you would like to give for it, I am sure I would not for myself.

Mr. Adams will bring Lieutenant Barnard's traps as far as this place, but, poor fellow, I fear it will be impossible to carry them further, as I hear they are too heavy for sledge work, that is to say, to carry any distance.

I shall conclude now with best wishes to the doctor, Lindsay, and Martin, believing me, sir,

Yours, &c.

EDWARD JAMES LLOYD COOPER.

My pen and ink are execrable; paper is very scarce.

Commander Moore,
H.M. brig "Plover."

10th March.

WE had some bad news last evening, which was, that these infernal Co-u-kuk Indians were advancing southward. Gregoria is in a deuce of a stew about it, and has written off to Michaelowski for more hands. I do not now deem it prudent leaving Bouchier behind, my party being so small. But Bosky having been killed, it becomes necessary that Maciver should return to the ship, and I hope you will use your utmost endeavours to that effect with the governor. Maciver knows the road well, as well as the language, so you will act according to circumstances. If the country is quiet and not too late in the season, I would advise your prompt return; if on the contrary, and we should not see you by the 1st of June, I will ask Commander Moore to send a boat to pick you up at Michaelowski.

If possible, come on, as this is a nasty coast for boat work.

Yours very truly,

E. J. L. COOPER.

Edward Adams, Esq.

Enclosure 15 in No. 10.

Journal of a journey from Gariska, Russian fishing station, Norton Sound, to H.M.S. Plover, in Grantley Harbour, Port Clarence, performed by Mr. Thomas Bouchier, Acting Second Master.

Wednesday, 19th March 1851.—Lieutenant Cooper having directed me to return to the ship with all possible expedition, taking with me the papers relative to Lieutenant Barnard's misfortune for the information of Captain Moore, I left Lieutenant Cooper this morning, taking with me George Crocker, seaman, with a sledge and seven dogs. Our provisions, consisting chiefly of a case of pemican, a few loaves of Russian bread, and some tea and sugar. We were able to travel with considerable speed, although the day was anything but fine. In the afternoon, in attempting to round the first point of high land, we found the ice exceedingly difficult, being formed of large angular blocks cemented together with smooth ice, and had the misfortune to break our sledge, one of the runners coming completely off. It was necessary to return to the low land to repair the sledge, which was not effected until darkness set in; we then had supper and passed the night in the sledge.

Thursday, 20th.—Morning fine, clear and cold, preferring rather to pass over the high land than again risk the sledge on the smooth ice, passed over a hill which I should guess to be not less than 600 feet high, and arrived about noon at a fishing village, (E'-a-wik). As I felt very unwell on my arrival here, I determined to remain for the night, hoping to accomplish a long day's journey on the morrow.

Friday, 21st.—Weather fine and clear, light northerly breeze, started at sunrise, proceeding close round a steep cliff over rough hummocks and patches of level ice which frequently cracked under the weight of the sledge; this sort of travelling extended about five miles, after which the ice was again smooth and secure. We arrived at Tor-qua-me-su-a too late to go forward to Chuk-to-a-luk as I had intended, but I had the satisfaction of knowing that I had to-day performed a most difficult and dangerous part of my journey.

Saturday, 22d.—Morning fine, started at our usual time, sunrise, and proceeded rapidly to Chuk-to-a-luk. Finding the sledge heavy from the defect in the fastening of the runner, I endeavoured to exchange it for a better, but without success; indeed I found the natives here too anxious in their inquiries about the late attack on the Russian post at Darabin to give attention to my wants; they seemed, however, somewhat satisfied with my assurance that the Indians had returned to their own country.

Sunday, 23d.—Day fine, having engaged a native to guide me by the shortest route to Ung-cush-on, I was enabled to perform in one day a journey that had previously occupied three, arriving about three hours after dark, rather wearied.

Monday, 24th.—The morning was occupied in efforts to obtain a little sledge, and I was at length fortunate enough to obtain a stout one, smaller and lighter, in exchange, giving of course some tobacco to boot; having also bought two ptarmigan and a quantity of salmon for the dogs, we left Ung-cush-on at noon. Finding the snow very deep, our progress was but slow, and we were obliged to pass the night in a deserted hut.

Tuesday, 25th.—A fine morning; started direct for a large native village called At-nuk, with the expectation of arriving there before dark, but about noon the snow became so deep as to almost totally arrest our progress. To add to our distress, the strong sunshine and glare from the snow painfully affected our eyes; we however continued our course until darkness set in, when we unpacked the sledge to make our bed.

Wednesday, 26th.—Starting at daylight we made At-nuk three hours after sunrise, where, we were obliged to stop on account of our eyes. The day was warm enough to allow our wet moccasins to dry in the sunshine. Open water in the bay with small floes of hummocky ice floating about. I procured abundance of small fish for the dogs at this place, likewise a sort of cray fish which proved very good eating for ourselves, and a pleasing variety after six days ration of pemmican. In the evening I engaged a guide to conduct me to the village of E-cath-la-wik, three days journey from hence.

Thursday, 27th.—Started a little before 8 A.M. In order to cut off a long point of land, I had to get the assistance of a number of natives to drag the sledge up a steep hill, which was a labour of three hours, whilst the steep descent to the sea ice on the opposite side was so rapid that it seemed to occupy scarcely more than a quarter of an hour. During this part of the day's journey the wind was high, with heavy snow drift, but during the remainder on the level ice at the foot of the cliff it was a perfect calm, with serene sky. At five in the evening we had arrived at a village called Shing-ick, myself and the man Crocker both suffering severely in our eyes from the morning's drift. Meeting at this place an old acquaintance of last year, with his wife and child, who were going my way to a considerably greater distance than the guide I had engaged, I allowed the latter to return to his hut, employing my fellow traveller as a guide in his place.

Friday, 28th.—Much to the relief of our eyes the morning was dull and gloomy. At sunrise we set out, crossing the bay called Tat-chik, direct for the river E-cath-la-wik, gained its mouth at 3 P.M., then proceeding up three short reaches stopped for the night at a hut named Natch-wik.

Saturday, 29th.—A very unfavourable day from a strong wind with a heavy fall of snow and drift. Being anxious to get on we started as usual, and by taking advantage of the short cuts with which the guide seemed well acquainted reached the village of E-cath-la-wik about noon, where we remained for the night.

Sunday, 30th.—Started at sunrise, though the weather had not improved since yesterday. Avoiding the bed of the river called Nu-kluk our way lay over the land where the snow was in many places so soft and deep as to require the united assistance of the whole party to drag the sledge through it. To have kept in or near the bed of the river would have been much worse on account of the increased depth of snow which usually falls under shelter of the pine trees with which the streams are here generally bordered. About two hours before dark we arrived at Kig-lu-ni-ar-puk, a solitary deserted hut, where we put up for the night.

Monday, 31st.—A strong gale at E.S.E. (mag.), with heavy drift and falls of sleaty snow, prevented the possibility of travelling.

Tuesday, 1st April.—There has been no improvement in the weather to-day, and we have had reason to rejoice in the shelter the hut afforded. Our native friend has been very useful to us in procuring firewood.

Wednesday, 2d.—We gladly availed ourselves of some improvement in the weather to proceed to T-a-shag-a-ruk, a hut about fourteen miles distant, and had not got quite half way before the gale recommenced from the same point; fortunately the wind was on our backs, and the guide had no difficulty in finding the hut.

Thursday, 3d.—The same weather continued, but having become somewhat used to it, I determined to set out for Cox-o-to-pa-ga, a distance of about six miles. On our way we spoke to a native who was setting snares for ptarmigan, and soon after arrived at our destination, where there was a party of natives occupying the two huts. The want of sleeping room was in some degree compensated by the abundance of ptarmigan we procured; these birds are very numerous among the brushwood (a sort of birch, I think,) around this place, and the present party seem to subsist entirely upon them and a little oil.

Friday, 4th.—I parted with our guide this morning, giving an axe for his trouble, with which he appeared well satisfied, and sent him back with a note to Mr. Cooper, for whom he promised to wait at Shing-cik, the place from whence he had accompanied me. This was the first fine day we had had for a long time, and taking advantage of it, at sunrise started with a fresh guide for a village called Muk-nuk, but finding my new companion of little assistance I gave him his tobacco and allowed him to return, and trusting to my own recollection of the country pushed on for Tik-to-a-luk. Darkness coming on before reaching that place, we passed the night in the sledge, though within a quarter of a mile of the hut. The reason for this was, the impossibility of making our way through the intervening brushwood in the dark. Such is the effect of the weather on this sort of travelling, that to-day we performed a distance that had before taken up four days. We passed numerous herds of reindeer to-day, the first we have seen since leaving Gariska.

Saturday, 5th.—The night was clear and fine, as was also the morning. Started with the dawn, and came to the village of Ko-ve-e-ruk, near the large lake, and one long day's journey from the ship, at 11 A.M. Having frequent occasion to cross the river in cutting off it

windings, we had some trouble in consequence of each side of the stream being overflowed by the salt water forced up by the recent high tides to a depth of twelve or fourteen inches.

Sunday, 5th.—About half an hour after sunrise we left Cov-e-a-ruk for the ship, feeling thoroughly refreshed by a long sleep. The weather was exceedingly favourable for travelling, and we had crossed the large lake, and entered the gorge leading from it to Grantley Harbour at 1 A.M. Throughout the gorge the ice was completely gone from mid channel, and parties of natives were numerous on both sides, attracted by the abundance of fish which they were employed in catching. These people were very eager in their inquiries for Mr. Cooper and the rest of our party, and I was forcibly impressed with the idea that they had heard some rumour of the attack upon Darabin, and were in doubt whether Mr. Cooper might not have been the victim instead of Lieutenant Barnard, of whom they could know but little. As soon as I could satisfy their curiosity I engaged a native to conduct me clear of the dangerous patches of ice, and arrived on board at 5 P.M.

THOMAS BOURCHIER,
Acting Second Master.

Enclosure 16 in No. 10.

Orders to Commander MOORE.

“Memo.”

You will proceed to Michaelowski, and there obtain any stores that the Governor General of Russian America has forwarded for your use by the annual vessel which visits that port. It is also probable that a detachment of Aleutian Islanders will be brought up by the same vessel to co-operate in the objects of the expedition. These you will embark to reinforce your crew, and then return here, where having taken, if it is in your power by the reinforcement you have received, every precaution for the custody of the stores left behind, you are to use your discretion in proceeding to the north, and obtain any information from the natives which your knowledge of the language will enable you to do, so as to afford their Lordships the latest report of the progress of the search in this direction. Having accomplished this object, you will return to this port, and in the event of none of Her Majesty's ships arriving, from whom you will receive such a change in your crew as will enable you to winter here without risking the health of those afflicted with the scurvy last season, you are to proceed to Hong Kong.

Should the assistance which you receive from the Russian authorities not be sufficient safely to guard the deposit of stores at this place, they and the “Owen” are to be removed to Michaelowski, making a cache here of such articles as are most likely to prove useful to parties that may fall back on this port, and enable them to reach that place with greater facility.

You will take every opportunity of communicating with the Secretary of the Admiralty and the Commander-in-chief in the Pacific.

Given under my hand on board Her Majesty's Ship “Enterprize” in Port Clarence, this 9th day of July 1851.

RD. COLLINSON, Captain.

Commander Moore, H.M.S. “Plover.”

No. 11.

Mr. BEATSON to the SECRETARY OF THE ADMIRALTY.

36, Moorgate Street, London,
6th February 1852.

Sir,

I BEG most respectfully to forward to you the enclosed particulars of an expedition which I am fitting out to search for Sir John Franklin to the north and east of Behring's Straits, and with which I leave England about the end of this month.

I have, &c.

DONALD BEATSON.

Enclosure in No. 11.

LETTER from Mr. BEATSON to Sir RODERICK MURCHISON, the President of the Royal Geographical Society.

Sir,

36, Moorgate Street, 12th Jan. 1852.

THE subject of search for Sir John Franklin having been so frequently discussed by the members of this scientific society, and others well acquainted with the navigation of the Polar regions, I think it would be presumptuous in me to attempt an explanation of my reasons for commencing the search from the north-west of Behring's Straits. I believe that many

are of opinion that a high northern latitude may be reached through the open water seen by Wrangel, and that subsequently an eastern passage may be forced by a screw steamer. I may, however, be permitted to mention that this is no hasty idea of mine, but one which I have had in contemplation for above two years. On my arrival from Africa at the close of 1849, after the return of Sir James Ross, I began to think seriously of the probable causes of Sir John Franklin's detention; and while in Russia last winter, in speaking upon the subject with some officers of the imperial navy who had been in the Arctic seas, I found that their opinions were exactly the same as mine; namely, that Sir John would pass to the northward of Parry Islands and never think of returning back till in the meridian of Behring's Straits. They were also of opinion that when he arrived thus far, he would be prevented from getting to the southward by a chain of islands extending far to the westward, a continuation, in fact, of the Parry Islands. Supposing, now, Franklin to have succeeded in getting so far to the westward, and being stopped there, it cannot be imagined that he would relinquish the attempt to get through this last barrier to all his hopes, and the realization of the passage into the Pacific,—to retrace his steps from a point which may have taken four years to reach. What would a brave man do in such a case? Certainly not to retreat in two or even three years, particularly if, as we hope, they have met with sufficient animal food to support them. I believe Sir John Franklin to be somewhere to the north of Behring's Straits, and certainly not far to the eastward; and in that belief I wrote to Lady Franklin in October last, stating my plan and soliciting her assistance, which, I am happy to say, was immediately given. I have since then exerted myself in selecting a suitable vessel, which I have purchased, and which is now in dock undergoing the necessary alterations. She is a schooner of nearly 200 tons, but capable of carrying a much larger quantity. I intend fitting her with three separate engines of eight horse power each, with separate boilers, by which arrangement I can effect an immense saving of fuel by only working one or more engine as circumstances may require. In addition to this, I take a steam launch with an engine of five horse power. My crew will consist of only fifteen men and myself. I shall, by a careful selection of provisions, be enabled to take enough for five years. The whole of these arrangements I expect to have completed, and be able to leave England by the end of next month, and to proceed direct to the Sandwich Islands, whence, having filled up with coal, &c., to push on for the Straits, which I hope to be able to enter by the middle or latter end of July. When there, of course I must be guided by the condition of the ice. If there is a possibility of getting to the north, on or about the meridian of the Straits, I shall do so; otherwise, I intend pushing my way to the north-west till I arrive at the open water seen by Wrangel, when perhaps I may be able to get to the north and then to the east. Should I not succeed in getting so far along the coast this year, I might employ the spring (before the breaking up of the ice) in an attempt to reach that land seen by Captain Kellett from Herald Island, and thus be enabled to perform one part of the scheme proposed by Lieutenant Pim. I would next in the spring push away to the north and east, in which direction I believe I shall eventually find some traces of our missing ships. I consider it would have been desirable (and in fact, it was my first intention,) to have had another smaller screw steamer as a tender, and of far greater power. I am sorry to say that I am not able to accomplish this, but am, nevertheless, determined to go in the best way I can.

I have, &c.

DONALD BEATSON.

Sir R. Murchison,
President of the Royal Geographical Society.
