but had not gone far above Cape Lupton before we came to the pack ice. We ran down its face until opposite Lady Franklin Bay, but could not find an opening. We returned, and, at meridian on the 27th, fastened again to the iceberg. At noon of the 28th two men from Mr. Chester's boat's crew arrived at the vessel, having walked from their camp at the mouth of Newman Bay. A note from Chester informed me both crews were at Newman Bay unable to proceed further on account of the ice. From the report of the men I thought it possible that I might reach the bay with the vessel. We started at one P. M. and reached the edge of the pack just south of Cape Brevoort, but were unable to proceed further. From the appearance of the ice to the north I judged that little or

NOTHING COULD BE DONE THAT SEASON BY BOATS.

If an opening in the ice was made I was ready with the vessel to push through it. With the whole crew on board the vessel could be kept free with the large deck pumps, and much fuel thereby saved. This was a matter of importance, as our small stock of coal was being diminished rapidly, and we knew not what demands would yet be made upon it. I therefore decided upon recalling the crews. On the morning of the 29th the native, Hans, was landed above Cape Lupton with a note, advising Mr. Chester to come on board with the boats; that we could get north with the ship as well as the boats could, provided the ice opened, and would by that means avoid a separation, which at that time was liable to happen at any moment. We returned with the vessel to our old harbor and succeeded in getting one of our anchors. On the 1st of July I had the grave of Captain Hall put in a better condition than when the body was deposited in it. A head board was placed at the grave. A copper cylinder containing the report of our commander's death was placed underneath it. An inscription on the board is as follows:—

TO THE MEMORY OF C. F. HALL,
late Commander of the North Polar Expedition.
Died November 8, 1871.
Aged 50 years.

Dr. Bessel and Hans came on board, bringing a note from Mr. Chester containing the following:—"S. C. Buddington—Hans arrived here at two A M. to-day. Received note. It may possibly be some little time before we can get down. I wish you would send me one of my boat's crew back. H. C. Chester." As I concluded to get the boat's crew on board and get north with the vessel, if possible, at nine P. M., I ordered steam to be got up, and started at midnight, in order to land Mr. Chester's two men and to communicate with the boats, but being unable to do so with the vessel, I landed the two men a little above Cape Lupton. I sent a letter to Mr. Chester and the provisions he required. I then returned with the vessel to Thank God Harbor.

ALL HANDS WERE KEPT AT THE PUMPS,

and we could have kept her free of water had we only had a relief, and therefore this made me all the more anxious to have the boats' crews back. On the 4th we returned to an old mooring, spending all that day in hauling the vessel now fore and then aft to get clear of the ice. At half-past nine P. M. an iceberg floated and bore down on us. It was impossible to get out of its way; the wind would have brought it down on our quarter, but the current, having more effect, brought it down on our port forechains. We

THOUGHT IT WAS ALL OVER WITH THE POLARIS,

but as we were waiting for the crash, just when it almost grazed the vessel's side it suddenly stopped, spun round, as if on a pivot, and went clear. It appeared, however, that the tongue of the berg came in contact underneath the vessel with the spur of the berg our bows rested on. By that means the current swept it clear of the vessel. On this occasion the tongue of the berg that caused the injury to our stern was the means of saving the vessel from immediate destruction. I next, on the 5th, hauled her in shore and anchored in thirteen feet at low water. On the 8th Mr. Tyson and crew arrived. On the 17th Mr. Meyer and two of Mr. Chester's men returned overland from Cape Brevoort. On the 20th the vessel was again driven on shore. Chester now returned, reporting that they had secured their boat about one mile and a half from Cape Sumner, on the south side of Newman's Bay, and they reported that it was hopeless to think of going north for the present. I resolved now

TO RETURN TO THE UNITED STATES.

The season for sledge journeys had passed, and no opening in the ice was now likely to occur. The vessel, too, was leaky. Hesitation was unnecessary, and at five P. M. on the 31st we started from Polaris Bay for the United States. We drifted through the ice till, on the 29th, we were locked fast in the ice. Up to the 16th September we drifted with the pack. We were still leaking fast, but the donkey engine enabled us to keep the water under. I

RIGGED OUT A HOUSE ON THE FLOE,

calculated to hold all our hands, thirty-three in number. It was 27 by 24 feet, and was covered with canvas. On the 9th October I had bags of bread placed in it.

WE WERE STILL DRIFTING SOUTH,

our position being 78 deg. 45 min. north, 72 deg. 15 min. west. On the 15th the wind blew with a velocity of forty miles, accompanied by a violent snow storm. I had another hawser passed out to the old massive floe which had brought us down from latitude 80, and which was our only safety. At 7:30 we had a severe nip, from a heavy old floe which pressed heavily on our starboard side, raising the vessel a few feet and keeling her over to port. It was then reported to me that we were

MAKING WATER FAST

and were stove aft. Our engines could no longer cope with the water.

The two native Esquimaux had their wives, children and effects on the floe, it seeming to them, as it did indeed to all of us, the safest place. Our remaining two whale boats—all we had—were lowered on the ice and hauled back to a secure place alongside of the provisions. Sufficient provisions and fuel to last all winter were put on the ice, together with musk ox skins, bedding and all the clothing except what was on our bodies. At half-past nine the floe suddenly broke; that part to which the vessel was made fast breaking away from the main body.

THE BOW HAWSER SNAPPED LIKE PACKTHREAD,

the anchors slipped and the violence of the wind sent the vessel adrift as rapidly as if she had been under steam. At a moment's notice we were thus separated from more than half the ship's company.

We were now in a critical condition, without boats, anchors or hawsers; but there was no time for reflection, as the water was gaining fast, and would soon reach the furnace fires, in spite of the bilge pump, which was all this time at work, assisted by the alley-way pump, and if we could not start the deck pumps it was evident that the vessel would go down. The ice around us was fine broken "rush," which would not bear the weight of a man. By this time the water in the boiler was hot, and, by pouring several bucketfuls down the pumps, we thawed them sufficiently so as to enable us to keep the water from gaining, and never did men use their strength with more energy than we did on that occasion. It was evident

WE COULD NOT LAST LONG AT THE WORK,

but fortunately just then the engineers reported steam up, by which additional aid we were enabled to keep her afloat. On the morning of the 16th we found our position a few miles north of Littleton Island, in Smith's Straits. We had drifted abreast of Sunderland Island, at the head of Baffin's Bay, during the night. The gale had then subsided, and it was shortly afterwards quite calm. We looked from the masthead of our vessel for our companions on the floe, but could not see anything of them whatever. The current must have taken them in a different direction from the course the wind took us. About noon a breeze sprung up from the north, and, opening a lead in-shore to the east, the vessel at this time began drifting out of the Straits again. By the aid of steam and sail I took advantage of the lead when opened wide enough to admit me, and ran the vessel as near shore as the ice would admit, and made fast with lines to heavy grounded hummocks. Here we were

AGROUND AT LOW WATER,

there being nine feet rise of tide at this place, which happened to be Kane's Lifeboat Cove, latitude 78 deg. 23½ min. N., longitude 73 deg. 21 min. W. We kept an anxious lookout all the time from the masthead of our vessel for signs of the party; but the sharpest eyes on shipboard failed to see aught of them. As, however, they had the boats, even to the little scow, we were in hopes they would possibly be able yet to make for us. On the 17th I surveyed the ship and found the stem entirely broken off below the six-foot mark. I called the officer's attention to it, who only wondered she had kept afloat so long. I therefore

CONSIDERED THE POLARIS A LOST VESSEL

and immediately made preparations for leaving her and living on shore during the winter, getting our spare sails, coals and provisions on shore. We were assisted in this by the Etah Esquimaux, who came to us the day after we got ashore. When these Esquimaux hove in sight, gesticulating and hollooing with great apparent glee, we took them to be our castaways, and immediately cheered most heartily in return. We put up a house on shore, which was superintended by Mr. Chester, those not engaged in building it being occupied getting provisions and fuel, which they did with a great deal of difficulty, as they had to leap from one detached piece of ice to another all the way to the shore. Often some of the party would tumble through fissures and get wet, which was a great inconvenience, considering the insufficient supply our wardrobe furnished for change. On the morning of the 21st we had

A NUMBER OF ESQUIMAU VISITORS.

They came in five sledges, and kindly went to work to assist us, proving of excellent service. In a short time we had all the portable articles from the ship on shore. I made them such presents as our scanty stock would permit—mainly needles (harpoons)—with which they expressed themselves well pleased. It was fortunate that, among other articles put on the floe, were a number of those indispensable articles to an Esquimaux—a quantity of knives. On the 24th they left us for Etah, we having completed our work for abandoning the vessel. At six P. M. we stopped the steam pumps to let her fill, and bid farewell to the little Polaris which had penetrated

THROUGH DANGERS AND HARD KNOCKS

to a high latitude, but which was destined not to return with the honors she had gained. During the remainder of the month we were visited by natives—men, women and children.

DR. HAYES' LIFEBOAT.

I sent a party to McGarry's Island in search of Dr. Hayes' boat and provisions, but could discover no sign of her. I was afterwards informed by the natives that a party from the West land found her five years ago and appropriated to their own use what was serviceable to them; the boat they discovered to be worthless and full of holes. At high water the lower decks of the Polaris were covered, the water rising to within three feet of the upper deck, the vessel being firm on the rocks. I was in hopes she would remain in that position, as we had to get fuel from her and material for making our boats for our summer journey south.

PASSING THE WINTER.

We spent the winter months of November, December and January in household duties—getting ice for melting purposes, supplying galley and house stoves with coal and keeping passage ways to and from the house free from snow. A great many foxes were shot. We were visited continually by the natives, who were suffering a great deal from cold and hunger. Several of the families made their residence with us for the most of the winter, building snow huts for themselves, where they slept. We supplied them with a share of the provisions we had, but still they had to kill a great many of their dogs in order to give their children fresh meat. Two families in particular reduced their team of dogs to one and another family to two. Some of our people had

SLIGHT ATTACKS OF SCURVY,

principally in the gums, but in general the health of our party remained good. The month of February brought us daylight. On the 15th the sun was seen for the first time since its disappearance on the 16th November. We had now to consume the bowsprit, masts and rigging for fuel, these fortunately having been landed. The only material for building boats was the ceiling of the alleyways and after-cabin—the house on deck being used as fuel. The following months were occupied in

BUILDING BOATS FOR OUR JOURNEY.

Shooting parties went out occasionally, but, with the exception of a few hares, generally returned unsuccessful. There was one deer killed during the season, but a great many were seen. Although the natives had left us some time for their respective settlements and hunting grounds, they still, however, continued to visit us, and, as if to remind us of our former kindness to them, which they appeared to have appreciated, kept bringing to us quantities of

WALRUS LIVER,

which made a great improvement in the health of our party. I had suitable bags made out of the foresail, and filled them with provisions for our journey. I also built a small boat out of some square lumber for the Etah natives, which will be a great acquisition to them in sealing and getting eggs from the islands. By the 28th May all our preparations were made. I must compliment Mr. Chester, who superintended the building of these boats. They are creditable scows—far better structures than I thought could have been made out of the material we had. They are flat-bottomed and carry considerable weight. The open water was by this time close up to our house. Our provisions and what limited clothing we were to take with us were brought down to the water's edge to be in readiness for embarkation. There still remained with us two native families, and during the winter and spring we were visited by nearly all the natives from Etah to Cape York.

ESQUIMAU LIFE AND DEATH.

There were during this time three deaths and one birth among the natives. One of the former was Myonk, who was one of the first to visit us after our vessel got on shore. I had intended starting on the 1st of June, but that day being Sunday I postponed our departure until the following day. It was then blowing a gale of wind and we could not start with safety.

THE INSTRUMENTS.

In the meantime we deposited several boxes containing books, scientific instruments, three-box chronometers and the pendulum, on the north side of Lifeboat Cove, and covered them with rocks. At 1 A. M., on June 3, I called all hands, got a hasty breakfast, and left our house for the last time, dividing our party into two equal parts.

WE LAUNCHED OUR BOATS,

two in number, placed our provisions and clothing in them, and left Polaris Point and the scenes of our long winter stay for Melville Bay and Upernavik. Having made a halt at the settlement of Etah-wy-fancy, which we found deserted, we reached Hackenyo Island late on the evening of the 4th, meeting with but little obstruction from ice. A gale of wind and pack ice prevented us leaving until the 8th. We then landed on Northumberland Island (west side). The ice impeded our further progress. At eight P. M. on the 10th, having previously made three unsuccessful attempts to get forward, we entered a lead that extended across the whole sound toward Cape Parry, our intended route. We were met by a heavy body of pack ice which completely closed us in. We were compelled hastily to haul our loaded boats on the ice to keep them from being crushed. We drifted with the pack all that night, and the morning of the 11th found us abreast of our former encampment. We were then about four miles from the shore.

There was a small lead of water along the land. We had to go to it or go adrift in the pack. We commenced at once to transport our provisions and boats over the pieces of floe. After a great deal of exertion and labor we finally succeeded in getting a landing, at 2:30, on the morning of the 11th, in the same place we left the evening before. On the 12th there was a good opening in the ice. We started at 10:30, and with a good breeze we reached the mainland. We pulled round Cape Parry, and halted on Blackwood Point south of Cape Parry and near Fitzclarence Rock. On the evening of the next day we

LANDED AT DALRYMPLE ISLAND.

From this point we met with various obstructions from ice and bad weather. We finally succeeded in getting past Wolstenholm Island, Cormide Rock and Cape York. We afterwards entered Melville Bay, meeting with various obstructions from ice, which in some places we had to haul our boats and effects over from the one lead to the other.

SHIP AHOY!

We were thus proceeding on our journey south until the morning of the 23rd. We saw a steamship beset about ten miles south. As to us we were then about twenty-five miles southeast of Cape York, and hauled up on the ice. The passage was completely blocked with ice. A few hours previous to this my boat got stove, having been caught between the floe and land ice; but we had it repaired with canvas and tacks brought for the purpose. At this time our fuel was very scarce, not having more than would last a week. For some time we had but

ONE HOT MEAL IN TWENTY-FOUR HOURS,

reserving our fuel for melting snow for drinking water, as we were unable to procure any off the floe. I sent two of our party to the vessel to let them know of our situation. Before reaching the vessel, however, they were met by a party of eighteen men from the ship—these latter having recognized a party on the floe—who had come to render what assistance was in their power to what they supposed was the crew of a shipwrecked whaleship. With the exception of two of the party, who went back to their vessel with an account of us, the rest came back to the boats with the men whom I had sent. I made immediate preparations to get on board the steamer, the men from this vessel kindly assisting us with our personal effects. We started at seven P. M., leaving our boats, provisions, &c., behind, and arrived at twelve meridian on board

THE WHALING SHIP RAVENSCRAIG,

Kirkcaldy, Scotland, William Allen, master, bound for the West Coast on a whaling voyage.

I cannot express myself in terms sufficiently adequate of the kind reception we got from Captain Allen, who immediately opened his own wardrobe for our benefit. The surgeon of the ship, Mr. A. D. Soutter, was most assiduous in his efforts to promote our comfort—indeed, all the officers and crew vied with each other in their efforts to make us comfortable.

SAVED ONLY IN TIME

We had at the time we were rescued only just commenced the difficult part of our journey, and had yet to make some 300 miles of hard travel before we could get to a place of comparative safety. Captain Allen expressed his gratification in failing in with us, as he and his officers expressed their undoubted conviction that it would have been utterly impossible for us to reach the settlements in our boats, especially if we had in store for us anything like the ice which the Ravenscraig encountered the previous three weeks. It was very evident that our boats would not have stood hauling over the ice, and to have abandoned them and attempted to make the journey on foot was simply not to be entertained a single moment. It was, therefore, lucky that the Ravenscraig fell in with us. As I may say with safety, it was the saving of our lives. We were surprised and greatly rejoiced to hear of the safety of our fellow-explorers who had got adrift from us.

Statement by Captain Allan, of the Ravenscraig.

The following is a statement of Captain Allan, of the Ravenscraig, who picked up the remainder of the crew of the Polaris in Melville Bay:—

We entered Melville Bay—no other ships in company—on the 8th of June, and proceeded north under steam, with occasional stoppages, until the 15th, when a very violent gale from the southwest broke up the land ice, completely blocking the passage in every direction and rendering navigation slow and uncertain. Very little progress could, therefore, be made, as the winds continued to prevail from the southwest. At length, after great difficulty, the ship reached latitude 75 deg. 38 min. north, longitude 65 deg. 35 min. west Cape York being plainly visible, bearing northwest (true) about twenty-five miles distant. Here a complete stop was come to, and our vessel was in imminent danger from the heavy floes which surrounded her. At one o'clock A. M., on the morning of the 23d of June,

THE LOOKOUT FROM THE CROW'S NEST

reported that a party, supposed to be Esquimaux, were making their way over the pack ice towards the vessel. At this time they were a long way distant, probably thirteen or fourteen miles, and appeared to move very slowly. By nine A. M. the strangers had advanced a mile or two nearer, and came to a halt. We could then just make out that

THEY WERE NOT ESQUIMAUX,

and could distinguish two boats, each of which displayed a small flag on a pole. Owing to the distance and refraction it was almost impossible to make this out with certainty. Concluding they had seen us our ensign was at once hoisted as a reply signal, and we sent off eighteen picked men to render any assistance required, while the strangers were observed to detach two of their number in the direction of the vessel. When these met our party the whole proceeded onward to the boats and a messenger was sent back to inform us of the news. At six P. M. the entire party started for the vessel, and some idea of the difficulty of travelling over such ice may be formed from the fact that it was twelve midnight before they got on board, taking nearly seven hours to perform twelve miles distance. This arose from the soft and slushy state of the deep snow covering the ice, while myriads of huge hummocks were piled everywhere over the surface, which was also split up and full of treacherous holes, into which many a flounder took place. The party on reaching the ship were

MADE HEARTILY WELCOME,

and as comfortable as the means at our command could supply. They appeared tired and weather-beaten, but in good spirits and thankful at having fallen in with a "Scotch whaler," for which vessels they were on the lookout, knowing, as the commander did (himself once in the trade), that the whalers about this time passed through Melville Bay. The following were received on board:—

S. O. Buddington, in command of the party; sailing and ice master of the party.
H. C. Chester, first mate.
W. Morton, second mate.
Dr. Emil Bessels medical officer and chief of the scientific corps.
R. W. N. Bryan, astronomer.
Emil Schumann, first engineer.
A. A. Odell, second engineer.
N. Coffin, carpenter.
J. W. Booth, fireman.
W. Campbell, fireman.
H. Siemons, seaman.
H. Hobby, seaman.
J. B. Mauch, seaman.
N. Hayes, seaman.

The party were highly delighted and surprised to hear of the safety of their comrades, from whom they parted the previous fall, in October. Adrift on an ice floe, they never expected that such a miraculous escape would take place. It was doubtless also a providential circumstance that placed the Ravenscraig in a position to pick up the party, as, had such not happened, it is highly probable that none of them would ever have reached the most northern Danish settlement, considering their resources, the state of the boats and the impracticability of men on foot travelling at least 300 miles over such ice as then covered the expanse of Melville Bay. Only six days' provisions, with the utmost economy, remained, and, even with abundance of arms and ammunition, sufficient food could not be obtained, as

BEARS, SEALS AND BIRDS

are scarcely to be got at. Dr. Kane, on this same track, only shot two seals, even with the aid of a trained hunter, while he had open water along the floe edge and two good boats; but the boats of this party were both stove (without the means of repair) as soon as the Melville Bay was encountered. The previous part of the journey had been accomplished comparatively easy in open water, so that when we sighted them their difficulties had only then commenced. Moreover, the journey must have been performed without shelter or covering, and without boots or clothing adapted for such an undertaking. It is highly probable that, gaining only a few miles a day, with insufficient food and exposure, none of the castaways would ever have got south to Upernavik, whither they were bound, and that ere they got half the distance their strength must have given way entirely. On the 4th of July, after a detention of twenty-six days, we succeeded in

REACHING THE NORTH WATER,

and, crossing to Lancaster Sound, spoke the Arctic, to which vessel seven of the castaway crew were transferred, and on the 17th of July three more were put on board, the intrepid retaining Captain Buddington, Mr. Morton and two others, and these joined the steamship Arctic on the 20th of August, glad to secure as early a passage home as possible. It was deemed necessary to thus divide the party on account of the limit to provisions aboard.

RELICS.

The Ravenscraig has on board one of the boats constructed from the wreck of the discovery vessel Polaris, and in which the rescued party voyaged about 300 miles. It does the builders very great credit, considering the materials of which it is made and the limited means at their command. The Ravenscrag remains to prosecute the fishing, and intends to bring the boat home to Dundee.

Statement by the Chief Engineer, Mr. Emil Schumann.

We left Brooklyn, New York, on the 20th June, 1871, at seven o'clock evening, and arrived in New London on the following morning at eleven o'clock, started again from New London on the 3d July, and reached St. Johns, Newfoundland, on the 11th, where we took in a fresh supply of coals and meal, as also a few dogs. Sailing thence the Polaris reached Fredericksthal, Greenland, about the 27th of the same month. This is a Danish settlement, and there we intended to find an Esquimaux who had been with Dr. Kane, but in this we were disappointed. We left this place on the 28th, at two o'clock in the morning, for Holsteinberg and arrived there after a short voyage. The wind being very favorable we fell in with the Swedish expedition, which consisted of two vessels—a steamship and a sailing ship—under the command of C. W. Von Offer. The Polaris afterwards sailed for Godhaven in Disco Island, there to await until the arrival of the United States steamer Congress, the supply ship, which arrived on the 10th of the following month at Godhaven. We made a storehouse and stocked it with provisions and coal, which it was estimated would last about two and a half years. This was in case of any disaster to the Polaris.

Having stocked the Polaris as full as she could hold with provisions and coals, we met a Danish vessel, which we tried to tow, off the harbor, but in this we did not succeed. Tessuisak was the next port to call, and there we completed our complement of dogs for the sledges and also supplied ourselves with cloth and skins of various descriptions in anticipation of the winter. We had now on board the Polaris in all forty dogs. We left the latter port in a thick fog and crossed Mellville Bay—the most dangerous bay of the northern seas. We passed it, however, without making much ice, and we encountered the first drift ice on nearing Fitzclarence's Rock. There the ship was obliged to pursue a very zigzag course, and we did not find open water until we reached 82 deg. 16 sec. north, which was the highest correct observation which the Polaris reached, the date being the 31st of August. The next day the ice closed, and the vessel was in imminent

DANGER OF BEING CRUSHED TO PIECES,

so we landed provisions on the ice in case the vessel should be lost. Fortunately this did not happen, and the Polaris was drifted by a strong current to 81 deg. 30 sec. north. The ice having once more spread, we again tried to steam north, and succeeded in reaching 81 deg. 38¼ sec. There we waited five days, doing nothing until we were frozen in. Then we landed provisions, built an observatory and commenced to make

PREPARATIONS FOR WINTERING.

We built snow walls around the ship to keep her warm; and then, about September 10, Captain Hall started on an expedition for the north. His object in doing so was principally to see the country, in order that he might be able to start afresh in the spring. The exploring party consisted of Captain Hall, Mr. Chester, chief mate, and Joe and Hans, two Esquimaux. They started in two sledges, with fourteen dogs, and succeeded, after much difficulty, in reaching a point about twenty miles further north than the place where the ship lay, and there Captain Hall found a large bay, which is called Newman's Bay. He was away from the vessel fourteen days, during which time the weather was of a very stormy description, and the thermometer was on many occasions sixteen to twenty degrees below zero. When Captain Hall returned

HE WENT INTO HIS CABIN.

Shortly afterwards he said that as he felt sick he had better lie down. He commenced to vomit, and then asked for a cup of tea, which the steward or some one else brought him. He drank it off, but did not retain it on his stomach, and when night came he was in a high fever and quite delirious. He kept his bed for four or five days, during which time he was sometimes delirious and sometimes he spoke quite sensibly, just as the fever increased or decreased in intensity. After this he got somewhat better and was able to leave his bed and walk about in his cabin. He was so much better that he was

ABLE TO WRITE AND DO OTHER LIGHT WORK.

About the 5th November he, however, relapsed and became rapidly worse. Late on the 7th he said to the Doctor,

"I am very much obliged to you for your kindness."

And these were the last words he ever uttered in this world. The Captain immediately after became delirious, and about three o'clock on the morning of the 7th he expired. We buried him on the 10th, at eleven o'clock in the morning, at a place on shore about one and a half miles from where the ship lay, and over his grave we raised a monument made of wood. This monument can easily be seen by passing vessels.

AFTER CAPTAIN HALL'S DEATH

Mr. Buddington took command of the vessel and Dr. Bessel took charge of the sledges and everything connected with the scientific part of the voyage. The whole of the crew were at this time in an exceedingly healthy state and we held Christmas in a comfortable manner. In the spring we started on an expedition

FOR THE POLE IN TWO BOATS.

Mr. Chester taking command of one and Captain Tyson, Assistant Navigator, taking the command of the other. In the boat with Mr. Chester was Mr. Meyer, meteorologist, while Dr. Bessel accompanied Captain Tyson. On the second day after the expedition started Mr. Chester's boat was smashed up; but, nothing daunted, he came back, and, having filled up the canvas boat, made a fresh start. They reached 81 deg. 52 sec. north. In the interval the crew that had been left had sawn a passage for the vessel, through the ice, into the open water, and the Polaris got up steam and made for the north. We had not sailed for ten miles when we found the passage blocked with ice, and although we attempted to get through it three times we failed and had to go back to our old winter quarters again, and there we waited until the exploring party returned.

THE POLARIS AFTERWARDS STARTED AGAIN NORTH

and reached 81 deg. 2 sec., but at this point the vessel was again beset with ice and we never saw open water until a southwest gale sprang up on the 13th of October and broke up the ice. We were then in a position of great danger and had to make up our minds where we were to winter. We had previously made the vessel fast to a big floe, and as we did not know at what minute the ship might be crushed we built a house on the thickest part of the icebergs and removed to it a large quantity of provisions half; of the crew under Captain Tyson went upon the berg to make things secure, the others remaining on the ship to be ready to throw overboard everything that was valuable if danger should come. On the 15th a heavy gale of wind and snow; the ice hooks by which the vessel was attached to the berg failed to hold, and the Polaris drifted away in a northeasterly direction, and that was the last we ever saw of our late companions on the iceberg. In the morning

MR. CHESTER WENT UP TO THE MASTHEAD,

but could discover nothing as to the whereabouts of the berg, but he saw floating past a few pieces of ice, on which were some of the provisions that had been removed from the ship. The portion of the crew that were left with the Polaris made a search in the vessel for provisions, and discovered to their joy that they had still about ten boxes of meat remaining, which it was calculated would last about a year. On the 16th of October we sighted shore, about two miles north of Littleton Island, at the place that is called by Dr. Hayes "Lifeboat Cove." There we ran the vessel ashore and found about five feet of the stern was clean gone. We ran her on shore because we could not keep her clear of water, and we were afraid that she would sink. The hand pumps were utterly useless and the steam pump could only just keep her afloat. Indeed, the water came up within a few inches of the boiler fires. Our consideration was that we had only about six tons of coal on board, and we did not wish to expend them in keeping the steam pump going, as we knew that they would only have lasted a few hours, and then we would have had nothing for the winters. During the next three days we brought the provisions and everything else ashore, and then a couple of Esquimaux arrived, one of whom was

MYONY, A VERY OLD ESQUIMAU,

who was mentioned by Dr. Kane. We gave them some presents, after which they started for their settlement some twenty miles to the south, and in a short time returned with eight sledges and sixteen Esquimaux. The natives were very kind and gave us great assistance in bringing our provisions on shore and in building a house for us. They continued to come to and fro during the whole of the winter; two or three Esquimaux families had huts near our encampment, and these came in and out and shared with us what was going, but they made us ample return for what we gave them, for in the spring they brought

AN ABUNDANCE OF FRESH MEAT,

such as walrus, bears and so forth. One family especially was very useful to us, for the wife mended our skins and clothes, while the husband brought us fresh ice to make drinking water. In return for this kindness we built them a boat, in which they could fish in the summer time. Out of the planking of the Polaris we also built two boats for ourselves. During the whole of the winter it may be remarked that there was no sickness amongst the men. We had plenty to eat, and our only concern was as to the fate of our comrades on the ice floe. On the 3d June, 1873, we left this place in the two boats, Captain Buddington being in command of one and Mr. Chester of the other. In each boat there were seven men. In the voyage southward we met only ice once, and that was off Northumberland Island. The rest of the time we were in open water, and had, upon the whole, very fair weather. When we came to a conical rock about twenty miles north of Cape York we were delayed three days on account of the southwest gale. In two days afterwards, however, we

REACHED CAPE YORK,

when we were discovered by the Ravenscraig. Mr. Schuman speaks in the highest terms of the kind manner in which they were treated on the vessel and the Arctic, to which they were subsequently transferred.

The Winter Hut Described by One of the Crew.

A seaman thus describes the hut where the party wintered:—The hut was twenty-two feet by fourteen, the materials used being chiefly spars and the bulkheads of the staterooms of the vessel. The roof was covered with sails and was perfectly watertight; a fire was placed in one end of the hut with a stovepipe as a chimney. A galley and stateroom were also provided. The hut was simply one apartment with berths around the sides. When thoroughly banked up with snow all round and supplied with the stoves of the Polaris the explorers found themselves in possession of a very comfortable lodging for winter, and making up their minds to wait in patience for the spring, each man seemed to be comparatively happy. At this time the weather was gloomy da[illegible] the hut was kept

CHEERFULLY LIGHTED BY OIL LAMPS

which had been got out of the vessel, the oil used being from seals and walrus; the [illegible] was beguiled with reading and games at chess, and a good fire was kept constantly burning, the unused coal on board the Polaris having been launched and used for the purpose. On the 1st February the coal was consumed, and the ship was made to supply wood instead. Till the 1st April the time was spent in much the same manner, when the party began to consider the propriety of leaving to seek their way to some spot where they might be picked up by some vessel. To enable them to do this Mr. Chester, the chief mate, with the assistance of the carpenters and Mr. John Booth, set to work to build two boats, the necessary materials being got from the vessel. Each of the boats were twenty-five feet long, with five beam, square at each end, boat turned up and capable of carrying seven men, with stores for two months. The middle of May arrived before the boats were completed, owing to the great difficulty there was in getting materials for construction.

Interview With Dr. Emil Bessel.

I called upon the chief of the scientific corps of the Polaris expedition and the following conversation resulted:—

CORRESPONDENT—Dr. Bessel, I have been asked by the NEW YORK HERALD to give you any opportunity you may wish to make a statement as to this unfortunate expedition, and to afford you an opportunity, if you feel so disposed, also to give the American public some notes of the scientific aspect of the cruise you have been engaged in.

DR. BESSEL—I shall be very glad indeed to submit to you such scientific facts associated with the exploration as do not seem to me to touch on the information I must retain exclusively for the United States government. With regard to the details of the voyage and any matters pertaining exclusively to the sailing master's department, I should rather not enter on these as they are not in my department, and I understand that you have already exhaustively interviewed the officers of the ship. I am further particular on this latter point, because since we arrived here we find, from the American papers, that several

VERY SILLY AND ABSURD RUMORS

of a mischievous tendency have been abroad. It is just possible the Washington government will prefer that we do not enter on these, reserving what we had to say for any graver occasion, should such unfortunately arise. But I must most emphatically contradict the statement that Captain Hall died other than a natural death. He died of apoplexy. He was ill about a fortnight.

CORRESPONDENT—Did Dr. Hall appear to you to be in perfect health when entering on the voyage?

DR. BESSEL—He did.

CORRESPONDENT—You noticed nothing unusual in his health up to the period of his illness?

DR. BESSEL—I did not. Of course, like all others, he was liable to ordinary indispositions.

CORRESPONDENT—Would you say what you think were predisposing causes to his fatal illness?

DR. BESSEL—Were I to do so I should have to use medical technology, and it is a matter I had rather enter on with a medical man. I am uneasy lest inaccurate information by any accidental slip should get abroad. I feel that I am treading on ground where

I MUST BE WARY.

CORRESPONDENT—You have heard of the rumors of poison?

DR. BESSEL—I have, but it is too absurd to be seriously entertained.

CORRESPONDENT—May not this rumor have been founded on the hallucination of a raving patient?

DR. BESSEL—Very possibly; but you know this is really a matter on which I feel that in deference to the United States government I should not enter on.

CORRESPONDENT—May I give you the option, Dr. Bessel, of saying whether there were at any time any breaches of discipline on shipboard before or after Captain Hall's death?

DR. BESSEL—I cannot enter on this matter, but I think I may say the relations of the crew and officers were not inharmonious; but shall we pass from this subject?

CORRESPONDENT—Most certainly, Dr. Bessel, since you wish it, and I shall be glad to take any notes you may give me of your scientific explanations.

DR. BESSEL—These I will give you with the greatest pleasure in the world. Where shall we begin?

CORRESPONDENT—Just tell me your story in your own way.

DR. BESSEL—We left New York and proceeded to New London, thence to Newfoundland (laughing). Every place thereabout, you know, is "new." From Newfoundland we went to Disco, where we met the United States ship Congress, and then went to Tessinsak and on our way north. After having got into winter quarters the observatory was set and scientific labor was begun. Meteorological observations had been taken every three hours; now they were taken regularly every hour. We observed carefully the barometer, psychometer and temperature of the air, force and velocity of the wind and amount of atmospheric precipitation; we carefully measured these matters, they being of high importance in regard to the form of glaciers besides hourly and oftener tidal observations having been made and interesting fact being discovered that

THE PACIFIC TIDAL WAVE

enters Robeson Channel. This channel was so named after the Secretary of the Navy by Captain Hall, the cotidal hour not differing from that of Julianshab, in South Greenland. Astronomical observations we kept taking the whole time with a view to determine a reliable meridian of Thank God Harbor, a harbor so named by Captain Hall, because of the shelter so opportunely afforded after a severe crush in the ice, and on which meridian the whole survey, except that obtained by triangulation, is based. Magnetic observations, comprising variation of declination, were made hourly from February to May, three term days during the time occurring every month. Whenever opportunity offered observations were made on the dip of the needle, horizontal intensity and moment inertia. Complete series of pendulum observations were made to determine the figure of the earth, especially important in such high latitudes. Specimens were gathered whenever possible. Unhappily the greater part is lost. Whenever possible, complete series of geological specimens were collected, including specimens of Devonian limestone; also Zoological collections. Of these, the most important, excepting some highly interesting marine invertebrates (we had hardly any opportunity to use the dredge on account of heavy ice), were musk oxen and lemmings, never before found in West Greenland. Besides that we found Sabine's gull, Turston's sanderlings, the Arctic raven, and saw one specimen only of the Arctic falcon. We heard also the voice of an owl. Only one specimen of fish was seen, belonging to the fresh water salmon. Complete collections of insects, comprising butterflies, flies, bees and various ichneumon, were obtained. Only one species of beetle was seen, but not obtained. Different species of spiders and Aarlane were secured, besides as complete a series as possible of parasites. We obtained a complete collection of botanical specimens, comprising about fourteen species of phanerogamic plants and besides these several lichens, mosses and fungi. Observations were carried on in second winter quarters (i. e. after we lost the ship) as far as the instrumental means at our disposal would permit. An attempt was made to reach the Prussian depot at Polaris Bay, to take a survey of the ice north of it, to see if any travelling could be attempted to reach a high latitude. Efficiency of appliances prevented us, even after three separate strenuous attempts, to get any further than 79 deg. 20 min. The ice was terribly rough, and the natives employed as dog drivers were unwilling to go any further. Observations regarding

THE MOVEMENT OF GLACIERS

were made and determination of the limit of *neve* (a French word, for which we have no English equivalent—derived from the Latin *nix nivis*, snow), beginning at the height of 4,000 and odd feet. The snow line, using that term in the sense in which it is used in the physical text-books, does not exist in high latitudes. Observations were kept all along most faithfully, and I have been enabled to keep many valuable records of these, while I have lost others. We did not desist from our observations after we left the house where we wintered, and we carried them on even in moments of extreme peril during our trying journey. Indeed, uppermost in all our minds was the noble scientific object in which we were engaged and to which we seemed destined to become martyrs. After we got on board the Ravenscraig, and subsequently when we were in the Arctic, we continued our observations, and hope that these may to some extent subserve the cause for which we had embarked. I think I have given you a sufficient account of what, although slightly technical, may nevertheless be of considerable interest to many of the savans of the United States."

Dr. Bessel is a slightly built gentleman of from thirty-five to forty years of age, and rather under the ordinary stature. He is of a nervous and apprehensive temperament, exceedingly reticent and cautious. He is extremely anxious not to do anything which may give the slightest offence to the authorities at Washington, of whom throughout the whole interview he spoke with the utmost reverence and almost with bated breath. A cable despatch has been received ordering the United States Consul here to despatch all the crew by the very first steamer to the United States. They will leave Liverpool on Tuesday. Captain Budington will go with them, as also Dr. Bessel.

The Chief Engineer of the Polaris, Emil Schumann, speaking to another HERALD correspondent of Captain Hall's delirium, says:—He was under continual apprehension of being shot, but I am not aware that any one member of the crew more than another excited his suspicions. Another phase of his mania was a determination not to eat or drink anything until it had been first tasted by some one. This tasting was mainly done by Hannah, wife of one of the Esquimaux. When he rallied, and for a while recovered his wonted intellect, he would address Captain Buddington and say:—

"If I die you must still go on to the Pole." "Captain Buddington," he would say, "my last wish is that you strive to go to the Pole. Do not let my death, on any account, be a drawback to the accomplishment of this great undertaking."

MORTON, OF JERSEY CITY,

the second mate, corroborated Captain Buddington's narrative, and says of Buddington that if he has a fault it is a leaning to too much leniency. "Not a strict enough disciplinarian. Had I been in his shoes," said Morton,

"I WOULD HAVE HANGED CERTAIN PARTIES.

But I am an old navy man; he is not. He is an admirable sailing master, and was full of kindness to the crew."

YACHTING.

The Autumn Regatta of the New York Yacht Club—The Conditions, Prizes and Entries for the Event.

The autumn regatta of the New York Yacht Club will be sailed to-morrow (Thursday) over the usual course, subject to the time allowances and under the sailing regulations of the club. The prizes are two cups, presented by Commodore Bennett, one for schooners and one for sloops, each of the value of $500. The Regatta Committee, comprising Messrs. Fletcher, Westray, William Krebs, E. W. Chase and Charles A. Minton, have made all the necessary arrangements for the aquatic event, and, judging from the number of entries already submitted, it will prove to be of the