

I give this report to show that there is no possible chance for winter navigation by the Straits, as some promoters have claimed. I will continue to read the record :

“ [April, 1885.]

“ 1st. Clear water shows to the east and north-east, but ice is closely packed.

“ 19th. No open water visible.

“ 11th. Snow falling and drifting.

“ 12th, 13th. Straits in every direction closely packed with heavy ice.

“ 14th. Snow falling and drifting.

“ 29th. Strait completely covered with ice.

“ 30th. Snow drifting.

“ [May, 1885.]

“ 1st. Snow drifting.

“ 2nd. Heavy ice, closely packed, with ice in every direction.

“ 3rd, 4th, 5th, 6th, 7th, 8th, 9th, 10th. Heavy ice in every direction.

“ 29th, 30th. Straits completely blocked.

“ 31st. Three or four small patches of open water near the station, elsewhere the ice is closely packed.

“ [June, 1885.]

“ 1st, 2nd. Ice closely packed.

“ 6th, 7th, 8th, 9th, 10th. Ice closely packed.

“ [July, 1885.]

“ 8th, 9th. Straits covered with ice, somewhat scattered on the 8th, closing upon the afternoon of the 9th.

“ 10th. Straits covered with tight fields of ice. * * *

“ [August, 1885.]

“ 1st. Compact and heavy ice to eastward.

“ 4th. Heavy ice is still visible to the eastward.

“ 5th. Ice has all moved east towards Salisbury Island; Straits to south-west completely clear, and clear water extends some miles to the east of this station.

“ 6th. Ice is still closely packed to the south of Salisbury Island, and seems to extend to the southward.

“ 7th. Ice south of Salisbury Island is moving this way; elsewhere the Straits are completely clear.

“ PORT LAPERRIÈRE (CAPE DIGGES), STATION NO. 6.

“ [October, 1884.]

“ 1st. Heavy ice both in Bay and Straits, with open water channel showing occasionally.

“ 21st. Drift ice in the Straits all day as far as can be seen.

“ 22nd. No open water visible in the Straits.

“ 23rd. Same as 22nd.

“ 24th. Bay, Straits and harbour frozen solid with new-formed ice.

“ 25th, 26th, 27th, 28th, 29th, 30th, 31st. All the ice solid; no water to be seen in the Straits. The 23rd seems to have been the last day on which navigation would have been possible.

“ [November, 1884.]

“ 1st, 2nd. No water visible.”

Sometimes the ice shifts, and there may be streaks of open water, but I have given the conditions as found by the observers at these dates. I will pass over the winter and take up spring navigation.

“ [July, 1885.]

“ 8th. No alteration, ice tight everywhere.

“ 9th, 10th, 11th. Ice still remains solid.

“ 12th. From the Island for five or six miles the ice is broken and drifting, beyond that the pack is close.

“ 13th. Foggy.

“ 14th. No open water in the Straits. * * *

“ [August, 1885.]

“ 4th. Weather thick, could not see any distance.

“ 5th. Ice close in Strait in a.m., but in p.m. ice was broken and scattered.

“ 6th, 7th, 8th, 9th, 10th. No ice in Strait * * *

“ ICE MET WITH ON THE VOYAGE OF THE ‘ALERT.’

“Our observations show that during the first half of the month of June, a belt of ice varying in width from 30 to 50 miles, extended the whole length of the Labrador coast, from Cape Chudleigh to Belle Isle. Off the entrance of Hudson Straits at this time the field extended from 35 to 100 miles to the eastward of Resolution Island, and on the 16th of June when I endeavoured to enter the Straits the ship was beset in heavy ice about ten miles to the S.W. of Cape Best. This ice was very heavy and some of it in

large sheets, but at the turn of the tide the pack generally slacked off a little when the ship was worked on under steam or sail as opportunity offered; this state of affairs continued until the 4th of July, when, owing to the damage done to the ship, we had to return to St. Johns. Except on one occasion no large amount of open water was seen from our masthead, the ice always seeming to be tight to the westward of the ship. I measured the thickness of many of the pans: some were 22 feet, but the common kind was floe ice, about 10 feet in thickness. On the 4th of August when we got back from St. Johns there was still a great deal of ice in the Straits and some of the pans were of great size, many of them being over half a mile in length.

“NOTES ON THE ICE MOVEMENTS IN HUDSON BAY AND STRAITS, 1768-1769.

“Capt. Falconer states: ‘In the month of July, when the above Hudson Bay Company’s ships commonly get their passage through the Straits outward bound, it is almost blocked with ice, some of which is aground in 100 fathoms of water. * * * and this with the large quantities of floating ice makes the passage dangerous, and detains the ships, some years, till the latter end of August, before they get clear of the Straits.’

“The ice mentioned in the above quoted paragraph as being aground in 100 fathoms of water is undoubtedly intended to apply to icebergs, some of which I have myself seen aground in from 80 to 100 fathoms. On the north side of the Straits some of these large masses of ice getting aground at high water of spring tides will remain fast for weeks if they do not break up. Capt. Falconer states that the Bay was only navigable from the latter part of July to the middle of October.”

I propose to give some extracts from Captain Hawes’ report. Captain Hawes has made fourteen voyages to Hudson Bay. He places the probable period of navigation for steam vessels properly fitted for ice work as seldom exceeding three months, 15th July to 15th October:

“As to the closing of the navigation in 1884, Mr. Laperrière reports, at Cape Digges, that on 25th October the ice was solid in every direction, and at Nottingham Island a similar entry is made on the 27th. A distinction must be made between the closing of navigation by the formation of young ice, and the presence of a large field of heavy old ice which is cemented together by the formation of young ice between the pans. In the first case any ordinarily powerful steamer could go through without risk, but in the second case the most powerful of the whaling or sealing steamers would be helpless. The western end of the Straits is always subject to incursions of this heavy ice, from Fox Channel, and especially so in the months of September and October, when strong north-easterly and north-westerly gales are frequent.

“HUDSON STRAITS.

“In Hudson Straits, for the first 20 days of August, the ship was always in the ice: the average surface water temperature for this period is 31° 3.”

I have given you a report of the experience of the expedition during 1884 and 1885, and will now give 1886, as you might think 1885 an exceptionally bad year. To give a better idea I will quote instructions from Hon. Mr. Foster:

“ OTTAWA, 22nd June, 1886.

“ TO LIEUT. A. R. GORDON, R. N.,
Halifax, N. S.

“SIR,—With reference to the voyage of the *Alert* and the work to be performed under your charge for the present season, it is desirable that you should be guided by the following instructions, which are intended rather as an index of the general wishes of the department, than as an absolute direction from which you are under no circumstances to deviate. Changes that may be rendered necessary, by circumstances now unforeseen, and other work than that indicated which may appear to you proper to be done during the course of your voyage, are to be within your own discretion, always bearing in mind the purpose of the expedition, and the time at your disposal.

“It is desirable that you should proceed to the mouth of Hudson Straits with as little delay as possible, so as to avail yourself of the very first feasible opportunity to make the passage through. If you are prevented from at once entering the Straits, you will occupy your time in taking accurate observations of the extent and condition of the ice, the prevailing winds, and the currents at its mouth.