

unable to turn so sharply she would get many a heavy blow, that the smaller ship would escape.

"I consider that the season for the opening of navigation to such vessels as the above will, on the average, fall between 1st and 10th July. The position and movements of the ice I have already discussed, and need not here repeat. The closing of the season would be about the first week in October, partly on account of the descent of old ice from Fox Channel into the western end of the Straits; this old ice being rapidly cemented into solid floe by the formation of young ice between the pans; in such ice, no ship, however powerful, could do anything to free herself. At this time, too, the days are rapidly shortening, and snowstorms are frequent though not of great duration.

"Altogether, I consider the navigation of Hudson Straits as being more than ordinarily difficult, with shores inhospitable and bleak, presenting such a picture of loneliness and desolation, that it takes some time to get accustomed to it. The only safety in thick weather lies in the constant use of the lead and keeping a bright lookout, as the dead-reckoning is frequently in error to a considerable extent."

Now, I think I have quoted enough to show that it is impossible to navigate the Hudson Straits during the winter, that it is impossible to make more than one voyage in the year from England and return, unless under most favourable circumstances and in the face of extraordinary risks. To show you what is thought on this subject, I will quote from the evidence of Mr. Smith, the Deputy Minister of Marine. In his examination he stated that he considered it almost impossible to make more than one trip from England to Churchill and return, and he was asked:

"Do you refer to sailing ships when you speak of a vessel making two trips in the season?—No; I am speaking of fast steamers. It would have to be an exceptionally fast steamer, and a favourable season, with as little delay as possible. Of course the vessels for this work have to be built exceptionally strong. Chief Commissioner Graham told me that the vessels were provided with double stores and double crews, against accident. The ordinary ocean vessel would not be able to go in there at all. They should be as strong as wood and iron can make them, and no expense spared in their construction."

He was further asked:

"Do you not think there would be a great deal more for steamers?—With steamers, as you are aware, we have had some experience. We did everything possible to strengthen the *Northern Light*, and make her efficient for the service; still with all that she has cost a great amount of money to keep her in repair. The character of the ice is such that an ordinary steamer could not go through at all; that is, ocean tramps, as they are called—these vessels that sail between Liverpool and New York. The ice would knock a hole in the bottom of such a vessel in a moment, and she would go down. We had to put both greenheart and iron-plating on the *Northern Light*, and yet she runs a chance of incurring heavy expense for repairs at any time."

And still they ask for a grant of money for a railway to this region. Now, Mr. Pusey gave evidence before the Commission. He wrote to Captain Spicer in reference to the building of a railway to Hudson Bay, asking the price of materials and his opinion as to the navigation of Hudson Straits, as Captain Spicer had often been there. Captain Spicer answers as follows:—

"GROTON, CONN., 17th March, 1883.

"MR. C. H. PUSEY, New York.—Your favour of the 16th March is at hand and duly perused, and I am a little surprised to hear that the subject of a line of steamers to Hudson Bay is still being agitated. I thought the subject had been dropped. I have been consulted before on this matter, both in this country and in Europe, and my answer has always been the same—impracticable. But to answer your questions in order as asked, I will say:

"1st. There is no average length of time to be depended upon, as there are no two years alike. In the year 1863 I battled the ice from 1st July to 22nd August to get into Hudson Bay, and left for home 23rd September, and it was by a piece of good fortune that I was enabled to get clear. But a gale of wind for two days cleared the south

Mr. SPOHN.

shore, so that by coasting inside the islands and rocks I got clear. The year 1862, Captain Charles Allyn, in the barque *Black Eagle*, attempted to leave the Bay 10th September, but had to turn back again and winter, on account of heavy pack ice. In 1863 a Hudson Bay Company's ship did not get into the Strait until after I did, and there were two whalers lost the same year, one 17th July and one in August, about the 20th, I think. These vessels were well fortified for the ice. The Hudson Bay Company's ships are built expressly to combat ice, and they have found, by an experience of about 200 years of navigation there, that it is not advisable to attempt the Strait until about 1st August, and never to stop later than 15th September, except they winter, and I think there is no year that the Hudson Strait is free from ice three months, and no steamer or vessel has any business there, except built expressly for the ice, which iron vessels are not. There are always floating icebergs.

"2nd. I have never known it to be safe in the Strait, early or late. Thick fog and snow, strong currents and icebergs are always there.

"3rd. My experience in that country for twenty-four years compels me to say I do not believe any man can tell, with certainty, within two weeks of the time he could arrive there, not only from Liverpool, but even after he had entered Hudson Strait.

"4th. I do not think that, with a dozen trading posts on the north shore of Hudson Bay, they would secure \$3,000 worth of trade. I have had the whole shore, and never got \$500 in sixteen months.

"5th. I would not guarantee to land any freight of railway material, or any other, at a given time, for anything less than cost of said freight and the liabilities of damage.

"In my opinion, to sum up, it is simply an absurd project, and I think it would be safe to guarantee the loss of every vessel that attempts to carry wheat out of James Bay three months in the year, and I think Col. Wm. H. Gilder could have told you the same if he would, and I can point out several masters here who would tell the same story, I think. If there is any point that I have omitted, I would be happy to answer, if asked.

"Yours respectfully,

"J. C. SPICER."

Now, Sir, I think I have said enough to satisfy anybody on the question of navigation; and I propose now, for a few minutes to speak of the possibility of this road, if it were built, becoming a paying enterprise; because I believe it is our duty to take into consideration, not only the navigation of the Straits, but also the power of the railway to earn money for the bondholders if such an unfortunate thing happened as that the road should be built. As I have stated before, the distance from Winnipeg to Churchill is at least 350 miles farther for railway traffic than by Fort William; consequently, all grain shipped from the North-West must pay the railway rate on these extra 350 miles; and I claim, and everyone can make the same calculation for himself, that the railway rate on these extra 350 miles will pay the cost of shipping the grain from Fort William to Liverpool. Now, navigation opens at Fort William generally between the 1st and the 5th of May; this year it opened on the 29th of April. The last cargo left Port Arthur in 1889 on December 3, and in 1890 on December 2. Now, when grain is shipped from Fort William east, there is a chance to sell at the different point for milling purposes, or supposing grain were quoted at 80 cents or 90 cents a bushel at Winnipeg, and rose 10 to 15 cents a bushel at the Sault, at Port Huron, or at Owen Sound, this cargo could be sent to these places or direct to the shipboard, as the case may be, and all grain shipped to Fort William has the preference of the sale at these different points. Of course, any change in price that takes place during the transportation of grain from the North-West during the winter is no advantage to the grower, because every bushel of grain that is raised in the North-West and shipped to Fort Churchill will be locked up nine months, and