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THE NEW EAST RIVER BRIDGE.

The promoters of the great and costly suspension bridge which forms the central subject of our front page illustration are abundantly warranted in their enterprise by the statistics of travel over the existing bridge across the East River, New York, which was opened some thirteen years ago. The total number of passengers to cross the bridge during the first year, 1883-1884, was 8,823,000. In ten years' time the total had grown to 43,000,000—an increase of 500 per cent; and to-day the capacity of the cable road is quite inadequate to meet the increasing volume of traffic. The

intervening quarter of a century since the commencement of work on the Brooklyn Bridge has seen a great change in the problem of transportation between New York City and Brooklyn. Undoubtedly the location was a good one for the needs of the two cities as they then existed. The Brooklyn approach on Fulton Street connected with the main artery of travel in that city, and the City Hall Park, on the New York side, might be reasonably supposed to represent a central point between the downtown business center as it then lay and the possible future developments on the upper part of Manhattan Island. So rapid, however,

has been the growth of the two cities in a northerly direction that the present bridge now lies far to the south of the center of population, and for some years there has been an urgent need for another bridge to the north of the present structure.

The Brooklyn Bridge, moreover, labors under the disadvantage that it has no through connection with the elevated and surface railroads of the two cities, an evil which not only delays and inconveniences the passenger, but seriously limits the capacity of the bridge itself, inasmuch as its carrying power is determined by (Continued on page 218.)

Hoboken.

Sandy Hook.

Coney Island.

Staten Island.

Statue of Liberty.

Hudson River.

Jersey City.



Brooklyn.

Navy Yard.

Williamsburg.

Sugar Refineries.

East River.

New York.

NEW EAST RIVER BRIDGE CONNECTING NEW YORK AND BROOKLYN.

COLLISION WITH AN ICEBERG.

BY JAMES MURRAY, EX-M.M.A.

Owing to the unusually severe character of the preceding winter, the coast of Newfoundland has been unusually studded with icebergs during the spring and summer of the present year. About ten o'clock on the morning of Wednesday, July 23, the people of St. John's were rather surprised to see a large, strange steamer heading for the narrows of that port and evidently in distress. On being boarded she was identified as the Donaldson liner Concordia, bound from Montreal to Glasgow with a general cargo, including live stock consisting of 434 head of cattle, 6 horses and 391 sheep. She had left Montreal on the 16th instant, and on the following Sunday night, the 19th, when about thirty miles east of the Straits of Belle Isle, and while going about three-quarters speed through the fog, she descried a long, low-lying berg directly on her course; the first ice she had seen since leaving Montreal. The engines were immediately reversed, and when it was seen that a collision was unavoidable, set at full speed astern, with the effect of modifying to some extent the force of the terrible impact that followed; but notwithstanding all these precautions, the blow of the encounter was of tremendous force, as our illustration shows. The iron plates of the vessel's bow were bent in and back like so many sheets of tinfoil, and her massive frame crumbled before the inflexible ice mass like an eggshell. Fortunately for the safety of crew and cargo, the force of the blow was above the water line, and although some water obtained access through the forward bulkhead, the quantity was inconsiderable, and the ship's pumps were able to keep her free. Knowing his position, the captain at once shaped his course for St. John's, where he knew a commodious dry dock existed, and where, by steaming slowly, at the rate of about five miles an hour, he arrived without further disaster, and in less than thirty-six hours after the collision. On the Concordia's arrival she was immediately placed in the hands of the repairers, with the view of effecting such temporary repairs to the injured bow as would enable the steamer to continue her voyage across the Atlantic. These were accomplished with as much expedition as possible, without the necessity of putting the vessel on dock, so that the Concordia was able to leave again for Glasgow, which she did on Saturday, August 8, arriving safely at her destination nine days afterward, on the 17th, so that her detention on account of the accident was less than a fortnight.

The difficulty of dealing with the Concordia at St.

John's was greatly enhanced by the fact that her deck was hampered with a large cargo of live stock of considerable value. The cattle being stall fed and designed for a special market, could not be pastured out, but had to be penned and fed in stores until the vessel's repairs were completed.

The iceberg collided with was one of the immense

breach had to be covered with an improvised shield or caisson until she reached St. John's.

The Concordia is a three masted steel screw steamer, schooner rigged, of 2,544 tons gross measurement and 1,617 tons net. She is 320 feet long, 41 feet broad and 25 feet deep. Her horse power is 296. She was built and launched at Glasgow in 1881 and classed A1 at Lloyd's.



STEAMER CONCORDIA INJURED BY COLLISION WITH AN ICEBERG.

"table" bergs, having a flat surface like a floating field of ice, whose appearance is much less conspicuous than that of the pinnacled or castellated bergs. Not since the arrival at St. John's of the Guion steamer Arizona, eighteen years before, had a steamer which had sustained so severe a blow called into Newfoundland. In both cases illustration is afforded of how utterly powerless are the strongest steamships afloat to resist even a slight contact with the terrible iceberg.

Of course the nature of the accident to the Concordia was such that summer weather and smooth seas were greatly in her favor. In the case of the Arizona the

Bursar of Worcester, and Mr. McDonald. There are four lightning conductors on the building, but the electric current struck a gable on which there was no conductor, and traveled along a lead gutter down a standpipe to the earth.—London Telegraph.

SHIPBUILDING ON THE CLYDE.—It is believed this year will be a record breaker in shipbuilding on the Clyde and northeastern coast of England. Thirty-three steamers with an aggregate displacement of 85,000 tons have been launched, and as many or more are in course of construction in the shipyards.

The Ashmolean Museum Struck by Lightning.

Oxford was visited a short time ago by one of the most serious thunderstorms experienced in the district for many years, forked and sheet lightning accompanying an almost tropical downpour. During the progress of the storm the archaeological library of the Ashmolean Museum and University Galleries, situated in the northern block, was struck by the electric current. After a particularly vivid flash, smoke was seen to be issuing from the roof, and an alarm was immediately given, the fire brigade, under Chief Engineer Green, being on the spot within five minutes. The fire made rapid headway, and it was feared the priceless collections which the building contains, including pictures by Sir Joshua Reynolds, Turner, Ruskin, and the old masters, would suffer serious injury. Noting the gravity of the situation, Second Officer Symonds burst open one of the doors and got the hose up through the window. Meanwhile the keeper of the galleries, Mr. McDonald, M.A., did good service with the hand pumps kept on the premises. When the firemen reached the roof, it was found the flames had got a good hold of the wood and felt packing under the slates, but by the exertions of the brigade, who had an excellent supply of water, the conflagration was got under in marvelously quick time, and a number of willing hands having removed the valuable books, the damage was confined to the building itself. Members of the university rendered good service in this way, among others being the president of Trinity, the Rev. C. H. O'Daniel,



TABLE ICEBERGS, ENTRANCE TO NARROWS, ST. JOHN'S, NEWFOUNDLAND.



FLOATING ICEBERG OFF ST. JOHN'S, NEWFOUNDLAND.