COLLISION BETWEEN THE CELTIC AND BRITANNIC.

At 5:25 P.M., May 19, about 350 miles east of Sandy Hook, two sister steamers of the White Star line, the Celtic and the Britannic, came into collision, four passengers being killed and fifteen wounded on the Britannic, and both vessels sustaining considerable damage. Our illustrations are accurate representations of the appearance of the vessels on their arrival at the dock after the accident.

The Britannic was going east, having sailed from New York for Liverpool on the afternoon of the day previous, while the Celtic was bound for New York, having left Queenstown May 13. The sea was smooth, but there was a heavy fog, as there had been for two or three days preceding. On this account the Celtic was considerably south of her regular course, and was proceeding but slowly, blowing her fog whistle. The Britannic was making about sixteen miles an hour, and also blowing her whistle at regular intervals. It is said the vessels were only about four lengths apart when they first saw each other, and although their respective fog whistles had just previously been heard by parties on both vessels, it does not seem to have been understood by those on either vessel in just which direction the sound came from. As the Celtic suddenly loomed up out of the fog on the port side of the Britannic, her commander had her engines reversed, and it is said she had almost ceased to make headway when the vessels came together. The commander of the Britannic simultaneously signaled to go ahead at full speed, in the hope of being able to cross the bow of the Celtic, but it was too late, and the sharp prow of the latter crashed into the Britannic about ten feet abaft of the engine room. The blow bent in the inch thick plates of the Britannic at this point, making a vertical corrugation, in the line of which there was a jagged hole, some 4½ feet by 18 inches, extending below the water line. The effect of this blow upon the Celtic herself was to make a clean cut through her stem, about eight feet from the top, the bottom part being twisted around till it pointed toward her stern, while the top part swept over the rails and cut away the stanchions and rigging aft to the stern on that side of the Britannic, killing and wounding those who could not get out of the way. About twenty feet back of the line of the first blow the plates of the Britannic were badly bent, as if from a second and less powerful blow, but there was no other break in the hull of the Britannic, although the rails were smashed, bolts twisted, and plates bent for a distance of about seventy-five feet.

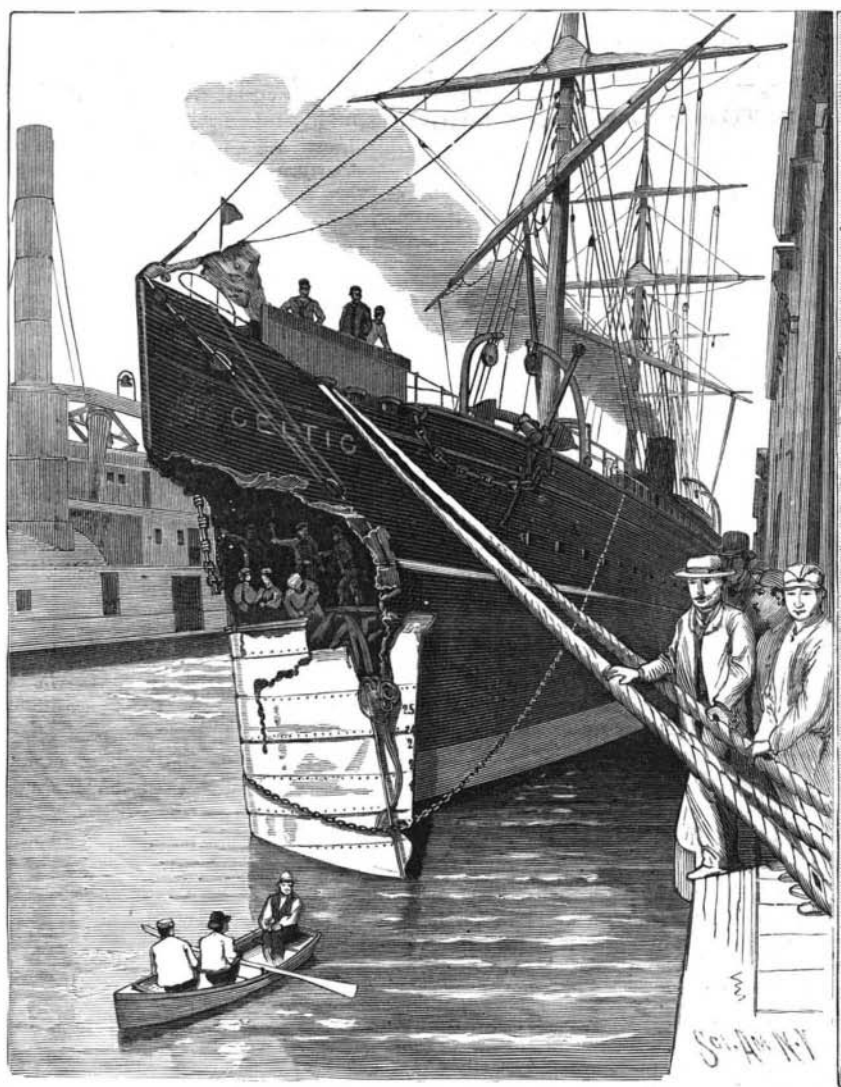
One compartment of the Britannic and the forward compartment of the Celtic at once filled with water, but the bulkheads separating these portions from the rest of the boat proved efficient in each case, and there was only a slight settling of the latter at the head, and of the Britannic at the stern. The machinery of both vessels was uninjured, and the damage can be repaired in a few days.

Both vessels were built at Belfast, Ireland, the Celtic in 1872 and the Britannic in 1874. The Celtic is 2,438 tons net register, and 3,888 gross; her length is 437·2, breadth 40·9, and depth 31 feet. She has four masts, a propeller worked by compound engines, with cylinders 41 and 78 inches in diameter, and 60 inches stroke of piston, and is divided into eight water-tight compartments.

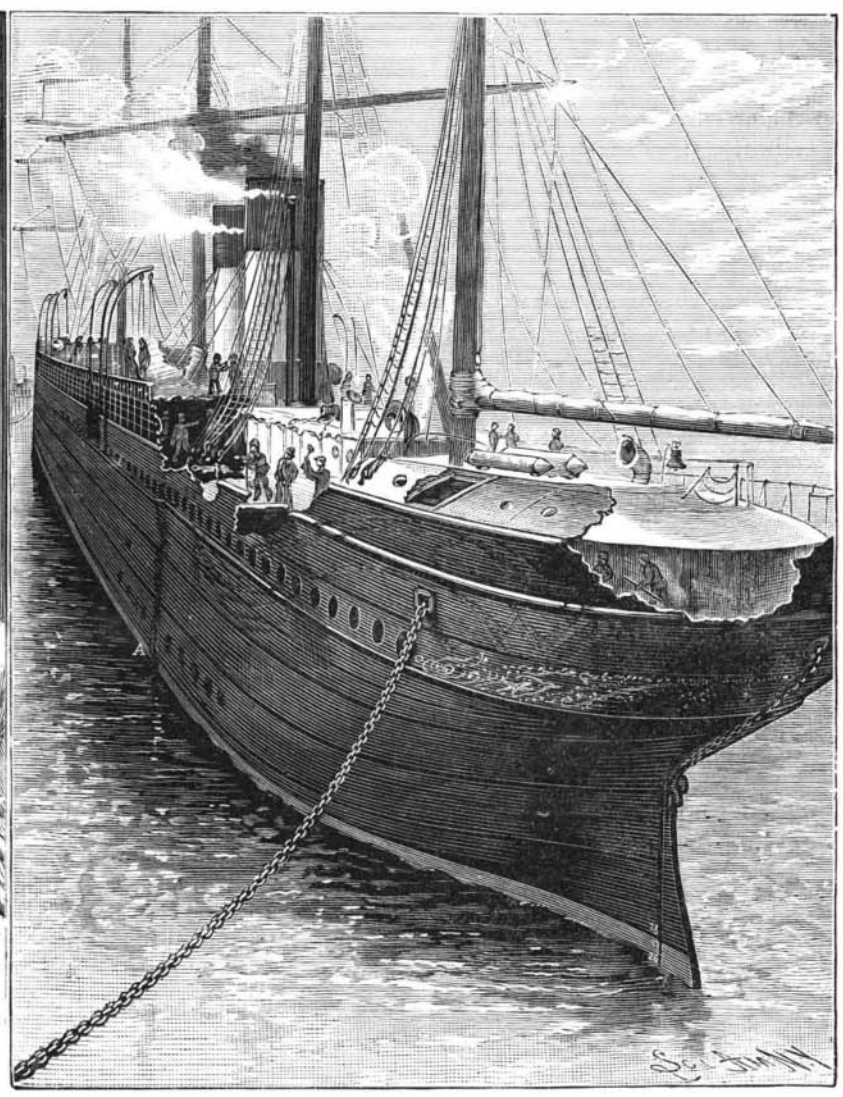
The Britannic is 3,174 tons net register, and 5,000 tons gross; she is 455 feet in length, 45·2 in breadth, with a depth of hold of 33·7. She has two engines, either one of which can be used separately, and the bulkheads forming the water-tight compartments have self-closing doors, the bulkheads running from the top to the bottom of the vessel.

Perhaps the one satisfactory part of the affair, if, in fact, there can be said to be anything satisfactory about so serious an accident, is the admirable work done by these compartments. Ocean travelers can certainly take courage in the thought that a vessel with a hole in the side large enough for a man to walk through may still be comparatively safe, and the White Star Company may well be satisfied that by the use of this simple system nearly two thousand lives have been saved and two magnificent vessels are still safe, and will soon be sound and ready again for further service.

That two such powerful vessels could thus collide in mid-ocean, with no deaths from drowning, and the vessels themselves suffer no more serious injury, will perhaps be measurably reassuring to the thousands who will cross the Atlantic this year; but the very way in which this accident occurred emphasizes the great importance of a more perfect system for signaling, which shall be effective during the fogs so prevalent on the North Atlantic.



STEM OF CELTIC AFTER COLLISION.



WHERE THE BRITANNIC WAS STRUCK.

COLLISION BETWEEN THE OCEAN STEAMSHIPS CELTIC AND BRITANNIC.

Chinese Anæsthetic.

A curious account of a Chinese anæsthetic is given in *Nouv. Remedes* (April, p. 165). It appears that Dr. W. Lambuth mentions in his third annual report of the Soochow Hospital an experiment made, at the suggestion of a Chinese doctor, with this preparation. A substance resembling wax, but harder and semi-transparent, in the form of a tablet, was cut into small pieces and digested in water for 24 hours, together with a small white, woody excrescence. The liquid was then found by Dr. Lambuth to possess well marked anæsthetic properties. It was found that a numbness of the lips and tongue was produced, and that the finger immersed in the solution for some minutes could then be pricked with a needle without any pain being felt. The tablet was described as being the juice of the eyes of a frog. It was probably the substance obtained by the Chinese by placing a frog in a jar containing flour and irritating the animal, when it exudes a liquid which forms a paste with the flour. This is then dried and made into cakes bearing some resemblance to button lac. If the anæsthetic property be due to the frog's excretion, and not to the white, woody excrescence above mentioned, the fact suggests the possibility of the animal using the secretion to deaden the pain to which it might be subjected by its enemies.

A Cheap Electric Pen.

A description has been given by Dr. J. Garel of a simple way to make an electric pen, to be used for multiple copying of letters or drawings, to the same effect as the somewhat costly Edison pen.

A tracing of the drawing to be copied is taken on thin paper, which is then laid upon a piece of common gas carbon. The larger the carbon in proportion to the paper, the less shifting will be required; but a piece of reasonably convenient size may be easily found, and it should be ground to a fair surface. The plate of carbon thus prepared is to be connected with one of the screws of a small induction coil, such as that used for an electric bell. The style for following the design, says a contemporary, is nothing more than a lead pencil, rather hard and brought to a fine point. The other end of the lead of the pencil is connected by a wire with the other screw of the induction coil, which in turn is connected with a suitable battery. The wood of the pencil effectually insulates the current from the operator's hand. The arrangement being thus completed, all that is necessary is to follow the design, or to write the letter upon paper resting on the block of carbon, leaning lightly upon the pencil. As the graphite point proceeds, a continuous succession of small sparks flows between it and the carbon, and the intervening paper is accordingly perforated by an infinite number of small holes burned by the sparks. These holes are barely visible to the naked eye, except by holding up the paper to the light; but they can be utilized for transferring the design or writing to paper, either by dusting on a powder or by passing an inked pad over the perforations when laid on the recipient.—*Electrician.*

The Fastest Boat in the World.

Messrs. Thornycroft & Co., of Chiswick, in making preliminary trials of a torpedo boat built by them for the Spanish Navy, have obtained a speed which is worthy of special record. The boat is twin-screw, and the principal dimensions are: Length 147 ft. 6 in., beam 14 ft. 6 in., by 4 ft. 9 in. draught. On a trial at Lower Hope, on April 27, the remarkable mean speed of 26·11 knots was attained, being equal to a speed of 30·06 miles an hour, which is the highest speed yet attained by any vessel afloat.