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(Illustrated articles are marked with an asterisk.)

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SCIENTIFIC AMERICAN SUPPLEMENT

No. 584

For the Week Ending March 27, 1886.

Price 10 cents. For sale by all newsdealers.

LOSS OF THE CUNARD STEAMER OREGON.

On Sunday, March 14th, at 4:30 A. M., the splendid steamer Oregon, from Liverpool bound to New York, when off the Long Island coast, collided with an unknown sailing craft, and both vessels were lost. The sailer is supposed to have instantly sunk with all on board. The Oregon floated for 8 hours, and then went down in 120 ft. water. All on board were saved. The accident took place about 10 miles out from the shore and about 50 miles east of the entrance to New York harbor. The wind was light, sea calm; it was dark, but clear enough to see lights on shore.

The steamer was running at full speed, over 20 miles per hour. The lookout shouted as he saw the approaching sailing vessel, a white light was seen, the wheel was turned hard-a-port; instantly the two ships collided, the supposed schooner swept by, and was seen no more. The Oregon's engines were worked for half an hour, when the fires were extinguished by rise of water to the furnaces. It was found she was making water rapidly. By the collision a large hole, stated by the captain to be 18 feet square, was made on and above the water line, and another hole, 4 × 6 feet, was made below the water line. The great ship soon began to settle. Signals were given—guns and rockets; orderly preparations made to occupy the ten lifeboats. All were supplied with life preservers. By 10 A. M. two small sailing vessels had come to the rescue, and to these, by means of the boats, the passengers and crew, 896 souls in all, were safely transferred. The crew numbered 205. Soon another large steamer, the Fulda, came up, and the people were taken on board and carried into New York. At 12:30 P. M. the Oregon, having settled to the level of the water, plunged head downward and went to the bottom, in water 120 feet deep, and there lies, in an upright position, masts above water.

It is supposed the schooner may have been at anchor waiting for turn of the ebb tide, as the usual colored lights, required to be shown by sailing vessels when under way, were not seen on the steamer. Captain Cottier of the Oregon seems to have been equal to the emergency, and to have done all that a cool and skillful officer could do under the circumstances. Of this his successful transfer of so many persons without loss is evidence.

Probably no finer specimen of marine architecture than the Oregon has yet been produced. She was unsurpassed in strength and speed, supplied with many requisites for safety, but lacking in flotation power and in devices suited for the temporary stoppage of leaks. She had no special means for preventing access of water to the furnaces. One of the firemen states that the passageways between three of her compartments were open at the time of the accident, and could not be closed; another statement is that the force of the collision was so great as to break one of the compartment partitions, thus knocking two compartments practically into one.

The loss of the Oregon emphasizes the need, many times heretofore by us expressed, of further inventions and study in the line of safety appliances for sea-going vessels. Honor and emolument await the man who can show how to keep a merchant ship afloat, without greatly increasing the cost. It is easy enough to make unsinkable vessels if the exchequer or building fund is large enough. Double ships, with many air chambers, can be made, which will certainly keep the ship afloat. But for commercial purposes such boats would not pay, owing to enormous cost; and it is doubtful whether they could have speed enough, owing to their increased weight.

Let inventors ponder the subject, and if possible contrive some new way of arranging materials so as to evolve a new style of unsinkable vessel. The compartment system is of great value, but is not wholly sufficient. To say the least, it can be much improved.

The steamship Oregon was built by John Elder & Co., at Glasgow, and was launched on June 21, 1883. Her dimensions were: 520 feet in length, 54 feet breadth of beam, 40¾ feet depth of hold, and 7,250 tons [illegible] bulkheads, five iron decks, and a strong turtle-back deck forward and aft as a protection from the heavy seas. She was fitted to accommodate 340 saloon, 92 second-cabin, and 1,000 steerage passengers.

The fittings of the Oregon were unusually fine. The grand saloon, capable of dining the whole of the 340 cabin passengers, was placed in the fore part of the vessel, and was laid with a parquetry floor. The ceiling decorations were almost exclusively confined to white and gold. The panels were of polished satinwood, the pilasters of walnut, with gilt capitals. The saloon measured 65 by 54 feet, and was 9 feet in height in the lowest part. A central cupola of handsome design, 25 feet long and 15 feet wide, rose to a height of 20 feet, and gave abundant light and ventilation.

Her engines were of 13,000 horse power, screw 24 feet diameter, 9 boilers, 54 furnaces; coal consumption, 300 tons per diem. Some of her passages are among the shortest ever made, namely, Queenstown to New York, 6 d. 9 h. and 42 m.

Some of the difficulties in the way of safety in such a ship as the Oregon may be conceived if we consider what takes place, mechanically, during an ocean voyage. The exertion of 13,000 horse power is equal to 191,517 tons lifted a foot high every minute. Her screw pushes the ship ahead with a power equal to that of twenty of the most powerful locomotives; 300 tons of coal a day must be brought to the fires, and the ashes removed; 2,500 tons of fuel must be stored and handled. The confined area of the vessel seems to forbid the employment of anything except manual labor in the work.

AS TO THE SINKING OF THE OREGON.

The bare fact that the Cunarder Oregon received the injury which caused her loss from collision with a sailing vessel seems to be pretty well sustained. Beyond that, the testimony is confused and conflicting, and the reticence of the ship's officers, especially upon several important points, lends an airof mystery to the affair which certain admissions of the crew serve to intensify. On the one hand, we are told that it was a clear, starlit night when the collision took place, and, on the other, that it was hazy. Remembering that neither the first officer, who was on the bridge, nor the watch on deck, including the lookout forward in the ship's eyes, could be certain as to whether the strange sail was a sloop, schooner, tern, or square-rigger, whether she was close-hauled or running free, the supposition that the weather was hazy seems not unreasonable.

When, contrary to the sea-going rules, the masters of the ocean racers run at full speed as well in thick as in clear weather, it is scarcely to be expected that they will acknowledge so great a speed as eighteen nautical miles an hour, and at the same time admit that it was logged in thick or even hazy weather.

The testimony of all those on deck at the time of the accident agrees that the stranger went down soon after "with all on board."

Yet, under the hypothesis that it was so thick they did not see her, and could not make out her exact rig even when she was close aboard, and that, running at the rate of eighteen knots an hour, their vessel would have been fully two miles away from the scene in about six minutes—before she could have been stopped—this assertion must be set down as surmise only.

With the conditions prevailing of smooth sea and light wind, it is not impossible that some of the stranger's crew were taken from the wreckage by a passing vessel, and, if such is the case, we may yet hear a very different version of this unfortunate affair.

A curious bit of testimony, gathered from more than one person aboard the Oregon, is to be found in the assertion that a *white* light was seen ahead several times before the accident occurred. The first officer, who was on the bridge and in command, says he took it to be the light in the rigging of a pilot boat, or a torch, which it is customary to burn on the deck of such craft when a steamer is sighted. But the pilot boat on that station having now been heard from, we know with something like certainty that the vessel which caused the disaster was not a pilot boat. Now, no other sailing vessels save pilot boats are permitted under the law to show a white light when under weigh. The law says that, when under sail, these craft must show a green light in the starboard fore shrouds and a red one in the port shrouds. Therefore, when a sailing vessel shows a white light, it indicates her to be either a pilot boat cruising for ships or a merchantman *at anchor*. We are told that the wind was west by north and light, and a glance at the tide tables shows us that, at the time of the collision, the tide was running on the first quarter of the ebb, that is to say, it was running to the eastward. Under these conditions of head wind and tide and smooth sea, the most natural thing for a sailing vessel bound for the port of New York to do, as those will agree who, like the writer, have followed the sea, would be to come to an anchor. She could [illegible] and do anything with the wind light and dead ahead, and to have stood down to the southward would have been only throwing away her chances of a fair wind later on, remembering that at this season a westerly wind is more likely to veer to the north than haul to the southward.

Supposing, then, that the strange sail was at anchor, with the wind west by north and an ebb tide; she would have been tailing the direction from which the Oregon was advancing, and thus the statement made by one of the Oregon's passengers that he saw her stern seems not improbable. Again, if the stranger was really in this position, it would readily account for the flashing white light which the first officer and others say they saw, because, as she swung to her anchor, the masts and after shrouds of the stranger would at times have been in range with and temporarily obscured the white light in her forestays.

While this is, of course, mere supposition, and offered only as suggestion, it may safely be said that the generally accepted theory, based upon the testimony of