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SCIENTIFIC AMERICAN SUPPLEMENT

No. 538

For the Week Ending April 24, 1886.

Price 10 cents. For sale by all newsdealers.

THE SINKING OF THE STEAMER OREGON.

Although more than a month has now passed since the Cunard steamer Oregon joined that large navy at the bottom of the sea, it cannot be said that the cause of the disaster has yet been satisfactorily explained. It is even uncertain what vessel gave the fatal blow. Circumstantial evidence still points to the Charles H. Morse as the unfortunate collier, since she would in all probability have been just off Fire Island Light at the time of the collision, and no news has been received from either schooner or crew.

It was thought that the steamer's share in the mystery would be fully explained as soon as divers could succeed in visiting the wreck and examining the present condition of the vessel. But a series of driving winds and consequent heavy seas made their work utterly impossible until a few days ago, when moderately smooth water permitted the first descent to be made.

In addition to this, the orders of the Cunard Company appear to have limited the investigation to the exterior of the vessel. The reports are of much importance, however, in one respect, since they show that the steamer is now broken in two, and that all hopes of ever raising her must be permanently abandoned. It will be remembered that the vessel plunged down, bow foremost, throwing her stern high in air. As the result of this unequal sinking, the after part of the hull has been twisted out of line with the forward part, and discloses a large opening about twenty-five feet in front of the bridge and on the port side.

The hole which sank the steamer was found to be about twelve feet below the main deck, and to be six feet deep by three and a half wide. The iron sides of the vessel were bulged in, and had crushed a part of the cargo, while scratches along the paint indicated that the fluke of an anchor had been dragged along the side of the vessel. The hole was covered with canvas, secured by cords passing under the keel.

The testimony of the passengers and crew has been from the start very conflicting. Beyond a natural desire to know the real cause of the disaster, there are several legal points involved which make a thorough investigation of the matter very important. All of the passengers lost their personal effects, and in several cases the individual loss amounted to many thousand dollars. The American representatives, at least, deny the company's responsibility; and while some of the passengers have been asked to submit statements, they have not been encouraged to believe that any voluntary reparation will be made. The legal responsibility, however, turns upon whether the sinking of the vessel was unavoidable or due to inefficiency on the part of the commanding officers. A very strong impression prevails on this side of the water that, had Captain Cottier and his subordinates exercised even a limited amount of presence of mind, the Oregon could have been kept afloat, and all these losses prevented.

Captain Cottier's own admissions before the Board of Directors at Liverpool show that one of the doors of the flooded compartment could not be properly closed, owing, he adds, to the volume of inflowing water and the coals washed against it. He states under oath that all of the doors were in good order on the previous day. This is widely at variance with the statement of a sailor now on his way to give testimony in behalf of the passengers. He is equally positive that this was not the case. He states that in one instance the door was so rusted that it was impossible to get it closed. However this may be, it seems incredible that such a comparatively small hole, and very near the surface at that, should send a magnificent craft like the Oregon to the bottom.

It is very easy, we know, when one is safely on shore, to say what *might* have been done; but, in this case, there was certainly a great deal which should have suggested itself to the mind of a commander whose very qualification for a post of so great importance should be dependent upon his resources in the face of danger. No effort seems to have been made to list the vessel by shifting her cargo or by blowing off the water from her port boilers, although all agree that such a course would have thrown the vessel sufficiently on her side to have lifted the hole above the water line. These omissions are the more inexcusable as all the attending circumstances were unusually favorable.

Even the simple expedient of beaching the vessel could scarcely have been tried in earnest. A very general doubt existed that any effort had been made until Captain Cottier stated before the Directors that his first idea was to make for the shore, but the putting out of the fires prevented his getting very near. People still feel, however, that the course he steered in carrying out such a plan was, to say the least, decidedly oblique. Everybody agrees in stating that the machinery worked for half an hour after the collision. The vessel at the time was so near the shore that lights could be seen from deck, and was going at the rate of twenty miles an hour.

It is odd that she now lies ten miles off Fire Island, if she was immediately headed for the shore. It is probable that a number of interesting facts will be brought out when the legal counsel for the unfortunate passengers presents the other side of the story.

INTER-STATE COMMERCE.

A bill is now before Congress which provides that the residents of each State and Territory may solicit orders for goods and merchandise anywhere within the United States without the payment of any license or mercantile tax. It was prepared by the Traders' and Travelers' Union of New York city, and introduced by Mr. James. At the present time fourteen States and Territories, besides the District of Columbia, impose such a tax upon the commercial traveler. The Union takes the ground that he is nothing more than an animated catalogue, and that while he displays his samples or other illustrations, and transmits orders to the home office, the real business transaction takes place at the desk of his employer. It maintains that any tax upon his performance of such a service is an evil which requires to be remedied. This position receives the support of the major part of the mercantile community and of the press, for the tax is regarded as an unjust restriction upon inter-State commerce. It is significant that many of the citizens of the localities where such a tax is imposed have declared themselves in favor of the bill. Recognizing the jealousy with which State rights are guarded, the advocates of the bill show conclusively that Congress has the proper authority to enact such a measure, since the Constitution expressly declares that the regulation of commerce among the several States is the function of the general Government, and the contracting parties in this instance are clearly the residents of different States and Territories. Believing, as we do, in a strong national policy, we hope to see the passage of the bill, both on account of its inherent merit and as an expression of unimpeded intercourse between the several commonwealths of the republic.

SIGNALS AT SEA.

In the last number of this journal, a correspondent, referring to the recent disaster to the Oregon, offers a suggestion looking to the prevention of such collisions at sea. He says:

"I would suggest that all steamers carry an additional white headlight on their bow, furnished with movable red and green screens, that can be quickly drawn in front of the light (thereby changing the white to a red or green light) by wires running from the light to the pilot house.

"The wheelsman of a steamer, seeing a sailing vessel near, can decide on which side he should pass; if to 'starboard,' he can quickly draw the green screen in front of the light, thereby notifying the sailing vessel that she is to pass to the 'starboard' side; or if the wheelsman considers the 'port' the proper side to pass, he could draw the red screen, then the navigator on the sailing vessel could quickly know on which side the steamer intended to pass."

It is not easy to see how such a system of signal lights could serve to lessen the danger of collision. Indeed, it would seem—and the writer asks pardon for the remark—as if it would add to them. If the present rules are to be changed, it is manifest that whatever code succeeds should be equally simple. And here it may be said that in cases where lights can be seen—and this correspondent's plan makes no allowance for others—there is not, or, rather, there should not be, any difficulty in avoiding a meeting. Generally stated, the present rules compel a steamer to keep out of the way of a sail, and of two sailing vessels meeting, that with a free wind must give way. When a great steamer like the Oregon, running at full speed, meets another vessel in foggy weather or in a haze, which seems to have been the prevailing conditions at the time of her mishap, there is no reason to believe that any code of signal lights would avail to arrest disaster. A ship which, with her helm hard down, does not fairly begin to respond until the end of half a mile's run, can scarcely be expected to keep out of the way of another vessel when sighted close aboard.

Again, sailing vessels cannot always go as they will, their movements being restricted by the wind. A vessel close-hauled and jammed up against the wind cannot be turned any further in the direction whence the wind is blowing, without stopping her headway and leaving her helpless and unmanageable. Hence, to signal to such a vessel to "pass to the port side," as suggested, would, if such "passing" was to windward, be idle, if not positively ridiculous.

It is true that the masters of these big steamers do pretty much as they please on the high seas, and are not inclined to confine themselves to a strict interpretation of the rules of the road. If proof of this were wanting, it might readily be found in the letters recently sent to the press by the skippers of coastwise craft. These men allege, in effect, it has come to that pass that, when they meet a big transatlantic liner, they know the sea-going rules are "off" for the time being. Experience has taught them that she will hold her course, willy nilly, and it only remains for them to get out of her way—to sheer off or even to luff up into the wind and let their sails flap.

Such mishaps as that which befell the Oregon seem not to proceed so much from any defect in the sea-go-