

nose and went down at an angle of 15° with the surface. At a depth of 7 feet, as indicated by her flagpoles, she came to an even keel and ran forward steadily for several hundred yards. An ascent was then made, the boat coming up nose first at the same angle as she descended. The cover of the conning tower was then thrown open and Mr. Holland announced that he would dive completely out of sight. One of our illustrations was taken just at this moment and shows the inventor in the act of closing the cover. This time she dived completely out of sight, the flagpoles disappearing altogether. No trace of the vessel was visible until she made her appearance suddenly at a point several hundred yards distant from the point at which the descent was made.

Later a test was made of the bow aerial torpedo gun, and with a reduced air pressure of 600 pounds (as against the full pressure of 2,000 pounds to the square mile) a dummy torpedo was thrown a distance of 500 yards. Further reference to this formidable craft is made in our editorial columns.

#### The Book Crop of 1897.

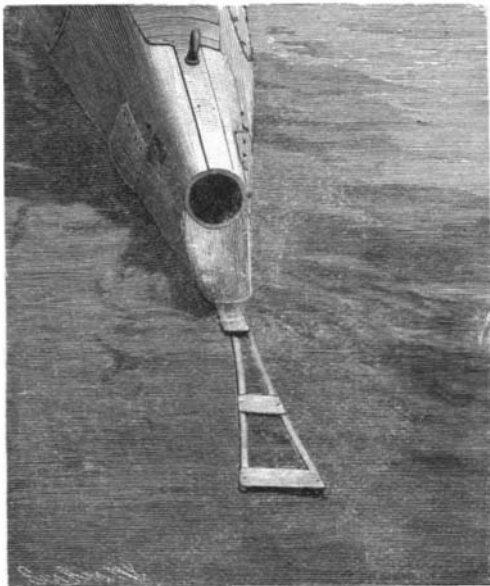
An early number of *The Publishers' Weekly* gives each year a résumé of the book trade of the preceding year, which, though intended primarily for publishers, yet contains matter of interest to readers in general.

In 1897 the number of books issued by the publishers of the United States was 4,928, a less number than had been issued in any previous year since 1893. In that year 4,484 books were published. "The promise of a still increasing volume of publication with which 1896 so hopefully closed," says *The Publishers' Weekly*, "was not fulfilled in 1897." That it was not, the editor ascribes to the delay over the tariff when the Dingley bill was passed. The general tension being relieved, there was a perfect flood of books during the last six months of the year.

The number of books of permanent value is reported as unusually large; "indeed, few other years in the history of the book trade have so many good works to their credit." It is pleasant to learn that this increase in the number of really good books was accompanied by continued prosperity for the booksellers.

In 1896 the publications amounted to 5,703 volumes; in 1897, to 4,928 only. The shortage was due largely to a decrease in the number of English novels republished here. In 1896 these amounted to 690; in 1897, to barely half, 352 all told. The importations of all classes of books were proportionately the same as hitherto; but the number of American books manufactured was much larger in proportion to the total output, being 3,300 out of 5,703 in 1896, and 3,318 out of 4,928 in 1897—not only a larger actual number, but an increase from 58 to 67 per cent of the total number of books published.

*The Publishers' Weekly* divides the publications of the year into nineteen principal departments. In each of these, except theology and religion, juvenile, phy-

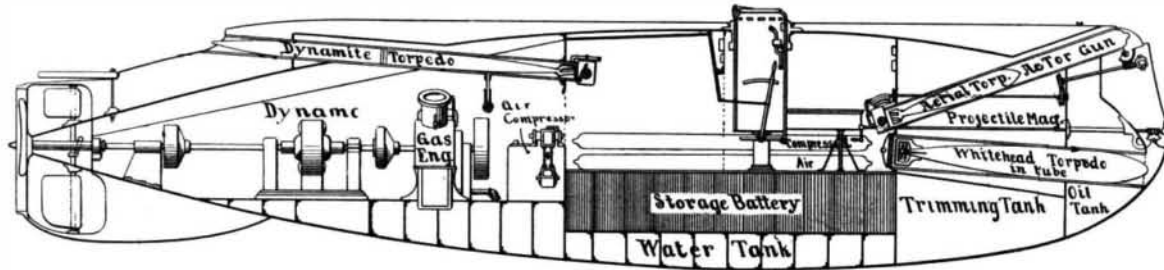


STERN VIEW OF THE 'HOLLAND' SHOWING STERN TORPEDO GUN AND TAIL PIECE FOR PROTECTING RUDDERS.

sical and mathematical science, and mental and moral philosophy, there was a falling off in the number of books published from the number published in 1896. "The figures in fiction are most noteworthy. Novels from all sources printed or imported in 1897 were only 869 to 1,114 in 1897. To these, however, might be added the 369 juvenile works, as the majority of them were wholly unsuitable for children's reading."

The principal changes in the other departments may be set forth briefly. On theological and religious sub-

jects 460 books appeared in 1896 and 492 in 1897; 553 law books were published in 1896, as against 509 in 1897; 682 books on literary history, as against 415; 293 books of poetry in 1896 and 247 in 1897; 209 books of memoirs and biography, as against 205; 177 on fine arts, as against 138, and 284 on political science, as against 196. Of the 4,928 different publications, 3,318, as has been said, were produced by American authors and manufactured here; 495, produced by foreigners, were manufactured here; and 1,115 were English works, imported here in sheets or bound. More than one-



LONGITUDINAL SECTION THROUGH HOLLAND SUBMARINE BOAT.

quarter of the English importations were of novels. In Great Britain the number of publications of 1897 exceeded that of 1896 by 1,353. Of these, 6,244 were new books and 1,682 new editions. In the departments of law, art and science, voyages, travels and research, and "miscellany, including pamphlets but not sermons," there were losses; in every other department, there was a decided gain in 1897 over the output of 1896. In fiction, 38 new novels were published every week, or more than six a day.

France as well as Great Britain records an increase in book production, the number of "books, musical compositions, engravings," being 13,799 in 1897, compared with 12,738 in 1896. Of these 13,799, however, 6,085 were musical compositions, and 1,671 were engravings; the number of books was thus 6,043. Although no details are obtainable, it probably will not wrong the French publishers and book producers to assume that fiction composed a large proportion of these 6,000 books.

#### REPORT OF THE NAVAL COURT ON THE DESTRUCTION OF THE "MAINE."

We have before us the printed "Report of the Naval Court of Inquiry upon the Destruction of the United States Battleship 'Maine' in Havana Harbor." It is a volume of some 300 pages, and includes the whole of the testimony given before the court. At the end of the report there are some two dozen photographs and drawings illustrative and descriptive of the wreck.

One does not have to read far in this most extraordinary report before the last charitable hope which one may have had, that the wreck was not a crime but an accident, is shut out, and one is forced to the conclusion that a submarine mine of enormous power was exploded beneath the ill-fated ship.

We have selected from the findings of the report and from the drawings such matter as will place our readers in possession of the full facts of the case. It tells its horrible story with too much distinctness to require much comment by way of explanation.

In the half section and plan of the "Maine" (Fig. 1) the normal and proper position of the keel and bow of the ship as she rode at anchor are shown in fine, unbroken lines. The thick lines show the shape into which these parts were distorted by the explosion. The bow it will be seen was twisted around through an angle of 90 degrees and now lies at right angles to the axis of the ship. The ship is blown completely in two a little forward of amidships, and forward of that, at frame 18, the keel has been blown up into an acute inverted V until it is near the surface of the water, or 30 feet above its normal position. These effects are shown in the drawing (Fig. 4) prepared by Ensign Powelson from the reports of the divers and from his own personal investigation. A more detailed view of this point, marked 1 A in Fig. 1, is shown in Fig. 2.

We give below the full findings of the court:

1. That the United States battleship "Maine" arrived in the harbor of Havana, Cuba, on January 25, 1898, and was taken to buoy 4, in from five and a half to six fathoms of water, by the regular government pilot. The United States consul general at Havana had notified the authorities at that place the previous evening of the intended arrival of the "Maine."

2. The state of discipline on board the "Maine" was excellent, and all orders and regulations in regard to the care and safety of the ship were strictly carried out. All ammunition was stowed in accordance with prescribed instructions, and proper care was taken whenever ammunition was handled. Nothing was stowed in any one of the magazines or shell rooms which was not permitted to be stowed there.

The magazines and shell rooms were always locked after having been opened; and after the destruction of the "Maine" the keys were found in their proper place in the captain's cabin, everything having been reported secure that evening at 8 o'clock. The tem-

peratures of the magazines and shell rooms were taken daily and reported. The only magazine which had an undue amount of heat was the after ten-inch magazine, and that did not explode at the time the "Maine" was destroyed.

The torpedo war heads were all stowed in the after part of the ship under the ward room, and neither caused nor participated in the destruction of the "Maine." The dry guncotton primers and detonators were stowed in the cabin aft and remote from the scene of the explosion. Waste was constantly looked after on board the "Maine" to avoid danger. Special orders in regard to this had been given by the commanding officer. Varnishes, driers, alcohol and other combustibles of this nature were stowed on or above the main deck, and could not have had anything to do with the destruction of the "Maine." The medical stores were stowed aft under the ward room and remote from the scene of the explosion. No dangerous stores of any kind were stowed below in any of the other storerooms.

The coal bunkers were inspected daily. Of these bunkers adjacent to the forward magazines and shell rooms four were empty, namely, B 3, B 4, B 5, B 6. A 15 had been in use that day and A 16 was full of New River coal. This coal had been carefully inspected before receipt on board. The bunker in which it was stowed was accessible on three sides at all times and the fourth side at this time, on account of bunkers B 4 and B 6 being empty. This bunker, A 16, had been inspected that day by the engineer officer on duty. The fire alarms in the bunkers were in working order, and there had never been a case of spontaneous combustion of coal on board the "Maine."

The two after boilers of the ship were in use at the time of the disaster, but for auxiliary purposes only, with a comparatively low pressure of steam, and being tended by a reliable watch. These boilers could not have caused the explosion of the ship. The four forward boilers have since been found by the divers and are in a fair condition. On the night of the destruction of the "Maine" everything had been reported secure for the night at 8 o'clock by reliable persons through the proper authorities to the commanding officer. At the time the "Maine" was destroyed the ship was quiet, and therefore least liable to accident caused by movements of these on board.

3. The destruction of the "Maine" occurred at 9:40 P. M., February 15, 1898, in the harbor of Havana, Cuba, she being at the time moored to the same buoy to which she had been taken upon her arrival. There were two explosions, of a distinctly different character, with a very short but distinct interval between them, and the forward part of the ship was lifted to a marked degree at the time of the first explosion. The first explosion was more in the nature of a report like that of a gun, while the second explosion was more open, pro-



CONNING TOWER OF HOLLAND BOAT.

longed and of greater volume. The second explosion was, in the opinion of the court, caused by the partial explosion of two or more of the forward magazines of the "Maine."

4. The evidence bearing upon this, being principally obtained from divers, did not enable the court to form a definite conclusion as to the condition of the wreck, although it was established that the after part of the ship was practically intact, and sank in that condition a very few minutes after the destruction of the forward part. The following facts in regard to the

forward part of the ship are established by the testimony:

A portion of the port side of the protective deck which extends from about frame 30 to about frame 41 was blown up aft and over to port. The main deck from about frame 30 to about frame 41 was blown up aft and slightly over to starboard, folding the forward part of the middle superstructure over and on top of the after part. This was, in the opinion of the court, caused by the partial explosion of two or more of the forward magazines of the "Maine."

5. At frame 17 the outer shell of the ship, from a point 11½ feet from the middle of the ship and 6 feet above the keel when in its normal position, has been forced up so as to be now about 4 feet above the surface of the water; therefore, about 34 feet above where it would be had the ship sunk uninjured. The outside bottom plating is bent into a reversed V shape (A), the after wing of which, about 15 feet broad and 32 feet in length (from frame 17 to frame 25), is doubled back upon itself against the continuation of the same plating extending forward.

At frame 18 the vertical keel is broken in two and the flat keel bent into an angle similar to the angle formed by the outside bottom plating. This break is now about 6 feet below the surface of the water and about 30 feet above its normal position.

In the opinion of the court this effect could have been produced only by the explosion of a mine situated under the bottom of the ship at about frame 18 and somewhat on the port side of the ship.

6. The court finds that the loss of the "Maine" on the occasion named was not in any respect due to fault or negligence on the part of any of the officers or members of the crew of said vessel.

7. In the opinion of the court the "Maine" was destroyed by the explosion of a submarine mine, which caused the partial explosion of two or more of her forward magazines.

8. The court has been unable to obtain evidence fixing the responsibility for the destruction of the "Maine" upon any person or persons.

W. T. SAMPSON, Captain, U. S. N., President.  
A. MARIX, Lieutenant-Commander, U. S. N., Judge Advocate.

UNITED STATES FLAGSHIP NEW YORK, }  
March 22, 1898, off Key West, Fla. }

The proceedings and findings of the Court of Inquiry in the above case are approved.

M. SICARD, Rear Admiral,  
Commander-in-Chief of the United States Naval Forces on the North Atlantic Station.

It should be mentioned that Capt. Sigsbee stated during his examination that he had been informed by the captain of the "City of Washington" that "he had never known, in all his experience, which covers visits to Havana for five or six years, a man-of-war to be anchored at that buoy," at the buoy at which the "Maine" was anchored, "and that he had rarely known

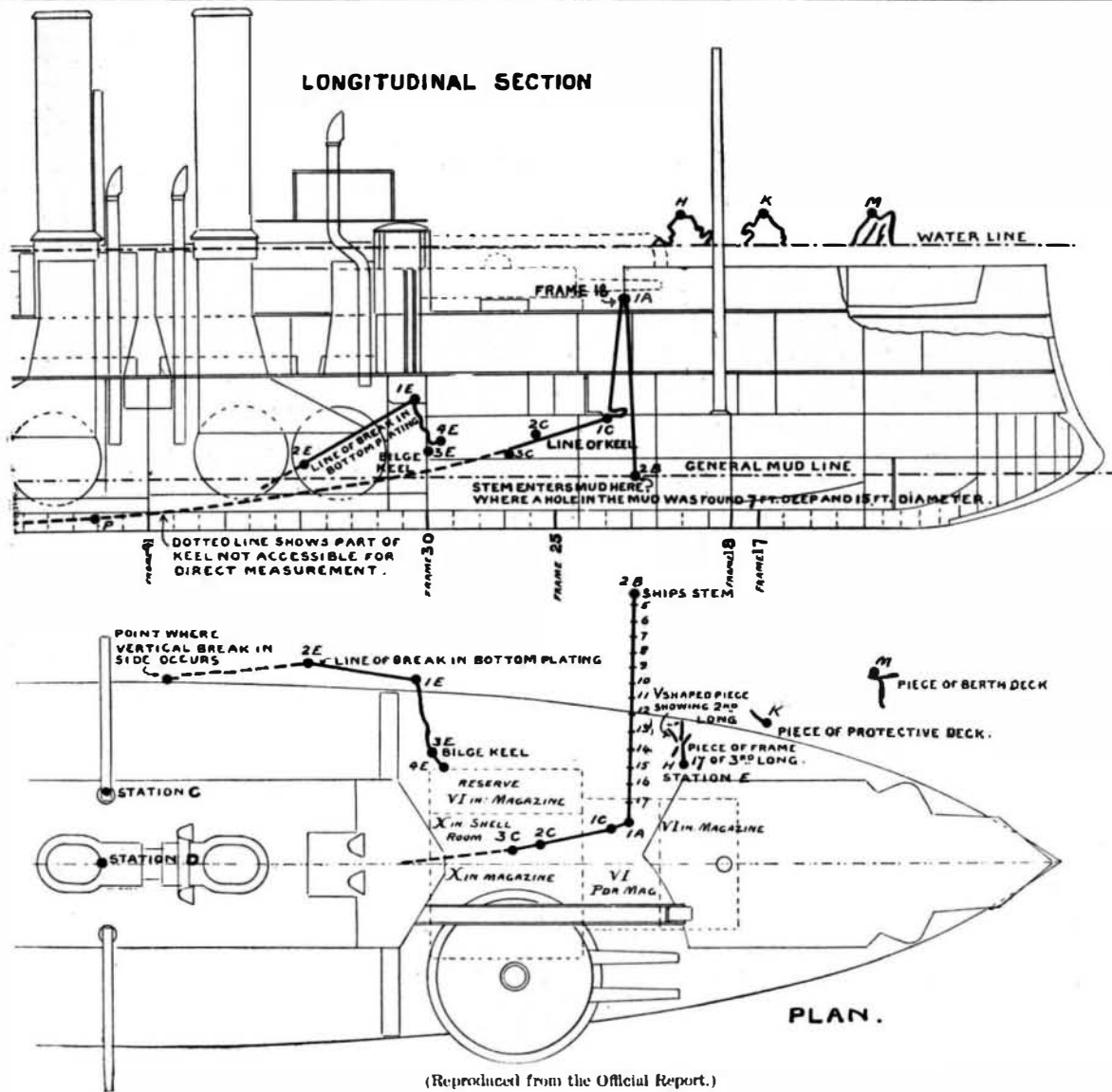


Fig. 1.—DIAGRAM SHOWING BY HEAVY LINES THE PRESENT POSITION OF KEEL AND BOW OF "MAINE."

merchant vessels to be anchored there, and that it was the least used buoy in the harbor."

Commander G. A. Converse, United States navy, was summoned by the court as an expert witness on the action of explosives. He testified that he had been thirty-six and a half years in the naval service, and had made a careful study of the nature and effects of explosives. His experience included eleven years spent at

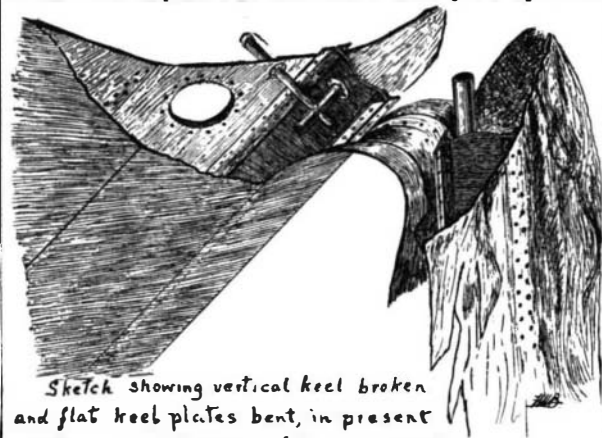


Fig. 2.—SKETCH SHOWING BROKEN KEEL AT POINT MARKED 1 A IN FIG. 1.

the naval torpedo station. The importance of the testimony of Capt. Converse is such as to warrant its being given in full.

Q. Captain, will you please examine the sketches which have been shown you and tell the court whether, in your opinion the explosion of one or all of these

referred to above. It is too far forward; too remote. It is too far from the place marked "Débris," which must be somewhere about frame 27. If that is 27, then the distance, as marked, from frame 18, will be eleven frame spaces, or 44 feet forward of what would appear to be the crater of the most violent explosion.

Q. Then to what kind of an explosion do you attribute the force that caused this bending of plates and keel on sketch?

A. I am of the opinion that it could be produced by the explosion of a submarine mine containing a large amount of the lower explosives—gunpowder or similar—not in contact with the ship, but some distance below it, perhaps on the bottom.

Q. Looking at the sketch shown you, especially at that portion of the keel which has frame 18 on top, and the plates—bent plates—forward of it, excluding entirely all portion abaft of it, could this part which you are now told to consider have become so distorted from the effects of an internal explosion alone?

A. I do not think it could. I have never seen anything in my experience which would lead me to believe that it is possible to produce the effect indicated by any explosion within the interior of the ship in that immediate vicinity.

Q. Looking at the sketch shown you, and informing you that the forward 6-inch magazine and the fixed ammunition room were at that part of the keel which is represented as nearly vertical—that is, frame 18 to frame 24—could the conditions as shown forward of frame 24 have been caused by an explosion of those two magazines or of any magazine abaft of frame 24?

A. I do not think it could.

Q. Do you think, then, necessarily, there must have been an underwater mine to produce these explosions?

A. Indications are that an underwater explosion produced the conditions there.

forward magazines, or their partial explosion, would leave the bottom of the ship in the condition which now exists, as represented in these sketches?

(Exhibit H was shown witness.)

A. The sketch might represent two explosions of entirely different natures. That part of the sketch represented here as frame 14½ to frame 18½, aft, in the direction of frame 23, might be produced by the explosion of a comparatively large mine of not violent explosive matter at some distance below the bottom of the ship; whereas the part abaft of frame 23 has all the appearance of the effect produced on iron plates by a high explosive in close proximity to it. There are in all explosions two general effects: First, the upheaval of the water caused by the direct action of the explosion, followed almost immediately afterward by the second upheaval of water and mud, being the reaction of the water from the sides and the bottom, which rushes in to fill the crater produced by the first explosion. But the location of this upheaval and the distortion of the keel in the present instance does not appear to have been formed by the secondary effect

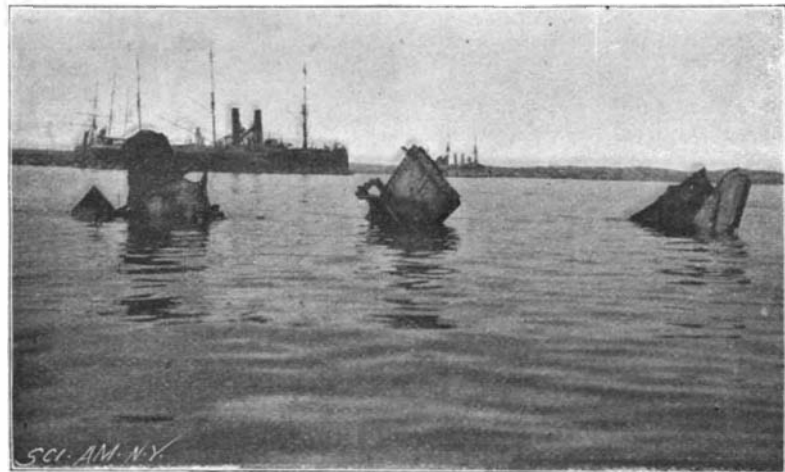


Fig. 3.—VIEW ABOVE FORE PART OF WRECK SHOWING PART OF FRAME 17 PIECE OF PROTECTIVE DECK AND PIECE OF BERTH DECK.

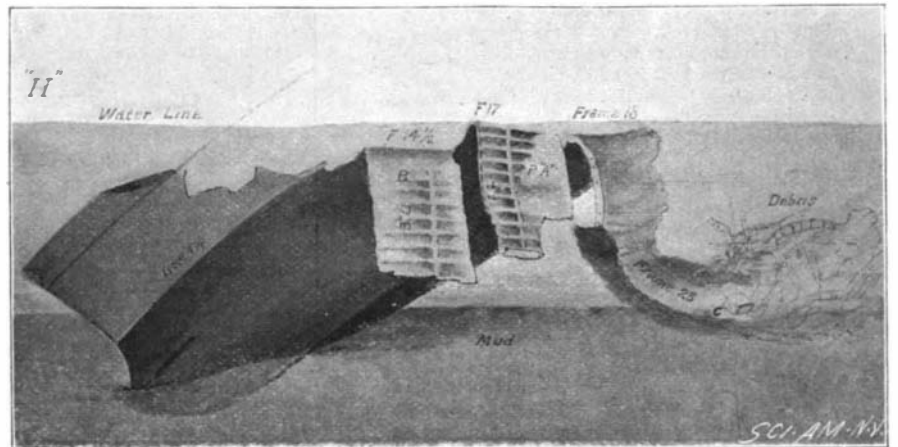


Fig. 4.—FACSIMILE OF OFFICIAL SKETCH (EXHIBIT H) SHOWING CONDITION OF WRECK UNDER WATER AS FAR AFT AS FRAME 28.