

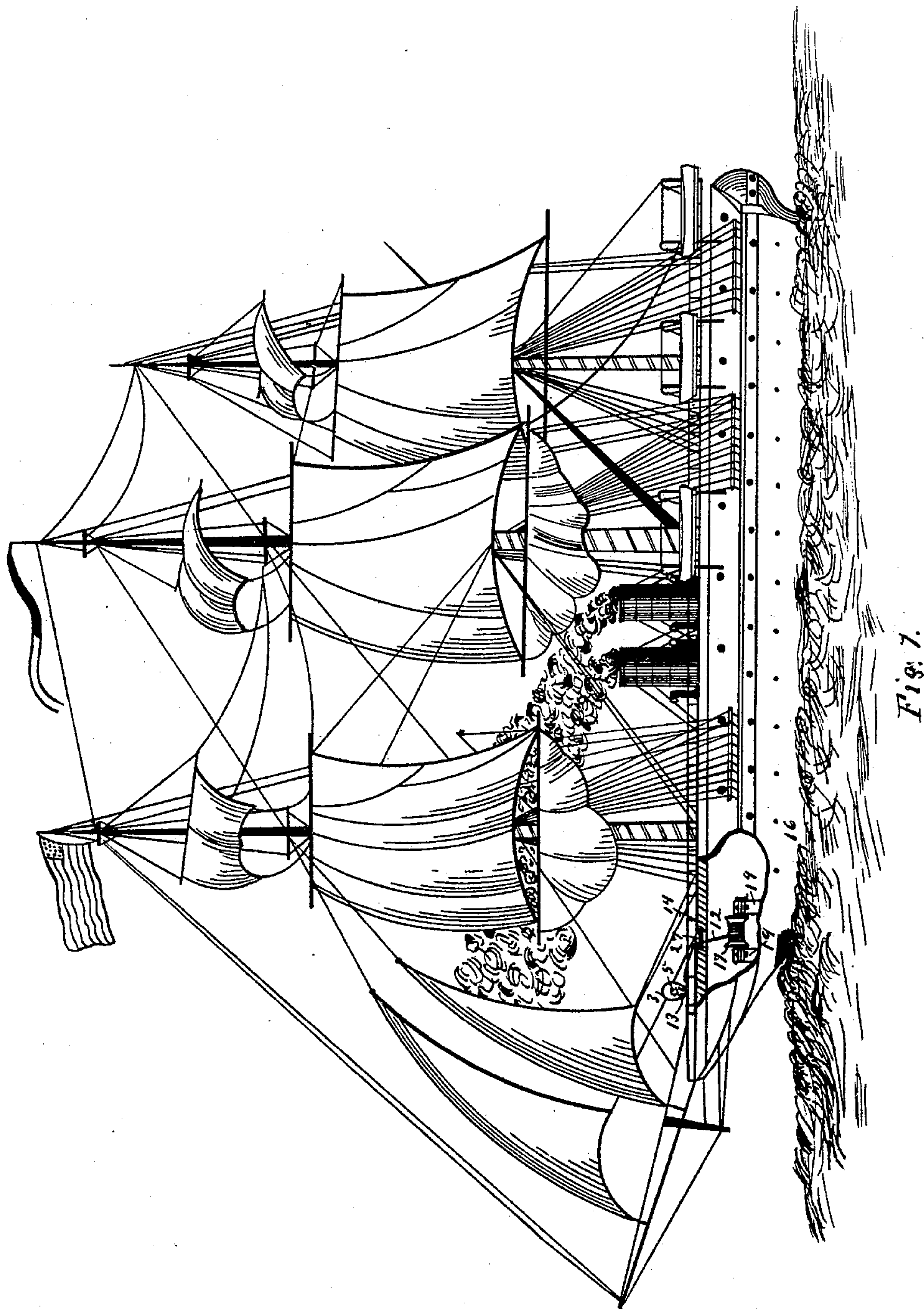
(No Model.)

2 Sheets—Sheet 1.

A. J. CARSON.
BUOY FOR LOCATING SUNKEN VESSELS.

No. 583,456.

Patented June 1, 1897.



Witnesses:
Thomas H. Stewart,
Levi A. Coy

Inventor:
Alvark J. Carson,
By his Attorney
Lucius C. West.

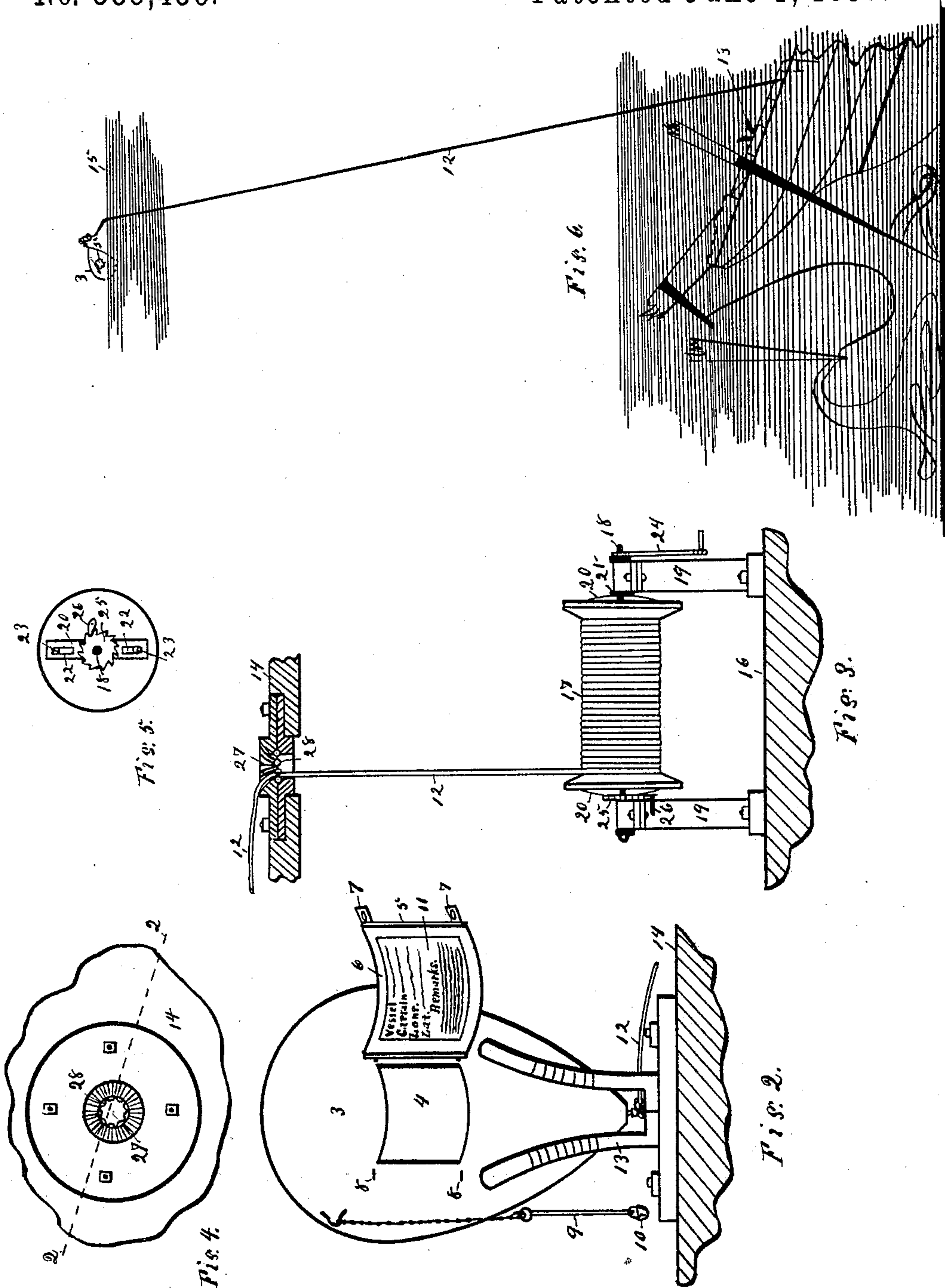
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UNITED STATES PATENT OFFICE.

ALVAH J. CARSON, OF KALAMAZOO, MICHIGAN.

BUOY FOR LOCATING SUNKEN VESSELS.

SPECIFICATION forming part of Letters Patent No. 583,456, dated June 1, 1897.

Application filed August 5, 1895. Serial No. 558,320. (No model.)

To all whom it may concern:

Be it known that I, ALVAH J. CARSON, a citizen of the United States, residing at Kalamazoo, in the county of Kalamazoo, State of Michigan, have invented a new and useful Buoy for Locating Sunken Vessels, of which the following is a specification.

This invention relates to buoys which are designed to locate sunken vessels after a wreck has occurred.

The objects of this invention are, first, to provide a buoy with a line attached in which there shall be no difficulty in the unreeling of the line or cable attached thereto and unwound from a reel or spool upon the vessel; second, to provide improved means of guiding the line from the reel, which shall prevent cutting or wearing of the same by providing a suitable passage therefor through the deck or other covering placed over the reel; third, to provide a buoy which shall be convenient for the receipt of valuable packages and valuable papers, which shall have a convenient chart therein and attached to the door thereof on which definite information as to the location of the vessel at the time of foundering both as to latitude and longitude may be quickly added by the proper officer of the vessel, so that this information may be quickly furnished at the latest possible moment in a perfectly safe and practical manner, and further objects appearing further in the detailed description. I accomplish these objects of my invention by the devices and means described in the following specification and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a vessel equipped with a buoy and reel, a portion of which is broken away to show the reel in the hull of the vessel. Fig. 2 is an enlarged elevation of a buoy detachably supported on suitable arms on the deck of the vessel. Fig. 3 is an enlarged detail view showing the reel and the opening through the deck for the passage of the line, the upper portion being a sectional view on line 2 2 of Fig. 4. Fig. 4 is a top plan view of the aperture through the deck, showing the construction and arrangement of the parts for protecting the same and protecting the line or cable that passes there-through. Fig. 5 is an end view of the reel as

it appears in Fig. 3, looking from the left; and Fig. 6 shows a sunken vessel with a buoy floating above the same on the surface of the water.

Referring to the drawings the same numerals represent the same parts throughout the same views.

3 represents the buoy, which is hollow and made of any suitable material and is preferably oval in form and is supported upon the deck 14 of the vessel point downward in a suitable chair 13. In the side of the buoy, which is of light buoyant material, is an opening 4, over which is a suitable door 5, securely hinged thereto, having a gasket or packing-strip 6 around its outer edge to prevent the entrance of water. Hasps 7 7 are on one side of the door to engage staples 8 8, through which a bolt 9 extends to lock the same. On the interior of this door is a suitable chart 11, wherein the name of the vessel and its captain are marked with suitable spaces to indicate the longitude and latitude of the vessel, with a space for remarks to indicate more definitely, if possible, her position and to indicate the condition of the vessel at the time, and other matters of moment. This is provided upon the inside of the door of the buoy at a point convenient for the latest possible notice of the facts of this character. The interior of the buoy can be used for the ship's papers and other articles of value. This is of value in case the guide-line 12 becomes broken.

Secured to the lower end of the buoy 3 is a line 12, which extends through an opening in the deck 14 to the reel 17 below. This reel is a spool or windlass of sufficient size to hold line or cable of sufficient length to extend from the surface to the depths to which the vessel might sink upon the voyage.

The reel 17 is suitably supported on standards 19 19 and carries a ratchet-wheel 25 at one end, on which a pawl 26, secured to standard 19, is attached to act upon the ratchet-wheel 25. To each end of the reel is a spring 20, convex in form and held by suitable pins 23 23 on the head of the spool in slots 22 22. These springs 20 press outwardly against the boxes which carry the shaft 18 of the reel 17 and serve as a drag or brake to prevent the line being unwound more rapidly than needed.

The opening through the deck is provided with protecting-plates 27, the upper one of which is beveled to the aperture to permit the line to pass freely. Around the opening of the center of the plates are formed suitable oppositely-facing grooves, in which are placed antifriction-balls 28, which are allowed to project inwardly and form a suitable bearing for the line as it passes through the hole. The upper plate being beveled and rounded toward the center will be relieved from any friction directly from the line or cable 12, and the points of contact of the line or cable will be at the opening, which is protected by the inwardly-projecting surfaces of the balls. These being round present no sharp corners to engage in rendering the cable or line and present a perfectly smooth and practically frictionless surface for the line to pass over.

From this description it will be seen that a vessel provided with my improved locating-buoy will be substantially protected from loss so far as that is practical in case of a wreck in sunken vessels. If the vessel becomes injured and sinks below the surface, the buoy 3 will rise and draw out the line or cable in rising. This it is enabled to do, owing to the fact that the line is properly guided by the ball-bearings in the plate surrounding the hole through which the line passes. The line is prevented from tangling by the brake upon the reel and owing to the perfect protection of the line, and when it is being paid out the buoy will rise with certainty to the surface, where the line will serve as a guide to the location of the vessel below, or in case the line should become broken the directions found on the chart within the buoy will serve substantially the same purpose.

Having thus described my new improved locating-buoy, I desire to state that it is capable of considerable variation in the details of construction without departing from my invention. In place of the chair 13 which I have shown for supporting the buoy there are various other means which could be provided. In place of putting the reel below the deck it might be placed above the deck and protected by a hood or casing, through which the line might be paid out, and in place of passing the line through the deck it might be passed out through a hole in the side of the vessel having the protection I have here

indicated, and where the rigging of the vessel is complicated the entire apparatus could be supported at a convenient and unobstructed position above the deck.

A buoy constructed as I have indicated with the chart attached would be of great value upon a vessel without the connecting-line located so that it would rise and float away in case of accident to the vessel or in convenient position to be thrown overboard in case of accident.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the buoy 3, suitably supported upon the deck; a line 12, extending therefrom, through an opening in the deck; protecting-plates 27, around said hole the upper one of which is beveled and rounded into the center and which contain grooves in which are antifriction-balls 28, projecting toward the center to serve as an antifriction-bearing for the line 12; the reel 17, below for storing the line 12, having convex springs 23, at each end to press against the supports of the same and serve as a brake or drag to prevent too rapid paying out of the line for the purpose specified.

2. In a device for locating sunken vessels, the buoy 3, made of light buoyant material with a door opening into the same and securely attached thereto by hinged connection; a suitable gasket or packing 6, around the door; and a chart for information secured to the interior of the door where it can be conveniently placed and exactly in position needed at the time for use as specified.

3. In a device for locating sunken vessels, the combination of a buoy 3; a line extending therefrom to a suitable reel below; plates secured to suitable supports and surrounding the line to protect and guide the same the upper plate of which is beveled and rounded toward the center and containing grooves in which are located antifriction-balls that project toward the center as specified.

In testimony of the foregoing I have hereunto set my hand in the presence of two witnesses.

ALVAH J. CARSON.

Witnesses:

RUFUS POWERS,
F. L. CONWAY.