

June 23, 1931.

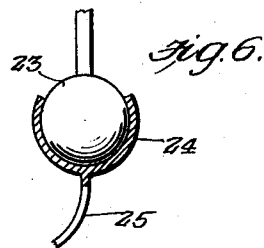
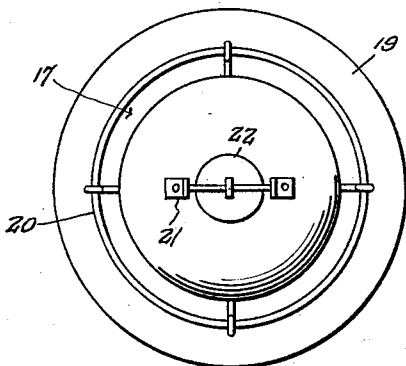
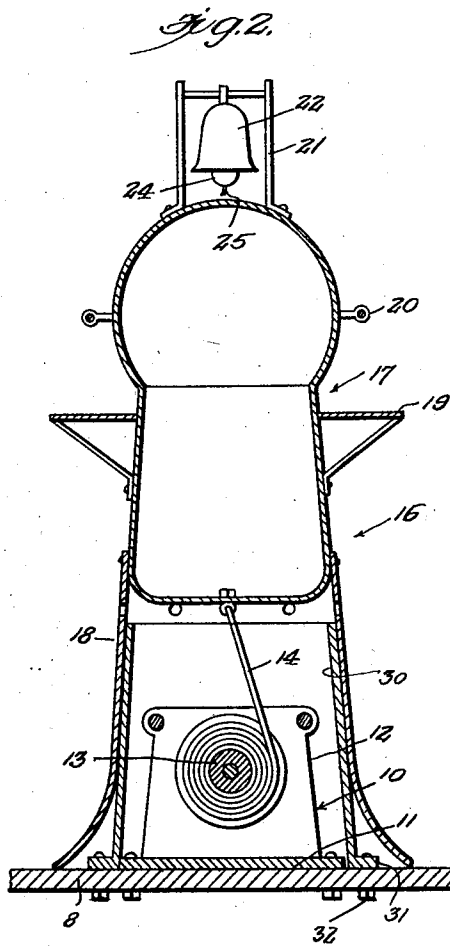
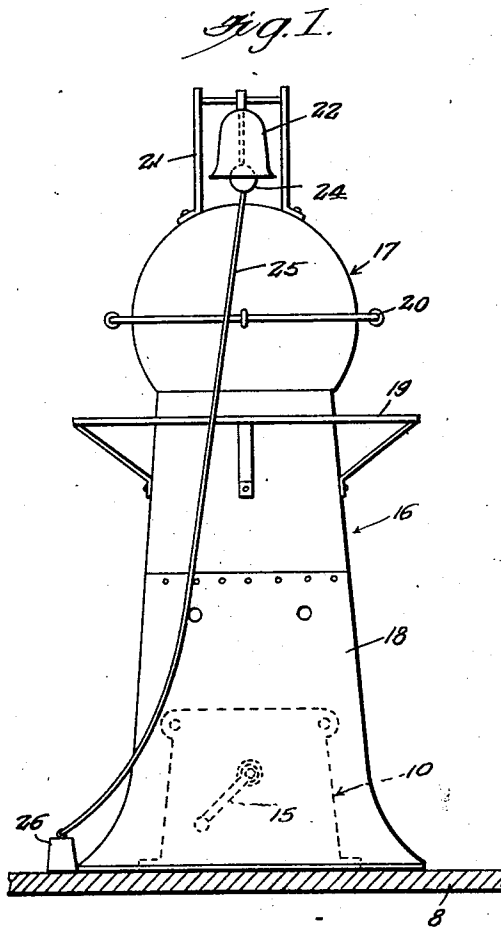
H. J. KERWIN

1,811,014

INDICATOR BUOY FOR SUNKEN SHIPS

Filed Sept. 3, 1929

2 Sheets-Sheet 1



Inventor

H. J. Kerwin,

By *Clarence A. O'Brien*
Attorney

June 23, 1931.

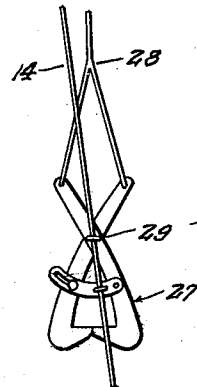
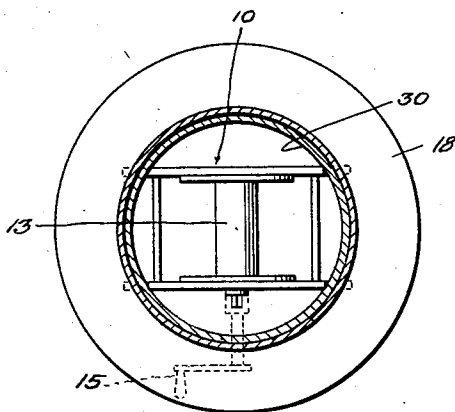
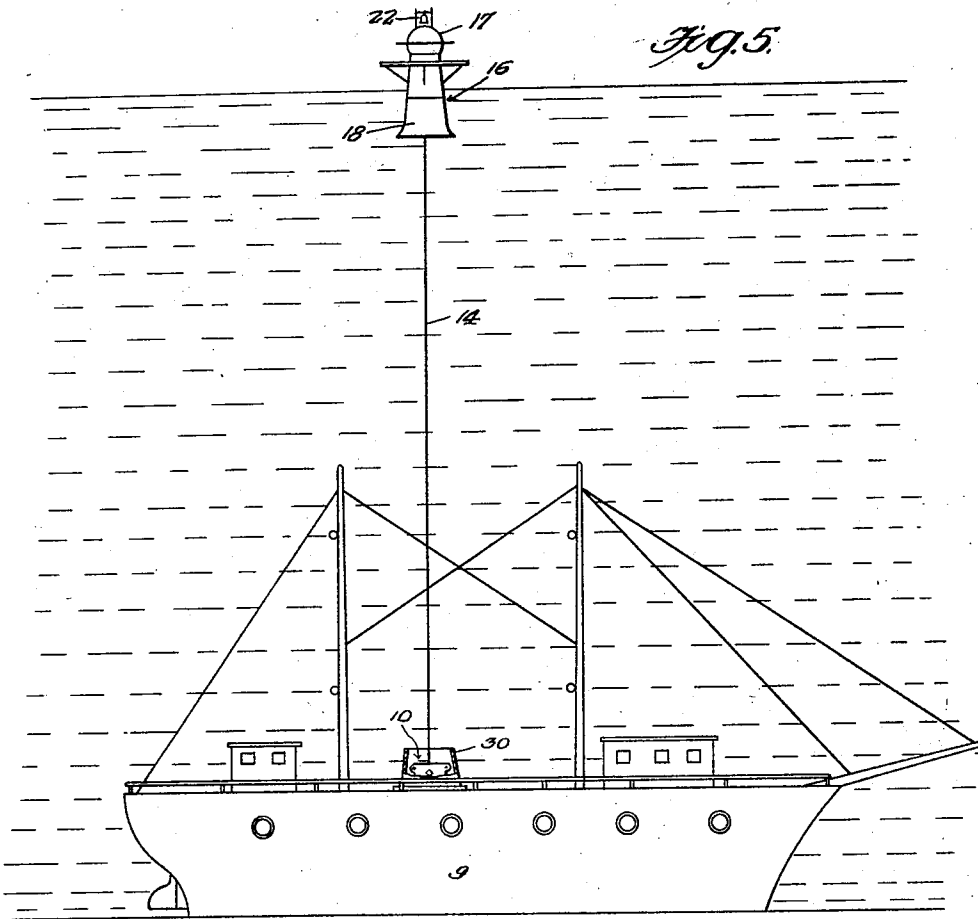
H. J. KERWIN

1,811,014

INDICATOR BUOY FOR SUNKEN SHIPS

Filed Sept. 3, 1929

2 Sheets-Sheet 2



Inventor
H. J. Kerwin,

By *Clarence A. O'Brien*
Attorney

UNITED STATES PATENT OFFICE

HENRY J. KERWIN, OF PHOENIXVILLE, PENNSYLVANIA; LUCILLE A. KERWIN ADMINISTRATRIX OF SAID HENRY J. KERWIN, DECEASED

INDICATOR BUOY FOR SUNKEN SHIPS

Application filed September 3, 1929. Serial No. 390,038.

This invention relates to a device which may be conveniently referred to as a special indicating buoy. It has more particular reference to the species which is normally supported in an inactive and ineffective position on the ship, but which is capable of staying on the surface of a body of water at a point above a sunken ship.

The improvement is characterized by several novel features, in that it is provided with a rescue platform for convenience of persons forced to abandon the ship and upon which they may stand and be sustained normally above the surface of the water, and an associated hand rail.

Another feature distinguishing the invention is a signal bell which is arranged to be continuously sounded when the ship is beneath the water, but which is rendered normally silent by a special noise preventing device.

Other features and advantages of the invention will become more readily apparent from the following description and drawings.

In the drawings:

Figure 1 is an elevational view of an indicator buoy constructed in accordance with the present invention showing it in its normal position on the deck of a boat or the like.

Figure 2 is a central vertical sectional view through the same.

Figure 3 is a top plan view thereof.

Figure 4 is a horizontal sectional view through the lower portion.

Figure 5 is a diagrammatic view showing the manner in which the device floats on top of the water above a sunken ship.

Figure 6 is a fragmentary sectional and elevational view showing the silencing means for the hammer of the signal bell.

Figure 7 is a fragmentary elevational view showing a special form of grapple such as may be slid downwardly on the buoy feed cable for salvaging work.

In Figures 1 and 2, it will be observed that the reference character 8 designates the deck of the boat 9. Attached to this is a windlass 10 having a base plate 11 and suitable frame structure 12, and a drum 13, on which

the feed cable 14 is wound. A detachable hand crank is provided for winding the cable, the hand crank being shown in dotted lines at 15, in Figure 1. The hand crank 15 is connected to the winding drum through an opening in the standard 30.

Associated with the cable and windlass structure is the buoy generally designated by the reference character 16. This comprises a suitably shaped float 17, whose base portion is telescopically fitted within the upper end of a skirt portion 18. The lower end of the skirt portion is flared outwardly to form a base and this skirt fits telescopically a tubular element 30 and is in sliding frictional engagement therewith over and normally conceals the windlass structure 10. The skirt is suitably attached to the deck where conditions require such attachment.

The reference character 19 designates an annular platform attached to the float above the water line, of a size to accommodate a number of passengers. Mounted on the float above the platform is a suitably constructed hand rail 20. On top of the ball like portion of the float are uprights 21 on which a signal bell 22 is swingably mounted. The ball like hammer 23, (see Figure 6) is normally prevented from striking the bell and is silent through the medium of a rubber cup protector 24. This cup protector is normally and snugly fitted over the ball as shown and is attached to the upper end of a flexible rope or the like 25, on the lower end of which is a suitable weight 26 resting normally on deck.

Under normal conditions, the indicator rests upon the deck with the skirt portion over the windlass structure, and the feed cable 14 is wound on the drum 13. Also the protector cup 24 is fitted over the head of the hammer 23 of the signal bell. Hence, even though the deck rocks the bell will be silent, but in the event that the ship would sink, it is obvious that the cable will unreel automatically and that the float will stay on top of the water, while the ship recedes. During this submerging of the ship, it is obvious that the weight 26 will exert a downward pull on the element 25 and will remove

the protector cup 24 from the hammer of the bell. Hence the bell will then be free to sound to attract attention of rescue ships.

The structure seen in Figure 7 comprises a grapple 27 with the lowering cable 28 attached thereto. This grapple is provided with eyes 29 which may be slid downwardly on the feed cable 14 for rescue of the sunken ship.

For the purpose of retaining the device in its proper place on the deck with respect to the windlass 10, an upwardly tapered, open ended tubular standard 30 is secured to the deck through the medium of the outwardly turned flange 31 on its lower end and the securing element 32 passing therethrough. The standard 30 is of a size to provide a freely sliding frictional fit for the skirt portion 18 of the buoy in order that said buoy may rise vertically therefrom should the ship sink. The foregoing is clearly illustrated in Figures 2 and 4 of the drawings.

As is obvious the device is comparatively large and adapted to accommodate persons forced to abandon the ship prior to sinking. Hence the device is also a life saver. Its principal function, however, is to provide a clearly visible and audible indicator buoy to attract attention and to designate the site of the sunken ship.

A careful consideration of the description in connection with the drawings will enable the reader to obtain a clear understanding of the same. Therefore, a more lengthy description is regarded as unnecessary.

Minor changes in shape, size and rearrangement of parts coming within the field of invention claimed may be resorted to, in actual practice, if desired.

I claim:

1. In a structure of the class described, a relatively stationary support, a windlass structure mounted thereon including a rotary drum and a feed cable mounted on said drum, a float, one end of the cable being connected with said float, and a depending skirt portion carried by said float and normally resting on said support, a tubular shell fixed to said stationary support and immediately surrounding said windlass structure.

2. In a structure of the class described, a relatively stationary support, a windlass structure mounted thereon including a rotary drum and a feed cable mounted on said drum, a tubular shell immediately surrounding said drum and fixed to said support, a float, one end of the cable being connected with said float, and a depending skirt portion carried by said float and normally resting on said support and in telescopic register with and frictionally slidable on said tubular shell and concealing said windlass, uprights carried by the upper end of said float, and a signal bell mounted on said upright.

3. In an indicator buoy structure of the class described, a relatively stationary support, a windlass fixedly mounted thereon and including a drum, and a feed cable wound on said drum, a tubular shell immediately surrounding said drum and fixed to said stationary support, a float, the upper end of said feed cable being connected with said float, a skirt connected with and depending below said float and having a flared bottom, said skirt being adapted to slide telescopically upon said tubular shell and in sliding frictional engagement therewith and to enclose said windlass structure, and a signal bell on the upper end of the float.

4. In an indicator buoy structure of the class described, a relatively stationary support, a windlass fixedly mounted thereon and including a drum, and a feed cable wound on said drum, a tubular shell immediately surrounding said drum, a float, the upper end of said feed cable being connected with said float, a skirt connected with and depending below said float and having a flared bottom, said skirt being adapted to frictionally slide telescopically over said tubular shell and enclose said windlass structure, and a signal bell on the upper end of the float, together with a rescue platform rigidly mounted on the float and a hand rail suitably mounted on the float above the water line to sustain the refugees normally above the surface of the water above the platform.

5. In a structure of the class described, a float, a supporting base for the float, a signal bell mounted on the float, and silencing means for the hammer of said bell comprising a cup normally and removably fitted on the head of said hammer, a cord attached to said cup, and a weight attached to the bottom of said cord.

6. A relatively stationary support, a windlass mounted thereon, and including a drum and a feed cable wound on said drum, a tubular shell immediately surrounding said windlass and secured to said stationary support; a tubular skirt-like shell having a flared bottom and adapted to slide frictionally and telescopically over said tubular shell and rest normally upon said stationary support and conceal said windlass structure; a float supported by said skirt-like shell, an indicator mounted on the float, a platform for the reception of refugees and to maintain them above the water line and a hand rail above the platform, both mounted rigidly to and surrounding said float above the water line.

In testimony whereof I affix my signature.

HENRY J. KERWIN.