

Oct. 15, 1929.

H. L. SAUNDERS

1,732,170

WRECK INDICATING BUOY

Filed Dec. 19, 1927

2 Sheets-Sheet 1

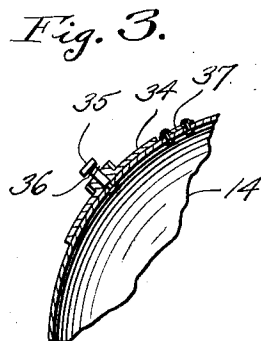
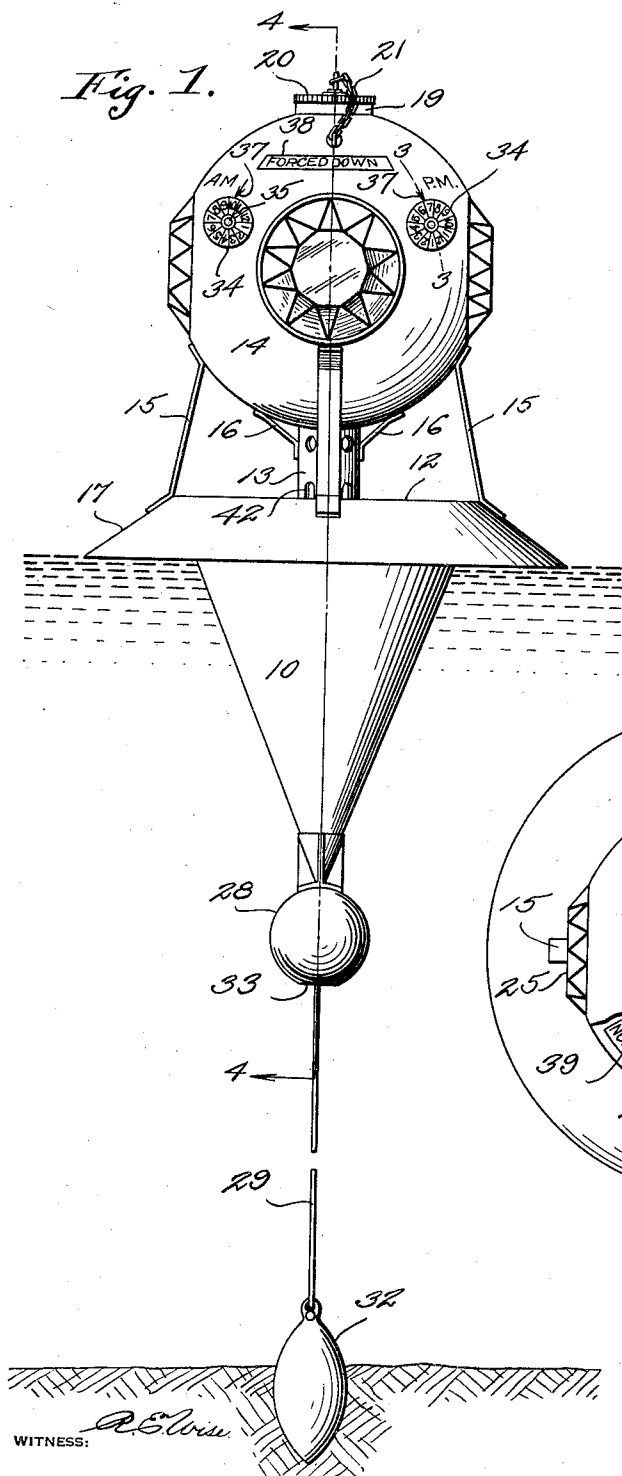
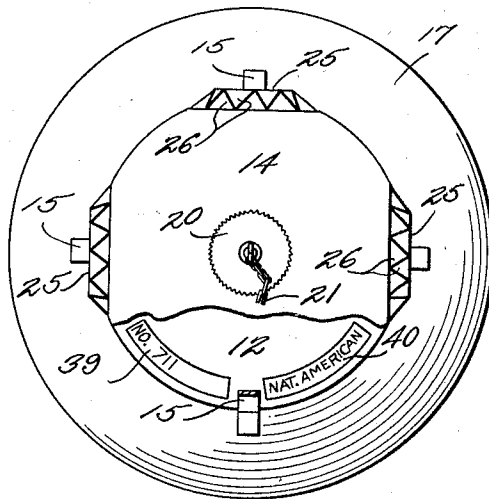


Fig. 2.



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WITNESS:

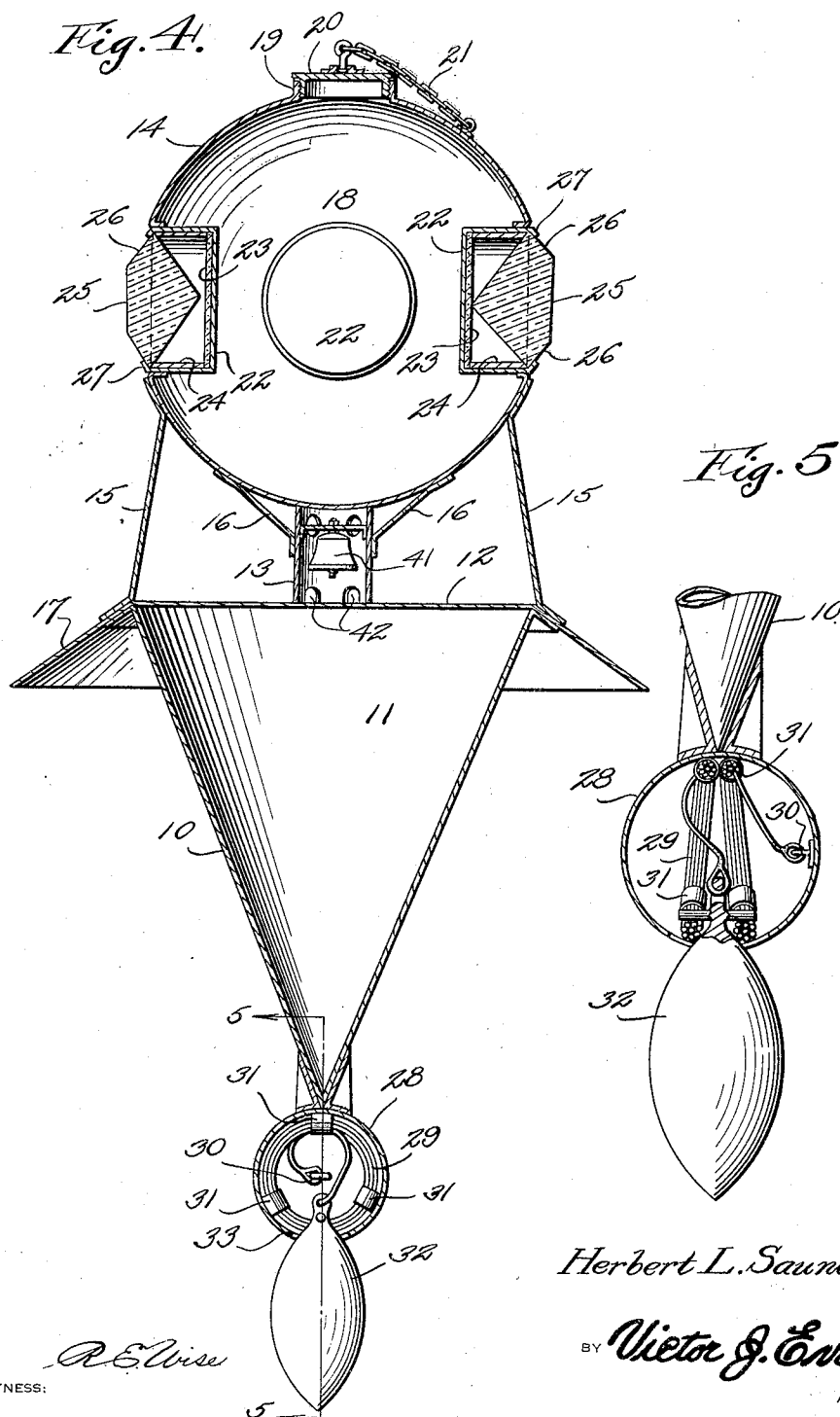
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UNITED STATES PATENT OFFICE

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WRECK-INDICATING BUOY

Application filed December 19, 1927. Serial No. 241,153.

This invention relates to signalling devices adapted for locating wrecks at sea, the invention being especially adapted for use by aviators.

5 An object of the invention is the provision of means whereby aviators and others may leave messages and other information or directions when lost at sea so as to increase their chances of being located, or to furnish information regarding their fate, or information
10 regarding the important features of a voyage or flight, the device being of a character to permit of its being readily located either day or night.

15 With the above and other objects in view, the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and
20 pointed out in the appended claims.

In the drawings:—

Figure 1 is an elevation of the invention illustrating its manner of use.

Figure 2 is a top plan view partly broken
25 away.

Figure 3 is an enlarged sectional view on the line 3—3 of Figure 1.

Figure 4 is a like view on the line 4—4 of Figure 1.

30 Figure 5 is an enlarged section on the line 5—5 of Figure 4.

Referring to the drawings in detail wherein like characters of reference denote corresponding parts, the reference character 10
35 indicates the body of the device which is hollow so as to provide an air chamber 11. This body is preferably of inverted conical formation and has extending from its top 12 a preferably hollow tubular support 13 upon which
40 is mounted a receptacle 14.

The receptacle 14 is preferably of hollow spherical formation and is further secured to the body 10 by means of braces 15, while
45 braces 16 connect the receptacle with the hollow support 13. Extending around the upper edge of the body 10 is an outwardly and downwardly inclined annular flange 17. This flange acts as a retarding or resistance element to check the descent of the device
50 when the latter is dropped from an appre-

ciable height. It also acts in connection with the body 10 (which is buoyant) to assist in supporting the device upon the surface of the water.

The receptacle 14 provides a compartment 55 18 for the reception of messages, or any information or data which the user of the device desires to preserve. For this purpose the receptacle is provided with an opening which is surrounded by an internally threaded collar 19. This collar receives a closure 20 so
60 as to exclude water from the compartment 18, and the closure is made captive by means of a chain 21. The spherical receptacle is preferably formed of a light material such as
65 aluminum and its outer surface is of a highly polished character so as to reflect rays of light. If desired, the outer surface of the spherical receptacle may be nickel plated. The receptacle 14 is provided with spaced recesses 22 within which are located mirrors or
70 reflectors 23 and the latter are held in place by means of collars 24. The receptacles are closed by signal elements 25 which are preferably of prismatic glass formation, their outer
75 faces being provided with facets 26 so as to catch and reflect the sun's rays, or the rays of artificial light. The device will thus be plainly visible both day and night. The elements 25 engage the outer edges of the collars 24 and are gripped within inturnd
80 flanges 27. The body 10 has preferably suspended therefrom a receptacle 28. This receptacle is designed to house a cable 29 which is normally coiled and which has one end secured within the receptacle as shown at 30.
85 The cable is held in coiled formation by means of binders 31 and has secured to its outer end a weight 32. Normally the weight extends inward through an opening 33 provided in the
90 bottom of the receptacle 28.

The receptacle 14 has mounted upon its outer face indicating dials 34. These dials, are mounted for rotation upon pivot posts
95 35 and are frictionally held in position through the pressure of springs 36. One of these dials indicates a. m. and the other p. m. and each dial is provided with an indicating arrow 37. Arranged above and between the dials as shown at 38 are the words "Forced 100

down" and when an aviator or other person is forced down, or for any other reason desires to use the device, he sets the particular dial at the approximate hour of the hap-
5 pening. For example, the dials which contain numerals indicating the hours from one to twelve are set so that the particular hour will be indicated by the pointer or indicator 37, the dial used being governed by the po-
10 sition of the sun. In addition, a blank space is provided for the insertion of the number of the airplane, as indicated at 39, while an additional blank space is provided for the in-
15 sertion of the nationality of the aviator or the ship as shown at 40. Thus at a glance complete information may be obtained as to the user of the device, while any other in-
formation may be placed within the recep-
20 tacle 14.

When the device is dropped from an air-
plane, the resistance flange 17 will act to
retard its downward flight, so that impact
with the water will be greatly lessened. In
addition, this flange will act to increase the
25 buoyancy of the device. As the binder 31 is made of paper or other material of a char-
acter to release the coiled cable 29 by the
action of water, when the cable is released,
the weight 32 will sink, so that the device will
30 remain in substantially the same location it was dropped.

While the invention is primarily designed for the use of aviators, it is apparent that it may also be used for emergency marking in
35 the event of wrecks of steamers and other vessels. It may also be used as a guide for air-
craft or vessels at night and may be used as markers for ships' channels.

Located within the hollow support 13 is a
40 bell or other audible signal 41, the said support 13 having sound escape openings 42 therein. As the action of the water will agi-
tate the device, the signal will be operated so that in addition to being seen, the said sig-
45 nal may be heard for an appreciable distance to aid in locating the device.

The invention is susceptible of various changes in its form, proportions and minor details of construction and the right is here-
50 in reserved to make such changes as properly fall within the scope of the appended claims.

Having described the invention what is claimed is:—

55 1. A signalling device comprising a buoyant body, a receptacle attached thereto and having a normally closed opening, signal-
ling devices supported by the body, a cable
60 receptacle carried by the buoyant body and having an opening for the admission of water, a coiled cable housed within and having one
end attached to the receptacle, means adapt-
ed to be acted upon by water entering the
65 cable receptacle to hold the cable in closed

position, and a weight at the outer end of the cable.

2. A signalling device comprising an in-
verted conical hollow buoyant body, a
70 polished spherical receptacle mounted upon the body and having an opening therein, a closure for the opening, signalling devices
carried by the body, a flange extending out-
wardly and downwardly from the upper edge
of the body, a cable receptacle at the lower
75 end of the body, a cable within the receptacle and a weight carried by the cable.

In testimony whereof I affix my signature.

HERBERT LOUIS SAUNDERS.

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