Jan. 24, 1961 C. R. JENSON 2,968,819

EMERGENCY BUOY MARKER

Filed July 23, 1958

FIG. 1

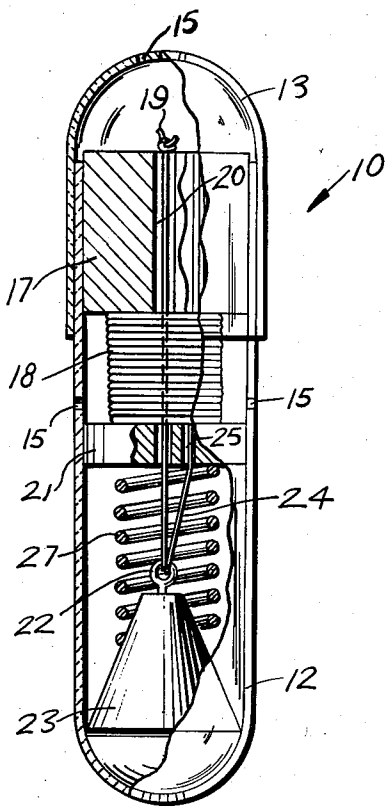


FIG. 2

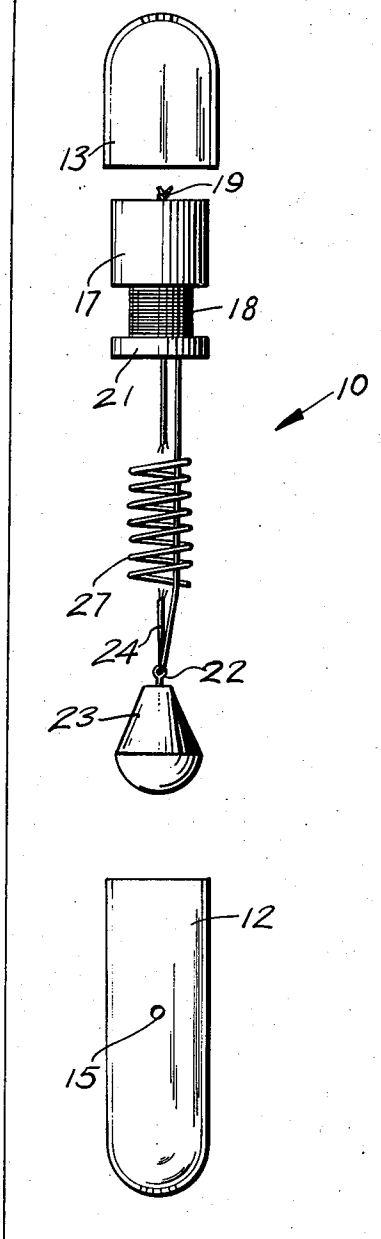
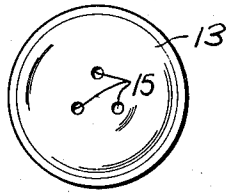


FIG. 3



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EMERGENCY BUOY MARKER

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3 Claims. (Cl. 9—9)

This invention relates to signal apparatus and more particularly to a buoy marker.

It is an object of the present invention to provide an emergency buoy marker that is particularly useful for fisherman in retrieving articles which have been accidentally dropped into the water.

Another object of the present invention is to provide an emergency buoy marker of the above type which is completely self contained in a compact capsule which contains a heavy sinker and is automatically opened after a predetermined period of time following the dropping thereof into the body of water to facilitate the location of lost articles.

Other objects of the invention are to provide an emergency buoy marker bearing the above objects in mind which is of simple construction, has a minimum number of parts, is inexpensive to manufacture and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in conjunction with the accompanying drawing, in which:

Figure 1 is a side elevational view, with parts broken away, of an emergency buoy marker made in accordance with the present invention;

Figure 2 is an exploded side elevational view of the various components of the marker made in accordance with the present invention; and

Figure 3 is a top plan view of the marker shown in Figure 1.

Referring now more in detail to the drawing, an emergency buoy marker **10** made in accordance with the present invention is shown to include a main housing having a main bottom closure **12** and a removable top closure **13**. The bottom and top closure elements **12, 13** are preferably in the form of a capsule and these closure parts are slidably and releasably secured together. Access openings or ports **15** are provided in each of the bottom and top closures to facilitate the entry of water into the interior thereof when the unit is immersed in water, for purposes hereinafter explained.

The interior of the main housing is substantially filled with a float member **17** and a heavy weight or heavy sinker member **23**. A predetermined length of line **18** is wound upon the float **17** for constantly connecting the sinker **23** thereto. One end of this line **18** extends through a longitudinal bore **20** in the float **17** and is secured thereto by means of a knot **19**. The opposite end of the line **18** extends through an eye loop **22** in the sinker **23** and into a short bore **25** in the base **21** of the float. This bore **25** is substantially filled with a water soluble glue which releasably secures this terminal portion of the line to the float. A compression spring **27** acting between the base **21** of the float and the sinker **23** normally exerts a separating force upon the sinker and float element, which force is resisted by the fixed length of line between the glue secured end within the bore **25** and the portion

of the line connected to the eye loop **22**. However, when the buoy marker is dropped as a unit in a body of water the heavy sinker causes the buoy marker to sink, then in response to immersion of the unit **10** within the body of water, such water will enter the ports **15** in the top and sides of the housing and will dissolve the glue within the short bore **25** in a predetermined period of time, such as ten minutes. After the glue has been so dissolved, the terminal portion **24** of the line is released, thus enabling the compression spring **27** to expand sufficiently to cause the float and sinker elements to urge the bottom and top closures **12, 13** apart. As soon as the main housing has been opened in this manner, the float member **17** will start to rise toward the surface of the body of water while the sinker **23** remains upon the bottom thereof, the line **18** unwinding as the float moves upwardly. The float will then become visible upon the surface of the water marking the spot at which the sinker **23** remains at the bottom.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

What I claim as new and desire to protect by Letters Patent of the United States is:

1. An emergency buoy marker to be dropped in a body of water for use in locating and retrieving submerged articles comprising, in combination, a hollow main housing composed of a bottom closure closed at its base end and a top closure closed at its upper end, the open end of said top closure slidably and frictionally mounted upon the open end of said bottom closure, a cylindrical float vertically arranged within said main housing and provided with a longitudinal central bore extending therethrough from top to bottom, the intermediate portion of said float being of reduced diameter effecting a float top end portion and a float bottom end portion integrally secured together, a shoulder formed between said top end portion and said intermediate portion, a shoulder formed between said bottom end portion and said intermediate portion, said intermediate portion forming a means for supporting a predetermined length of line wound thereon, a sinker supported within said bottom closure beneath said bottom end portion of said float, an eye loop mounted upon the exterior of said sinker, a coil type ejecting spring arranged in compressed form within said bottom closure between said bottom surface of said bottom end of said float and said sinker, one end of said line anchored to said intermediate portion of said float, the adjacent line portion wound upon said intermediate portion, a short longitudinal bore extending through the bottom end portion of said float parallel with and adjacent said central bore thereof, the opposite end portion of said line extending downwardly through said short longitudinal bore and then through said eye loop on said sinker and then upwardly through said central bore where the terminal end of said line is anchored upon the upper surface of said float, a water soluble glue filling said short bore and securing said terminal end portion of said line therewithin to hold said ejecting spring in compressed form, port means within the walls of said housing for admitting water into the interior thereof when it is submerged in water, the dissolving of said glue in said short bore when water enters the interior of said housing releases said line within said short bore and hence said ejecting spring and causing the separation of said bottom closure and said top closure and the ejection of said float from said housing, thereby allowing said float to rise to the surface of the submerging water, and said sinker remaining submerged for maintatining remote control of

the position of said float upon the surface of the water acting as a buoyant marker.

2. The buoy marker assembly as defined in claim 1 wherein said sinker is made in the shape of a truncated cone with said eye loop extending upwardly from the apex thereof.

3. The buoy assembly as defined in claim 2 wherein said ejecting spring sleeves said line between said sinker and said float, and one end of said spring acting upwardly on said float and the opposite end of said spring acting on and supported on the conical surface of said sinker.

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