## P. BICHEK. WRECK INDICATING BUOY. APPLICATION FILED JUNE 19, 1920.

1.372,591.

Patented Mar. 22, 1921.



# UNITED STATES PATENT OFFICE.

# PAUL BICHEK, OF HUDSON, WYOMING.

#### WRECK-INDICATING BUOY.

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### Specification of Letters Patent. Patented Mar. 22, 1921.

#### Application filed June 19, 1920. Serial No. 390,115.

#### To all whom it may concern:

Be it known that I, PAUL BICHEK, a citizen of Jugo-Slavia, residing at Hudson, in the county of Fremont and State of Wyoming, have invented certain new and useful Improvements in Wreck-Indicating Buoys, of which the following is a specification.

The present invention relates to certain new and useful improvements in wreck-in-10 dicating buoys of that type adapted to normally assume a position upon the deck of a vessel and connected with the vessel in such manner as to automatically assume a floating position in the water at a point substan-15 tially above the vessel when the latter sinks

for any reason.

The primary object of the present invention is to provide a buoy of the above type which is extremely simple and durable in

20 construction as well as efficient in operation.

A further object of the invention is to provide novel means for automatically causing illumination of the buoy upon movement 25 of the same from the deck of the vessel

when the latter is sunk.

With these general objects in view and others that will appear as the nature of the invention is better understood, the same con-

30 sists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated in the accompanying drawings, and pointed out in the appended claims.

<sup>35</sup> In the drawings forming a part of this application and in which like designating characters refer to corresponding parts throughout the several views.

Figure 1 is a somewhat diagrammatical 40 elevational view showing a buoy constructed in accordance with the present invention as it would appear when associated with a sunken ship.

Fig. 2 is a substantially central vertical 45 sectional view of the buoy,

Fig. 3 is a top plan view thereof,

Fig. 4 is a fragmentary sectional view showing the battery cell and lamp socket separated in an inoperative position and

50 Fig. 5 is a transverse sectional view taken substantially upon line V—V of Fig. 4.

Referring more in detail to the several views, the present invention embodies a hollow body 5 preferably constructed of sheet 55 metal so as to provide a frusto-conical upper portion 6 and a cylindrical comparatively large base portion 7. The bottom of the body 5 is so formed as to provide an open chamber 8 within the base portion 7 in which a suitable drum 9 is journaled upon a 60 horizontal axis for free rotation. A cable 10 is wound upon the drum 9 and suitably fastened as at 11 to the deck 12 of the vessel 13 so that when the buoy rises from the deck of the vessel the cable will be unwound 65 from the drum sufficiently to allow the buoy to reach the surface of the water as shown in Fig. 1 at a position substantially above the vessel for indicating approximately the position of the latter. 70

It will thus be seen that the body 5 is in the nature of a hollow float-carrying means for storing a cable which connects the buoy to the vessel. A tube 14 is vertically disposed and fixed substantially centrally in 75 the body 5 and extends from the top of the chamber 8 through the top wall 15 of the body 5, and projects beyond said top wall 15 for a slight distance to a point within a dome 16 fixed upon the top wall 15 as clearly 80 shown in Figs. 1 and 2. A plurality of bat-tery cells 17 are disposed within the tube 14 in a manner somewhat similar to the arrangement of battery cells in the ordinary hand flash lamp, and these cells are normally 85 pressed into engagement by a helical spring 18 in the usual manner. An incandescent lamp 19 has its base suitably secured in the upper end of the tube 14 within the dome 16 so that its filament is substantially on a 90 level with the transparent windows 20 provided in the dome 16. An elongated plate 21 is adapted to be normally interposed between one contact of the lamp 19 and the upper contact of the uppermost cell 17 so as 95 to maintain a broken connection at this point whereby the light is normally out, the circuit of the cells 17 and lamp 19 being completed between the other contact of the lamp 19 and the cells in any suitable man- 100 ner so that when the separator plate 21 is withdrawn as shown in Fig. 4, the lamp 19 will be lighted for clearly showing the position of the buoy at nighttime. A lever 22 is pivoted within the dome 17 at its upper 105 end to a bracket 23 and is pivotally connected intermediate its ends to the plate 21, while a rod 24 is slidably disposed through the dome wall and pivotally connected at its inner end to the lower end of the lever 110 22. A fragile string or cord 25 is connected to the rod 24 and extends through suitable

guides 26 down along one side of the body 5 and under the latter where the said cord is attached to the cable 10 as at 27. It will thus be seen that when the buoy rises from 5 the deck of the vessel as the latter sinks, the cable 10 is paid out for such distance until the cord 25 is pulled for withdrawing the separator plate 21 and allowing the battery cells to move upwardly for closing the cir-10 cuit of the lamp 19. Further sinking of the vessel requires further unreeling of the cable 10 so that the cord 25 breaks, and in order to hold the separator plate 21 in withdrawn position, springs 28 are arranged to 15 frictionally bear upon the sides of the lever 22 as shown in Figs. 4 and 5.

The dome 16 may be provided with a removable cover 29 for permitting access to the interior of the dome for renewal or re-20 pair purposes with regard to the parts contained in said dome. If desired a suitable signal flag or the like 30, may be carried by the cover 29.

It is believed that the construction and 25 operation as well as advantages of the present invention will be readily understood and appreciated by those skilled in the art by the foregoing description. Minor changes may be made without departing from the 30 spirit and scope of the invention as claimed. What I claim as new and desire to secure

by Letters Patent, is:-

1. In a wreck-indicating buoy, a hollow body in the form of a float, a drum journaled

within said hollow-body, a cable wound 35 upon said drum and adapted for connection with the deck of a vessel, a dome upon said body, illuminating means including a lamp in said dome and battery cells within the body, means connected between the cable 40 and the illuminating means for automatically causing the lamp to be lighted upon paying out of said cable, said last-named means including a separator plate arranged to be normally interposed between a contact 45 of the lamp and a contact of one of the battery cells, and means including a fragile cord connected to the cable and the separator plate for withdrawing the latter from between said contacts. 50

2. A wreck-indicating buoy including a hollow floatable body having a central tube with superposed battery cells therein, a spring for normally pressing said battery cells upwardly into contact with each other, 55 a dome upon the top of said body, an incandescent lamp in the upper end of said tube within said dome, means to normally hold said cells lowered with a contact of the uppermost cell and a contact of said lamp 60 separated, and means to automatically release said holding means upon the movement of said body from the deck of a vessel, whereby said spring may raise said cells for engaging said contacts with each other so 65 that said lamp will be lighted.

In testimony whereof I affix my signature. PAUL BICHEK.