

May 24, 1932.

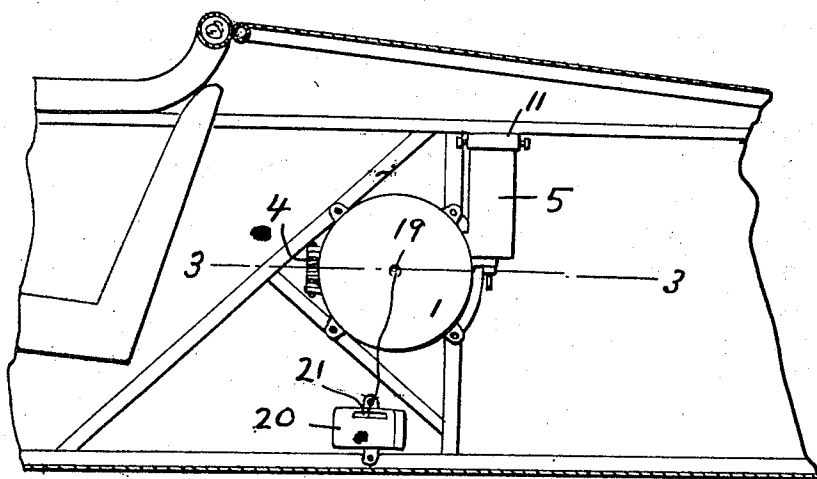
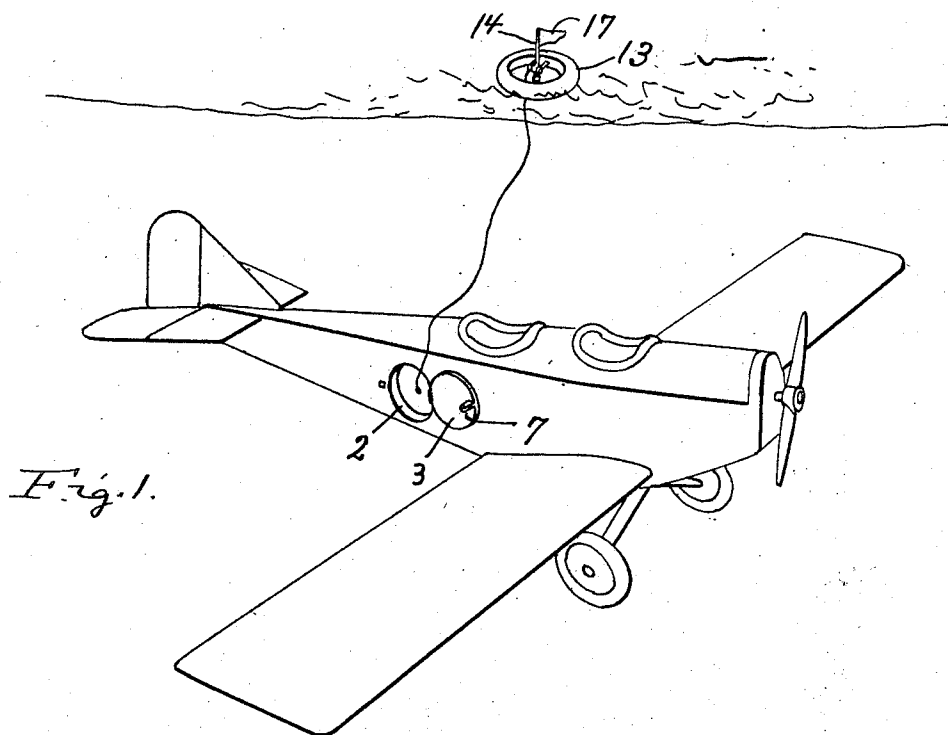
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AEROPLANE FLOAT SIGNAL

Filed Oct. 21, 1931

2 Sheets-Sheet 1



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2 Sheets-Sheet 2

Fig. 3.

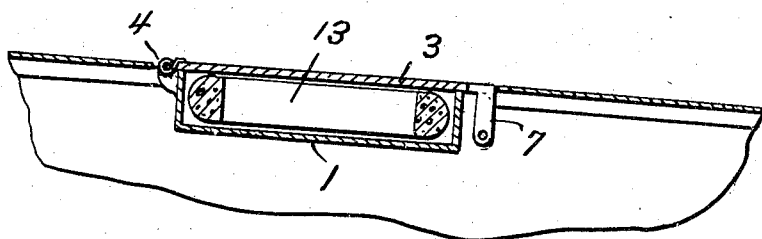


Fig. 6.

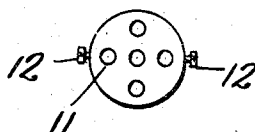


Fig. 4.

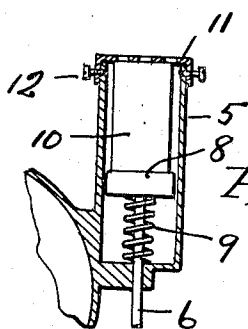
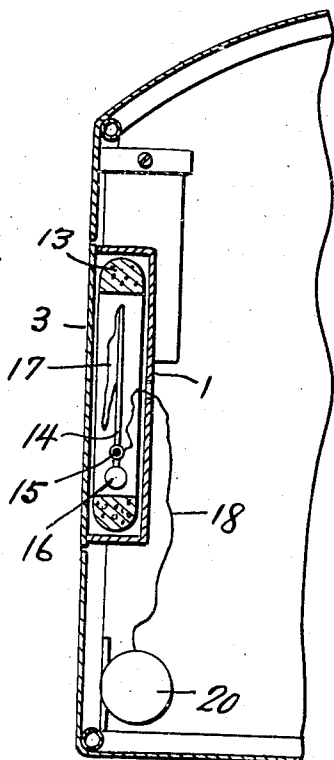


Fig. 5.

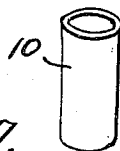


Fig. 7.

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UNITED STATES PATENT OFFICE

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AEROPLANE FLOAT SIGNAL

Application filed October 21, 1931. Serial No. 570,181.

This invention relates to a floating signal for aeroplanes and the like, the general object of the invention being to provide means for indicating the spot in a body of water where an aeroplane or the like has sunk, with means for normally holding the signal in a compartment formed in a part of the fuselage and means for automatically releasing the spring door of the compartment when the plane drops into a body of water so that the signal will float from the compartment and rise to the surface.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a view showing the signal in use marking the spot where an aeroplane has sunk into a body of water.

Fig. 2 is a sectional view through part of the fuselage of the plane showing the parts of the invention therein.

Fig. 3 is a section on line 3—3 of Fig. 2.

Fig. 4 is a vertical sectional view thru Fig. 2.

Fig. 5 is a vertical sectional view thru the lock cylinder.

Fig. 6 is a view of the cap for said cylinder.

Fig. 7 is a view of a roll of blotting paper for normally holding the spring bolt in projected position.

In these drawings, the numeral 1 indicates a casing which forms a small compartment in the fuselage of the plane and which is located on one side thereof, and the fuselage is formed with an opening 2 which communicates with the compartment, and this opening is closed by a door which is provided with the spring hinge 4, the spring of which normally holds the door in open position.

A cylinder 5 is suitably supported in the fuselage adjacent the casing 1, and a bolt 6 is located in the cylinder with a part project-

ing therefrom to engage the keeper 7 of the door to normally hold the door in closed position. The inner end of the bolt is provided with a head 8, and a spring 9 is placed between the head and the lower end of the cylinder and tends to hold the bolt in retracted position so that the door can be opened by the spring hinge.

A roll 10 of blotting paper normally holds the bolt projected as said roll is placed between the head 8 and a perforated cap 11, which is detachably connected to the upper end of the cylinder by the screws 12. The blotting paper is rolled with the grain and glued together with sealing paper.

Thus, as water enters the fuselage, some of this water will pass through the perforations in the top 11 and enter the cylinder 5 so as to moisten the blotting paper which will then collapse under the pressure of the spring 9, so that the spring will retract the bolt 6 and the door will swing open under the action of its spring hinge.

A ring-shaped float or buoy 13 is placed in the chamber formed by the casing 1 and a staff 14 is pivotally arranged in the buoy as shown at 15 and has a weight 16 on its lower end and a flag 17 on its other end, the weight tending to hold the staff in upright position when the float or buoy is floating on the surface of the water as shown in Fig. 1.

A cable 18 is connected to the float and passes through a hole 19 in the inner wall of the casing 1, and then passes downwardly and is wound upon a spool, (not shown) located in a housing 20 fastened to an internal wall of the fuselage, and formed with a slot 21 through which the cable passes.

From the foregoing it will be seen that if the aeroplane should fall into a body of water, the water entering the fuselage would find its way into the cylinder 5 through the perforations in the cap 11, so that the cartridge or roll 10 of blotting paper, would become moist, and thus collapse under the pressure of the spring 9, so that the spring would retract the bolt 6 and release the door, and then the spring hinge of the door will swing the same to open position.

The flow of water into the casing 1 would

of course float the buoy out of the casing, and the buoy would rise to the surface, pulling the cable 18 from the spool in the casing 20 and the weight 16 will cause the flag staff 5 to assume a vertical position as shown in Fig. 1, so as to mark the spot where the sunken plane rests.

It is thought from the foregoing description that the advantages and novel features 0 of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, 15 provided that such changes fall within the scope of the appended claims.

Having thus described my invention, what I claim as new is:—

1. Means for marking the spot where a craft has sunk in a body of water comprising 20 a casing attached to the craft, a door for normally closing the casing, spring means for normally holding the door in open position, a bolt for holding the door in closed position, 25 a cylinder in which the bolt is located with the bolt projecting from one end of the cylinder, a spring for retracting the bolt, a member formed of absorbent material placed in the cylinder for normally holding the bolt 30 projected, said cylinder having perforations therein for the admission of water to the member, a buoy located in the casing and a flexible member connecting the buoy with the craft.

2. Means for marking the spot where a 35 craft has sunk into a body of water comprising a casing carried by the body of the craft and opening out thru a wall thereof, a door for closing the casing, spring means for normally holding the door in open position, a 40 buoy in the casing, a casing within the craft and having a spool rotatably arranged therein, a cable wound on the spool and passing into the casing first mentioned and attached to the buoy, a cylinder located in the craft 45 adjacent the door, a bolt passing through one end of the cylinder for engaging a keeper member on the door for holding the door in closed position, a head on the inner end of the bolt, a spring located between the head and 50 a part of the cylinder for retracting the bolt, a roll of blotting paper located in the cylinder between the head and one end of the cylinder for holding the bolt projected, said cylinder having perforations therein.

3. Means for marking the position of a 55 sunken craft in a body of water comprising a casing located in the body of the craft and opening through one wall thereof, a door for closing the casing, a spring for holding the 60 door in open position, a cylinder arranged adjacent the casing, a bolt passing through one end of the cylinder and engaging a keeper member on the door for holding the door in closed position, a perforated cap 65 closing the other end of the cylinder, a head

on the inner end of the bolt, a spring located between the head and the lower end of the cylinder for holding the bolt retracted, a roll of blotting paper located in the cylinder between the head and the perforated cap for 70 holding the bolt projected, a buoy in the casing, a cable connecting the buoy with a part of the body of the craft, and a pivoted and weighted flag carrying staff carried by the buoy. 75

In testimony whereof I affix my signature.
PHILLIP A. KUHN.

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