Nov. 14, 1933. Z. E. NEAL 1,935,229

EMERGENCY SAFETY APPLIANCE FOR BATHERS

Filed July 30, 1932

Fig. 1

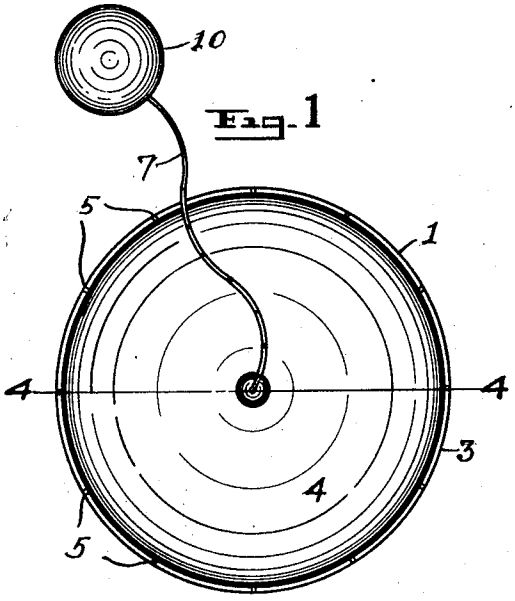


Fig. 2

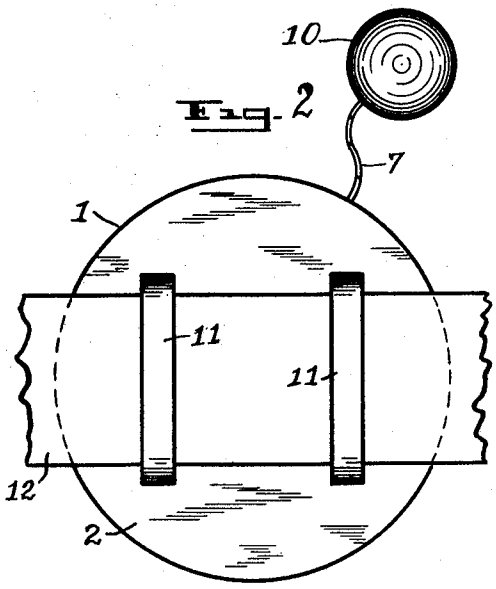


Fig. 3

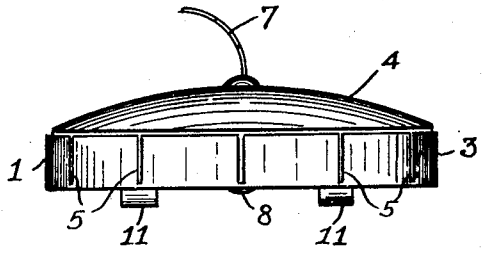


Fig. 4

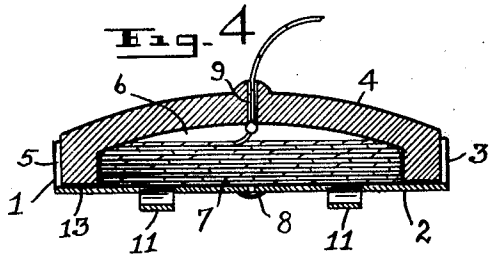
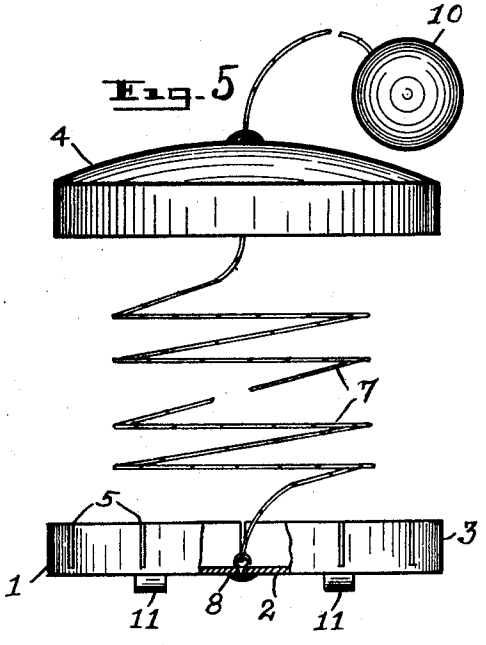


Fig. 5



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EMERGENCY SAFETY APPLIANCE FOR BATHERS

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2 Claims. (Cl. 9—9)

My invention relates to a safety appliance, and while primarily intended for the personal use of bathers and swimmers, in cases of emergency, it is obvious that the principle of the invention may be employed for any other purposes wherein it is found to be applicable.

The primary object of the invention is to provide a safety appliance of the character described, which is operable for designating the exact spot where a distressed or disabled bather or swimmer is submerged in the water, whereby the distressed bather may be quickly located and aided; under such conditions hazards ordinarily attending bathing and swimming are reduced to a minimum.

Further objects of the invention are to provide a device of the class stated, which is simple in its construction and arrangement, durable and efficient in its use, compact, attractive in appearance, light in weight, conveniently operable, and comparatively inexpensive to manufacture.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the novel construction, combination and arrangement of parts herein specifically described and illustrated in the accompanying drawing, but it is to be understood that the latter is merely illustrative of an embodiment of the invention, and that the actual needs of practice and manufacture may require certain mechanical variations from the embodiment shown. It is, therefore, not intended to limit the invention to the disclosure thereof herein illustrated but rather to define such limitations to the scope of the claims hereunto appended.

In the drawing wherein like numerals of reference designate corresponding parts throughout the several views:—

Figure 1 is a top plan view of a safety appliance constructed in accordance with the invention.

Figure 2 is a rear view thereof, illustrating its attachment to a belt.

Figure 3 is a side view of the device in the assembled position.

Figure 4 is a sectional view on line 4—4, Figure 1.

Figure 5 is a side view of the appliance with the parts thereof in the operative positions.

It is well known that, most drowning accidents are caused by the delay in locating the submerged victim, and that in cases where the victim is found within a reasonable time he is invariably resuscitated. The purpose of the present invention is to make known the location of drowning victims at once, and in consequence permit assistance in saving the lives of the latter.

Referring in detail to the drawing 1 denotes a circular holder having an open outer end and a closed bottom 2. The holder 1 is constructed from any suitable light, sheet material, preferably aluminum, spring sheet metal, or other sheet metal. The holder 1 includes an annular flange 3, which extends along the peripheral edge of the bottom 2 and is disposed approximately at right angles relatively to the latter.

A circular float member 4, constructed from cork or from material of equivalent buoyancy, is removably mounted in and carried by the holder 1. The float member 4 is preferably maintained in position in the holder 1 by the engagement of the flange 3 with the peripheral wall of the float member 4. The flange 3 is slit transversely, as at 5, in a plurality of places to separate the latter into a plurality of uniform flange sections to provide the flange 3 with resilient clamping action for more effectively securing the float member 4 in the holder 1.

The float member 4 is provided with a large circular recess 6, which is open at its inner end. The recess 6 is provided for normally housing a light, strong cord 7, which is adapted to be coiled in the former, as clearly illustrated in Figure 4.

The inner end of the cord 7 is permanently secured, as illustrated at 8, to the bottom 2 of the holder 1. The outer end portion of the cord 7 extends through and is fixed in an aperture 9, provided therefor in the diametric center of the float member 4. The outer end portion of the cord 7 projects a distance through the float member 4 to provide a comparatively short length of cord, which carries a fixed float pull 10 at the free outer end thereof. The float pull 10 is preferably constructed from buoyant material and may be in the shape of a sphere, as illustrated in the drawing, or of any other desired configuration.

The bottom 2, of the holder 1 is provided with a pair of spaced, parallel disposed loops 11, for the passage of a belt 12, whereby the safety appliance is attached or secured to the person of the wearer. The loops 11 may be stamped directly from the holder bottom 2 or may be separate parts secured thereto in any suitable manner. It is evident that the holder 1 may be secured to the person in any other manner to meet conditions found in practice.

If it is desired to render the float recess 6 watertight, the loops 11 would, of course, be separate parts secured in position, and the inner end

of the float member 4 would be adhesively attached by some suitable adhesive agent 13, to the holder bottom 2.

In practice, my improved safety appliance is attached at the waist of the wearer by the belt 12. In case of distress the user grabs the float pull 10, which on account of its buoyancy is invariably bobbing near at hand, and jerks the float member 4 free of the holder 1. Upon releasing the float pull 10, the float member 4 will rise to the surface of the water and thereby indicate the exact spot of the submerged victim. As the cord 7 is attached to the float member 4, the former will uncoil and be carried to the surface with the latter.

Under ordinary conditions the cord 7 may be employed for pulling the drowning person to the surface, as a relatively light cord is of ample strength to readily withstand the pull strain required to bring a submerged person to the surface of the water.

It will be noted that while the float member 4 is preferably held in the holder 1 by the flange 3 necessitating that the victim himself free the float member 4 from the holder 1 in the manner herein stated, the float member 4 may be secured only by the adherent agent 13. The latter may be capable of withstanding submergence only for a pre-determined period, after which the float member 4 is automatically released from its holder 1 and allowed to rise to the surface. Such period of time would, of course, be an elapsed interval rendering the resuscitation of the victim reasonably certain. However, in the general use of the device, the victim is supposed to free the float member 4 by a forceful pull upon the float pull 10.

It will here be noted that, the principle of the invention may be embodied in large sizes adapting same for use in connection with submarines. The float member would be released by the crew of the distressed vessel and carry lines of communication, air tubes and other equipment necessary for sustaining the lives of the crew until rescue is effected. Further, the device may also be employed for designating the position of any other submerged object to which it is attached.

The present invention provides an efficient device of its kind, which is conveniently operable for saving the lives of drowning persons in the manner set forth.

What I claim is:

1. A safety appliance of the character described, comprising a holder including an annular flange, a buoyant member removably mounted in said holder, said flange being transversely slit in a plurality of places providing flange sections engaging said buoyant member, a flexible element attached to said holder and to said buoyant member, and means carried by said holder for securing the latter in position, and a buoyant pull member connected with said buoyant member.

2. A safety appliance of the character described, comprising a holder including an annular flange, a buoyant member removably mounted in said holder, said flange being transversely slit in a plurality of places providing flange sections engaging said buoyant member, a flexible element normally housed in said buoyant member and being attached to the latter and to said holder, means carried by said holder for securing the latter in position, and a buoyant pull member connected with said buoyant member.

ZEARL E. NEAL.