

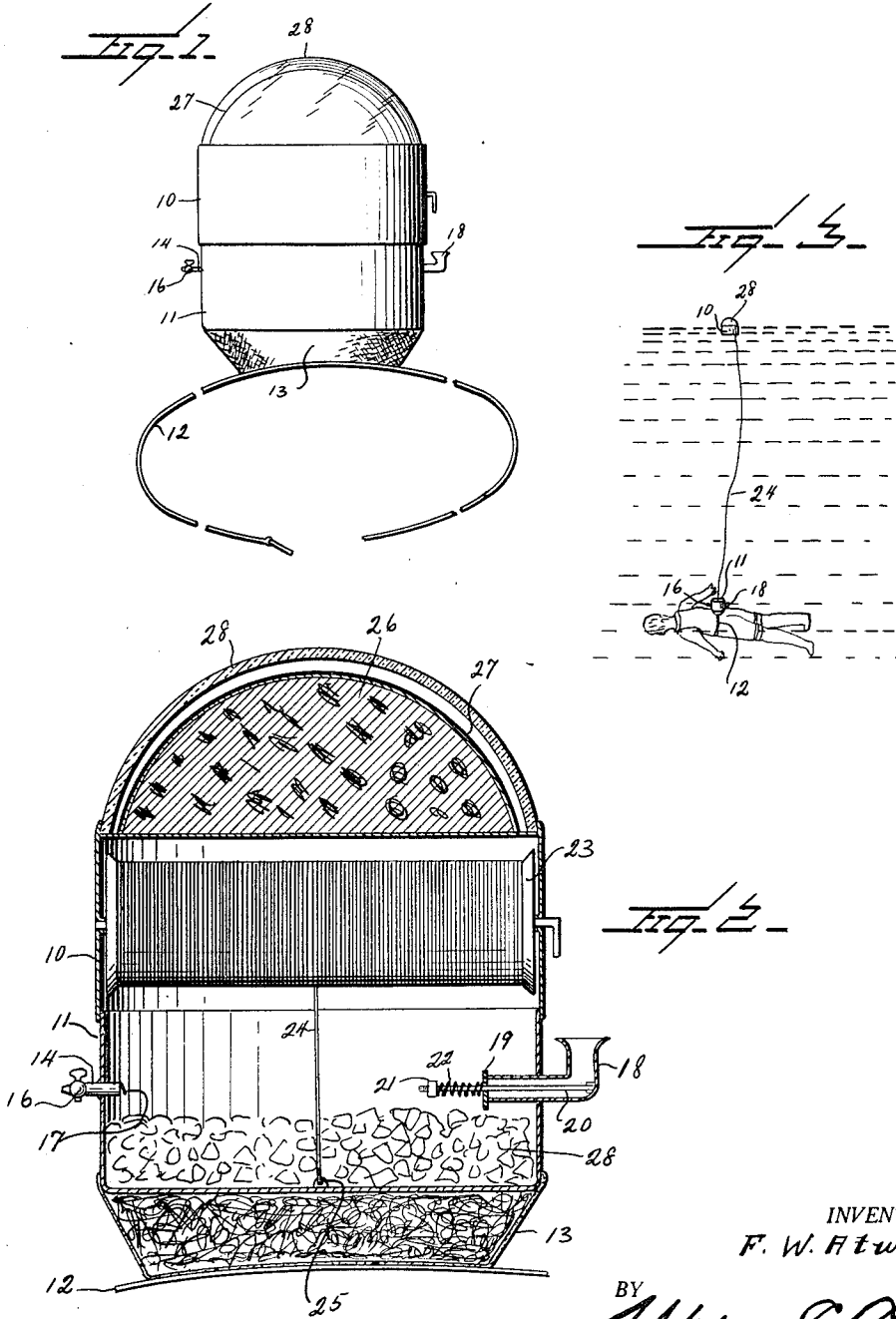
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F. W. ATWELL

LIFE SAVING APPARATUS

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INVENTOR

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LIFE-SAVING APPARATUS.

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To all whom it may concern:

Be it known that I, FREDERICK W. ATWELL, a citizen of the United States, residing at Lake Villa, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Life-Saving Apparatus, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to a life saving apparatus.

An important object of the invention is to provide an apparatus of this character which provides means for locating the submerged body of a person and which is automatically released upon a predetermined submergence of the body.

A further object of the invention is to provide a device of this character which is so constructed that it may be readily located at night.

A still further object of the invention is to provide a device of this character which may be either manually released by the wearer or will be automatically released upon a predetermined submergence of the body of the wearer.

These and other objects I attain by the construction shown in the accompanying drawings, wherein for the purpose of illustration is shown a preferred embodiment of my invention and wherein:—

Figure 1 is a plan view of the apparatus constructed in accordance with my invention;

Figure 2 is a sectional view therethrough; and

Figure 3 is a view showing the apparatus in use.

Referring now more particularly to the drawings, the numerals 10 and 11 indicate coacting casing sections engaging to form a slip joint. The casing section 11 is secured to a body engaging belt or strap 12, padding 13 being intervened between the strap and body to prevent abrasion of the body by the casing. Through the wall of the casing 11 a pet cock 14 extends having a valve section 16 thereof disposed outwardly provided at its inner end with a check valve 17 which opens inwardly. The casing 11 has a further opening through the wall thereof through which extends a conduit 18, the inner end of which is closed by

a valve 19 slidably mounted upon a rod 20, the rod having an adjusting nut 21 thereon. A spring 22 surrounds the rod between the valve 19 and nut 21 and valve 19 is urged by the spring into engagement with the inner end of the conduit to close the same. By adjusting the nut the tension of this spring may be so regulated that the valve 19 opens upon a predetermined fluid pressure being applied to the conduit 18, so that upon submergence of the casing a predetermined distance this valve will open to admit water to the casing.

The casing 10 has mounted therein a reel 23 upon which is wound an anchor cord 24, the free end of which is attached to the casing 11, as indicated at 25. The upper end wall of the casing 10 has mounted thereon a flotation member 26, in the present instance disclosed as a cork pad. This cork pad has applied to its outer surface a coating of luminous paint or the like, indicated at 27, the paint being protected by a glass or other transparent cover 28.

In the use of the device the strap 12 is employed to attach the device to the body of the wearer. Upon submergence of the body of the wearer a predetermined distance the valve 19 will open admitting water to the casing 11. This casing or the compartment formed by the casings 10 and 11 and containing the reel 23 contains a chemical 28 such as lime, which upon the addition of water thereto forms a gas creating a pressure within the casing which will force the section 10 from the section 11 and permit the section 10 to rise under the influence of the flotation element 26, the line 24 unreeling to permit this section to rise. If the person wearing the device has sufficient presence of mind he may open the pet cock valve 16 to admit the water prior to the time that water would be admitted by the valve 19. The section 11 floating upon the surface of the water will give an indication of the position of the body and the line 24 will serve as a means for elevating the body to the surface. At night the luminous paint applied to the surface of the cork will be clearly visible thus enabling the section to be readily located. It will, of course, be obvious that the construction as hereinbefore set forth is capable of some change and modification without materially departing from

the spirit of my invention and I accordingly do not limit myself to such specific structure except as hereinafter claimed.

I claim:—

- 5 1. In life saving apparatus, two casing sections engaged with a slip joint, one casing being adapted for attachment to the body of the wearer, the other casing section having an extensible flexible connection with
10 the first named casing section and being provided with a flotation element causing the same rise to the surface, the casing sections combining to form therebetween a compartment, a chemical within said compartment
15 forming gas upon the addition of water, and means for admitting water to the compartment upon a predetermined submergence of the body to which the device is attached.
- 20 2. In life saving apparatus, two casing sections engaged with a slip joint, one casing being adapted for attachment to the body of the wearer, the other casing section having an extensible flexible connection
25 with the first named casing section and being provided with a flotation element causing the same to rise to the surface, the casing sections combining to form therebetween a compartment, a chemical within said compartment forming gas upon the addition of
30 water, means for admitting water to the compartment upon a predetermined submergence of the body to which the device is attached, and manually controlled means for
35 admitting water to the compartment.
3. In life saving apparatus, two casing

sections engaged with a slip joint, one casing being adapted for attachment to the body of the wearer, the other casing section having an extensible flexible connection with the first named casing section and being provided with a flotation element causing the same to rise to the surface, the casing sections combining to form therebetween a compartment, a chemical within said compartment forming gas upon the addition of water, means for admitting water to the compartment upon a predetermined submergence of the body to which the device is attached, said flotation element being disposed upon the exterior of the last named casing section and being provided with a coating of luminous paint.

4. In life saving apparatus, two casing sections engaged with a slip joint, one casing being adapted for attachment to the body of the wearer, the other casing section having an extensible flexible connection with the first named casing section and being provided with a flotation element causing the same to rise to the surface, the casing sections combining to form therebetween a compartment, a chemical within said compartment forming gas upon the addition of water, means for admitting water to the compartment upon a predetermined submergence of the body to which the device it attached, and means for adjustably regulating the depth at which said valve opens.

In testimony whereof I hereunto affix my signature.

FREDERICK W. ATWELL.