

June 12, 1923.

1,458,822

E. T. HALTER

LIFE SAVING DEVICE

Filed Jan. 16, 1922

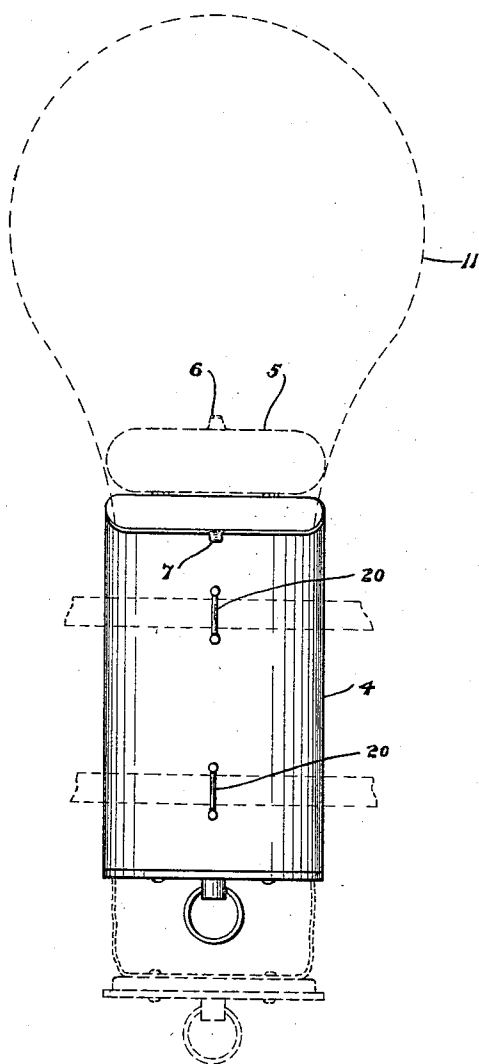


Fig. 1.

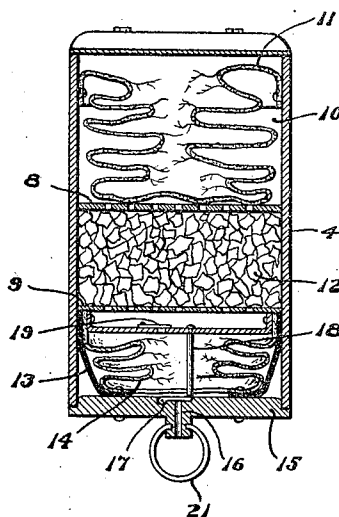


Fig. 2.

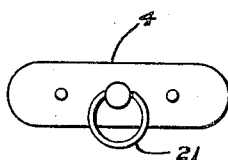


Fig. 3.

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WITNESS

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UNITED STATES PATENT OFFICE.

ELIJAH T. HALTER, OF PHILADELPHIA, PENNSYLVANIA.

LIFE-SAVING DEVICE.

Application filed January 16, 1922. Serial No. 529,636.

To all whom it may concern:

Be it known that I, ELIJAH T. HALTER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Life-Saving Devices, of which the following is a specification.

This invention relates to life saving devices and it has more particular reference to that class of device which is adapted to be used for the purpose of preventing drowning.

The main object of my invention is to provide a simple and inexpensive life saving device of the above referred to class which is of such a construction as to permit of its ready attachment to the body of the user or alternatively its easy carriage in such a manner that it may be promptly brought into use when desired.

With the foregoing objects in view, my invention consists essentially of a container for a material, which is readily adapted to generate a gas when brought into contact with moisture, or in other words, a material which is readily soluble and when so dissolved generates a gas with sufficient rapidity to inflate a balloon of sufficient magnitude to adequate support a human being when immersed in water.

In the further disclosure of the invention reference is to be had to the accompanying sheet of explanatory drawings constituting a part of this specification and in which like characters of reference designate the same or corresponding parts in all the views.

Figure 1 is a view of the device in operative position.

Figure 2 is a central longitudinal section taken through the device and showing the several parts collapsed; and,

Figure 3 is a plan view.

In carrying out my invention I employ a container or casing 4 which is provided at its one end with a hinge cover or lid 5 that is fitted with a snap fastener 6 for engagement on a tong 7. Intermediate the ends of the aforesaid casing or container 4, I provide spaced apertured diaphragms 8, 9 the former of which divides the casing 4 into a compartment 10, which is adapted to house an inflatable balloon or casing of flexible material 11 which when expanded under the pressure of gas or filled with gas as

later on explained, is of sufficient buoyancy to support a person in the water.

It is of course to be understood that the diaphragm 8 as well as the diaphragm 9 are preferably made a friction fit within the casing or container 4 and their intervening space is conveniently filled with calcium carbide 12, or other appropriate material which will readily generate a gas under the action of moisture or water.

Appropriately housed or fitted within what may be termed the lower part of the casing or container 4 are elastic strips 13 that normally serve to keep in collapsed condition a water bag or the like 14. Said water bag is adapted, when the end cover or lid 15 is fitted in place, to lie within the lower compartment; and, in order to provide a simple and effective means for preventing the ingress of water through the aperture or feed opening 16 in said end cover, I fit therein a hinged flap valve 17, that is adapted to be held securely closed by a pin or stud 18.

From the foregoing it will be readily seen that when the several parts occupy the position shown by Figure 2 that the end cover or lid 15 remains a friction fit and holds the parts collapsed as shown. On the other hand when the lid or cover 15 is withdrawn to extend the water bag 14, said water will percolate through the opening 16 in opposition to the flap valve 17 and fill said bag 14 from whence it will flow through the valve aperture 19 and percolate through the diaphragm 9, thus generating gas which will flow through the diaphragm 8 and inflate the casing or bag 11 of flexible material. It will of course be readily understood that the gas bag 11 is of a nature to contain sufficient gas to adequately support a human body when exposed or unexpectedly immersed in water.

In attaching the device a suitable clasp 20 for the passage therethrough of a strap or the like may be employed so that when the said device is worn it may be secured to the outer clothing or wearing apparel where it will be readily exposed to the action of the water. A ring or the like 21 may be provided so that the cover or lid 15 can be readily or quickly withdrawn.

It will be understood that as the pressure begins to rise in the gas compartment and a bag pressure is had, the valve cover at 19

will be forced into sealing relation with the valve aperture 19 so as to prevent the loss of the gas into the compartment containing the water bag.

- 5 From the foregoing description and an examination of the drawing it will be readily seen that my improved life saving device is of an extremely simple and efficient construction and that by its use, a person
10 wearing the same or holding the same in a substantially upright position may be prevented from sinking in shallow or deep water without any appreciable effort on his or her part for a considerable period of time.
15 Whilst there has been shown and described a preferred embodiment of my invention the same must not be too conservatively construed in that it will be obvious, detailed changes may be made without departing
20 from the spirit and scope of said invention as more specifically defined by the appended claims.

Having described my invention, what I claim as new and desire to secure by Letters
25 Patent is:

1. In a device of the class described, the combination of a main casing, a plurality of apertured partitions therein, a cover hingedly mounted at one end, a gas bag se-

cured to said main casing and normally con- 30
tained therein between said cover and one of said partitions, gas forming material between said partitions, a water bag secured in said main casing and operable to supply 35
water to said gas forming material, an end member secured to said water bag, a finger-piece for operating said end member, and automatic means for returning said end member to normal position.

2. In a device of the class described, the 40
combination of a main casing, a plurality of apertured partitions therein, a cover hingedly mounted at one end, a gas bag secured to said main casing and normally 45
contained therein between said cover and one of said partitions, gas forming material between said partitions, a water bag secured in said main casing and operable to 50
supply water to said gas forming material, an end member secured to said water bag, a finger-piece for operating said end member, automatic means for returning said end member to normal position, and valve mechanism associated with the aforesaid elements 55
as and for the purpose set forth.

In testimony whereof I affix my signature.

ELIJAH T. HALTER.