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M. HARROW ET AL
LIFE PRESERVER
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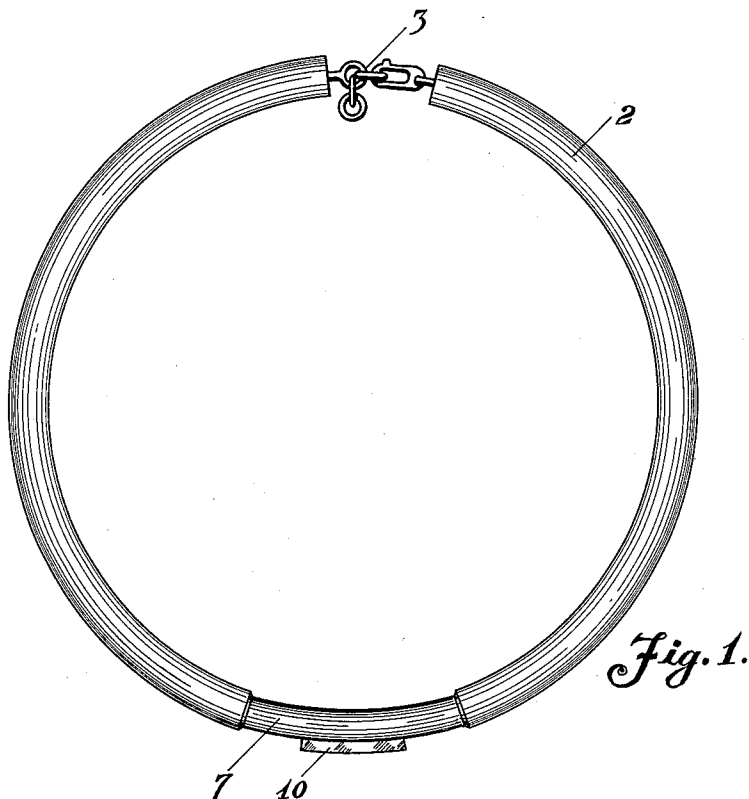


Fig. 1.

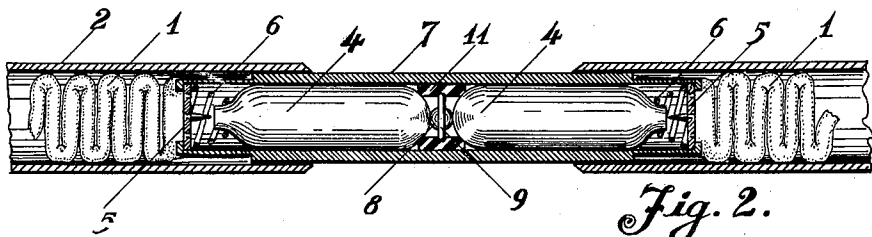


Fig. 2.

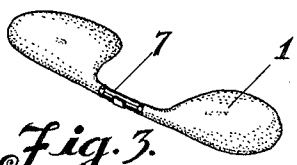


Fig. 3.

Inventors:

*Murray Harrow
Kenneth M. Lock*

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LIFE PRESERVER

Murray Harrow, New York, N. Y., and
Kenneth W. Cook, Spokane, Wash.

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1 Claim. (Cl. 9—19)

1 This invention relates to improvements in life preservers and has for its primary object a means of providing a swimmer, bather, or occupant of a water vehicle with a means of staying afloat should the need arise.

Another object of our invention is to provide a novel and improved life preserver.

Still a further object of the invention is to provide a simple, efficient, and inexpensively constructed life preserver that may be worn in the deflated state without apparent interference or burden to the wearer.

Still a further object of the invention is to provide an attractive ornament for the wearer.

Still a further object of the invention is to provide a safe, light, small, and compact life preserver.

Still further objects of the invention lie in the construction and arrangement of parts whereby the life preserver is readily manufactured of economical materials and of a minimum of formed parts, the entire device being adaptable for fabrication by modern, mass production methods.

With the foregoing and other objects in view which will be apparent from the following description, appended claim, and annexed drawing, the invention consists of certain novel features of construction, arrangement and a combination of parts hereinafter fully described, illustrated in the accompanying drawing, and particularly pointed out in the appended claim, it being understood that various changes in the form, proportion, size and minor details of the structure may be made without departing from the spirit or sacrificing any advantages of the invention.

For the purpose of facilitating an understanding of our invention, we have illustrated in the accompanying drawing a preferred embodiment thereof, from an inspection of which, when considered in connection with the following description, our invention, its mode of construction, assembly and operation, and many of its advantages should be readily understood and appreciated.

Referring to the drawing in which the same characters of reference are employed to indicate corresponding or similar parts thoroughly illustrated throughout the three figures of the drawing:

Figure 1 is a plan view of the life preserver in the deflated state as it would be worn around the neck when not in use.

Figure 2 is a sectional view of the mechanism for inflating the life preserver.

Figure 3 is a plan view of the life preserver in the inflated state.

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Our new improved life preserver operates on the principle of releasing a compressed gas into a flexible container which when inflated will displace enough water to supply the necessary buoyancy to keep a person afloat without physical exertion.

Referring to said views 1 denotes the flexible, inflatable inner bladders capable of retaining gas when inflated and submerged in water. Inner bladders 1 are cemented, vulcanized or connected in any other suitable way to tubular container 7, which houses compressed gas cartridges 4 and the means for releasing the compressed gas to inflate the inflatable inner bladders 1.

15 The preferred means for releasing the compressed gas is shown in Figure 2, where by turning key 10 through 90 degrees, smooth surfaced cam 9, which consists of a pin pushed through axle 8 on the inside of the tubular container 7, axie 8 being rigidly fastened to handle 10 on the outside of the tubular container 7, forces cartridges 4 against compression springs 6 and onto the hardened piercing points on disks 5 which puncture the destructible stoppers on the discharge ends of the compressed gas cartridges 4. Further rotation of key 10 through 90 degrees in either direction permits springs 6 and the released gases to force cartridges 4 back off piercing points on disks 5 to their original position. The gases released from cartridges 4 enter and inflate inner bladders 1 through ports in disks 5.

A sealing washer 11 is placed at the center of tubular container 7 to prevent the leakage of expanding gases to the atmosphere through the juncture of axle 8 and tubular container 7.

Inner bladders 1, before inflation, are folded into compact units enabling them to fit into flexible, waterproof housings 2 which are temporarily cemented or pressed onto the ends of tubular container 7. Housings 2 are fastened about the neck by adjustable clasp 3 which provides extra links for the adjustment of the life preserver to individuals with different neck sizes.

In order to use the life preserver described above, the wearer grasps tubular container 7 with either hand and pulls until inner bladders 1 are free from housings 2. The life preserver is now ready for inflation. The wearer then turns key 10 through 90 degrees and then back to its original position or through an additional 90 degrees with the fingers of the same hand or his other hand and waits for life preserver to inflate to a condition shown in Figure 3. When the life preserver is inflated it is grasped or placed across the chest and under the arms of the user where it serves to maintain the head

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of the user above the level of the water while swimming and to preclude the user from drowning. Furthermore, should either half of the preserver come in contact with any object and be punctured thereby, the remaining half will remain inflated since sealing washer 11 makes each half of the life preserver independent of the other.

It is obvious that the invention is not confined to the herein described use as it may be utilized for any purpose to which it is adaptable. It is therefore to be understood that the invention is not limited to the specific construction as illustrated and described, as the same is only illustrated principles of operation, which are capable of extended application in advance forms, and that the invention comprehends all construction within the scope of the appended claim.

What we claim and desire to secure by Letters Patent of the United States is:

In a device adapted for life saving, a necklace comprising two flexible casings, an adjustable clasp fastened between said casings connecting

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adjacent ends thereof, a tubular container releasably connecting the other ends of said casings, inflating means secured in said container, inflatable means normally disposed in said tubular casings in a folded, uninflated condition, said inflatable means being attached to each end of said container in operative connection with said inflating means.

MURRAY HARROW.
KENNETH WM. COOK.

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