

S. P. EDMONDS.
LIFE BUOY.
APPLICATION FILED JULY 5, 1917.

1,297,665.

Patented Mar. 18, 1919.

Fig. 1.

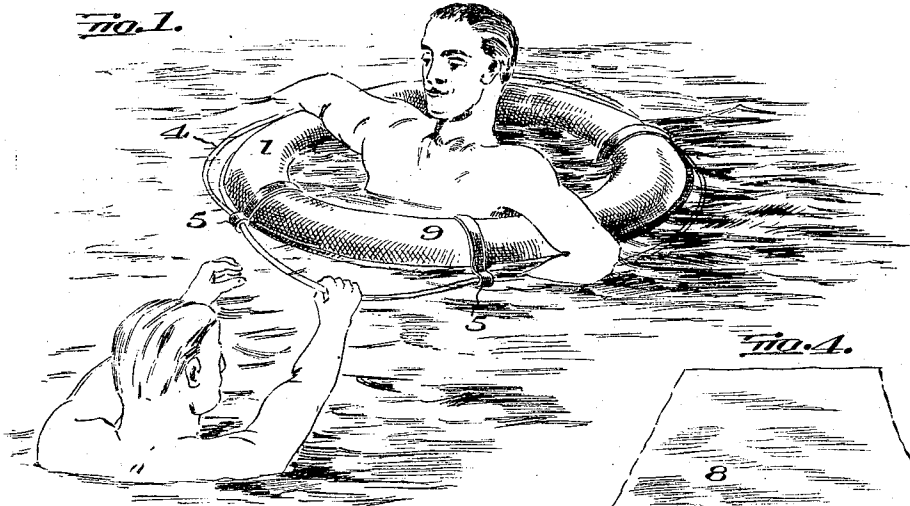


Fig. 4.

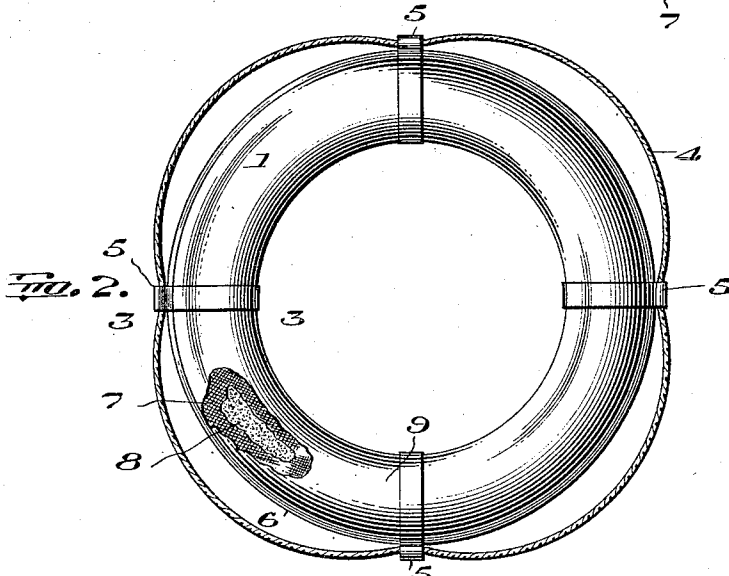
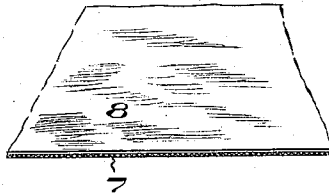
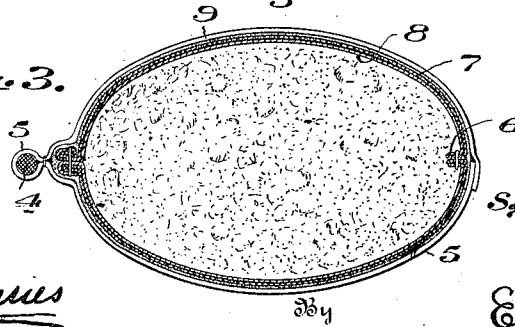


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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LIFE-BUOY.

1,297,665.

Specification of Letters Patent.

Patented Mar. 18, 1919.

Application filed July 5, 1917. Serial No. 178,704.

To all whom it may concern:

Be it known that I, SAMUEL P. EDMONDS, a citizen of the United States, residing at Catonsville, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Life-Buoys, of which the following is a specification.

My invention relates to life-preserving apparatus and more particularly to life buoys which are adapted to be thrown overboard to persons who are in the water and which may be used to support one or more persons until they are rescued.

The object of my invention is to provide a life buoy which shall be more pliant than those at present in use, such as the ordinary filled buoy, and therefore free from danger of causing injury to one who may be accidentally struck by it and which will be more pliant when in use and therefore less liable to cause injury by chafing when one is tossed about in a rough sea. A further object is to provide a more buoyant device than those heretofore in use and also to provide means for preserving the normal shape of the ring buoy when not in use.

In the accompanying drawings, Figure 1 is a perspective view of a life-buoy embodying my invention and showing the manner of using it; Fig. 2 is a top plan view thereof; Fig. 3 is a cross-section on the line 3-3 of Fig. 2; and Fig. 4 is a detailed view of a portion of the outside covering fabric.

The life buoy 1 may be of the usual ring shape and preferably oval in cross-section as indicated in Fig. 3, having the usual "grab-lines" 4 secured by means of straps 5.

The cover or casing is made of suitable canvas material and is preferably constructed in sections with the seam 6 on the inner side turned inwardly in order that the inner side of the ring may be smooth and without any projections which might chafe the body. The casing is filled with a specially treated silk floss which is known in the trade as "ilanasilk". This material is very soft and pliable and exceedingly buoyant as well as being quite water proof so that water is absorbed very slowly indeed when this material is immersed. A casing constructed of ordinary canvas and filled with a soft material will not maintain the ring shape of the buoy and I therefore provide the canvas 7 with an inner coating 8 of pliable water-proof enamel having sufficient

strength or body when combined with the canvas fabric to cause the casing to retain its normal ring shape. After the casing has been filled and the buoy has been completed, I provide an outer preservative coating 9 of paint which fills all of the interstices of the canvas fabric and also the joints at the seams, rendering the entire surface water proof. In case this outer preservative coating should become defective or worn in any places, the inner water proof stiffening coating 8 will prevent any water or moisture passing through to the filling. However, as previously stated, in case the canvas should be torn or ruptured, the silk floss filling will maintain its buoyancy for quite a long period usually for several days, by reason of its water repellent properties.

The many advantages of life buoys constructed in accordance with my invention will be especially appreciated by seamen and those familiar with life preserving apparatus. I have eliminated all danger of injury to persons who are in the water and who may be struck by a life buoy thrown out to them because the soft filling renders the buoy perfectly pliant and yielding, whereas those filled with cork are hard and unyielding and frequently injure persons who may be struck by them. Again life buoys filled with "ilanasilk" are far more buoyant than those filled with other material and are capable of sustaining a number of persons. The pliable water-proof coating which forms a stiffening lining to the casing maintains the normal shape of the buoy while at the same time permitting it to yield when in use and furthermore provides an additional water-proof protection for the filling material. While it is preferable to have the stiffening water-proof coating upon the inside surface of the casing, yet I may, in some cases, place it upon the outside, and in either case it combines with the fibers or threads of the canvas with which it is incorporated to stiffen the casing sufficiently to retain its normal ring shape without distortion. I prefer to form this stiffening water-proof enamel surface by applying the enamel compound to the surface of the canvas in a plastic or semi-liquid form and then force it into the interstices and fibers of the canvas under pressure by passing it between pressure rolls, somewhat after the process of forming oil cloth and similar fabrics. One surface of the canvas becomes

thereby thoroughly impregnated with the enamel coating, and while it remains pliable, it is sufficiently stiffened thereby to maintain its rounded shape when formed into the tubular casing.

I claim:—

1. A life buoy, comprising a soft pliable buoyant filling material, an envelop or casing therefor consisting of a single sheet of fabric material having a pliable stiffening water-proof coating upon the inner side thereof enmeshed with the fibers of the material and filling all of the interstices thereof, thereby rendering the fabric water-resistant and sufficiently stiff to maintain the normal shape of the buoy, and said sheet having an outer preservative coating of water resistant pliant material completely enveloping the finished casing.

2. A life-preserving apparatus comprising a soft pliable water resistant buoyant filling material, an envelop or casing therefor consisting of a single sheet of canvas or similar material, a water-resistant pliable coating incorporated with the fibers or

threads of the canvas upon the inner side of said casing and imparting a stiffness thereto sufficient to maintain the normal shape of the apparatus when not in use, and said canvas sheet having an external preservative water-resistant coating enveloping the casing and filling the interstices in the fabric.

3. A life buoy, comprising a soft pliable buoyant filling material, and an envelop or casing therefor consisting of a single sheet of fabric material having a pliable stiffening water-proof coating upon one side thereof, said coating being enmeshed with the fibers of the material and pressed into the interstices thereof, thereby rendering the fabric water-resistant and sufficiently stiff to maintain the normal shape of the buoy.

In testimony whereof I affix my signature in the presence of two witnesses.

SAMUEL P. EDMONDS.

Witnesses:

NAOMI YOUMANS,
MARY MEADE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."