April 25, 1944. K. VARTABEDIAN 2,347,583

LIFE PRESERVER

Filed Sept. 16, 1941

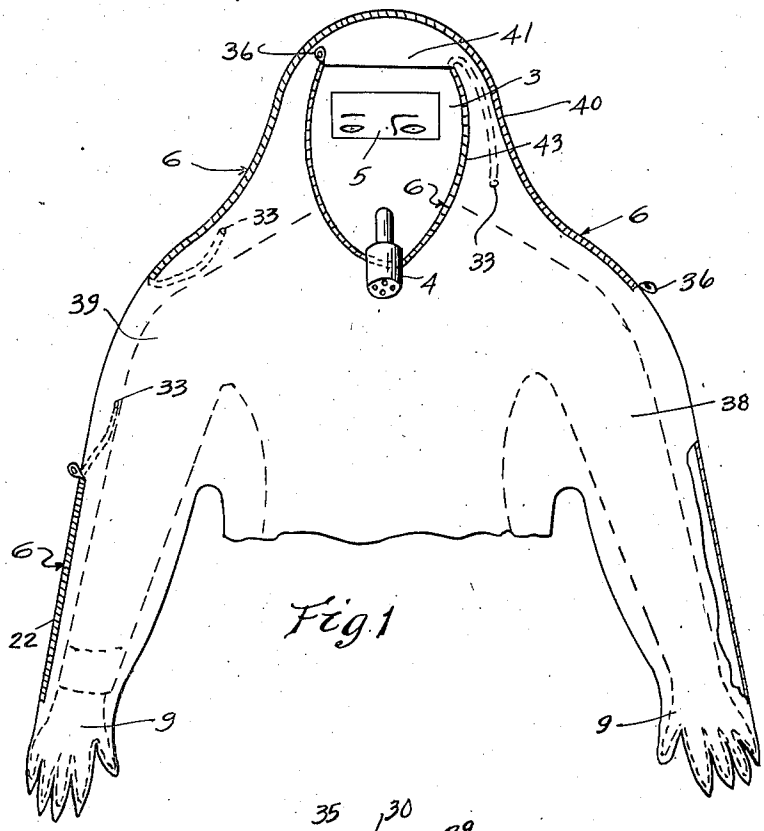


Fig. 1

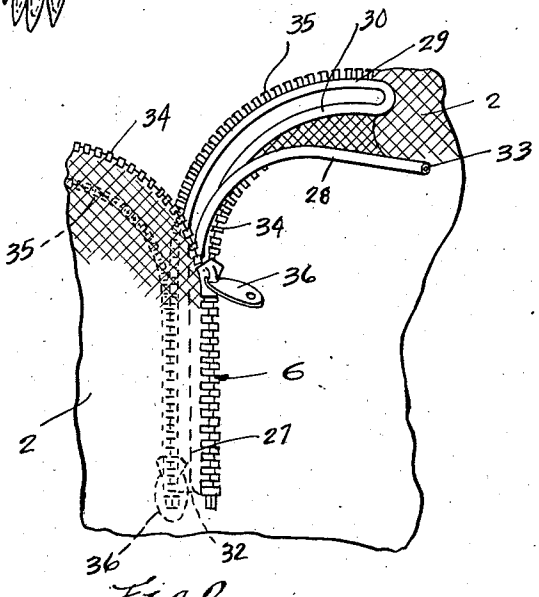


Fig. 2

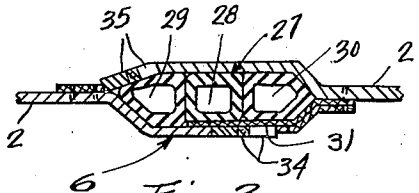


Fig. 3

INVENTOR.
Kalusd Vartabedian
BY
His Attorney

Patented Apr. 25, 1944 2,347,583

UNITED STATES PATENT OFFICE

2,347,583

LIFE PRESERVER

Kalusd Vartabedian, Chicago, Ill.

Application September 16, 1941, Serial No. 410,385

3 Claims. (Cl. 2—2.1)

My invention relates to the improvements in life preservers, and some of the objects of my life preserver are to provide a simple and expeditious seal at the "zipper" closure of the suit whereby to prevent the infiltration of water when the suit is submerged and to prevent leakage from the interior thereof.

Other objects and attainments of my invention will appear as the following detailed description further illustrated by the accompanying drawing, summarize a presently preferred adaptation in which:

Fig. 1 is a fragmentary front vertical view of the invention;

Fig. 2 is an enlarged and somewhat exaggerated view of the pneumatically sealed opening with a part of the water-proof fabric showing; and

Fig. 3 is a sectional detail view through the pneumatically sealed opening.

Similar numerals refer to similar parts throughout the several views and enlargements.

The life preserver forming the subject matter of my invention constitutes a garment generally indicated as 38 and comprising a body portion 39 made of a suitable waterproof fabric 2. The entire upper part of the garment 38 is provided with an opening 40 extending from shoulder to shoulder across the crown of the garment. This opening 40 is provided with a watertight seal generally indicated as 6, which is best illustrated in Figs. 2 and 3. The upper part of the garment 38 is formed to provide a mask 3 which is integral with the fabric 2 along the upper edge 41 of the mask which is creased or beaded to provide a hinge whereby the mask may be swung upwardly when not in use.

The remaining sides of the mask 3 form an ellipse which cooperates with a corresponding elliptical opening 43 each being provided with a watertight seal 6 to unite the mask with the balance of the garment. A transparent shield 5 is formed into the fabric of the mask 3 at eye level of the user so that the latter may see exteriorly of the garment. The mask 3 is further provided with a water seal valve generally indicated as 4 whereby air may be drawn in and exhausted from the garment but water will be absolutely blocked from entering the garment.

The head part and mask of my invention is opened and closed by means of the pneumatic seal 6, through the opening 40 the user enters the life preserver feet first. The arms may be removed from the sleeves while the user is in the garment. Through the same opening through which the user enters the garment, he may free his arms so that he may use them on the outside of the garment. The sleeves terminate into flexible gloves 9, 9, of the same fabric as the garment, allowing free use of the fingers. Note that the limbs move freely in the very flexible and roomy garment. Each arm is provided with an opening 22 to permit removal of the forearm of the occupant. This opening is provided with a pneumatic seal 6 like that at the crown and mask of the garment.

Fig. 2 is an enlarged view of the pneumatic seal 6. This seal 6, in varying sizes, is used on mask 3, sleeves and head part of garment. It is furnished with outer "zippers" 34 and inner "zippers" 35 and an inflatable tube 27 folded back upon itself. The tube 27 is of rubber and can be inflated to expand. On the right portion of the fabric 2 is set a single length of the rubber tubing 27 which is fastened to the fabric in three shorter lengths, one end 32 being sealed and the other free end 28 containing a valve. Part 26 of the tube contains one side of outer "zipper" 34 and folds between part 30 and 29 which comprise the other two short lengths of the tube 27. Tube part 28 is attached to tube part 30 by a separate length of fabric 31, here exaggerated for more clear illustration. When the "zipper" handle 36 is pulled it seals tubing parts 29, 28, 30 together in that order. Then inner "zipper" 35 is pulled, sealing the inner part of the tubes. The user inflates the tube by blowing in opening 33. This inflates all tubes against each other, forming a perfect seal as shown in Fig. 3. The following motions are required by the user to operate this pneumatically sealed opening. He first pulls shut outer "zipper" 34, then inner "zipper" 35 and then inflates tube 29, 28, 30. The seal may be made with a single length of rubber inflated tube also.

The above description and material is not intended to limit my invention to matters there set out but only by my appended claims.

I claim:

1. In a pneumatic seal for waterproof fabric comprising a pair of overlapping end portions corresponding in contour to provide an opening in said fabric, a pair of slide fasteners at the end of each of said overlapping end portions and adapted to provide a chamber at said overlapping end portions, and an inflatable tube arranged in said chamber and expandable upon inflation to completely seal said chamber against ingress or egress of fluid.

2. In a pneumatic seal for a watertight com-

partment comprising a waterproof fabric having a pair of overlapping edge portions providing an opening in said fabric, a pair of slide fastener means arranged on said fabric along the edge portion on the inside of the fabric and along the edge portion on the outside of said fabric to form an intermediate compartment between said slide fastener means, and an inflatable tube disposed in said intermediate compartment and adapted to be inflated to expand within the latter to provide an air seal between the inside and outside of the fabric.

3. In a device of the class described having a waterproof fabric body, a sealed opening for said body and comprising a pair of overlapping edge portions, fastening means along the free edge of said edge portions and cooperating with complementary fastening means spaced inwardly from the free edge portion on its opposite overlapping edge portion to unite the overlapping edge portions and to provide a chamber between said fastening means, a pneumatic tube arranged on one of said edge portions and folded back upon itself in several lengths to dispose said tube in trebled condition within said chamber whereby when said tube is inflated the abutting lengths of said tube will expand to create a seal.

KALUSD VARTABEDIAN.