H. L. ZIMAN.

MARINE LIFE PRESERVING JACKET.

APPLICATION FILED AUG. 6, 1917.

1,295,667. Patented Feb. 25, 1919.

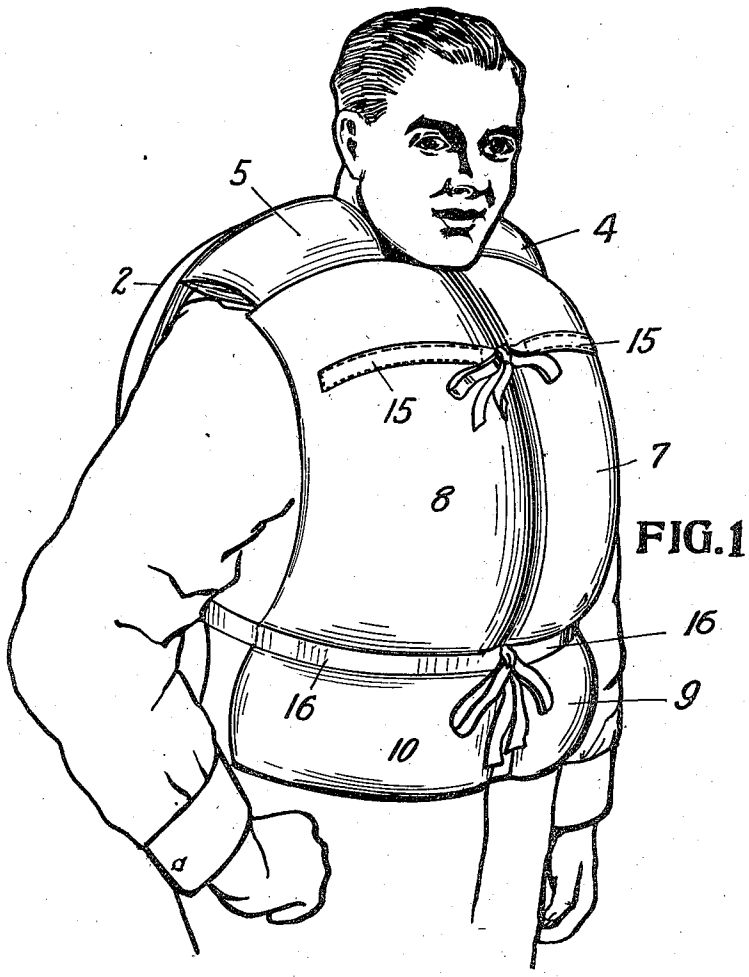


FIG. 1

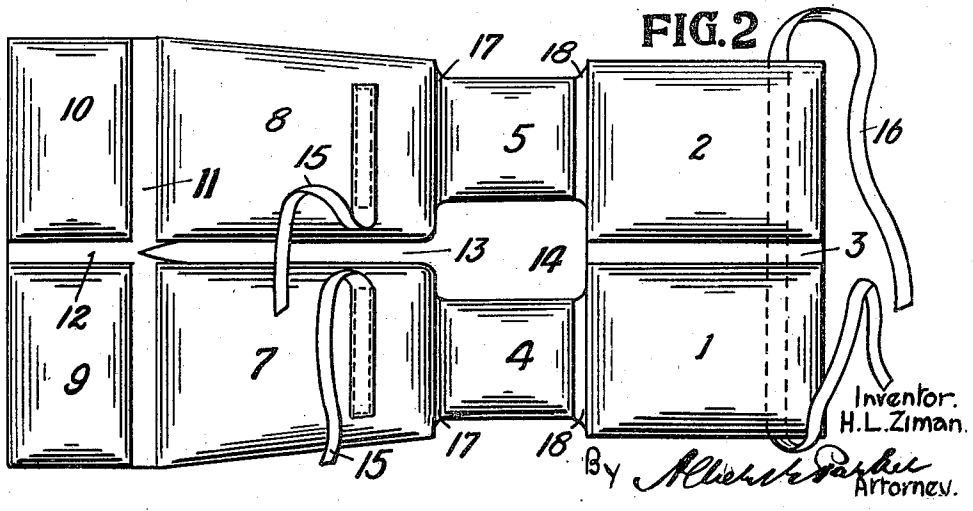


FIG. 2

UNITED STATES PATENT OFFICE.

HENRY LIONEL ZIMAN, OF SYDNEY, NEW SOUTH WALES, AUSTRALIA.

MARINE LIFE-PRESERVING JACKET.

1,295,667. Specification of Letters Patent. Patented Feb. 25, 1919.

Application filed August 6, 1917. Serial No. 184,772.

To all whom it may concern:

Be it known that I, HENRY LIONEL ZIMAN, subject of King of Great Britain and Ireland, residing at 8 Woolcott street, Sydney, New South Wales, Australia, have invented new and useful Improvements in Marine Life-Preserving Jackets, of which the following is a specification.

This invention consists in a buoyant jacket constructed as hereinafter described with a casing of canvas or like flexible fabric and a filling of buoyant material packed into eight pockets formed in said casing so as to distend same, and form buoyant pads surrounding a median opening which accommodates the neck of the wearer.

The filling material used in practice consists of a buoyant substance such, for instance, as kapok fiber, which is preferably subjected to treatment to render it waterproof, fireproof, and vermin proof. The proofing treatment of kapok fiber to improve it for this purpose does not form part of the present invention.

In use, buoyant life-saving jackets, according to this invention, attain certain objects of substantial practical importance. The body of the wearer is buoyed in an erect position with the shoulders above water, notwithstanding change of position of the wearer's limbs; the head of the wearer is supported in an erect position notwithstanding that the wearer is in an unconscious and limp condition; the limbs of the wearer are quite free, and the neck or head of wearer cannot be injured by upward displacement of the jacket if the wearer should jump from a considerable height into water. Furthermore, the convenient shape of the jacket when extended, which permits of it being stowed flat under bedding, its light weight, comfortable fitting, and facile attachment on the body of a wearer necessarily in correct position thereon, and its long life and great surplus buoyancy combine in it a wide range of necessary and desirable qualities.

In the accompanying drawing, Figure 1 is a perspective view of the jacket fastened on the body of the man; and Fig. 2 is an outside plan view of the jacket as it appears when extended flat.

1 and 2 are the back pads. They are connected laterally by an intervening narrow piece of fabric 3 which is preferably integral with the pad casings. 4 and 5 are the shoulder pads, 7 and 8 are the breast pads, 9 and 10 are the skirt pads, 11 a band of fabric connecting the ends of the breast pads and the skirt pads, 12 a band of fabric laterally connecting the skirt pads. A median opening 13 14 is formed between the shoulder pads 4 and 5, and between the breast pads 7 and 8.

The shoulder pads 4 and 5 are connected at 17 and 18 at the ends to the back pads 1 and 2, and to the breast pads 7 and 8, so that the jacket may be bent over the shoulders readily as shown in Fig. 1.

Space 14 accommodates the neck of the wearer, and the space 13 is closed on the breast when the jacket is worn by tying the straps 15. The girth straps 16 are secured to the back pads 1 and 2, and their ends are tied around the band portion 11 above the skirt pads 9 and 10, and below the breast pads 7 and 8, as will be clearly seen on reference to Fig. 1.

The casing for the jacket may be formed from a single piece of duck, light canvas, or other appropriate flexible fabric material, folded over, and machine-stitched to form pockets, with median portions 13 14 removed and slitted, to permit the jacket to be passed over the head of the wearer, and then closed around the upper part of the wearer's body and secured thereon by straps 15 and 16. The connecting portions 3, 11, 12, 17 and 18 are in this case integral with the pad casings, but it will be understood that the pads may be constructed separately and stitched to the band at 3, 11, 12, 17 and 18, or that the pads may be constructed separately and attached to a sheet of duck or other fabric cut to the outline pattern shown in Fig. 2.

The two back pads are adapted to set rearward of the shoulders, the two upper front pads are adapted to cover the breast and set high up so as to support the chin of the wearer, the two front skirt pads are adapted to hang about the waist of the wearer, and the shoulder pads to set close over the shoulders and against the sides of the neck. The two breast pads are fastened together after the jacket is placed on the body of the wearer by the ties or straps 15, and the back pads are tied by girth straps 16 which pass around the band 11 which connects the skirt pads with the breast pads.

By reason of the perfectly free connection of the several pads offered by the flexible

fabric connections between them, each pad is self-adjusting to the form of the wearer independently of the other pads, and a comfortable fit is thus insured. In the making up of the pad casings, the frontal casing is cut fuller than the back casing, of each pad, so that distention of the pockets caused by the packing thereof with fiber will appear only at the front portion thereof, the underneath casing which sets against the body of the wearer, setting normally flat.

The jacket may be placed readily on the body of the wearer by drawing the shoulder pads and breast pads apart and passing the head through the open space 14 between them. When the straps 15 and 16 are tied in the manner shown in Fig. 1, the jacket is securely fixed on the body of the wearer so that the breast pads support the chin and hold the head erect, and the shoulder pads support the head laterally. There is a greater buoyancy in the frontal portion of the jacket than in the rear portion with the object of supporting the wearer in the water in an erect position, notwithstanding voluntary or involuntary body and limb movements.

The jacket is not liable to upward displacement in use so as to injure the head or neck of the wearer, or cause discomfort, and when fixed it leaves the arms and neck quite free so that the wearer may swim or paddle or assist in righting overturned boats or in saving helpless persons. The skirt pads being free tend to float outward from the body, and when a person wearing the jacket jumps feet first into water from a ship's deck or other considerable height, these skirt pads are forced outward by impact on the surface and retard immersion without forcing the breast portion of the jacket upward.

The shoulder pads 4 and 5 are relatively thin pads. The back, breast, and skirt pads are relatively stout pads.

The structural feature which distinguishes this jacket from known jackets of the same general type is the median aperture of "keyhole" shape entirely surrounded by pads, which form a continuous support for the wearer's head. The larger or "eye" portion 14 of this "keyhole" shaped opening is adapted to embrace the neck of the wearer; when the slot 13 is closed by tying the straps 15 across the breast, the upper parts of the breast pads are forced up under the wearer's chin, the upper parts of the back pads 1 and 2 being at the same time drawn close up to the back of the wearer's head and the inner edge of the shoulder pads draw in against the sides of the neck. The jacket is thus self adjusting, a continuous support for the back and sides of the head and underneath support for the chin being insured whereby risk of injury to the neck by wave buffeting is eliminated, while the fullest facility is offered for donning the jacket rapidly and making it secure with assurance that it will necessarily set correctly, the wearer finding it necessary irrespective of any directions to place the long part of the jacket in front to permit him to tie the waist and breast straps.

What I claim as my invention and desire to secure by Letters Patent is:—

1. A buoyant life-saving jacket comprising back pads, shoulder pads, breast pads, and front skirt pads, disposed in pairs about a "keyhole" shape median opening whereof the several pads in each part are end connected to each other, and the end pads laterally connnected to each other by flexible fabric, and adapted to be secured on the body of the wearer by cross breast straps, and by girth straps which are secured to the lower portions of the back pads, which straps when tied operate to secure the pads about the body of the wearer with the breast, shoulder and back pads embraced closely around the neck of the wearer.

2. A bipartite life-saving jacket comprising eight pads symmetrically disposed and flexible connected together, except across a median opening of "keyhole" shape, and adapted to be secured on the body of a person by breast and girth straps so as to close said opening upon the breast and around the neck of the wearer, said pads consisting of buoyant material packed in the pockets formed by stitching together casing fabric so that parts of such fabric intervening between said pads form flexible connections uniting the pads.

3. In a buoyant life-saving jacket comprising flexibly connected pairs of skirt and breast and back pads, with a narrow median space between said breast pads, flexible shoulder pads connecting the breast pads and the back pads with a space inclosed by the breast, shoulder, and back pads to accommodate the neck of the wearer, said pads being adapted to set around and embrace the neck, and form supports for the head of the wearer when said narrow median space is closed.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HENRY LIONEL ZIMAN.

Witnesses:

W. J. HUMPHREYS,

H. C. CAMPBELL.