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LIFE PRESERVER VEST

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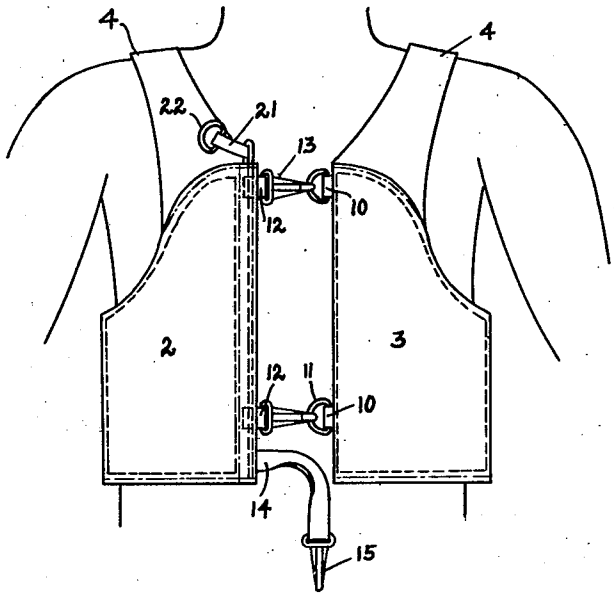


Fig. 1.

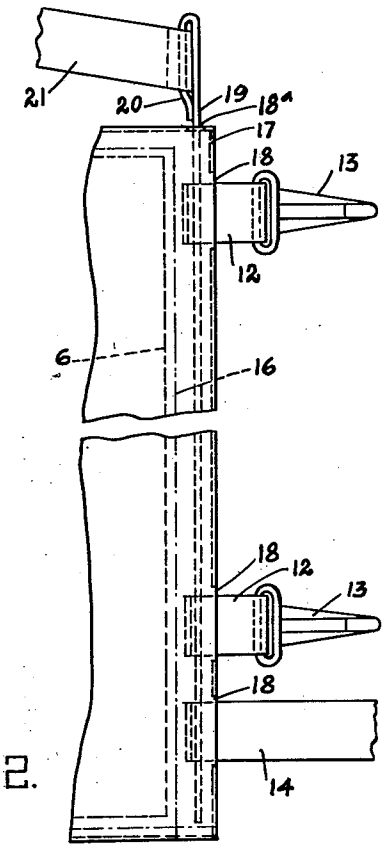


Fig. 2.

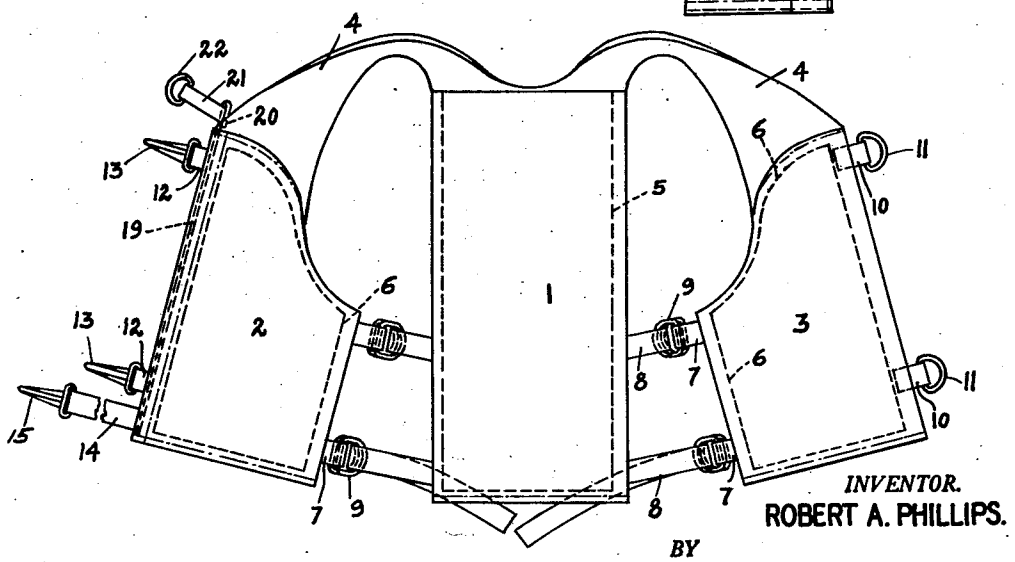


Fig. 3.

INVENTOR.
ROBERT A. PHILLIPS.

BY

Christy, Parmele & Strickland.

ATTORNEYS.

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LIFE PRESERVER VEST

Robert A. Phillips, Pittsburgh, Pa., assignor to Safety First Supply Company, Pittsburgh, Pa., a corporation of Pennsylvania

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The present invention relates to lift preserver vests of the type which may be readily and quickly donned by the wearer in the case of an emergency and which may be quickly released from the person of the wearer while in the water in an emergency necessitating such action.

Life preserver vests are not normally worn except in the case of an emergency and as such should be capable of being quickly and readily donned by the wearer. Such vest should have a minimum of bulk and a maximum of buoyancy so as to not impede the movements of the wearer while in the water. Likewise such a vest should provide a snug fit to the wearer and be designed to maintain his head above the water in the event that the wearer is rendered unconscious while entering the water or suffers an injury afterwards. In order to prevent the vest from floating upwardly over the head of the wearer, it is customary to provide leg straps or other body embracing means to retain the jacket in place on the wearer, all of which impedes original assembly of the jacket on the wearer and the quick release therefrom in an emergency. The buoyancy of the jacket in the water is an important matter as is likewise the ability of the buoyant material of the jacket to resist water absorption.

One object of the present invention is to provide a life preserver vest which may be readily and quickly donned and adjusted to the body of the wearer in an emergency.

Another important object of the invention is to provide means for quickly and easily releasing the fastening means attaching the vest to the wearer in the case of an emergency.

Another object of the invention is to provide such a type of vest with buoyancy material which is light in weight, compact and which effectively resists water absorption.

These and other objects of the invention will be made apparent from the following description and drawings forming a part thereof in which:

Fig. 1 shows the vest of the invention assembled in place on the wearer;

Fig. 2 is an enlarged view showing the quick release features of the vest; and

Fig. 3 is a plan view of the vest in open position illustrating details of construction.

Referring now in detail to the drawings, the vest comprises a rear section 1 and two front sections 2 and 3. The sections 2 and 3 are connected to the section 1 by the portions 4 serving as shoulder straps. The rear section 1 has a buoyant filling member 5 and the front sections 2 and 3 have buoyant filling members 6. The sections are completed by a cloth covering stitched to enclose the filling members. The rear section 1 extends upwardly adjacent the back of the wearer and the front sections are preferably shaped to fit beneath the arms of the wearer as shown, whereby the vest tends to hold the head of the wearer above the surface of the water. The adjacent marginal edges of the front and rear

sections are adjustably connected together so that one size of vest may be adjusted to fit a small, medium or large person. For this purpose loops 7 of suitable material such as canvas are stitched to the inner edges of each front section 2 and 3. Within each said loops are mounted a fastening member of suitable form such as the pair of rings 9 of well known form. On opposite sides of the rear section 1 are attached to straps 8 of suitable material such as canvas which are threaded through the rings 9 providing quick and adjustable connections between the front sections 2 and 3 and the rear section 1 for adjusting the vest to the size of the wearer. The opposing edges of the sections 2 and 3 at the front of the wearer are suitably connected to complete the vest and provide for ready connection and disconnection as well as emergency release of the vest as hereinafter discussed.

One such front section such as 3 is provided with one or more members 10 of suitable material such as canvas strapping stitched to the vertical margin of the section 3. Mounted in each loop 10 is a metal ring 11. The opposite vertical margin of the front section 2 is connected by means of the straps 12 and snap hook 13 to the rings 11 of the section 3. Adjacent the lower edge of one of the front sections such as 2 is attached a strap 14 having at its outer end a snap fastener such as 15 which may be secured to the belt or a portion of the leg covering of the wearer to retain the vest in position and prevent it from floating or slipping over the head of the wearer when he jumps into the water.

The quick detachable feature of the life preserver vest is best illustrated in Figs. 1 and 2 of the drawings. Fig. 1 illustrates the vest in position on the wearer and adjusted to closely conform to the body of the wearer. As clearly shown therein the rings 11 and snap fasteners 13 with their associated straps 10 and 12 hold the vest in closed position at the front of the wearer. As shown in Fig. 2 of the drawing the buoyant filler member 6 is preferably retained in position by the stitching 16 in the cloth covering, and the outer edge of the cloth covering is closed by the stitching 17. Such stitching 17 is interrupted at spaced intervals such as 18. The stitching 17 and 16 thus provide a vertically extending pocket at the front of the wearer and openings in the pocket are provided at 18 and 18*a*. The looped ends of the straps 12 and 14 extend through the openings 18 into the pocket and a rod like member 19 of metal extends through the opening 18*a* into the pocket and passes through the entered loops 12 and 14. The upper end of rod 19 has an eye portion 20 through which extends a suitable member such as 21 which may be a strap having a ring 22 mounted at the end thereof or a knotted string. The rod 19 and the straps 12 and 14 are assembled by inserting the loops of the straps 12 and 14 through the openings 18 then threading the rod 19 through the opening 18*a* and through the loops of the straps 12 and 14.

The buoyant fillers 5 and 6 of the life preserver vest perform an important function. Heretofore, life preserver vests as known to the applicant, secured their buoyancy by means of inserts made of balsa wood, rubber, fiber glass, kapok and sometimes kapok enclosed in a water proof envelop. Such materials upon continued emersion lost their buoyancy by reason of water absorption and in the case of the kapok sealed in an envelop, rupture of the envelop soon caused considerable loss of buoyancy of the contained kapok. All such materials can of course be used in the vest of the present invention, but I prefer to provide blocks of sponge vinyl plastic having a high buoyancy factor of about 57 lbs. per cu. ft. and which after 72 hours of

submersion in water has a water absorption of 1 percent or less. Such sponge material need not have the edges of the pad sealed nor need they be enclosed in a water proof envelop.

In use the life preserver is donned like any vest by slipping the arms through the strap 4, snapping the members 13 into engagement with the rings 11, pulling the free ends of the strap 8 to adjust the size of the vest into a snug fit about the body of the wearer and attaching the snap fastener 15 of the strap 14 to the belt or portion of the clothing of the wearer below the lower extremities of the vest. The vest is now ready for use, the back panel 1 is automatically positioned to support the head of the wearer in upright position when in the water and the user may jump or dive into the water without fear of displacemnt of the vest.

The life preserver vest by reason of its extremely light weight and snug fit to the body of the wearer, without interference to movement of the arms, may advantageously be worn when working around water or boats moving upon the water. It some times happens when the wearer is in the water that an emergency arises when it is necessary to strip the life preserver from the body of the wearer to provide maximum freedom of movement in submerging or swimming away from a particular spot. This can occur in a case of flaming oil upon the water, where the person is entangled with an obstruction or any other emergency necessitating submergence or rapid movement of the wearer away from his present position. In such cases the vest can be quickly stripped from the body with a minimum expenditure of time and energy by pulling upwardly on strap 21, removing pin 19 whereupon straps 12 and 14 are detached from the front portion 2 of the vest permitting it to fall away or to be stripped from the body. It will be noted that upon removal of pin 19 straps 12 remain attached to front portion 3 of the life preserver vest and that the strap 14 now separated from the front section 2 remains attached to the clothing of the wearer. The vest which will now float away from the wearer may, if not damaged after detachment from the wearer, be recovered and placed in serviceable condition by providing and inserting a new pin 19.

The life preserver as hereinbefore described thus permits constant wearing while in danger or quick attachment to and detachment from the body as emergencies arise. One size of life preserver is adjustable for fitting to the body of all adults and most children. The vest likewise may be donned and is serviceable regardless of which side thereof is in contact with the wearer or in other words is reversible. Such reversing of the vest does not interfere with its functional operation or ease of quick attachment or detachment.

Having thus described the invention and its presently contemplated best mode of construction, it is to be understood that many obvious modifications in details of construction may be made without departing from the spirit of the invention and the scope of the appended claims.

I claim:

1. A life preserver comprising a back section and two front sections, flexible strap connections between one margin of each said front section and the adjacent margin of the back section, spaced straps connected at one end with each front section, and detachable connections between the remaining end of said straps of each front section securing the sections together at the front of a wearer, the connection between said spaced straps and one of said sections comprising a single member slidably mounted on said section and end loops on each strap through which said single member is threaded by movement in one direction relative to the said front section and released from said strap loops by movement in the opposite direction relative to the said front section.

2. The life preserver as defined in claim 1 wherein a strap is provided for restricting vertical upward movement of the life preserver relative to the body of the wearer, one end of said strap being detachably connected with the clothing of the wearer and the opposite end of said latter strap having an end loop engaged by the said single member slidably mounted on one said front section.

3. In a vest type life preserver having two separate front sections with a back section disposed between and connected to the front sections for encircling the body of a wearer, the combination of a first member connected at one end with one of the adjacent margins of the front sections, a second member connected at one end to the adjacent margin of the other front section, means on the free ends of said first and second members for detachably connecting the front sections together, a third member connected with the first named front section and depending therefrom for attachment to the clothing of a wearer, and means detachably mounted on the first named front section, said latter means forming a common connection between said first and third named members and to said first named front section.

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