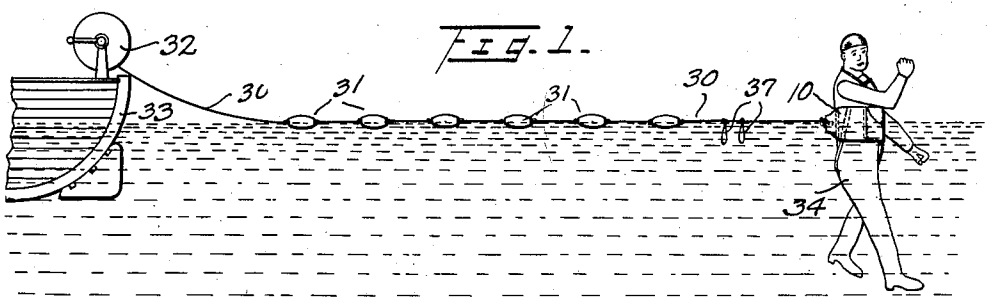
Jan. 30, 1945. W. J. MALONEY 2,368,558

LIFE SAVING APPARATUS

Filed March 27, 1944

Fig. 1.



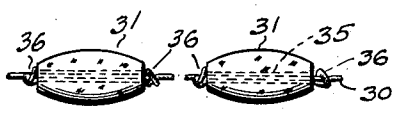


Fig. 5.

Fig. 7.

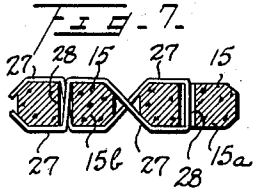


Fig. 3.

Fig. 6.

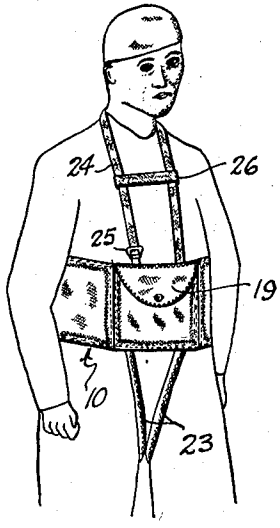


Fig. 4.

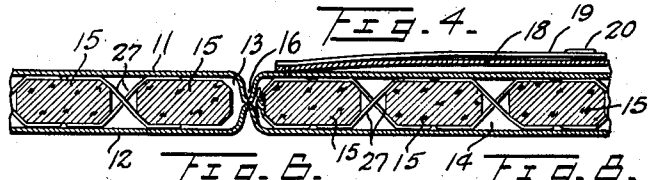


Fig. 8.

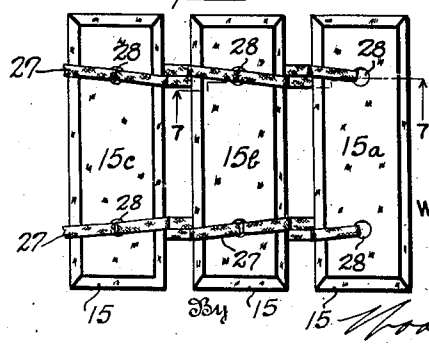
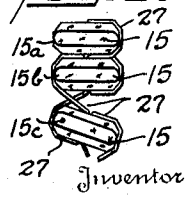


Fig. 8.



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Patented Jan. 30, 1945

2,368,558

UNITED STATES PATENT OFFICE

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LIFESAVING APPARATUS

William J. Maloney, Ansonia, Conn., assignor of one-half to William F. Driscoll, Ansonia, Conn.

Application March 27, 1944, Serial No. 528,293

7 Claims. (Cl. 9—17)

This invention relates to a life saving apparatus, and has for an object to provide an improved apparatus including a harness which may be worn by a sailor or other person and is so constructed that it will keep him afloat in the water, with means attaching a line thereto carrying a number of floats, which line may be anchored to a rescue ship or means on the ship for paying out the line so that the man in the belt can enter the water and permit the rescue ship to encircle the men or women to be rescued, at the same time paying out the line with the floats so that they may grasp this line and be later drawn to the ship or a life boat and rescued.

Another object is to provide an improved construction of belt or harness to be worn by the man entering the water and to which the rope with the floats may be attached.

With the foregoing and other objects in view I have devised the apparatus illustrated in the accompanying drawing and made part of this specification. However, it is to be understood the device is not limited to the specific construction and arrangement shown but may embody various changes and modifications within the scope of the invention.

In the drawing:

Fig. 1 is a view showing use of the apparatus;

Fig. 2 is a front view of a man wearing the belt or harness;

Fig. 3 is a front elevation of the belt or harness spread out substantially flat;

Fig. 4 is a detail section substantially on line 4—4 of Fig. 3 and on a larger scale;

Fig. 5 is a view of a portion of the line and floats thereon;

Fig. 6 is a side elevation of a plurality of the float blocks used within the belt, and showing the improved means for attaching them for greater flexibility;

Fig. 7 is a detail section thereof substantially on line 7—7 of Fig. 6, and

Fig. 8 is a top plan view showing how they may be folded together.

The improved harness comprises a belt 10 of flexible fabric or other suitable material adapted to pass around the body of the wearer, and preferably comprises front and rear walls 11 and 12 forming compartments 13 and 14, in which are carried float blocks 15 of cork or light wood, inflated tube, or similar highly buoyant material. The front and rear walls may be stitched together between the compartments as indicated at 16 to keep the floats in place. It is preferred to fill the compartments at the opposite ends of the floats with soft fibrous material 17, such for example as kapok or the like to form cushions at the opposite edges of the belt or opposite ends of the floats to form a padding and make the harness more comfortable and lessen the danger of the floats causing injury. On the front side of the belt is also formed a relatively large pocket 18 open at the top and closed by a flap 19 which may be secured by any suitable catch 20. This pocket is adapted for carrying emergency articles, such for example as a knife and a bottle of stimulant.

The opposite ends of the belt comprise flaps 21 adapted to meet at the back of the wearer and are provided with means for attaching a line or rope, that shown comprising a series of grommets 22 through which the end of the rope may be passed, and the series of grommets permit adjustment for various sizes of bodies. Depending from the belt are a pair of straps 23 secured at their opposite ends to the belt and forming depending loops through which the legs of the wearer are passed when the belt is applied so that these straps pass through the crotch as indicated in Fig. 2 and prevent the belt rising too high on the body and also help to hold the body upright. Extending upwardly from the belt is another strap 24 forming a loop to pass upwardly over the chest and shoulders and around the back of the neck of the wearer, as indicated in Fig. 2, and this may have an adjusting buckle 25. It will be evident that these three loops will properly locate the belt on the body and retain it in the proper position. A connecting strip 26 is provided connecting the opposite sides of the loop 24, and it is slidable longitudinally on this loop so that it may be adjusted to any desired position.

The floats within the belt may be of solid blocks of cork, light wood or other suitable material, or they could be inflated tubes. They are, however, preferably solid blocks of cork or similar material as indicated and are attached by flexible cords or fiber strips 27. By attaching them in the manner indicated they are hinged relative to each other so that each may swing relatively to the others and may swing around to lie flat on each other, as indicated in Fig. 8. This adds great flexibility to the belt, permitting it to fit properly around the body and permit free movement of the wearer. As will be seen from Figs. 7 and 8, in this improved securing means each block is provided with a pair of openings 28 extending therethrough, preferably at substantially its center and adjacent its opposite

ends, although they may be positioned as desired. Then the flexible strap 27 is passed through the opening in the end member 15a, passes at the opposite sides thereof between this block and the next block 15b and are crossed between the blocks so that each lies on the opposite sides of the next block, and are then passed in opposite directions through the opening 28 in the next block. They are then passed on the opposite sides of this block between it and the next block 15c and are again crossed between these two blocks the same as between the first two blocks and passed in opposite directions through the opening 28 in this block, and so on through as many blocks as desired. This permits the blocks to turn through all angles relative to each other and enables them to lie flat side by side as indicated in Fig. 8, giving great flexibility to the resulting floating assembly, and permitting it to be folded to the minimum space for storage. These floating elements may be permanently secured in the belt, or if desired the top edges 29 of the compartments 17 and 18 may be closed by a series of fasteners such as zippers or other fasteners, permitting the floats to be removed when not in use so that the belt and floats can be folded and stored in a minimum space and the floats quickly assembled within the belt when desired.

In use, when one or more people in the water are to be rescued, a sailor or other person applies the belt to his body by placing his legs through the two loops 23 and passing the body portion of the belt around his body with the loop 24 passed over his head so as to lie on his shoulders and around the back of his neck. The connecting strap 26 will be slid upwardly to any desired position so as to retain this loop properly around the shoulders and about the neck. Then the line or rope 30 having suitable cork or other floats 31 thereon is attached to the belt through the fasteners 22 on the ends of the body portion which are brought together at the back of the wearer. The floats 31 may be spaced any suitable distance but are preferably about a yard apart. The other end of the rope is anchored to the reel 32 on the rescue ship 33. The sailor or other person 34 in the harness is now ready to be placed in a life boat or to dive overboard. As soon as he does this the rescue ship will start moving away from the man in the harness and at the same time the reel on the ship will start paying off the rope 30 with the floats 31 and will encircle the people in the water to be rescued. As the rescue ship encircles them the rope 30 with the floats will be brought close enough for them to grasp it so that they may keep themselves afloat. The men on the rescue ship can now haul in the rope and the floats or reel them up on the reel, thus drawing the parties being rescued to the ship or a lifeboat lowered at the side thereof, and they can then be drawn into this boat or onto the ship. The man in the harness may be in a waterproof or padded suit if desired, especially if the apparatus is used in cold water.

The floats 31 may be attached by any suitable means to the line or float 30 but a convenient means is to pass the rope through a longitudinal opening through the floats, as indicated at 35, and tying knots 36 in the rope at opposite ends of the floats which will effectively retain the floats at the proper spaced distance.

It is also preferred to provide the rope 30 with a pair of loops 37 forming grips whereby if the water is shallow and the boat cannot lead and pay off the rope and floats one or two other men with the leader in the harness may drag the rope and floats through the water and encircle the parties in the water.

It will be seen from the above that the apparatus is a very simple one which may be quickly applied to a sailor or other person and carried into the water so that the rope with the floats may be quickly brought to an encircling position about the parties to be rescued and to a position where it may be grasped by these parties to keep them afloat and haul them to a lifeboat or other rescue float or ship. When not in use the harness may be folded and packed out of the way in a minimum of space ready for instant use. The pocket 18 permits the rescue party to carry emergency articles, such as a knife or bottle of stimulant, or the like.

Having thus set forth the nature of my invention, I claim:

1. A life saving harness comprising a belt of flexible fabric including front and rear walls forming compartments, floats of light material enclosed in said compartments, soft fibrous material at the opposite ends of floats in the compartments forming cushions, said belt adapted to go around a person's body with the free ends at the back, means on said ends for attaching a rope, a pair of straps forming loops depending from the belt and adapted to pass through the crotch of the wearer, and a strap forming a loop extending upwardly from the belt and adapted to pass over the shoulders and around the back of the neck of the wearer.

2. A life saving harness comprising a belt of flexible fabric adapted to go around the body with free ends at the back provided with means for attaching a rope, floats of light material in the belt a relatively large pocket formed on the front of the belt and open at the top, a closure flap adapted to fold over the top of the pocket to close it, means for securing the flap, straps forming loops depending from the belt and adapted to pass through the crotch of the wearer, a strap forming a loop extending upwardly from the belt and adapted to pass over the shoulders and around the back of the neck of the wearer, and a strip connecting the opposite sides of the latter loop and slidable longitudinally thereon.

3. A life saving device of the character described comprising a flexible belt adapted to go around the body of a person, buoyant members carried by said belt, the opposite ends of the belt adapted to meet at the back of the body and provided with means for attaching a line thereto, a line secured to said attaching means, a plurality of floats secured in spaced relation on said line, and means for securing the other end of the line on a rescue ship and paying the line and floats out from the ship.

4. A life saving device of the character described comprising a flexible belt adapted to go around the body of a person, buoyant members carried by said belt, the opposite ends of the belt adapted to meet at the back of the body and provided with means for attaching a line thereto, loops depending from the belt adapted to pass through the crotch of the person, a loop extending upwardly from the belt adapted to pass over the shoulders and around the back of the neck of the person, a line secured to the attaching means, a plurality of floats secured in spaced relation on the line, and means for securing the

other end of the line on a rescue ship from which the line and floats may be payed out from the ship.

5. A life saving device of the character described comprising a belt of flexible material adapted to pass around the body of the person and provided with one or more compartments, means for securing the belt to the body, buoyant elements in the compartments comprising a series of blocks of light material, said blocks each having transverse openings therethrough, and a securing means comprising a flexible cord or strip passing through the opening in one block, then on the opposite sides of the block and through the space between this and the next block and crossed in this space, then on the opposite sides of this block and in opposite directions through the opening therein, and then along the sides to the space between the second and third blocks and crossed therein and extending in opposite directions through the opening in this block and so on to all the blocks so that they are attached to each other and may freely hinge or swing with respect to each other so as to maintain the flexibility of the belt.

6. A life saving device of the character described comprising a belt of flexible material adapted to pass around the body of the person and provided with a compartment, a buoyant element in said compartment comprising a plurality of buoyant blocks arranged edge to edge and each having a transverse opening therethrough, and a flexible strip passing through the openings in the blocks in opposite directions and extending from each opening along the sides of the block to the adjacent edges of this and the next block and crossed to the other sides over these edges and then through the opening in the next block in opposite directions and so on through all the blocks to secure them together so that they are adapted to hinge and swing relative to each other to maintain the flexibility of the belt.

7. A life saving device of the character described comprising a flexible belt adapted to go around the body of a person, buoyant members carried by said belt, the opposite ends of the belt adapted to meet at the back of the body and provided with means for attaching a line thereto, a line secured to said attaching means, a plurality of floats secured in spaced relation on said line, means for securing the other end of the line on a rescue ship and paying the line and floats out from the ship, and one or more loops secured to the line adjacent the harness forming a grip or grips whereby the line may be pulled to encircle parties to be rescued.

WILLIAM J. MALONEY.