

1,292,587.

Fig. 1.

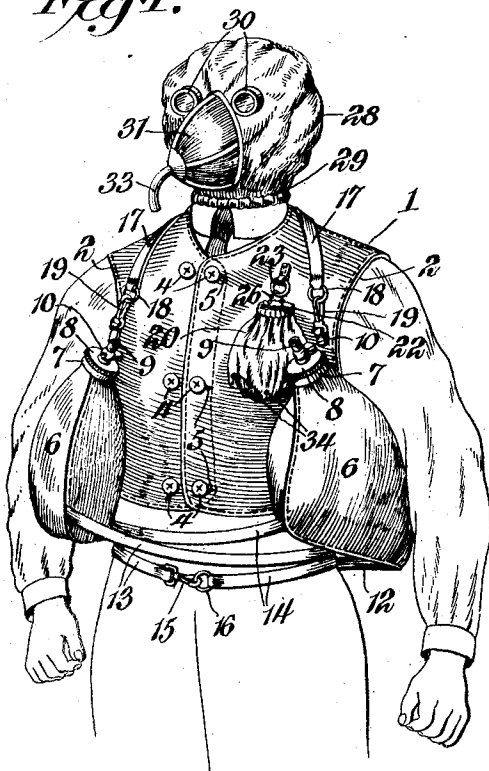


Fig. 2.

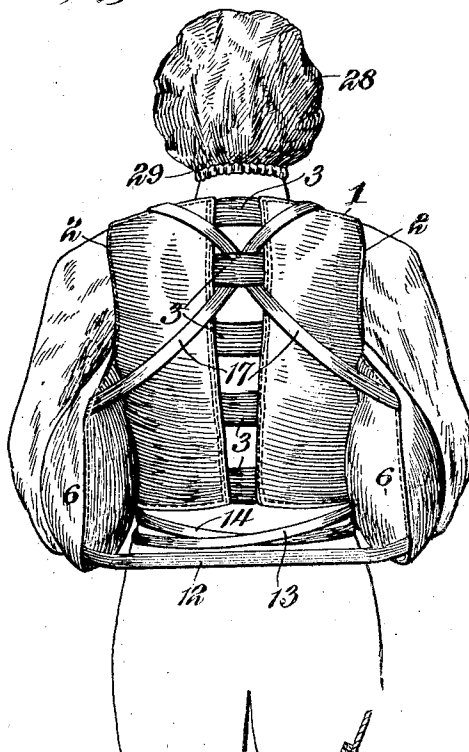


Fig. 6.

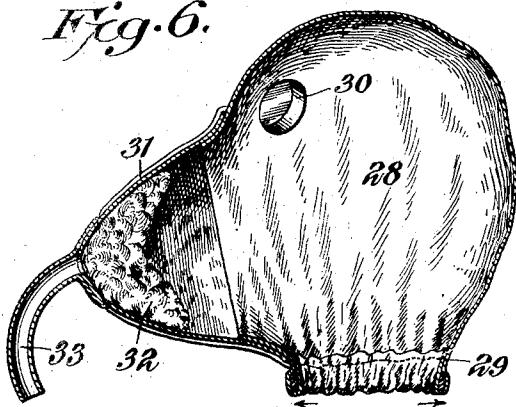
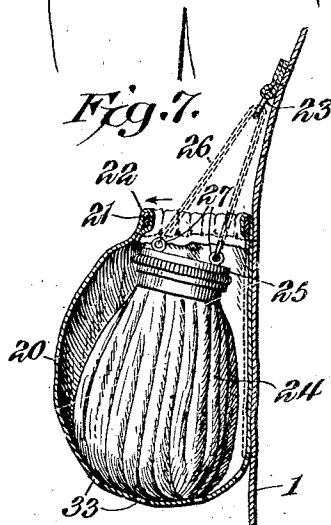


Fig. 7.



WITNESSES

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DOMENIC DEL RE, OF IRON RIVER, MICHIGAN.

LIFE-PRESERVER.

1,292,587.

Specification of Letters Patent.

Patented Jan. 28, 1919.

Application filed July 13, 1918. Serial No. 244,781.

To all whom it may concern:

Be it known that I, DOMENIC DEL RE, a subject of the King of Italy, residing at Iron River, in the county of Iron and State of Michigan, have invented a new and useful Life-Preserver, of which the following is a specification.

This invention has reference to life preservers, and its object is to provide a simple and easily attached device for use especially in marine disasters.

In accordance with the invention, there is provided a vest-like garment which will readily accommodate itself to persons of different sizes and is provided with receptacles containing air-tight bags capable of being readily and quickly blown up to a sufficient extent to sustain a person in the water with the head well above the surface of the water. Shoulder and waist-bands form part of the life preserver for securely attaching the life preserver to the person and attached to the life preserver are pockets having contractible mouths, and one or more of such pockets may be provided with water-proof large-mouth receptacles with water-proof closures for the mouths of the receptacles so that valuables may be carried therein.

In addition to the flotation member of the life preserver, there is provided a head inclosure of water-proof character with a breathing tube so arranged that a person jumping or thrown into the water will not swallow any of the water, such swallowing being particularly objectionable in the case of salt water.

The invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming part of this specification, with the understanding, however, that the invention is not confined to any strict conformity with the showing of the drawings but may be changed and modified so long as such changes and modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

In the drawings:—

Figure 1 is a perspective view from the front of the life preserver complete, as applied to a person.

Fig. 2 is a rear view of the structure shown in Fig. 1.

Fig. 3 is a display view of the life preserver showing the inside surface thereof.

Fig. 4 is a side elevation of the life preserver as seen from the left hand side.

Fig. 5 is a longitudinal section of one of the air sacks and closure therefor.

Fig. 6 is a front to rear section of the helmet.

Fig. 7 is a section through a pocket attached to the life preserver and showing a carrier for valuables within the pocket.

Referring to the drawings, there is shown a vest or body member 1 formed of two parts, each with an armhole 2 and joined together at the back by elastic strips 3. The meeting edges of the front of the body member is provided with suitably spaced rows of buttons 4 on one side and a row of buttonholes 5 on the other side so that with the spaced rows of buttons and the elastic strips 3 the device will fit persons varying materially in size, especially about the chest.

Sewed or otherwise secured to the sides of the vest below the armholes are receptacles 6 of suitable capacity so that when expanded by contained air they will sustain the body of the person to which the device is attached with the head well above the surface of the water. Each receptacle 6 is provided, preferably near the front upper corner, the receptacle being customarily of rectangular shape, with a screw ring 7 made fast to the receptacle in an air-tight manner and provided with a screw plug 8 made to screw into the ring so as to form an air-tight junction. The plug 8 is provided with an inflating tube 9 having a valve 10 therein. The tube 9 extends through the screw plug to the interior thereof and there has fast to it a bag 11 shaped in conformity with the receptacle 6 so as to be lodged therein and may be blown up by the breath of the wearer. The tube 9 is so situated that it may be conveniently reached by the mouth of the wearer in order that, when the valve 10 is open, the bag 11 may be expanded by air blown into the bag through the mouth of the wearer to fill the bag to about the capacity of both the bag 11 and the receptacle 6. The receptacle may be made of wa-

ter-proof material and the bag 11 is made of air-tight material. When the parts are in place and blown up the receptacles and bags are beneath the arms of the wearer but do not materially interfere with movements of the arms.

The rear lower ends of the receptacles 6 are joined by an elastic strip 12 preventing the receptacles from spreading, although yielding to movements of the body of the wearer. The front lower edges of the receptacles 6 have respective strips 13 and 14 attached to them, these strips being formed of elastic material and one is provided with a snap hook 15 and the other with a ring 16 at the extremities remote from the receptacles. The strips 13 and 14 are made long enough so that they may be passed about the body of the wearer in opposite directions, say twice for each strip, and then secured together by snapping the hook 15 into the ring 16. This makes a relatively tight connection about the waist of the wearer, holding the receptacles close to the body at all times with the strips 12, 13 and 14 under more or less stretch.

Attached to the upper rear corners of the receptacles 6 are suspenders 17 which may be also of elastic material long enough to be crossed behind one of the strips 3 and carried over the shoulders to the front of the vest where the ends of the suspenders 17 are provided with rings 18 and which may be engaged by snap hooks 19 fast to the front of the vest.

Attached to the front of the vest is a pocket 20, of which there may be more than one if desired, and this pocket is sewed or otherwise secured to the front of the vest so as to constitute a permanent attachment therefor. At the upper end the pocket is open but gathered toward a closed position by means of an elastic band 21 in a hemmed portion 22 about the mouth of the pocket. Above the pocket there is a ring 23 secured to the body of the vest.

Adapted to be lodged in the pocket 20 is a bag 24 of suitable water-proof material, and this bag may be so constructed as to be expansible. A removable cap or closure 25 serves to seal the open end of the bag against the entrance of water and such initially open end of the bag is made large enough to receive valuables of various kinds. A chain 26 or other suitable carrying means is made fast to the cap or closure 25 of the bag and this chain may have one end permanently fast to the cap 25 and the other end provided with an automatically closing catch so that the chain 26 may be passed through the ring 23 and afterward secured to the cap 25 which is provided with rings 27 for the chain and snap carried thereby.

In case of sinking at sea, and more especially in rough water, the person or persons

forced to go overboard frequently swallow salt water. This often causes sickness which will so weaken the person that, despite the life preserver, exhaustion or even drowning may occur before rescue. In order to avoid such a result there is provided a helmet 28 with an expansible neck piece 29 having a normal degree of contraction because of its elastic nature to bind about the neck of the wearer to prevent entrance of water, without, however, uncomfortable pressure upon the neck of a person. The helmet has eye pieces 30 closed by transparent material, and in a position corresponding to the nose of the person has a projecting snout 31 sufficiently large to accommodate the nose of the person and a piece 32 of absorbent material, such as a sponge, capable of transmitting air. Projecting from the snout 31 is a short piece of piping 33 of small diameter so as to resist the passage of water therethrough but permitting the free passage of air. With such an arrangement a person jumping or thrown into the water is not strangled and is not induced to swallow any of the water while the supply of air in the helmet will be sufficient to prevent smothering for the short time that a person may be under water due to the fall from the vessel to the water. In case the water is rough sufficient air may be obtained through the pipe 33 to prevent smothering while the person is at the surface of the water, but in the event of the water being smooth the person in the water may remove the helmet and obtain a plentiful supply of fresh air.

In the event of a disaster at sea requiring the use of the life preserver, the vest portion is readily slipped on and buttoned up at the front with the suspenders 17 over the shoulders and the strips 13 and 14 may be quickly brought about the waist and snapped together by securing the hook 15 into the ring 16. Then by blowing into the air bags 11 they are quickly filled with air, that is, with the breath of the wearer, until sufficiently inflated, whereupon, the valves 10 are closed, thus retaining the inflation of the bags. Of course, it will be understood that the inflation of the bags or floats 11 may be performed before the garment is donned or may be kept inflated for use in case of particular emergency.

Where there is sufficient time valuables of small bulk may be gathered up and placed in the bag 24 and the latter placed in the pocket 20 where it will stay without further attention, the chain 26 not being absolutely essential but forming a supplementary safety device. Since there is liability of getting water into the pocket 20 drain holes 33 may be provided in the bottom of the bag, it being immaterial whether or not water gets into the pocket, since the bag 24 is water-tight.

Where a disaster occurs on fresh water it is not so essential to wear the helmet, but when a disaster occurs on salt water there is great danger, especially with people not used to the water, to become strangled with the result that the person swallows considerable of the salt water, this producing nausea and even though the person after being under the water comes to the surface and is kept afloat by the life preserver, the nausea under the circumstances not infrequently results in fatalities. For this reason the helmet becomes an important part of the outfit preventing nausea, since it avoids the danger of swallowing the salt water. In rough water the helmet becomes valuable to shipwrecked persons, since the swallowing of salt water may occur even when the person is floating on the surface for waves will pass over the person and the temporary immersion may cause swallowing of salt water.

All joints are stitched and also held by suitable cement to avoid any breaking away of the parts. The seam also aids in rendering joints water-proof and, where necessary, air-proof.

What is claimed is:—

1. A life preserver comprising a garment for the body of the wearer, flotation members fast near one edge to the opposite sides of the garment to be located under the arms of the wearer, and bands fast to the flotation members at points distant from the fastening of said flotation members to the garment and of a length to encircle the waist of the wearer.

2. A life preserver, comprising a receptacle for application to the body of the wearer and provided with a localized screw ring, and a bag having a screw plug connected permanently thereto and carrying an inflating tube, said bag being introducible into the receptacle through the screw ring and the screw plug screwing into the ring to close the receptacle when the bag is within said receptacle.

3. A life preserver comprising a garment, inflatable air sack structures each fast along one edge to the garment and said sack structures being located to be lodged beneath the arms of the wearer when the garment is applied, a band connecting the air sack structures at the rear, and other bands connected to the air sack structures at the front and of a length to encircle the waist of the wearer, whereby the air sack structures are held close to the sides of the body of the wearer.

4. A life preserver comprising a vest-like garment, inflatable air sack structures each fast along a portion of the upper edge to the garment and said sack structures being located to be lodged beneath the arms of the wearer when the vest is applied, a band connecting the air sack structures at the

rear, and other bands connected to the air sack structures at the front and of a length to encircle the waist of the wearer, whereby the air sack structures are held close to the sides of the body of the wearer, said air sack structures being provided with other bands connected at high points thereto and of a length to extend over the shoulders of the wearer.

5. A life preserver comprising a vest-like structure with the rear portion divided, elastic strips joining the divided portions, flexible receptacles fast at the top to the sides of the vest-like structure in position to be below the arms of the wearer, inflatable air bags free from permanent attachment to and adapted for insertion in the receptacles, elastic strips connected to the front and rear lower portions of the receptacles for securing the latter to the body of the wearer at the waist line, and suspenders connected to the rear portions of the receptacles and provided at the ends remote from the receptacles with fastening devices, the vest also having fastening devices for connecting the suspender strips thereto with the suspenders extending over the shoulders of the wearer.

6. A life preserver, comprising means for application to the body of the wearer, expansible receptacles fast thereto and each provided with a circumscribed opening, air-tight bags each introducible into a receptacle through the circumscribed opening and each provided with an air tube for the inflation of the bag, said bag where provided with the inflation tube and the receptacle at the circumscribed opening having co-acting means for removably attaching the bag and receptacle together in an air-tight manner, whereby the inflation is maintained in the event of either the bag or the receptacle being damaged.

7. A life preserver, comprising an expansible receptacle with an opening of circumscribed area, an air-tight bag introducible into the receptacle through the opening and removable therefrom at will, an inflating tube for the bag of a length to extend through the opening in the receptacle when the bag is housed in said receptacle, and air-tight connections between the circumscribed opening and the bag where extending through said opening, whereby the inflation is maintained even though the bag be damaged to an extent of permitting the escape of air therefrom.

8. A life preserver comprising a garment adapted to be applied to the body of the wearer, receptacles carried at their upper portions only by the garment for location below the arms of the wearer, flexible strips connected to the front and rear of the receptacles for binding the lower portions of the latter to the waist portion of the wearer, suspender devices for extension over the shoulders

ders of the wearer and connected to the rear parts of the receptacles, and inflatable bags for introduction into and removal from the receptacles and having valved means for the inflation of the bags.

9. A life preserver comprising a two-part vest-like body garment separable at the front and with elastic strips at the back joining the two parts, receptacles on opposite sides of the vest-like structure secured at the upper edges only to said structure, each receptacle having an opening at the upper front corner, an air-tight bag for each receptacle separate therefrom and adapted for insertion into and removal from the interior thereof and provided with a closure for the

opening in the receptacle, said closure having a valved air tube for inflating the air bag, an elastic strip connecting the rear lower ends of the receptacle, elastic strips connected to the front lower ends of the receptacles and of a length to extend about the waist of the wearer and having means for fastening the ends of the strips together, and suspender strips each connected to the rear upper end of a receptacle; the vest and suspender strips having coacting fastening means for securing them together at the front of the vest.

In testimony that I claim the foregoing as my own I have hereto affixed my signature.

DOMENIC DEL RE.