F. MARCOVSKY.

LIFE PRESERVER.

APPLICATION FILED JULY 30, 1918.

1,302,823. Patented May 6, 1919.

FIG.1

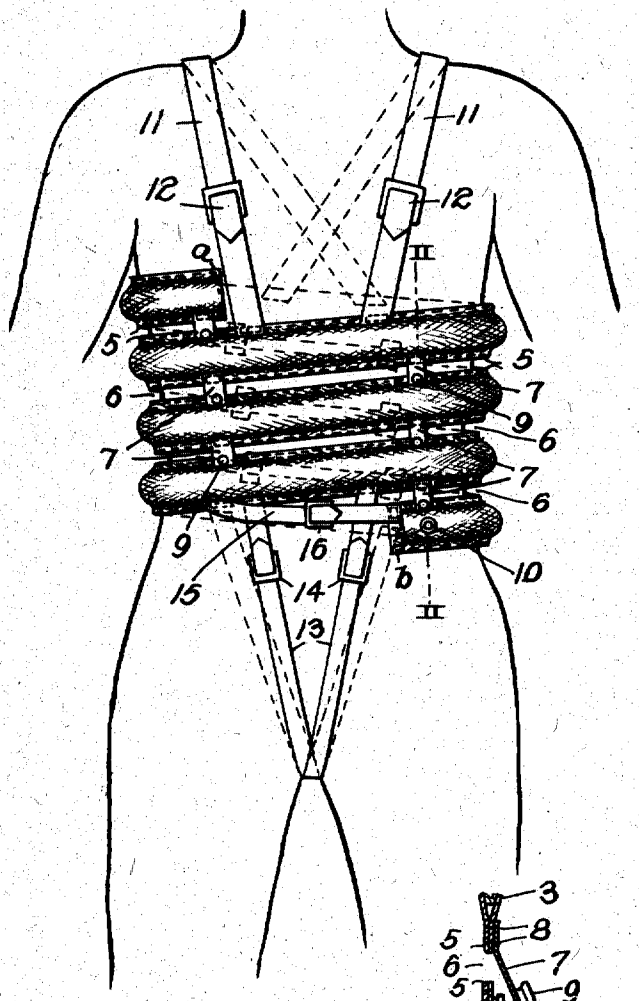


FIG.2.

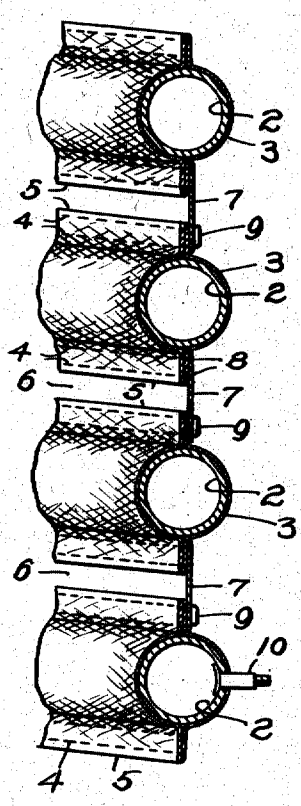
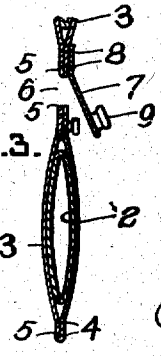


FIG.3.



WITNESSES

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LIFE-PRESERVER.

1,302,823. Specification of Letters Patent. Patented May 6, 1919.

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To all whom it may concern:

Be it known that I, FRANK MARCOVSKY, a citizen of the United States, residing at Duquesne, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Life-Preservers, of which the following is a specification.

My invention relates to the class of life belts or life preservers of the kind adapted to be worn on the body, and to provide a buoyant support therefor in water.

The present invention consists of a body-surrounding construction adapted to be inflated by air and to also, when collapsed, relax into comparatively small size so that it may be continuously worn without discomfort or interference. The device is so arranged as to be adapted for attachment to the body, either underneath or outside of the ordinary clothing, and is capable of being quickly inflated at any time by connection with a suitable source of air pressure.

Preferred constructions of the invention are illustrated in the accompanying drawings, in which:

Figure 1 is a view of the invention in elevation as applied to the body;

Fig. 2 is a vertical sectional detail view on an enlarged scale indicated by the line II, II of Fig. 1;

Fig. 3 is a similar sectional detail view, showing the device deflated.

Referring to the construction shown in Figs. 1 and 2, the inflatable element consists of a continuous inner tube 2 preferably of rubber, arranged when applied in spiral form, to terminate at *a* and *b* respectively. The tube 2 is continuously inclosed within outer surrounding walls 3—3 of suitable material, as canvas, webbing, or the like, which is stitched or otherwise secured at each side of the tube, continuously along throughout its full spiral length, as indicated at 4—4.

As thus constructed, the tube-inclosing portions are provided with terminal edge members 5—5, which, when the tube and its cover are spirally arranged as shown, are located adjacent to each other with an intervening space 6. The adjacent edge members 5 are connected at intervals by short flexible straps 7 which are preferably securely attached at one side to one of the edge portions 5, as indicated at 8, and are removably connected with the opposite edge 5 by a releasable button 9. (See Fig. 3). By this construction, the coils of the device are held in their desired relative arrangement and may be easily disconnected for removal or application, or for compactly folding or rolling the device for storage or packing. The releasable buttons 9 enable the device to be adjusted to different girths merely by enlarging or reducing the coils, and for such purpose the number of clip straps 7 may be increased and located as desired.

One end of the tube, as terminal *a*, is closed as is also the other end *b*, but said other end is also provided with an air supply terminal nipple 10 similar to the terminal of an ordinary inner tube of a pneumatic tire and provided with an automatically seating check valve. By this means, immediate connection may be made with any source of air pressure, and the device can be quickly inflated to any desired extent, as say, one pound pressure, or more or less. Air pressure may be produced by connecting the nipple 10 with a supply pipe, or a short hand tube may be used, and the inflation may be produced by blowing of the operator.

Shoulder straps 11 are provided having suitable buckles 12 whereby the device may be supported, additional straps 13, and buckles 14, being also provided for holding the lower portion of the device to the body. A connecting strap 15 and buckle 16 connect the terminal *b* with the side portion of the first spiral member, tending to hold the device better in position, and also assisting in its adjustment to the body of the wearer.

When thus constructed and applied, the device in its de-flated condition is comparatively flat and thin, as indicated in Fig. 3, lying closely and compactly against the body of the wearer with ample looseness to permit inflation. When inflated, the volume of air in its displacement function results in sufficient buoyancy to provide ample supporting capacity, depending upon the cubical displacement, also, that one of the special advantages is in the facility for flattening and collapsing to a minimum. It will be understood, of course, that the device is in no way limited as to the number of coils, their size in cross section, or other details.

The invention is well adapted to the purposes of providing a simple, cheap and extremely efficient buoyant life preserver or

life belt, and because of its extreme lightness in weight and ease of collapsibility, together with its adaptability to easy and quick inflation by connection with readily available terminals of an air supply system, as on a ship, it is possible for many of the preservers to be inflated at the same time. It provides a very practicable and useful device, avoiding the objections of cumbersome and heavy life preservers utilizing cork in any of the usual forms.

Having thus described my invention, what I claim is:

1. A life preserver consisting of a tube having an inclosing sheathing, an air supply nipple, means for maintaining the tube in spiral arrangement around the body and for adjustment to the girth thereof, and means for attachment to and support thereon.

2. A life preserver consisting of a flexible inflatable tube having an air supply nipple, an inclosing flexible sheathing therefor, connecting devices located at intervals adapted to connect the adjacent edges of the sheathing when arranged in spiral formation, and holding and supporting straps for attaching the preserver to the body.

3. A life preserver consisting of a flexible inflatable tube having an air supply nipple, an inclosing flexible sheathing therefor, connecting devices located at intervals adapted to connect the adjacent edges of the sheathing when arranged in spiral formation, holding and supporting straps for attaching the preserver to the body, and a tightening strap connecting one end portion of the sheathing to another portion of the sheathing between its ends.

4. A life preserver consisting of a flexible inflatable tube having an air supply nipple, an inclosing flexible sheathing therefor having oppositely extending edge portions, separable connecting devices located at intervals throughout the length of the sheathing adapted to maintain it and the tube in coiled arrangement on the body and to permit of tightening or loosening adjustment thereon, and means for supporting and attaching the same with relation to the body of the wearer.

In testimony whereof I hereunto affix my signature.

FRANK MARCOVSKY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."