(No Model.)

W. McCRORY.

LIFE PRESERVER.

No. 354,645. Patented Dec. 21, 1886.

Fig. 1.

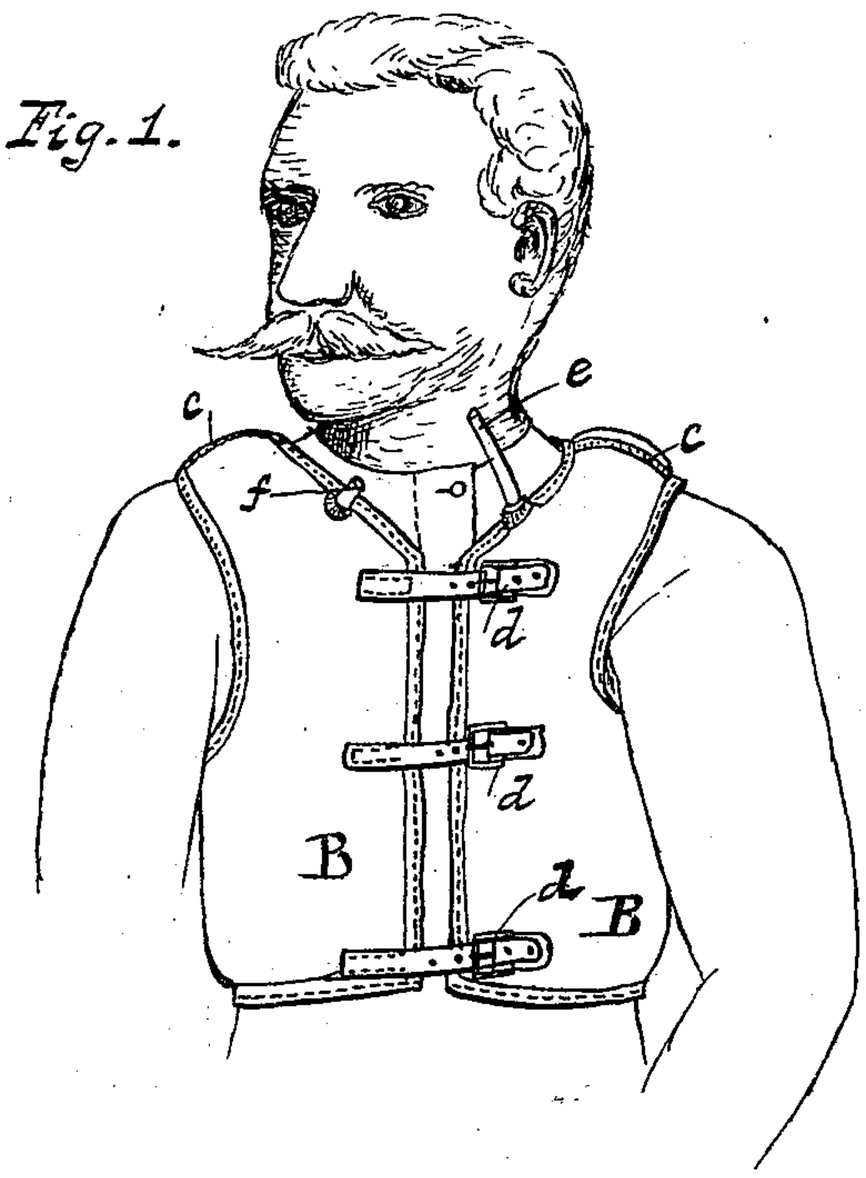


Fig. 2.

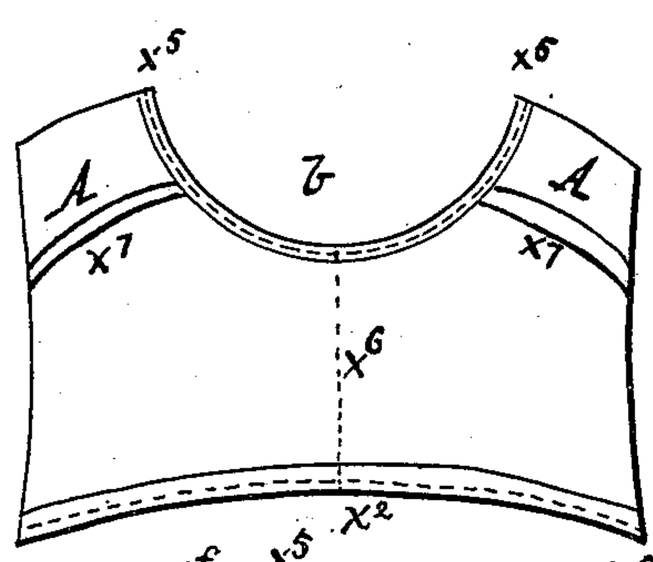
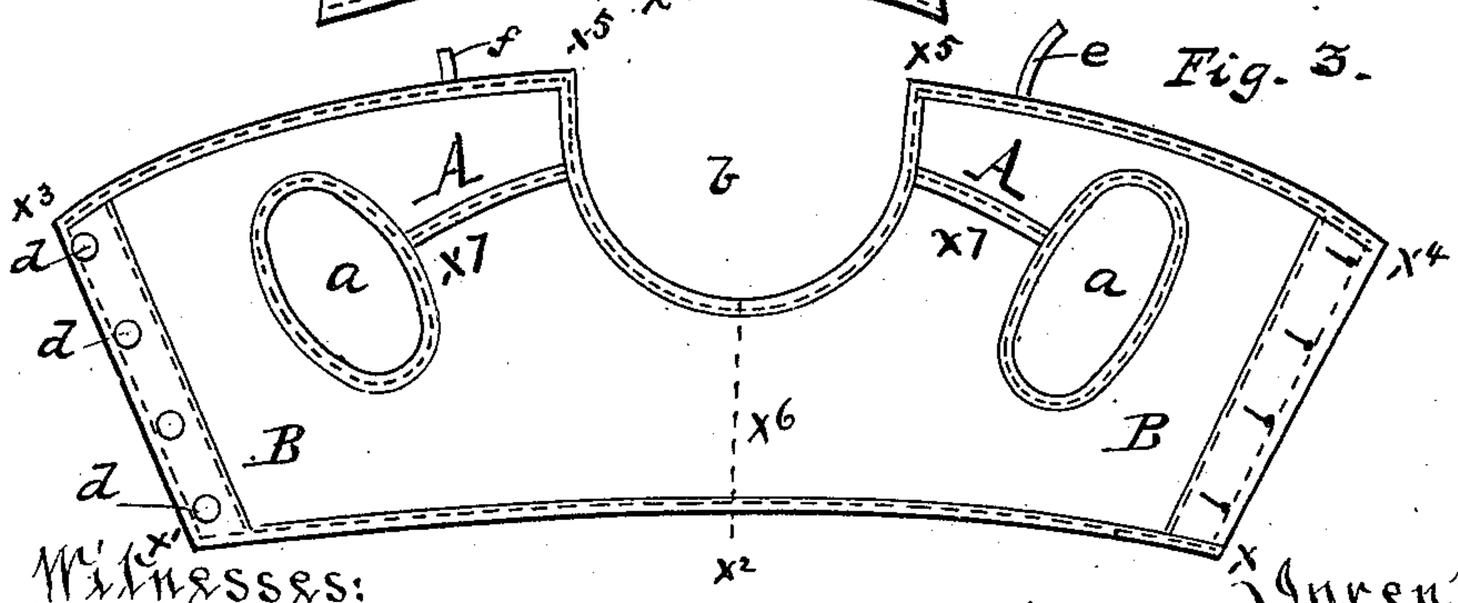


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM McCRORY, OF FAYETTE CITY, ASSIGNOR OF ONE-HALF TO CHARLES TAYLOR, OF ELIZABETH, PENNSYLVANIA.

LIFE-PRESERVER.

SPECIFICATION forming part of Letters Patent No. 354,645, dated December 21, 1886.

Application filed June 28, 1886. Serial No. 206,522. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MCCRORY, a citizen of the United States, residing at Fayette City, in the county of Fayette and State of Pennsylvania, have invented certain new and useful Improvements in Life-Preservers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My object is to improve life-preserving vests in such manner that the preponderance of buoyancy shall be in front of the wearer, or, in other words, to introduce in a vest artificial buoyant lungs, leaving the back perfectly free, with the only exception of those parts which are below the scapulæ.

The following description, when taken in connection with the annexed drawings, will illustrate a practical mode of carrying my invention into effect.

Figure 1 is a front view illustrating the manner of applying the device to a person. Fig. 2 is a posterior view of the vest. Fig. 3 is a view showing the general contour of the vest when laid flat.

My improved life-preserving vest is constructed as follows: I take oiled silk, or other suitable material impervious to water and air, double it to form two walls or parts, and form my pattern as follows: I cut from the material referred to above from the point x to the point x', forming the arc designated by x^2. I then cut outwardly from x' to x^3, and from x to x^4, as delineated by Fig. 3. From x^4 I again cut toward x^3 in the arc of a circle. At x^5 x^5 I make a deep circular score, so that I leave in the median line (indicated by the dotted line x^6) a very narrow portion. This portion lies, when the vest is in use on the person, below the back bones known as the scapulæ, and it is so far below those muscles which aid in the movements of the arms that the arms are left perfectly free. This posterior portion is, in fact, a back-brace, and while it may be partially inflated it does not in any manner interfere with the buoyancy of the anterior parts of the vest. The two parts referred to are suitably cemented and stitched together, as indicated in Fig. 3, so as to form a sack or air-bag vest. Openings a a are made for armholes, and from these openings I stitch together the two walls or thicknesses of material to form re-enforcing braces or binders A A, which constitute in the bag, diaphragms to prevent an excess of air being forced into the posterior portion of the vest.

In practice I have found that there is considerable strain between the armholes and the yoke b in the exercise of the arms in swimming. I therefore firmly bind the said walls in the lines indicated on the annexed drawings by x^7 x^7.

The vest is secured at the front of the person by button and button-hole fastenings, or by other suitable means, and it is provided with a blow or inflating tube, e, and an air-outlet tube, f, having suitable valves.

Now, it will be seen from the above description that I have invented practically a life-preserving or swimming vest or buoy, which is so constructed that the major part of the bag is located directly over and covers the breast of the body, which part I denominate the "lung-bag" B, inasmuch as it is an auxiliary to the floating capacity of the human lungs. It will also be observed that the air or artificial lung or breast bag is so located and graduated in capacity for holding air with reference to the back-brace that the face of the wearer when in water will not be pitched forward.

Having described my invention, I claim—

1. An air or life-preserving vest consisting of two thicknesses of water and air proof fabric, cut as described, cemented at their edges, and having the re-enforcing portions x^7 uniting the armholes with the neck-yoke, substantially as specified.

2. The improved vest consisting of the double fabric having re-enforcing diaphragms extending from the armholes to the neck-yoke, the deep posterior curve extending from the angles x^5 x^5 to the median line x^6, and the two tubes e f, for the purpose described.

3. The improved article of manufacture herein described, consisting of a double-walled vest made of water and air proof material, provided with a narrow back portion, a deep back score, armholes, the re-enforcing portions x' between the armholes, connecting the two walls or thicknesses of fabric, the front fastenings, and two tubes, *e f*, provided with valves, all constructed and adapted to operate substantially in the manner and for the purposes described.

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