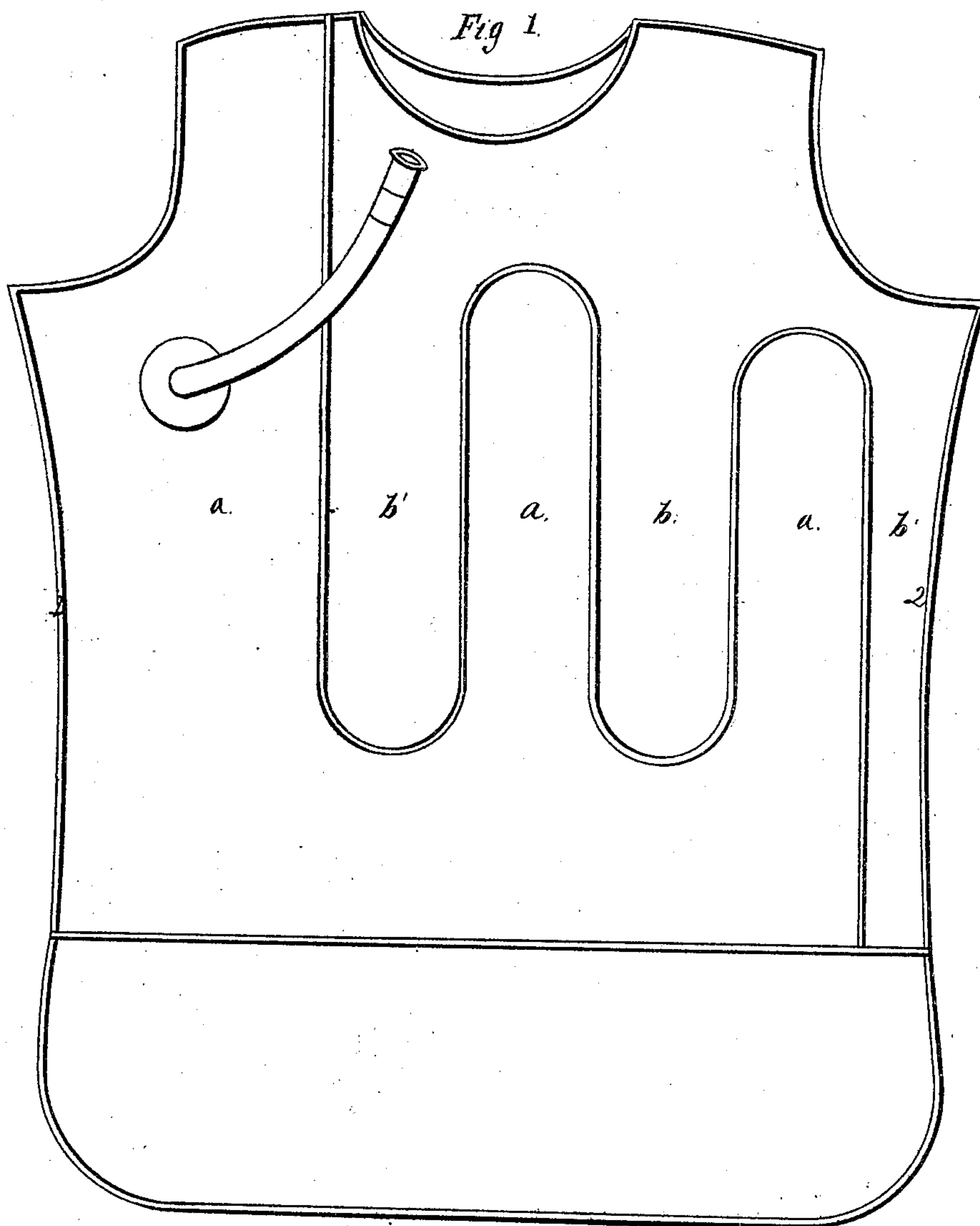


C. J. BUNKER.
LIFE PRESERVING SHIRT OR JACKET.

No. 18,274.

Patented Sept. 29, 1857.



Witnesses:

D. D. Davis
Thos. G. Gungl

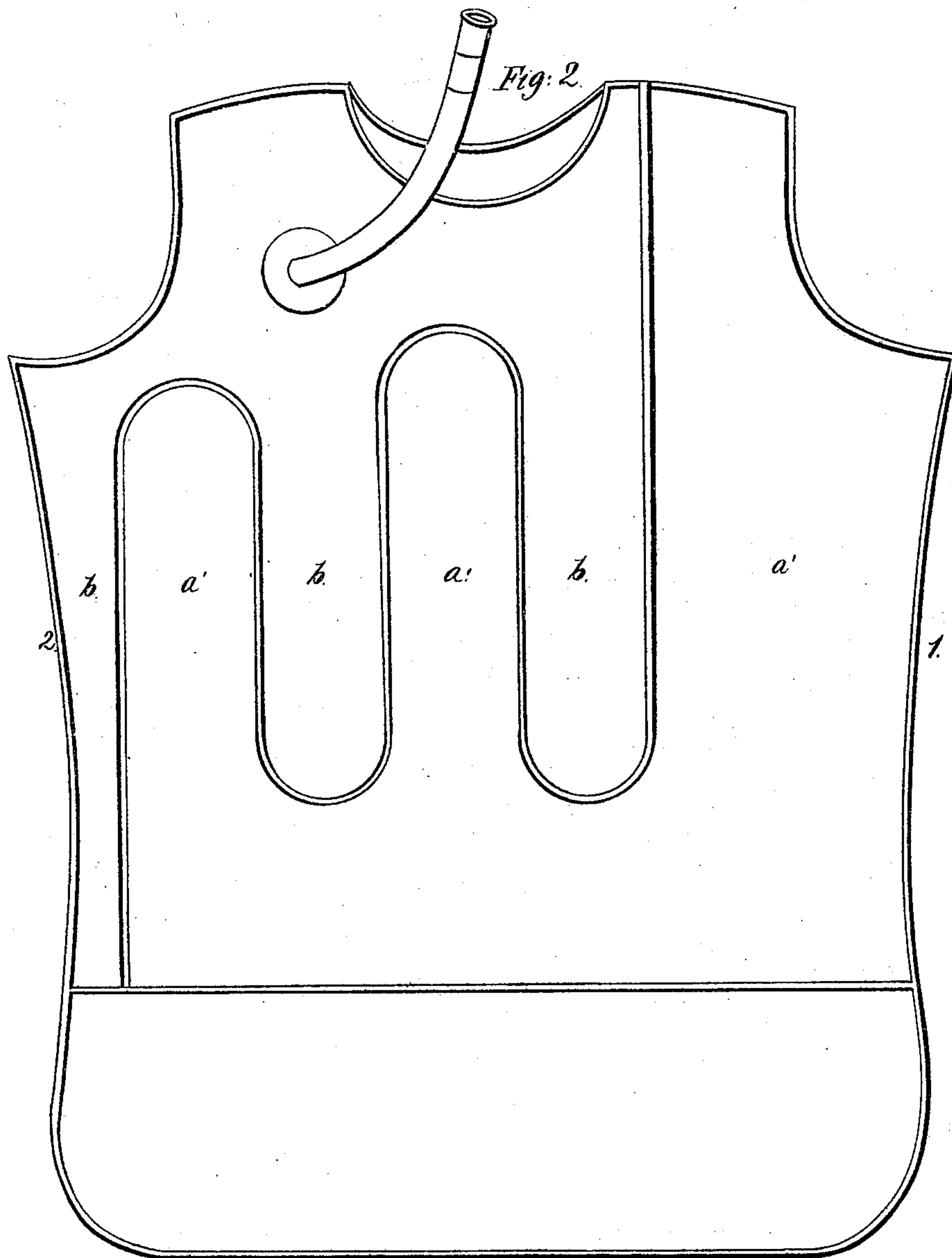
Inventor:

Chas. J. Bunker

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UNITED STATES PATENT OFFICE.

CHARLES J. BUNKER, OF NEW YORK, N. Y.

IMPROVEMENT IN LIFE-PRESERVERS.

Specification forming part of Letters Patent No. 18,274, dated September 29, 1857.

To all whom it may concern:

Be it known that I, CHARLES J. BUNKER, of the city and State of New York, have invented certain Improvements in Life-Preservers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, and making a part of this specification.

The nature of my improvement consists in constructing a life-preserver that will cover the upper and vital parts of the body, and in so arranging the air-cells or series of air-cells between sheets of water-proof fabric that while perfect support is given to the body free movements of the limbs and body are allowed, and an injury by puncture or otherwise to any one or more of the cells will not affect those immediately next thereto.

The Figures 1 and 2 of the drawings represent the outer and inner sheets of the fabric from which the life-preserver is made and the cells of each. When these are placed together, the air-cells of one occupy the spaces in the other not taken up by its air-cells. The edges marked 1 and 2, respectively, join each other.

The form which I generally give my improved life-preserver is that of a shirt or sack, which can be worn either as an outside or inside garment, according to the preference of the wearer or the circumstances under which made use of. The drawings represent a life-preserving shirt. It may also be made of different materials, as india-rubber cloth, or any material which is or becomes impervious to water and will retain air, according to the particular use for which intended; but whatever the material it is constructed substantially as follows: It is made of two or more sheets of any such water-proof fabric, the spaces or cavities between which are designed as and for air-cells to be inflated in any convenient manner to secure buoyancy and otherwise protect the wearer. Such air-cells may be made larger or smaller, according to circumstances, and may be made of different shapes, as preferred, but so arranged in relation to each other as to maintain the characteristic feature of the life-preserver, viz., the fitting in of the cells to or against each other and for greater security when desired. The

air-cells between any two sheets of the fabric or one series of cells may be inflated separately from another series, or the series may connect with a valve which shall allow the air to pass from one to the other, but not back again. This arrangement secures greater security from blows or punctures of contiguous cells. When the air passes from one series to another by the use of a valve, as described, a screw-cap may be attached to allow the air to escape. Such series of air-cells should be made to fit into or alternate with each other—that is, one cell of a series being opposite to a blank space of the other series, as *a* opposite *a'*, and *b* opposite *b'*—and should also cover all the superior and vital portions of the body above the waist and leaving the arms and lower limbs free to be used, and also protecting, as by a shield, all the upper and vital portions of the body against the dash of the waves, or when cast upon rocks, wrecked, &c. The shape of the shells, as shown in the drawings, is but for illustration, and there need be but two cells upon a side, or even one cell or series occupying the whole front and another series the back.

When made of thinner fabric for ladies' wear or for bathing purposes, the arrangement and form of the air-cells may be more elaborately and expensively treated, while in coarser fabrics a plainer and cheaper construction will be adopted. These air-cells will also only cover the body and thus not interfere with the free action of the arms.

When made in the form of a chemise, this life-preserver can be conveniently substituted in the place of the ordinary bathing-shirt, thus at the same time serving the purposes secured by them and also furnishing a protection against danger. When intended for such use, the fabric used may be finely closely-woven linen, as such when wet becomes at once air and water tight, and will so remain so long as kept wet; and when made of such material the garment may be worn as an ordinary shirt without any discomfort, but capable of being made at once a means of safety as soon as wet, and supplied also with a similar outside garment the person will be doubly protected.

When intended more particularly for outside wear, this life-preserver may be made of

india-rubber cloth or the like, and can be substituted in the place of the ordinary "south-westerns," and will thus be peculiarly acceptable to sailors, wreckers, &c.

Instead of being closed at the sides under the arms, the life-preserver may be open at the sides, fixed with straps and buckles, so as to be thrown over the head and then secured to the person.

What I claim as new is—

A life-preserver constructed of two or more sheets of water-proof fabric, with the series of air-cells arranged substantially as set forth and so as to cover the upper and vital parts of the body, for the uses and purposes set forth and described.

CHAS. J. BUNKER.

Witnesses:

S. D. LAW,

THOS. S. GEORGE.