

(No Model.)

T. R. BELL & D. A. CARSON.
LIFE PRESERVER.

No. 576,649.

Patented Feb. 9, 1897.

FIG. 1.

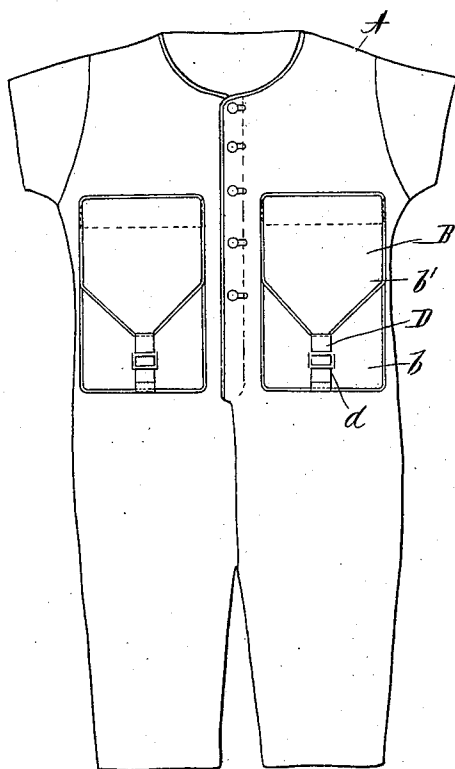


FIG. 2.

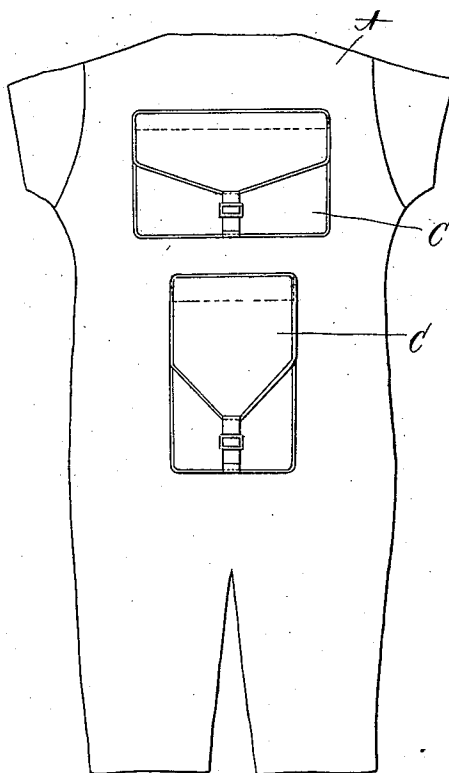


FIG. 3.

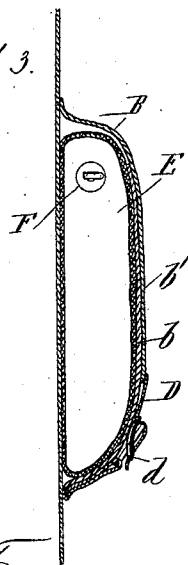
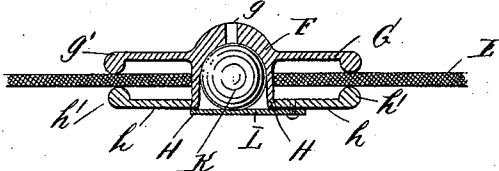


FIG. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE.

THOMAS R. BELL AND DAVID A. CARSON, OF BROOKLYN, NEW YORK; SAID
CARSON ASSIGNOR TO SAID BELL.

LIFE-PRESERVER.

SPECIFICATION forming part of Letters Patent No. 576,649, dated February 9, 1897.

Application filed March 17, 1896. Serial No. 583,513. (No model.)

To all whom it may concern:

Be it known that we, THOMAS R. BELL and DAVID A. CARSON, citizens of the United States, and residents of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Bathing-Suits, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to bathing-suits, and especially to those of a buoyant character, adapted to detachably receive inflatable pouches or bags, which may be connected with or detached from the suit, as desired, and the further object is to provide a suit of this character in which the air-compartments are so disposed as not to interfere with the motions of the wearer in swimming or bathing and in which the buoyancy of the suit may be regulated according as desired by the wearer; and with this and other objects in view our invention consists in the construction, arrangement, and combination of parts hereinafter more fully described in the specification and illustrated in the accompanying drawings, in which—

Figure 1 is a front view of a bathing-suit constructed according to our invention. Fig. 2 is a rear view of the same. Fig. 3 is a vertical section through one of the compartments of the suit and the air bags or pouches secured therein, and Fig. 4 is a sectional detail view of the valve connected with the air bags or pouches.

Similar characters of reference designate like parts throughout the several views.

In the practice of our invention we provide a suit A, formed in one piece and provided with openings for the neck and limbs and being open down the front, which opening is adapted to be closed by means of a row of buttons secured to one side of the suit adapted to engage a series of buttonholes on the opposite side. We do not, however, desire to confine ourselves to the particular construction of this suit, as we may vary the same without departing from our invention.

Formed on or connected with the suit A are a number of compartments B and C, the com-

partments B being located upon the upper portion of the front of the suit and consisting of pockets constructed, preferably, of the same material as the suits, which are stitched or otherwise secured to the suits, said pockets or compartments being formed of two portions or sections *b* and *b'*. The lower portion *b* is secured at the bottom and sides to the suit, the top being open for the introduction of the pouches or bags. Over the upper part of the portion *b* is formed or connected a cover *b'*, which is attached across the top, and a portion of the sides are secured to the suit A, the attachment to the suit extending slightly beyond the top of the portion *b*, and to the lower free end or extremity of cover *b'* is secured a strap or strip D, adapted to engage the buckle *d*, secured to the suit below and adjacent to the bottom portion B, and by means of this strap and buckle the cover *b'* may be securely closed and retained in position. These compartments B and C may be arranged as desired upon a front and rear portion of a suit A, but these are preferably located as shown in the drawings, as in this position they offer the least interference with the movements of the wearer when swimming or bathing; but, if desired, said compartments B may be transferred from the front of the suit A to a position under the arms. Within these compartments B and C is movably secured an inflatable bag or pouch E, constructed of material which will retain air and will be impervious to water, and each of these pouches E is provided with an inflating-valve F, (shown in detail in Fig. 4,) consisting of a plate G, having a concavo-convex central portion in which is a central opening *g*, and connected with the under side of said plate, around the concave portion thereof, is an annular depending flange or rim H, to which is secured an outwardly-directed horizontal flange *h*, and upon the periphery of the plate G and the flange *h* is formed an annular inwardly-directed bead or shoulder *g'* and *h'*, which clamp and securely hold the material of the pouches or bags, whereby said valve is retained in position without the use of rivets or screws, thereby obviating the possibility of a leakage from the puncture of the material of the pouch.

Within the concave or under portion the

plate G and flange H is secured the valve K, which is held in position by means of a flat spring L, riveted to the annular horizontal flange *h*. The operation of this valve will
5 be readily understood and the bags or pouches may be inflated by the breath, or an air-pump may be used for the purpose, it being understood that the air is forced through the passage *g*, which depresses the valve and permits
10 the air to enter the bag or pouch, and when the bags or pouches E have been inflated they are inserted within the compartments B and C and the cover *b'* is secured by means of the strap D to the buckle *d*, and the suit is ready
15 for use.

The bags or pouches may be but partially inflated, if desired, and one or more may be used, as preferred by the wearer, and the pouches or bags may be removed from the
20 compartments in the suit and the suit may be washed, after which the pouches or bags may be replaced, and it will be understood that the compartments are preferably made of the same size, and therefore any suit can
25 be supplied with bags or pouches without reference to the size of the suit.

We may make such changes and modifications of the construction and arrangement of the several parts as fairly come within the
30 scope of our invention.

Having fully described our invention, what

we claim, and desire to secure by Letters Patent, is—

1. The combination with an inflatable bag or pouch of a valve consisting of a concavo- 35 convex plate having a central bore, said plate being provided with a depending annular flange to the lower edge of which is connected an outwardly-directed flange and a spring-actuated ball-valve within said depending 40 flange to close said bore, substantially as and for the purpose set forth.

2. The combination with a bathing-suit provided with two-part compartments having a closing-flap to secure the same in position, 45 substantially as described, of detachable inflatable bags or pouches, adapted to be secured in said compartments, said bags or pouches being provided with a spring-actuated ball-valve to control the admission and 50 escape of air from the bags or pouches, all arranged, designed and operating as and for the purpose set forth.

In testimony that we claim the foregoing as our invention we have signed our names, 55 in presence of the subscribing witnesses, this 14th day of March, 1896.

THOMAS R. BELL.
DAVID A. CARSON.

Witnesses:

WILSON LEE CANNON, Jr.,
C. GERST.