F. WECK.

LIFE-PRESERVING AND SWIMMING SUITS.

No. 183,521. Patented Oct. 24, 1876.

Fig 1.

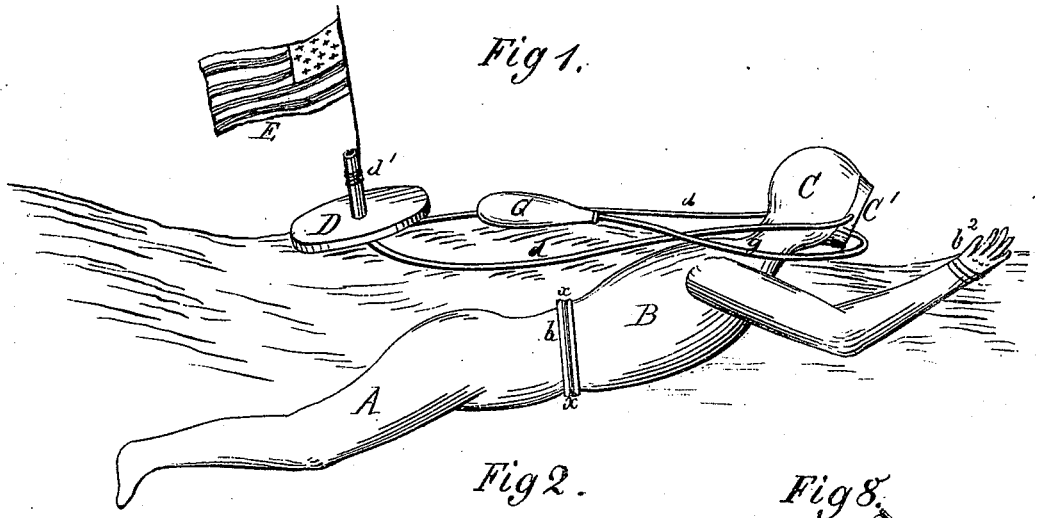


Fig 2.

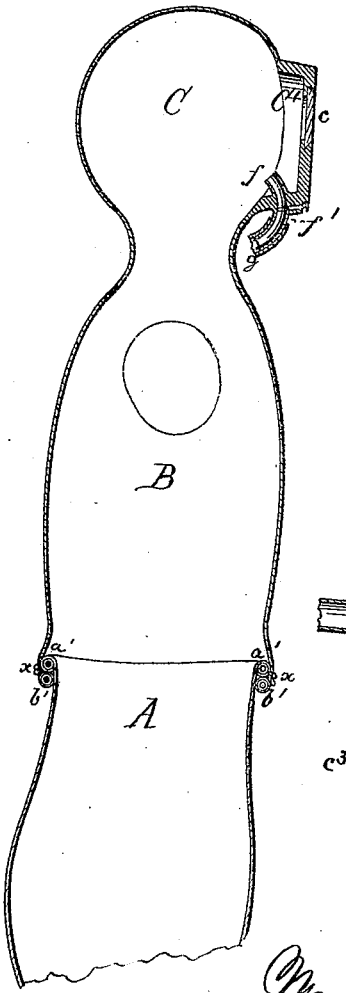


Fig 8.

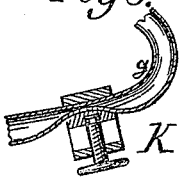


Fig 4.

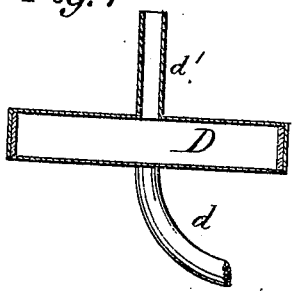


Fig 6.

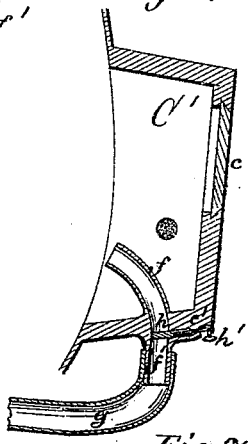


Fig 5.

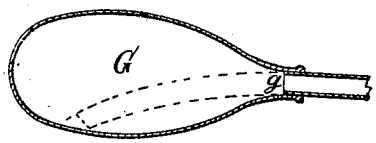


Fig 3.

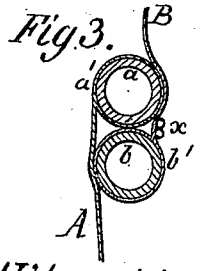
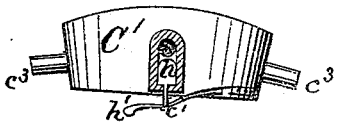


Fig 7.



Witnesses:

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Franz Weck

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UNITED STATES PATENT OFFICE.

FRANZ WECK, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN LIFE-PRESERVING AND SWIMMING SUITS.

Specification forming part of Letters Patent No. 183,521, dated October 24, 1876; application filed September 23, 1876.

To all whom it may concern:

Be it known that I, FRANZ WECK, of Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Life-Preserving and Swimming Suits, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of a person making use of my improved life-preserving and swimming suit. Fig. 2 is a central section of the said suit, slightly modified. Fig. 3 is an enlarged detailed view of the waist-joint. Fig. 4 is an enlarged detailed view of the fresh-air float. Fig. 5 is an enlarged detailed view of a floating reservoir for articles of nourishment. Fig. 6 is an enlarged detailed view of the mask. Fig. 7 is a bottom view of the same, exposing to view a valve for the communication-pipe of the above-said reservoir; and Fig. 8 shows a modification of the device shown in Fig. 7.

The nature of my invention consists, first, in a life-preserving and swimming suit provided with outside air communications, and a float for buoying up the wearer. It consists, second, in the said suit provided with an apparatus facilitating the breathing of the wearer, a float for buoying him up, so as to prevent him from being drowned, and a reservoir for food, leading through the suit to the mouth of the person. It consists, third, in the said suit consisting of two parts, an upper and a lower part, which parts are, respectively, constructed with a tubular elastic band at the point where they are united—viz., at and around the waist of the operator—said bands overlapping one another, and being secured, if necessary, by a cord passed around the body between the tubular portions of the suit.

The object of my invention is to keep the body of the operator dry, to furnish facilities for breathing fresh air, and to provide food in a semi-liquid state, and to hold the wearer in suspension in the water; also, to have the said suit so constructed that it may be put on the human body in a very short time.

In the drawings, A represents a pair of india-rubber pantaloons inclosing the feet of the operator, and having an elastic tubular waistband, *a*, inserted in the top seam *a'*. B represents an india-rubber jacket, having an elastic tubular waistband, *b*, inserted in its lower seam b^1. The said jacket B, at the ends of its sleeves, is to have fingered gloves b^2, and it is provided with a hood, C, of india-rubber, which has a face-plate or mask, C', in front of the wearer's face, in which an eye-glass, *c*, is to be inserted, and sealed water-tight in the material of which said mask is composed. This mask, for the purpose of giving it stiffness and strength sufficient to guard the wearer's face, and have it support the tubular collars, which receive the air-tubes, is made thicker than the suit proper. To tubular collars c^3, on the sides of the mask C', india-rubber pipes *d* are attached, which communicate with a floating water-tight drum, D, which is provided with an upright tube, *d'*, extending up above the surface of the water, and admitting air into the drum D. To the tube *d'* a signal, E, in the shape of a flag or any other conspicuous sign, may be attached. Near to or at the bottom of the mask C' a short tubular mouth-piece, *f*, of soft flexible material, is attached, and it extends outside of the mask in shape of a tubular collar, *f'*, and there connects with a tubular flexible pipe, *g*, on the last extremity of which is a bag-shaped reservoir, G, preferably filled with wine, water, and pulverized toasted rye-bread, as this compound is known to be a very nutritive and invigorating one, can easily and rapidly be prepared, and will not sour for a long time. The pipe *g* may extend into the reservoir G, in the manner shown by dotted lines in Fig. 5, so as to enable the operator to almost entirely empty the said reservoir by sucking, and the tubular collar *f'* may be either straight or curved, as shown.

In order to prevent the discharge of food through the mouth-piece *f* by the action of the waves, I propose to close the passage of the inlet *f'* by a sliding valve, *h*, embedded in the material of the mask C, and operated by the wearer with the gloved fingers of the sleeves, by means of a valve-stem, c^1, and a thumb-spring, *h'*. The valve *h* is, by the said spring, kept closed, as seen in Fig. 6, and is opened by forcing the spring outward, as seen in Fig. 7. The pipes *d* and *g* are securely connected to the parts D and C', and that *g*

ay be detached from the reservoir, to facilite the cleaning and filling of the same. The alve *h* may be substituted by a clamp, K, hereby the pipe *g* is so forced together as to lose its passage, and prevent the food from assing into the mouth-piece *f*.

Operation: The reservoir is provided with the ecessary food, and tightly connected with the acket B, in the manner described. The person lothes himself with the jacket B and the pantaloons A. He then draws the tubular waistband *b* and seam *b* over the tubular waistband and seam *a'* of the pantaloons, and ties, if necessary, a cord, *x*, around and between the said waistbands, as shown in Fig. 3, whereby the jacket and pantaloons become firmly united and water-tight at their joints, without being hard and uncomfortable upon the waist of the person. The person now enters the water and begins to swim, dragging the drum D and the reservoir G behind him, as seen in Fig. 1. If exhausted or dragged under the surface of the water by a wave, he may safely let himself go and sink, as he cannot sink lower than the length of the pipes *d*, the buoyancy of the drum preventing the same. The necessary supply of fresh air is, in such event, furnished in undiminished quantity.

If the operator becomes hungry, he applies his lips to the mouth-piece *f*, and with his gloved fingers operates thumb-spring *h'*, so as to open the valve *h*, and sucks the food from the reservoir G. By omitting the reservoir G and stopping up the inlet *f'*, the described suit answers as a life-preserver and swimming-suit for persons who want to learn swimming who have no confidence in their skill.

I am aware that the lower edge of a life-preserving jacket and the upper edge of the pants belonging to such jacket have been terminated with a thickened rib, so that the two parts of the suit overlap one another; but I am not aware that a hollow elastic rib has been formed on the respective parts of the suit for the purposes set forth in my specification. I do not, therefore, claim lapping ribs which are rigid when united one to the other; but,

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A life-preserving and swimming suit provided with one or more chambers which are in communication with the interior thereof, and from which food, water, and other life-supporting substances may be drawn at will into the mouth while the whole body is inclosed water-tight within the suit, substantially as described.

2. A life-preserving and swimming suit which incloses the body and head water-tight, in combination with a floating air-chamber, which is provided with tubes by which it communicates with the atmosphere above the water, and with the interior of the suit, substantially as described.

3. The elastic tube on the lower end of the upper section of the suit, in combination with the elastic tube on the upper end of the lower section of the suit, substantially as described, whereby the necessary elasticity for holding the suit water-tight upon the body is secured, and the two parts of the suit held in a like manner together, substantially as described.

Witness my hand in the matter of my application for a patent for an improved life-preserving suit this 15th day of September, 1876.

FRANZ WECK.

Witnesses:
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A. G. HEYLMAN.