

(No Model.)

H. HECKLER.
SWIMMING AND LIFE SAVING DEVICE.

No. 560,165.

Patented May 12, 1896.

Fig 1.

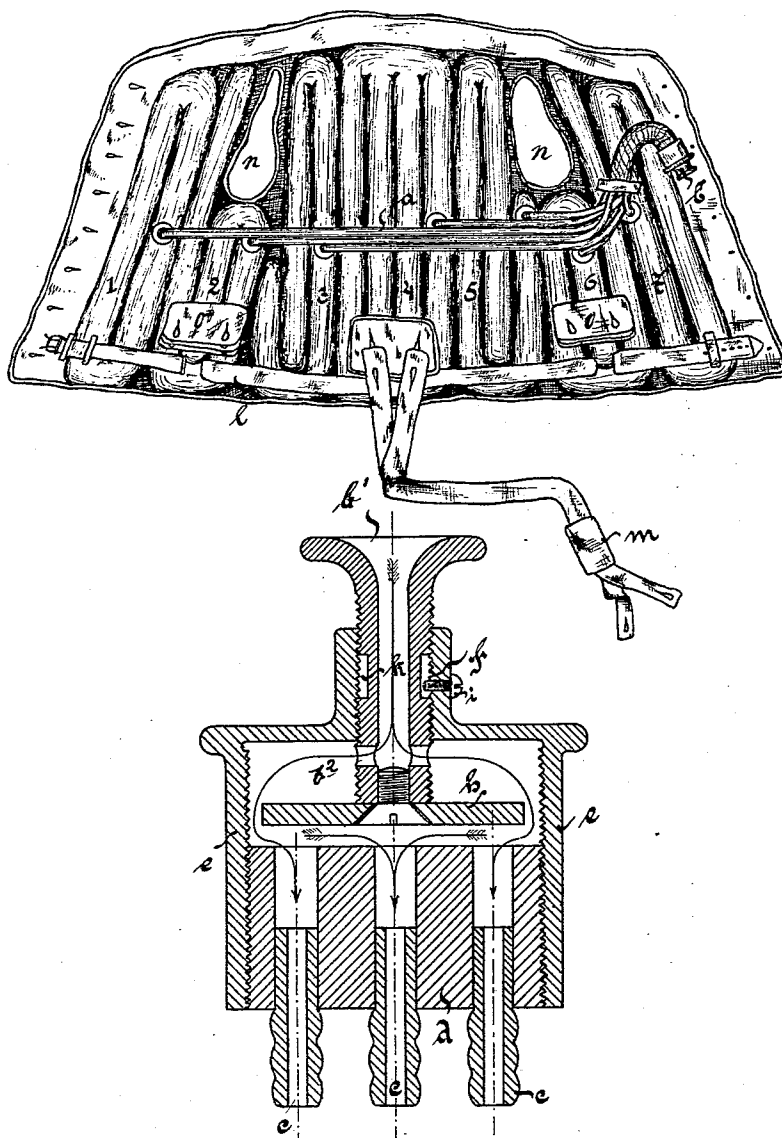


Fig 2.

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UNITED STATES PATENT OFFICE.

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SWIMMING AND LIFE-SAVING DEVICE.

SPECIFICATION forming part of Letters Patent No. 560,165, dated May 12, 1896.

Application filed March 7, 1896. Serial No. 582,246. (No model.)

To all whom it may concern:

Be it known that I, HANS HECKLER, a subject of the German Emperor, residing at Frankfort-on-the-Main, Germany, have invented certain new and useful Improvements in Swimming and Life-Saving Devices; 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 appertains to make and use the same.

The present invention relates to life-preservers or apparatus having sufficient buoyancy to support a human body in the water. The shape of the apparatus described below is such that a person may place it around the body like a piece of garment and tighten it by means of belts and straps, as will hereinafter be more fully described, and which are seen in the accompanying drawings, in which—

Figure 1 is a side elevation of the inner side of the garment open, Fig. 2 being a cross-section through the mouthpiece and valve employed to fill the lining of the garment with air.

The life-preservers filled with compressed air now in use are generally of such construction that the buoyancy is totally lost when the apparatus is punctured in only one place, as the latter generally has only one compartment.

In my improved life-preserver I have arranged separate air-chambers, which are filled separately by corresponding tubes, so that a puncture in one or the other place will hardly be perceptible, and the buoyancy of the apparatus will remain about the same.

My apparatus has the shape of a jacket with holes for the passage of the arms, so that the latter may be free. The air-chambers 1 2 3 4 5 6 7 are preferably formed by a rubber hose, either rolled up in flat rings, as 1 and 7, or rolled up in flat coils, as 2 3 5 6, or in any other desirable flattened shape, as 4, so that the garment remains substantially flat and does not hinder the free motion of the human body. Small rubber tubes *a* are connected to the inner side of each of the air-receptacles, the other ends coming all

together at *b* to the mouthpiece, which will be described hereinafter with reference to Fig. 2.

l is a belt secured to the lower edge of the garment, serving to be securely tied or strapped around the waist of the wearer, who pushes his arms through the openings *n n*, and buttonholes with buttons placed on the edge are used to close the apparatus upon the body in the ordinary well-known manner. A strap *m* is fastened in the rear, which is passed between the legs and secured on buttons in the front. Thus a person swimming in the water is well supported in the garment when inflated.

o o are receptacles or satchels for any kind of signaling apparatus (a whistle) or for stimulants. These satchels can be secured inside or outside, and the whole of the apparatus as described and shown in Fig. 1 being the inside can also be made to form the outside.

Each of the rubber tubes *a* is secured with its free end upon a metal nipple *c*, Fig. 2, which is screwed into a cylindrical body *d*, of metal, wood, or any other substance. A sleeve *e* is screwed over said body, having on its top or cover a screw-threaded projection or socket *f*, into which the mouthpiece *b'* is inserted, carrying at its lower end a valve-plate *h*, by which the openings in the block *d* can be closed. The mouthpiece *b'* is provided with diagonal opposite perforations *b''*, so that the air pressed in from the mouthpiece will pass into the sleeve *e*, and, as indicated by arrows, will follow through the nozzles *c* to the tubes *a*, and thereby inflate the air-receptacles 1 2 3 4 5 6 7. By then screwing down the mouthpiece *b'* into its socket the plate *h* will cover up the openings and the air will be prevented from escaping from said receptacles. To limit the play of the mouthpiece when screwed in or out, a circular groove *k* is turned into it and a screw-pin *i*, inserted in the socket *f*, enters into the said groove.

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

A life-preserver in shape of a garment, having a lining made of separate ends of hose,

each provided with an inflating-tube, in combination with a mouthpiece, having tips or nozzles screwed into transverse openings of a block *d*, inclosed in a sleeve with a screw-threaded socket in its top plate, said openings
5 in the block being covered by a valve-plate, secured to the end of a hollow transversely-perforated screw-stem through which air is

blown to inflate the reservoirs, substantially as described and for the purpose set forth. 10

In testimony whereof I affix my signature in presence of two witnesses.

HANS HECKLER. [L. s.]

Witnesses:

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