(No Model.)

J. HUNT.

LIFE PRESERVER.

No. 250,442. Patented Dec. 6, 1881.

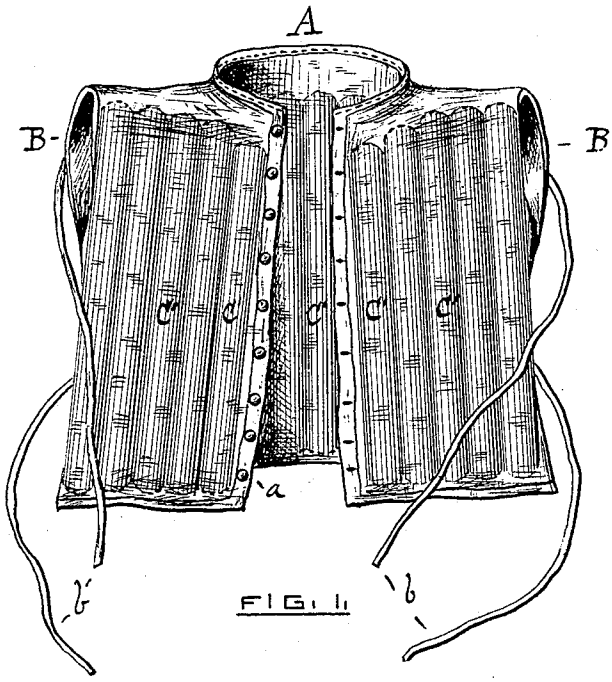


FIG. 1.
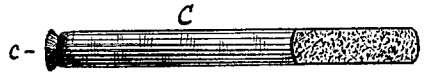


FIG. 2.

WITNESSES.

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JOSHUA HUNT, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR OF ONE-HALF TO JEROME A. SALISBURY, OF SAME PLACE.

LIFE-PRESERVER.

SPECIFICATION forming part of Letters Patent No. 250,442, dated December 6, 1881.

Application filed May 16, 1881. (No model.)

To all whom it may concern:

Be it known that I, JOSHUA HUNT, of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Swimming-Vests; and I do hereby declare the following to be a specification thereof, reference being had to the accompanying drawings.

Figure 1 is a view of my improved swimming-vest, and Fig. 2 is a view of one of the detachable water-proof cork-filled tubes.

The object of my invention is to provide an improved swimming-vest, or a buoyant garment adapted for use in river and seaside bathing; and the invention consists of a garment composed of elastic material, preferably stockinet, formed into compartments for the reception of detachable water-proof tubes, which are filled with granulated cork, as hereinafter more fully set forth.

The vest A is made with arm-holes B, and is fastened by buttons *a* or by straps *b*. It is best made of the knit woolen fabric commonly known as "stockinet," which has greater elasticity than other fabrics, and therefore is more pliable and yielding to every motion of the body. The garment is made with an inner and outer layer of the cloth, which is stitched lengthwise of the body to form compartments to hold the cases or tubes, as hereinafter specified.

The cases or tubes are shown in Fig. 2. They are made of any suitable water-proof material, such as cloth coated with rubber, or rubber cloth, or animal intestines. The case or tube C is filled with granulated cork, as shown in section in Fig. 2, and the ends of the tube are cemented together, as shown at *c* in Fig. 2, to protect the contents from water. The tube so filled is inserted into one of the compartments of the garment above described and forced into it throughout its entire length, as shown in Fig. 1 at C′. The stockinet, being elastic, allows such insertion and stretches tightly over the inclosed tube, holding it from displacement. All the compartments are thus filled with tubes, and these constitute a series of floats to give buoyancy to the garment. The open ends of the compartments are stitched together to close them after the tubes are in position. The use of granulated cork gives a flexibility to these tubes, so that they readily yield to pressure, as would be impossible with blocks of cork, and so the garment allows an ease of motion adapting it to the comfort of the wearer. But if the granulated cork is not perfectly protected from water, its particles, being more or less pulverized, mingle with the water, assume a pasty consistency, and take up and hold between the particles by attraction a considerable quantity of moisture, and so increase the weight of the garment. It is found by experiment that if a garment of the size to fit an adult person is padded with granulated cork to which the water has access, it will, when submerged, absorb and hold a quantity of water eighteen pounds in weight, while a garment of like size in which the granulated cork is protected by a water-proof casing will absorb and hold only a half pound of water, or, in other words, only so much as the cloth of the garment will soak up. In the former case the moisture so held is mostly internal, and can dry but slowly; but in the latter case it is mostly external, and will dry quickly. Hence, in a garment particularly intended for bathers two disadvantages result: first, that on coming out of the water all this additional weight of moisture must be borne by the wearer to the bathing-house; and, secondly, the garment cannot dry for a long time. But by means of the water-proof covering, wherein I confine the granulated cork, I obtain all the advantages of the lightness, cheapness, and suppleness of the granulation, and yet avoid all the disadvantages above mentioned. Besides, the granulated cork, if kept perfectly dry, will have a greater buoyancy than the same quantity freely exposed to the water.

Each tube is independent and occupies a separate compartment or pocket, being held firmly in position between the seams and the elastic fabric surrounding it. Therefore, if one is cut or injured, the others are not damaged thereby. This feature of confining the buoyant material in separate tubes is of great practical advantage over other life-preservers which are filled with granulated cork, for while in the latter the water, once getting access to the cork, soaks the entire mass, in my invention

the injury to one or more tubes has no such effect upon the contents of the remaining tubes.

I am aware that bathing-garments have heretofore been made of water-proof material formed into compartments filled with cork or other buoyant material, and also that detachable air-tubes have been employed to impart buoyancy to such garments. I am not aware, however, that a bathing-garment composed of elastic material formed into compartments for the reception of detachable tubes, which are thus held in place by the elasticity of the fabric composing the garment, have ever been employed.

The elastic character of the woolen fabric known as "stockinet," and of which my improved vest is preferably made, not only enables the detachable tubes to be placed in position and secured without the necessity of fulling the fabric into sack-like compartments for the reception of the tubes, as would be necessary with a non-elastic fabric, but also imparts a greater range of fit to the garment and adapts it for use by persons of greatly different size without any inconvenience. The same garment will thus readily fit either a child or an adult.

I claim as a novel and useful invention and desire to secure by Letters Patent—

A swimming-vest composed of elastic woolen material formed into tubular compartments, and having detachable water-proof tubes filled with granulated cork arranged within said compartments, substantially as and for the purpose specified.

JOSHUA HUNT.

Witnesses:
WM. B. W. HALLETT,
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