D. RUGE.
Life-Preserver.

No. 200,572. Patented Feb. 19, 1878.

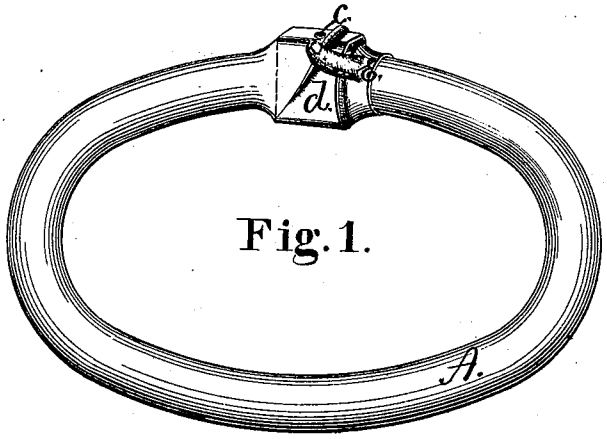
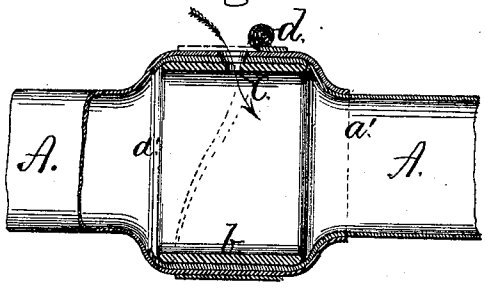


Fig. 1.

Fig. 2.



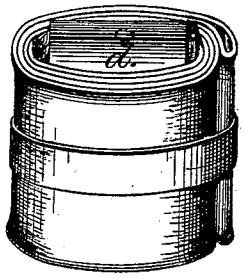


Fig. 3.

WITNESSES.

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DETLEF RUGE, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN LIFE-PRESERVERS.

Specification forming part of Letters Patent No. **200,572**, dated February 19, 1878; application filed December 31, 1877.

To all whom it may concern:

Be it known that I, DETLEF RUGE, of the city and county of Providence, and State of Rhode Island, have invented new and useful Improvements in Life-Preservers; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to improvements in portable or pocket life-preservers; and consists, first, in the peculiar construction of the life-preserver, by which the two ends of an elastic tube are firmly secured, so as to make a continuous tubular ring; and, second, in the peculiar arrangement of the valve by which the same may be quickly operated, as will be more fully set forth hereinafter.

Figure 1 is a perspective view of the life-preserver, the lap covering the valve or air duct being shown rolled back by the hand. Fig. 2 is an enlarged sectional view, showing the method of connecting the two ends of the tube, and also the means used to open and close the valve, the lap closing the valve being shown rolled back. Fig. 3 is a perspective view of my improved life-preserver rolled up so as to be carried in a pocket.

In the drawings, A represents an elastic tube, made of rubber or other similar material, the ends of which are united by passing the same over the sleeve *b*—that is, by passing one end over the sleeve *b*, and sufficiently beyond, so that the sleeve is firmly held by the contraction of the tube at *a'*. The other end is now passed over the first, and also extends beyond the sleeve *b* to *a'*. The two ends are thus firmly secured, and form a tubular ring. The ends may be cemented together; but, in practice, I find that the method shown and described, of passing both ends over and beyond the sleeve *b*, firmly secures the same.

c is the air-hole by which the life-preserver is filled with air, and through which the air is discharged.

d is a loop of rubber stretched over the other end of the tube A, and around the sleeve *b*, covering the air-inlet *c*, and forming the valve. E represents the thumb of a hand, and shows in Fig. 1 how, by drawing the hand over the lap *d*, the same will roll up, as shown both in Figs. 1 and 2, exposing the air-inlet *c*, and by releasing the rolled-up lap *d* the same will instantly close the air-hole *c*.

This life-preserver can be conveniently carried in a coat-pocket, and no matter how cold, stiff, or excited the wearer may be when an emergency arises to use the same, he can readily pass the tube around his person, pass his hand in either direction over the lap *d*, so as to expose the hole *c*, and fill the tube with air, release the rolled lap, and the same will be closed firmly, so as to retain the air contained in the tube. Being convenient to carry and easily used, this life-preserver will be useful in bathing, thus saving lives and securing the healthful use of bathing to such as are timid and cannot swim.

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

1. A life-preserver made of an elastic tube, the ends of which are secured by passing one end over and beyond a sleeve, and the other end over the first and beyond the sleeve, so that the same are firmly held by elasticity of the tube, as and for the purpose described.

2. In a life-preserver, the combination, with the tube A, of the sleeve *b*, the air-hole *c*, extending through both ends of the tube, and the sleeve and the elastic lap *d*, arranged and operating substantially as and for the purpose described.

3. A portable life-preserver, consisting of an elastic air-tube, and provided with an air valve or hole closed by an elastic strap or loop, arranged and operating substantially as and for the purpose described.

DETLEF RUGE.

Witnesses:

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