Sheet 1. 2. Sheets.

J. Kleiber.

Life Preserver.

No. 604.
31,608.

Patented Mar. 5, 1861.

Fig. 1.

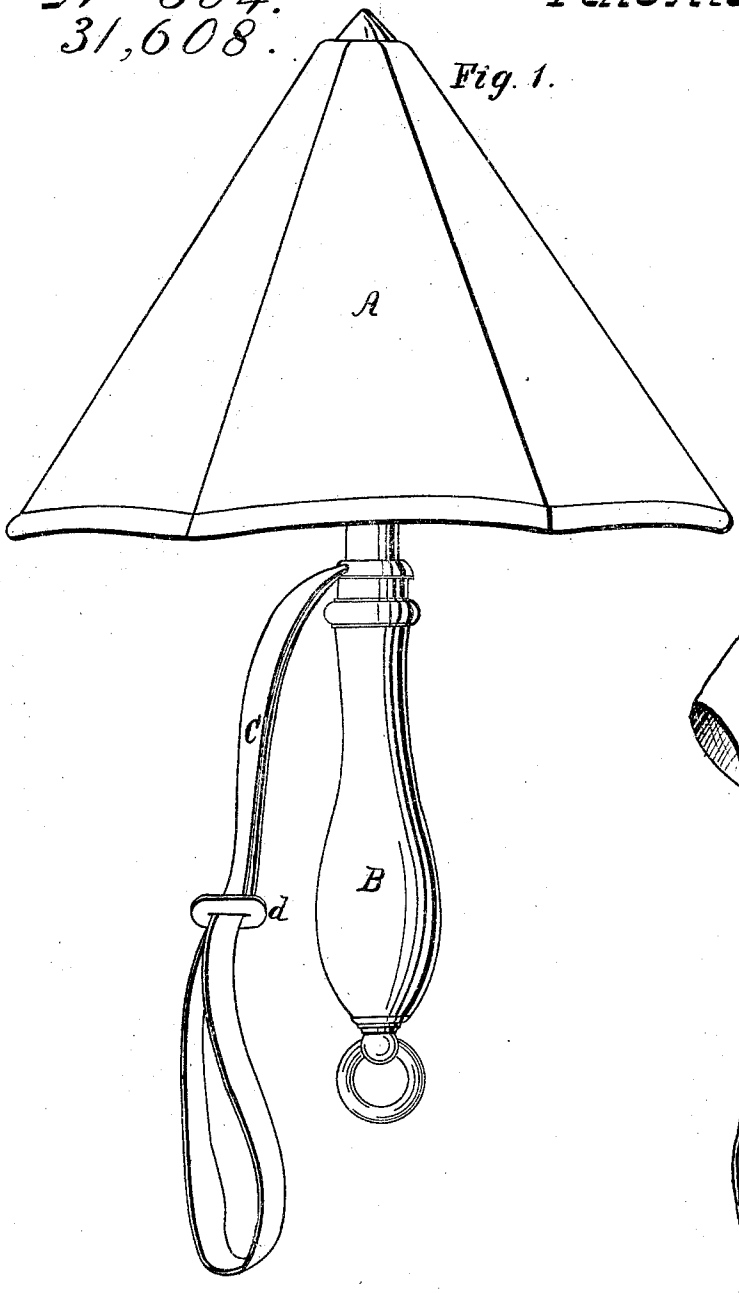
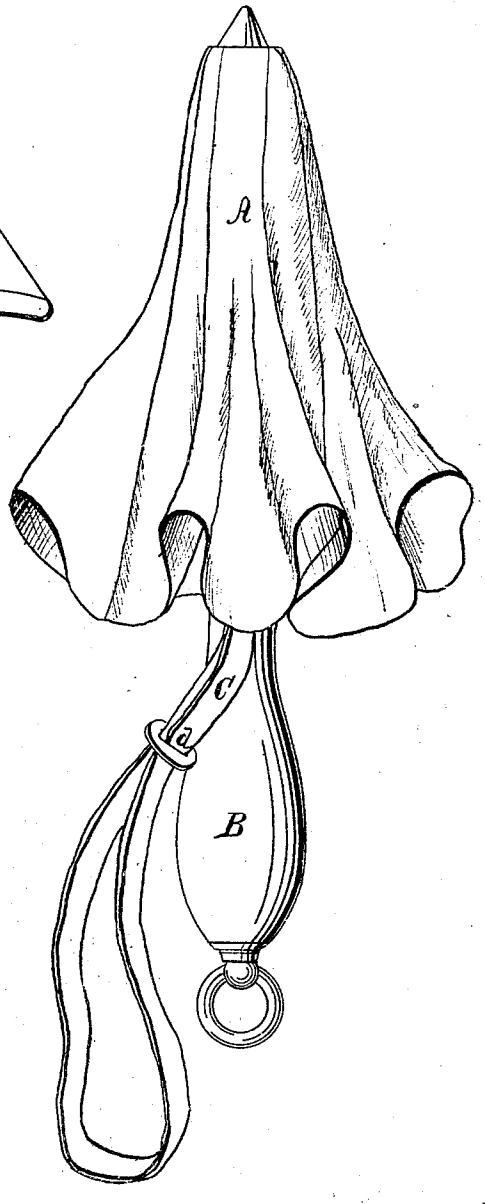


Fig. 2.



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Sheet. 2. 2. Sheets.

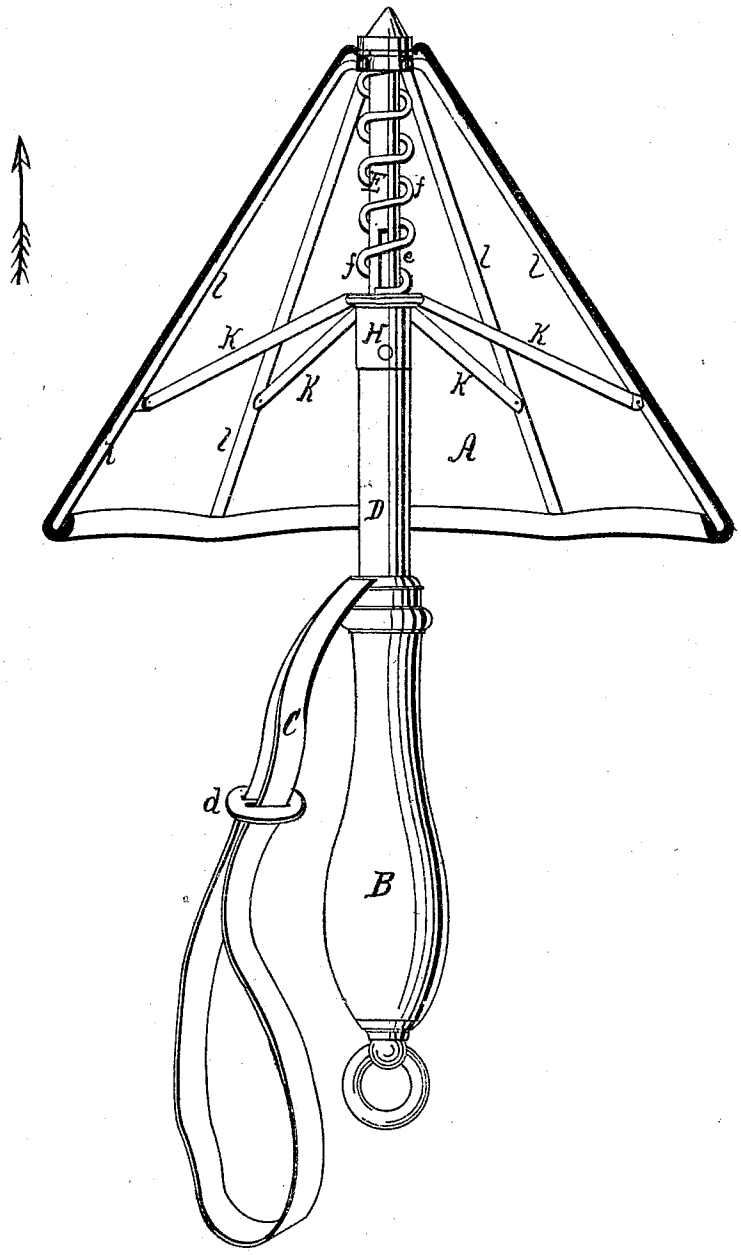
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Fig. 3.



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UNITED STATES PATENT OFFICE.

JACOB KLEIBER, OF MEMPHIS, TENNESSEE.

IMPROVED SWIMMING PROPELLER.

Specification forming part of Letters Patent No. **31,608**, dated March 5, 1861.

To all whom it may concern:

Be it known that I, JACOB KLEIBER, of Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Improvement in Life-Preservers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, made to form a part of this specification.

The nature of my invention relates to an improved method of constructing life-preservers, substantially as hereinafter represented and described.

With reference to the accompanying drawings, Figure 1 is a side view. Fig. 2 is also a side view, but represents the instrument closed, as when moving forward through the water; and Fig. 3 is a sectional view representing the instrument spread open, as when moving backward through the water.

B is a handle, to which is attached the hollow shank D, into which is fitted so as to slide freely the rod E. To the end of shank D is fitted the part H, which is furnished with a flange notched to receive the ends of rods or arms K, and grooved around its periphery to receive a wire, by means of which the ends of arms K are pivoted in said notches. A pin passing through part H and the shank secures them together, and passing also through a slot in rod E prevents that from turning. To the end of rod E is fixed a grooved and notched flange similar to that on part H. To this flange the ends of a series of rods *l* are pivoted, and at a point toward their opposite end are pivoted to the outer ends of arms K. A spring *f* is interposed between part H and the flange upon the outer end of rod E, which constantly acts to keep arms K and rods *l* extended, as represented in Figs. 1 and 3. A flanged screw is screwed into the end of rod E, which, with the flange on the end of rod E, forms an annular clamp.

A is a water-proof covering, made of rubber, rubber cloth, prepared leather, or other suitable material. This covering is secured to the rods *l* in a conical or similar form, and its apex, being furnished with a hole to receive the screw, is secured firmly by turning in the screw in the annular clamp aforesaid.

C is a looped strap attached to the handle or shank and is furnished with the slide *d*.

When the instrument is used, the strap C is slipped over the wrist and the slide *d* moved to a position near the wrist to prevent its slipping off. The operator then grasps the handle B and entering the water he moves the instrument forward, as indicated by the arrow, by which movement the instrument closes up, as represented in Fig. 2, and so passes through the element with but slight resistance therefrom. He then reverses the motion, and drawing the instrument back the resistance of the water first acts to open or spread out the instrument, as represented in Fig. 1, when by its increased surface presented to the water a great and efficient resistance is offered, and thereby the operator is enabled to draw himself forward or upward. The spring *f* assists the action of the water's resistance, so as to cause the instrument to open suddenly when the forward movement is completed, and so as not to lose its effect by expending any considerable portion of the backward stroke in spreading the instrument.

When the instrument is not in use, it can be closed up, as in Fig. 2, and may be hung up by means of the ring attached to the handle B.

Having thus described the construction and operation of my improved life-preserver, what I claim as new, and desire to secure by Letters Patent, is—

The arrangement and combination of the hollow shank D, with its flanged part H, the rod E, and spiral spring *f*, when used in connection with arms K, rods *l*, and a water-proof covering A, the whole being made and operated in the manner as and for the purpose set forth.

In testimony of which invention I have hereunto set my hand in presence of two witnesses.

JA. KLEIBER.

Witnesses:

JAMES B. COOK,
WILLIAM SIDES.