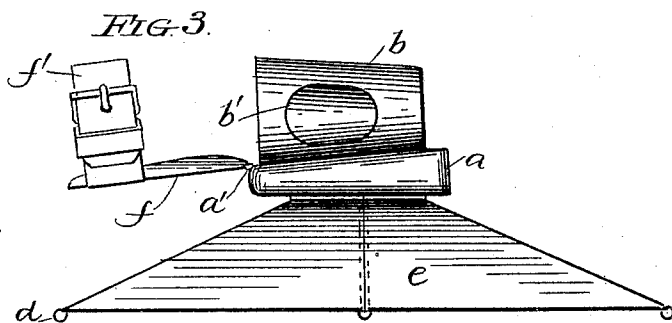
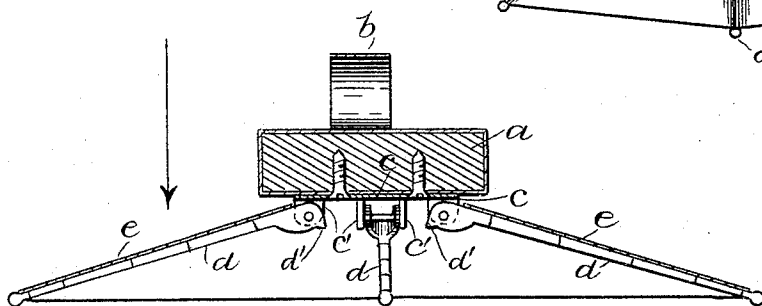
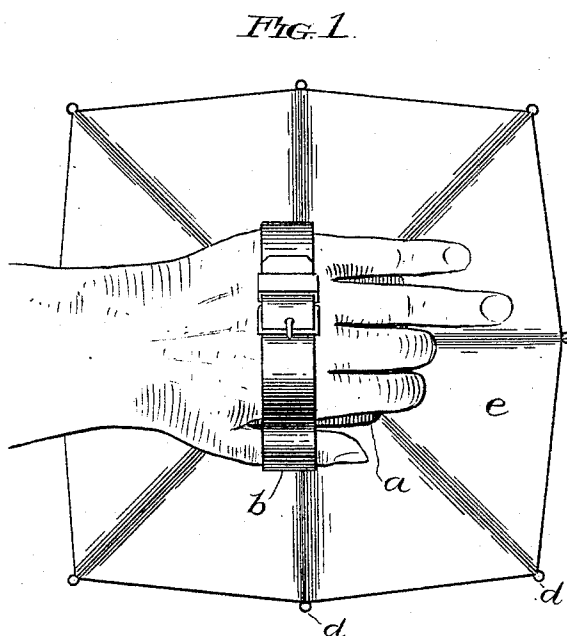
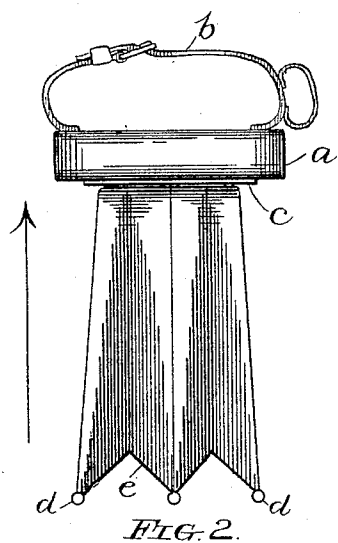


(No Model.)

H. A. FARNAM.
SWIMMING DEVICE.

No. 460,333.

Patented Sept. 29, 1891.



Witnesses:
J. Halpenny.
David Stearns.

Inventor:
Harriett A. Farnam,
By Bradley & Welch
her Atty.

UNITED STATES PATENT OFFICE.

HARRIET A. FARNAM, OF CHICAGO, ILLINOIS.

SWIMMING DEVICE.

SPECIFICATION forming part of Letters Patent No. 460,333, dated September 29, 1891.

Application filed October 9, 1890. Serial No. 367,474. (No model.)

To all whom it may concern:

Be it known that I, HARRIET A. FARNAM, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Swimming Devices, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a plan view of my improved device as it appears when expanded and in use. Fig. 2 is a front view of the same as it appears when in a reverse position. Fig. 3 is a longitudinal vertical sectional view as it appears when in the position shown in Fig. 1, and Fig. 4 is a side view showing a modification of said invention.

Like letters of reference in the different figures indicate corresponding parts.

The object of my invention is to provide a device in the nature of a life-preserver, which may be employed to great advantage as an aid to professional swimmers, as well as to unskilled persons for sustaining themselves in the water.

To these ends my invention consists in certain features of novelty that are particularly pointed out in the claims hereinafter.

Referring to the drawings, *a* represents a block of light wood or other suitable material, preferably oblong in shape, to the top of which is attached a strap *b* for the reception of the hand, as clearly shown in Fig. 1. The part *a* forms a base to which is preferably attached a metal plate *c*, Fig. 3, having lugs *c'* thereon, to which are pivotally secured bows or ribs *d*, made of light but strong sheet metal, crimped to give the maximum strength in cross-section. A covering *e*, of canvas, silk, or other suitable fabric, is secured to the ribs *d* in such a way as to become stretched like the cover of a parasol when the frame is expanded, as shown in Figs. 1, 3, and 4, while it is free to collapse and assume the position shown in Fig. 2.

In Fig. 4 I have represented a modified construction in which the part *b* is wider than in the other figures, and is provided with an opening *b'* therein for the reception of the thumb. This construction enables the base

a to be placed farther back upon the hand instead of beneath the palm, as in the construction shown in Fig. 1.

Hinged to the part *a* at *a'* is a supplemental base or wrist piece *f*, having a strap *f'* thereon for fastening the same to the wrist. I prefer this construction, as it is not likely to become accidentally disengaged from the hand of the user, while his fingers project sufficiently through the fastening-loop to enable them to be freely used for grasping any desired object. Moreover, the clasping of the forward end of the base with the fingers enables it to be held more firmly in place.

While the ribs are free to expand to the full extent permitted by the web *e*, it is important that the opposite movement be limited so as to insure its expansion when desired. This may be accomplished by means of shoulders *d'*, Fig. 3, upon the ends of the ribs, or by any equivalent device which would suggest itself to a skilled mechanic.

The operation of my improved device is as follows: With the act of thrusting the hand downwardly or backwardly in the water, the resistance of the web *e* serves to expand the frame, thus offering a large resistance to the movement of the hand. Upon the completion of the stroke of the swimmer the reverse movement collapses the frame and enables the hand to be brought back to its original position without resistance.

My improved device is simple, durable, cheaply constructed, and enables the user to swim or sustain himself in the water with the utmost ease. It is especially desirable in lieu of or in connection with an ordinary life-preserver.

Having thus described my invention, I claim—

1. In a swimming device, the combination of a rigid base, the ribs *d*, hinged thereto, and having shoulders *d'* for limiting their closing, a web secured to and covering said frame and limiting their opening, and means for attaching said base to the wearer, substantially as set forth.

2. In a swimming device, the combination, with a collapsible web-covered frame, of a rigid prehensile base to which it is secured,

and a strap for attaching said base to the hand, said base being of such size and shape as to enable its being grasped with the hand to which it is strapped, substantially as set forth.

5 3. The combination, in a swimming device, of a rigid base, a collapsible web-covered frame attached thereto, means for securing said base to the hand, a wrist-piece hinged to the base and extending along the wrist, and

a strap for securing said wrist-piece to the wrist, substantially as set forth.

In testimony whereof I have signed this specification, in the presence of two subscribing witnesses, this 2d day of October, 1890.

HARRIET A. FARNAM.

Witnesses:

D. H. FLETCHER,
J. HALPENNY.