

999,821.

Patented Aug. 8, 1911.

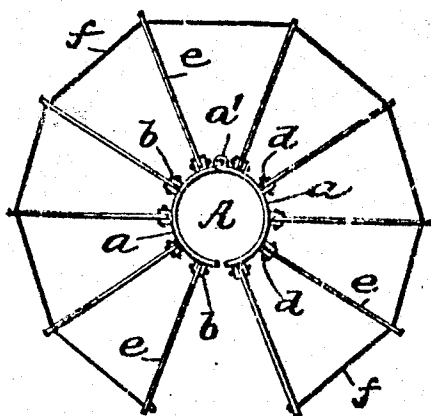


FIG. 2.

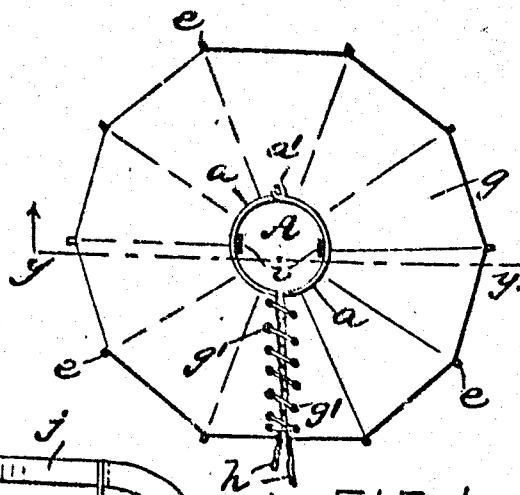


FIG. 1.

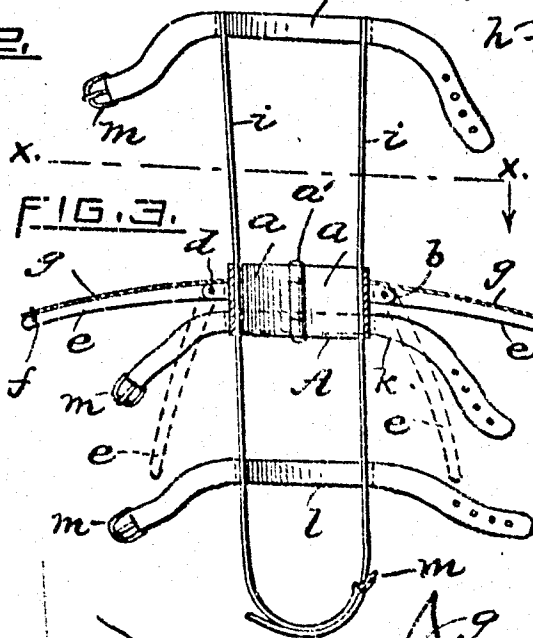


FIG. 3.

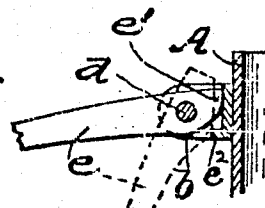


FIG. 5.

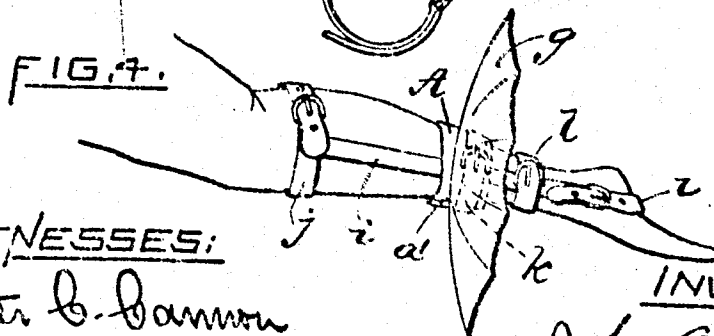


FIG. 7.

WITNESSES:

Peter B. Cannon
C. H. Higgins

INVENTOR:

John C. Marney

UNITED STATES PATENT OFFICE.

JOHN O. MASSEY, OF PROVIDENCE, RHODE ISLAND.

ATTACHABLE SWIMMER'S DEVICE.

999,821.

Specification of Letters Patent.

Patented Aug. 8, 1911.

Application filed July 26, 1910. Serial No. 573,848.

To all whom it may concern:

Be it known that I, JOHN O. MASSEY, a citizen of the United States, residing at the city of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Attachable Swimmers' Devices, of which the following is a specification.

My invention relates to a device adapted to be secured upon the lower portion of each leg of a swimmer, and the objects in view are to provide means whereby an increase of speed may be obtained by a person while swimming, and to aid a swimmer in making a treading movement in the water.

My invention consists of a small umbrella-shaped device designed to be secured near to each ankle of a swimmer, and so constructed that as one leg is brought forward in the water the device is caused to close to a collapsed condition upon that leg, and while the other leg is forced rearward the device on this leg is caused to be brought to a full open condition and disperse a large area of surface cover of the device to thrust against the water by the swimmer and whereby increase of speed is obtained in swimming, or to aid in making a treading movement in the water.

In the accompanying sheet of drawings, Figure 1 represents a plan section taken on line *x-x*, of Fig. 3, showing my device in open position and the ends of its cover laced together, as after the device is secured upon the leg of a swimmer. Fig. 2 is a plan view of the collapsible frame of the device. Fig. 3 is a vertical sectional view of the device taken on line *y-y*, of Fig. 1. Fig. 4 illustrates my device as applied to the leg of a swimmer. Fig. 5 is a partial view, in detail, of one of the ribs of the frame.

Like reference characters indicate like parts.

The frame of my device consists of a thin metal band *A* which is divided in halves *a, a* and hinged together, as at *a'*. A series of U-shaped pieces *b, b* are made fast upon each half of the band *A*, and said pieces are divided equidistantly apart throughout the circle of the latter and each piece is provided with a pin connection *d* to receive the inner end of ribs *e, e* having each a shoulder *e'* to impinge against the bottom of each piece *b*, in the manner shown in Fig. 5, and the free or outer end of each rib *e* is perforated to receive a cord *f*. On this frame,

as described, is secured a cover *g*, of canvas or other suitable material, and the ends of this cover project from the free ends of the halves *a, a* and are provided with eye-lets *g'* to receive a lacing *h* for uniting the end portions of the cover together, after the device has been mounted upon the leg of a swimmer, in the manner shown in Fig. 1.

Two straps *i, i* are secured centrally upon the inner surface of each frame-half *a*, and said straps project above and below the latter, as shown in Fig. 3. On the free upper ends of the straps *i, i* is secured a transverse strap *j*; a second transverse strap *k* is secured on the frame-band *A*, and a third transverse strap *l* is secured at a point below said band upon the straps *i, i*. Each strap *i, j, k* and *l* is provided with a buckle *m*, or any other suitable means, for securing its free ends together.

To apply the device for use the strap *j* is first secured below the knee, next, the frame *f* is separated to permit the band *A* to encircle the lower portion of the calf of the leg and the strap *k* used to secure the frame-halves together, next, the strap *l* is secured upon the ankle, and finally the straps *i, i* are secured together against the ball of the foot, in the manner shown in Fig. 5.

In the construction of the frame, the shoulder *e'*, formed on each rib *e*, is to overcome the rearward pressure of the device when open to its normal position in the water, as shown in Fig. 4, and at the same time prevent the frame from turning inside out. A shoulder is also formed in the bottom of each U-shaped piece *b*, as at *e''* in Fig. 5, in order to limit the closing movement of the device and prevent any of its ribs from striking against the leg, as after the frame has collapsed to the position of parts indicated by dotted lines in Fig. 3.

By practical demonstration I provide a device of this character that contains in itself all that is necessary to afford a great increase of speed in swimming and without any extra exertion required on the part of a swimmer, and at the same time a device that may be used to great advantage in making a treading movement in the water in giving aid to support a person from drowning. Furthermore, by my construction and arrangement of parts I provide a device that may not only be used by swimmers, but also those desirous of learning the art of swimming, as it lessens fear of drowning, is light

and buoyant, and is a device that is inexpensive to manufacture.

What I claim and desire to secure by Letters-Patent, is:—

- 5 In a swimming device, the combination with a metallic frame comprising the band A which is divided in halves to encircle the ankle and each half hinged together, as at *a'*, a series of U-shaped members, as *b*, *b*, se-
10 cured to the band-halves and each member having a shoulder *e*², a frame comprising ribs *c* pivotally connected to the bifurcated portion of each member *b* and each rib provided with a shoulder, as *e'*, to bear against
15 the bottom of each member and thereby limit the expansive movement of the frame, of a cover *g* secured to the ribs *c* and sur-

rounding said band-halves; the strap *k* for securing the band-halves together; the vertical straps *i*, *i* centrally secured on the band-halves and having their lower free ends for connecting under the foot; the strap *j* secured to the upper ends of the straps *i*, and the free ends of said strap *j*, provided with fastenings for connecting 25 around the upper part of the calf of the leg.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN O. MASSEY.

Witnesses:

PETER C. CANNON,
C. T. HANNIGAN.