J. T. LAMB.

SWIMMING APPLIANCE.

APPLICATION FILED MAY 13, 1913.

1,067,612. Patented July 15, 1913.

Fig. 1.

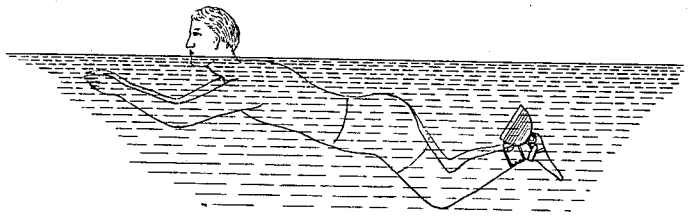


Fig. 2.

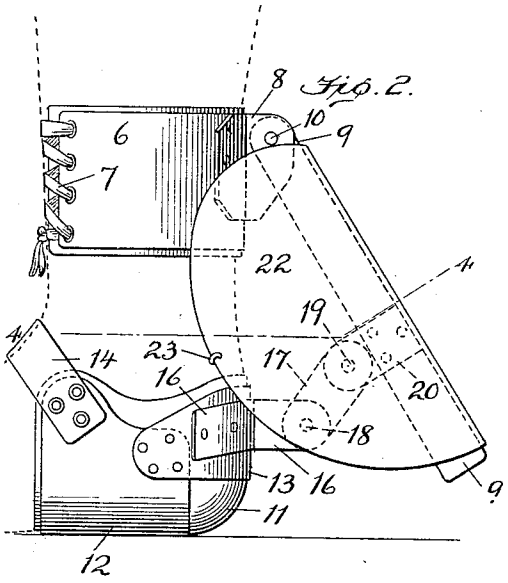


Fig. 3.

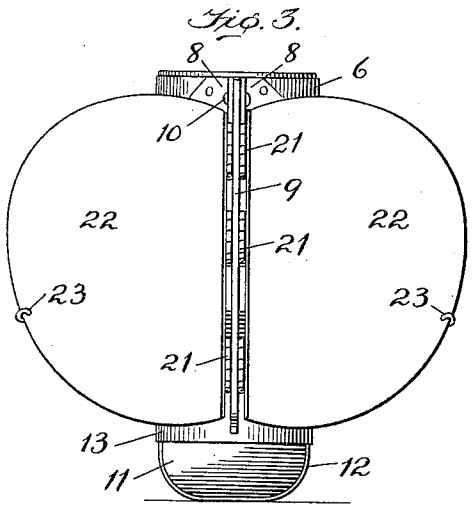


Fig. 4.

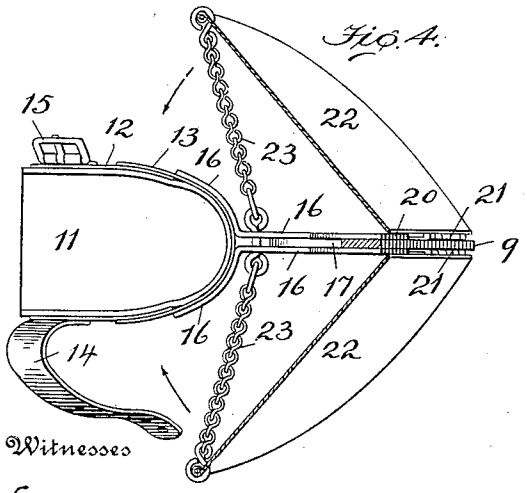
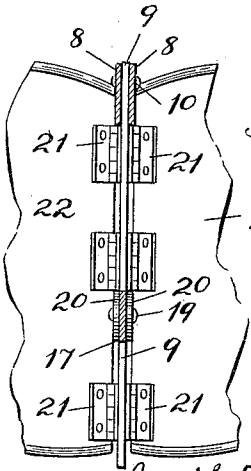


Fig. 5.



Witnesses

Edwin L. Bradford.

G. Ferd. Vogt.

Inventor

Joseph T. Lamb

By Mann & Co

Attorneys

UNITED STATES PATENT OFFICE.

JOSEPH T. LAMB, OF BALTIMORE, MARYLAND.

SWIMMING APPLIANCE.

1,067,612. Specification of Letters Patent. Patented July 15, 1913.

Application filed May 13, 1913. Serial No. 767,303.

To all whom it may concern:

Be it known that I, JOSEPH T. LAMB, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Swimming Appliances, of which the following is a specification.

This invention relates to an improved swimming appliance and has for its object to provide a simple, comparatively cheap and durable device for attachment to the foot and ankle of a swimmer whereby a purchase on the water may be had upon the backward stroke of the legs and thereby force the swimmer forward through the water.

Another object is to provide an improved device of the character set forth which is not liable to get out of order and cause the swimmer alarm; which will not interfere with walking and which when placed on the foot and ankle will adjust itself to suit the ankle joint of the swimmer.

With these and other objects in view, the invention is illustrated in the accompanying drawing wherein.—

Figure 1, is a view in elevation showing the improved device attached to the feet of a swimmer as in use. Fig. 2, shows an enlarged side view of the device. Fig. 3, illustrates the same in rear elevation. Fig. 4, shows a detail sectional plan through the device the section being taken on the line 4—4 of Fig. 2, and Fig. 5, shows an enlarged detail of the pivot connection between the pivoted blade bar and the blades.

Referring to the drawing the numeral, 6, designates an anklet band split at the front and having a lace, 7, for securing the same about the swimmer's ankle. At the rear of the anklet-band there are two spaced-apart plates, 8, between which the upper end of an inclined bar, 9, is attached. This bar 9, has its upper end pivoted at, 10, between the said bracket plate so that its lower end may be free to swing. The appliance also has a heel socket, 11, with a heel plate, 12, extending under said socket and a heel loop, 13, connecting the heel plate and forming a loop around the rear of the socket, 11. A securing strap, 14, is secured to the heel plate, 12, at one side and a buckle, 15, is attached to said heel plate at the other side so that said securing strap may be passed over the instep and attached to the buckle to hold the heel socket, plate and loop in place. Bracket plates, 16, are secured to the rear of the heel loop and a link bar, 17, has its lower end interposed between and pivoted at, 18, to said bracket plates, while the upper end of said link bar is interposed between and pivoted at, 19, to spaced-apart plates, 20, on the blade bar, 9. It will thus be seen that the blade bar, 9, has its upper end pivotally connected at, 10, to the bracket plates, 8, on the anklet band while its lower end is pivotally attached to a link bar, 17, which is jointed at, 18, to the bracket plates of the heel loop. 13. By means of these connections the free end of the blade bar may swing toward or from the heel to accommodate itself to the movement of the ankle joint of the swimmer thus allowing the swimmer free use of the ankle joint for foot movement during swimming and walking. Each longitudinal side of the blade bar is provided with a series of hinges, 21, and movable blades, 22, are carried by said hinges at each side of the blade bar so as to swing toward and away from each other during the respective forward and backward strokes of the legs while swimming. During the backward leg stroke to force the swimmer ahead the blades, 22, will spread apart and to limit the spreading movement light chains or other flexible connections, 23, are provided which connect the rims of the blades with the heel bracket plates, 16. When the devices are attached to the ankles and feet of a swimmer the latter can readily walk as can be seen in Fig. 2, because the blades and blade-bar are elevated.

When the swimmer is in the water, as shown in Fig. 1, the blades will extend upwardly from the feet and when the legs are drawn forward the blades will collapse forming a V-shaped wedge to cut through the water, but when the legs make a rear stroke the blades will swing away from the blade bar to get a purchase in the water which materially aids in driving the swimmer forward. By providing the link connection between the heel and blade bar full play of the ankle joint may be had thereby imparting a slight but effective rocking of the blade bar and blades to get the full benefit of the rearward propelling stroke.

Having thus described my invention what I claim and desire to secure by Letters Patent is:—

1. In a swimming appliance the combina-

tion with ankle engaging means, of heel-engaging means; a bar having one end connected to the ankle engaging means and its other end connected to said heel-engaging means, and a blade at each side of said bar.

2. In a swimming appliance the combination with an ankle band of heel-engaging means; a bar having one end pivotally connected with respect to the ankle band and its other end pivotally connected with respect to the heel-engaging means; a blade pivotally carried by and at one side of the said bar and another blade pivotally attached to and carried by the other side of the bar.

3. In a swimming appliance the combination with a band to encircle the ankle, of heel-engaging means; a bar having one end pivoted with respect to and carried by the ankle band; a link having one end pivoted with respect to the heel-engaging means and its other end pivotally sustaining the said bar whereby to permit said bar to have a swinging movement with respect to the ankle band, and a blade at each side of said bar and pivotally attached to the latter.

4. In a swimming appliance the combination with an ankle-engaging band, of a heel socket; having a bracket plate; a link having one end pivoted to said heel-bracket plate; a blade bar having one end pivoted with respect to the ankle band and also pivotally connected to said link whereby the bar may swing toward and from the heel socket; blades pivotally attached at opposite sides of the swinging bar and means for limiting the spreading movement of the blades.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH T. LAMB.

Witnesses:
G. FERD. VOGT,
CHARLES B. MANN, Jr.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."