No. 802,306. PATENTED OCT. 17, 1905.

E. J. McKITTRICK.

SWIMMING APPLIANCE.

APPLICATION FILED MAY 4, 1905.

Fig. 1.

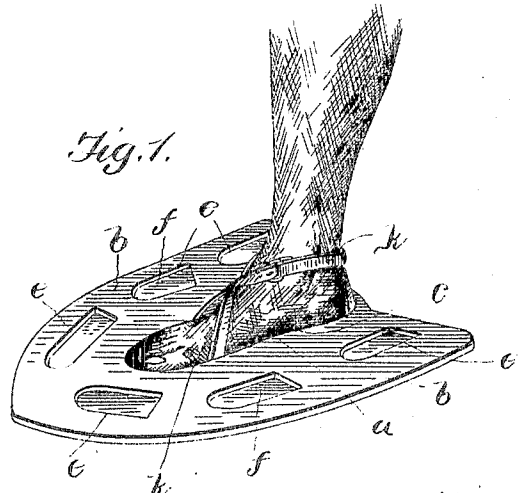


Fig. 2.

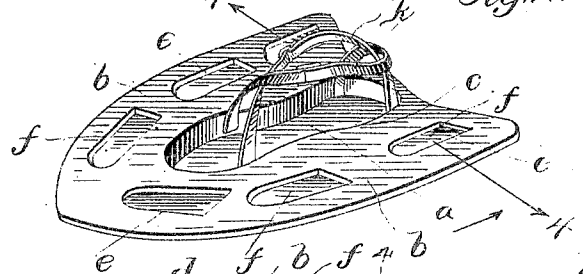


Fig. 3.

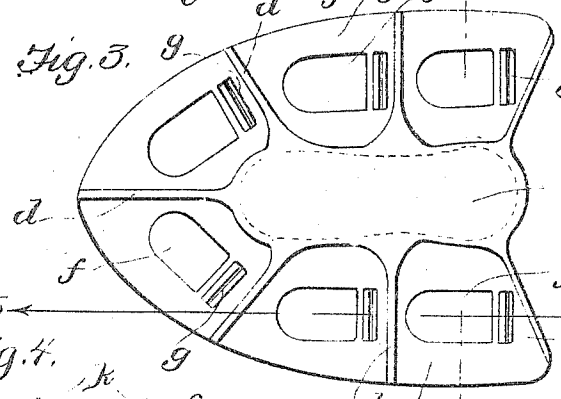


Fig. 7.

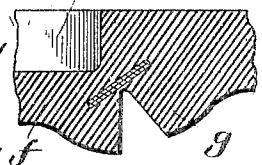


Fig. 4.

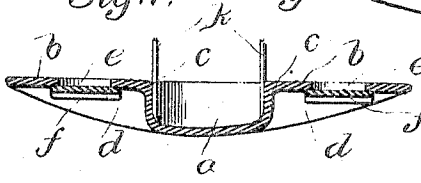
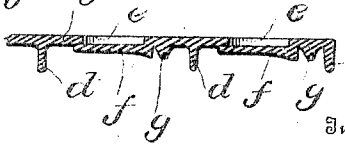


Fig. 5.



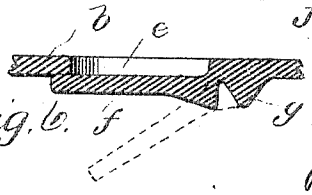


Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

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SWIMMING APPLIANCE.

No. 802,306 Specification of Letters Patent. Patented Oct. 17, 1905.

Application filed May 4, 1905. Serial No. 258,783.

To all whom it may concern:

Be it known that I, EDWARD J. McKITTRICK, a citizen of the United States, and a resident of Walla Walla, in the county of Wallawalla and State of Washington, have made a certain new and useful invention in Swimming Appliances; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 is a perspective view of the invention as applied. Fig. 2 is a similar view of the invention removed from the foot. Fig. 3 is a bottom plan view of the invention. Fig. 4 is a section on the line 4 4, Fig. 3. Fig. 5 is a section on the line 5 5, Fig. 3. Figs. 6 and 7 are detail views of the valve.

The invention relates to appliances for the feet for swimming purposes; and it consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings, illustrating the invention, the letter *a* designates the body or sole part of a sandal, which is preferably made of rubber. Extending around the body portion is a flange *b*, which forms a rigid part of the sole portion *a*, joining it, however, at a higher plane or at the top of the raised margin *c*, with which the sole portion is provided. Ribs *d d* are secured at the flange and sole portion and serve to brace the flange securely in position. The ribs *d d* are designed to be of tapering form from the junction with the sole portion outward to the edge of the flange. The flange extends forward of the sole portion about three or four inches, as well as on each side of the same for about the same distance, and the ribs are placed in series around the sole and preferably under the flange, thereby forming under recesses. The flange is provided between the ribs with openings *e* for the passage of water and with valves *f*, arranged under said openings, to stop the water from passing, said valves being each connected with the flange *b* by a neck portion of the rubber material of the appliance, forming a hinge. The valves are prevented from swinging open too far by means of limiting-stops *g*. By this means the valves are checked in their opening movement within seventy degrees, so that when the swimmer pushes backward the valves will close against the flange and stop the openings. Straps *h h* form fastenings passing around the ankle over the heel and instep and serve to hold the sandal securely to the foot.

The appliance is light and strong and is readily attached to the foot. The wearer can stand upon it, if necessary, without injury to the valves. In swimming the valves open for the passage of water when the feet are drawn toward the body, and they close on the stroke, thereby materially increasing the propelling power.

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

A swimming-sandal, consisting of a sole portion provided with fastening-straps, and having a surrounding outward-extending flange secured to its margin and provided with bracing-ribs extending from the sole portion, and between said ribs with openings and hinged valves, and limiting-stops for said valves, substantially as specified.

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

EDWARD J. McKITTRICK.

Witnesses:
F. A. GARRECHT,
W. H. DUNPHY.