No. 671,378. Patented Apr. 2, 1901.

S. A. HESSLER.

SWIMMING SHOE.

(Application filed June 28, 1900.)

(No Model.)

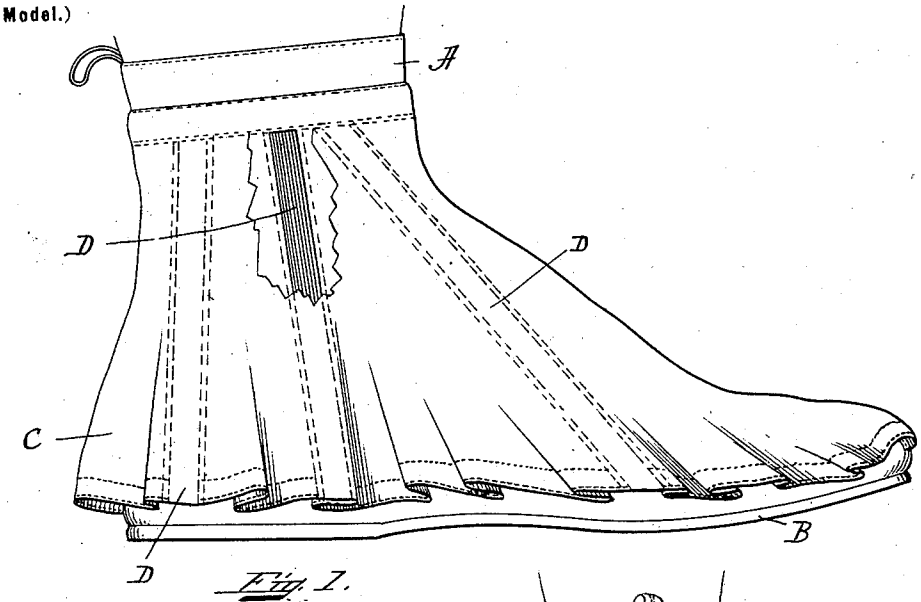


Fig. 1.

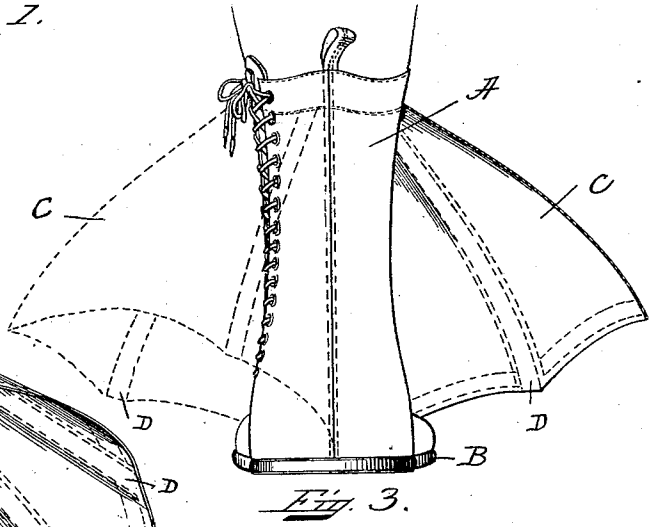


Fig. 3.

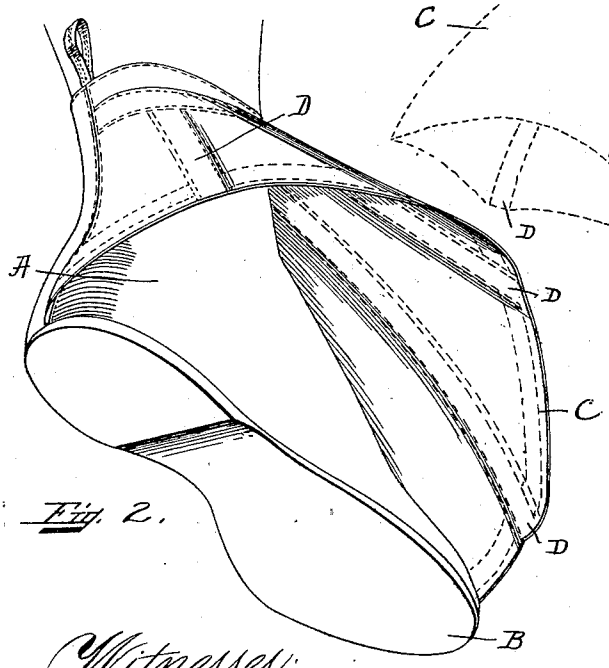


Fig. 2.

Witnesses:
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his attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SONE A. HESSLER, OF BOSTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO ADOLF KARLMARK, OF CAMBRIDGE, MASSACHUSETTS.

SWIMMING-SHOE.

SPECIFICATION forming part of Letters Patent No. 671,378, dated April 2, 1901.

Application filed June 28, 1900. Serial No. 21,953. (No model.)

To all whom it may concern:

Be it known that I, SONE A. HESSLER, a citizen of Sweden, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented new and useful Improvements in Swimming-Shoes, of which the following is a specification.

This invention relates to improvements in swimming-shoes adapted to be used as an aid to swimmers for the purpose of increasing the effective power of the stroke of the legs and consequent increase in the speed of propulsion. It is also useful as a life-saving device, as by the aid of this my improved swimming-shoe a person may be enabled to tread water with ease, and thus keep himself afloat until assistance arrives.

The invention is carried out as follows, reference being had to the accompanying drawings, wherein—

Figure 1 represents a side elevation of my improved swimming-shoe, showing the expansive fan-shaped flap or fin closed. Fig. 2 represents a rear perspective view of the device, showing said flap or fin expanded during the effective outward stroke of the leg; and Fig. 3 represents a rear view of the shoe, showing the expanded flap or fin in section.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In the drawings, A represents a shoe-upper, preferably made of duck or canvas; but, if so desired, it may be made of any other well-known material.

B represents the sole of the shoe, made of leather or any other desirable material, as usual.

The shoe may be secured to the ankle portion of the wearer by means of laces, buttons, or any other well-known fastening devices without departing from the essence of my invention.

Preferably to the outside of the shoe is secured, at its upper end, a flexible flap or fin C, preferably made of waterproof canvas, the front and rear portions of which are stitched or otherwise secured, respectively, to the instep and rear portions of the shoe, as shown. The said flap or fin is umbrella-shaped and has its lower end free and detached from the shoe, as shown. In practice I prefer to attach to said flap or fin C a series of stays D D, made of metal, whalebone, or other suitable material.

The operation of the device is as follows: In drawing up the foot toward the body the flap or fin C will be forced by the outward pressure of the water toward the side of the shoe, thus enabling the shoe to be drawn through the water with the same ease as if no such flap or fin were used. In pushing outward the said flap or fin is immediately caused to expand, as shown in Figs. 2 and 3, thus increasing the effective area of the foot during the outward pressure-stroke, thus causing the body to be propelled forward with greater pressure and speed. The same result is obtained in treading water if the swimmer wishes to keep his head above the sea until rescued.

In practice I prefer to arrange only one of the expansive flaps or fins on the outside of the shoe; but, if so desired, I may to advantage use such flaps or fins both on the in and out side of the shoe, as shown in Fig. 3.

The invention is very simple in construction, is very effective in increasing the speed of the swimming operation, and is very useful as a life-saving device for keeping a person afloat by treading water, as above described.

What I wish to secure by Letters Patent and claim is—

The combination with a boot or shoe, of an overlapping flap attached at its upper end to the top of said boot or shoe and at its front and rear edge to the instep and rear portions respectively of the said boot or shoe, and a series of stays connected to the said flap and adapted to retain the same in an extended position, substantially as and for the purpose specified.

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

SONE A. HESSLER.

Witnesses:
ALBAN ANDRÉN,
ADOLF KARLMARK.