

E. G. HALVORSEN.  
SWIMMING DEVICE.  
APPLICATION FILED OCT. 25, 1910.

1,007,867.

Patented Nov. 7, 1911.

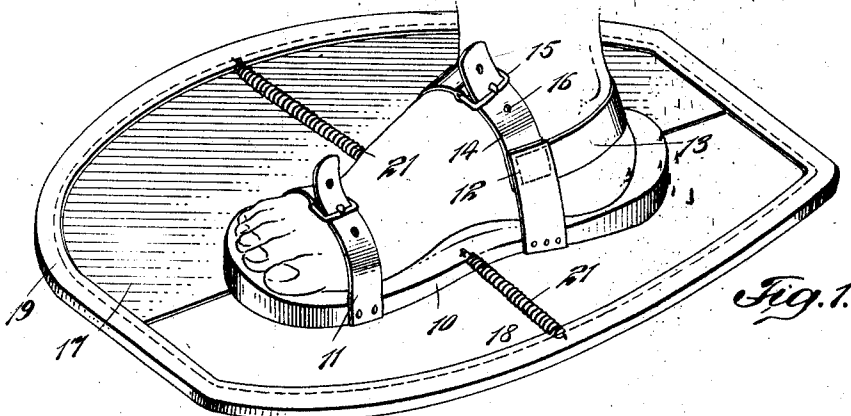


Fig. 1.

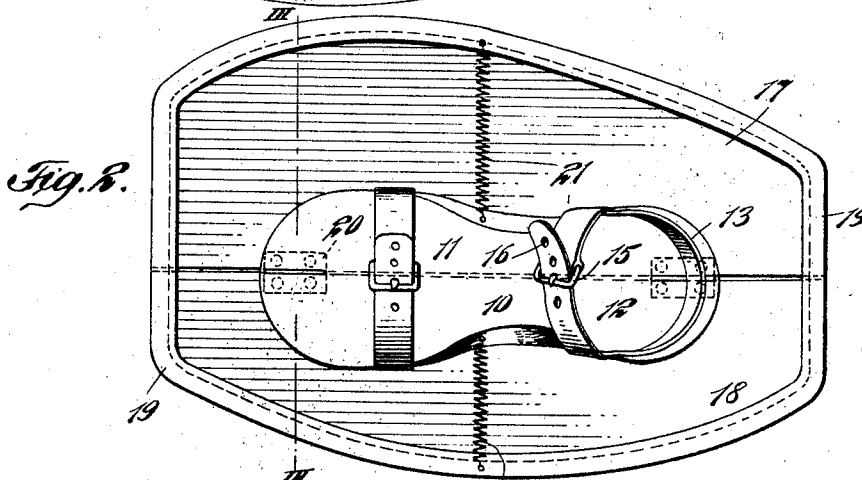


Fig. 2.

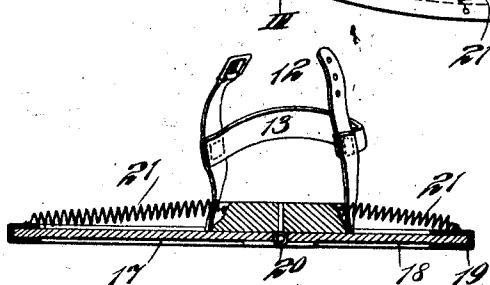


Fig. 3.

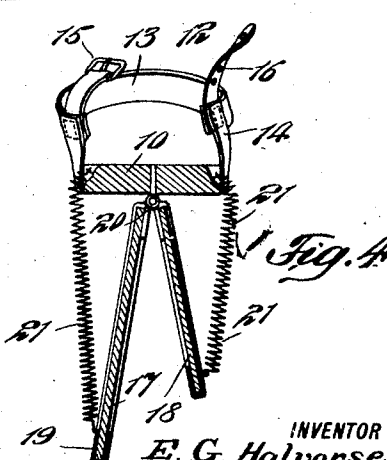


Fig. 4.

WITNESSES  
*Julius H. [Signature]*  
*C. Bartels.*

INVENTOR  
E. G. Halvorsen  
BY  
*Criswell & Criswell*  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

EMANUEL GEORGE HALVORSEN, OF NEW YORK, N. Y.

## SWIMMING DEVICE.

1,007,867.

Specification of Letters Patent.

Patented Nov. 7, 1911.

Application filed October 25, 1910. Serial No. 589,048.

*To all whom it may concern:*

Be it known that I, EMANUEL GEORGE HALVORSEN, a citizen of the United States, and a resident of New York, borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Swimming Devices, of which the following is a full, clear, and exact description.

This invention relates more particularly to devices adapted to be attached to the feet to assist a swimmer in making rapid progress through the water.

The primary object of the invention is to provide a simple and efficient device which may be readily made and which may be applied to the feet of a person similar to that of a sandal, and to so construct the device that a large propelling area is provided when the feet are moved rearwardly while swimming, and which propelling means will become collapsed and occupy a minimum amount of space so as to offer very little resistance during the movement of the feet inward preparatory to making the next stroke.

Another object of the invention is to provide a simple and efficient device which is so constructed that the same may be used as a shoe before the swimmer enters the water.

A further object of the invention is to provide a simple and efficient device which may be readily and cheaply made and which may be used for various purposes.

With these and other objects in view, the invention will be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and will then be pointed out in the claim at the end of the description.

In the drawings, Figure 1 is a perspective view of one form of device embodying my invention, showing the same applied to one of the feet. Fig. 2 is a plan view of the device. Fig. 3 is a transverse section, taken on the line III--III of Fig. 2; and Fig. 4 is a view similar to Fig. 3, except that the wings or blades are shown in a collapsed position.

The device may be made of any suitable material and may have any number of members forming the same and may be attached to the feet or any other part of the body in

any desired way. As shown, a foot-piece, support or member 10, conforming to the shape of the foot, is provided which may be made of wood or other material. At the forward part of the foot-piece 10 is a strap 11 which comprises two members each held to the foot-piece 10 at one end and at their other ends one of them is provided with apertures and the other with a buckle to serve as a fastening means for said strap. The foot-piece 10 has a fastening member 12 at the rear thereof comprising a heel piece 13 and a two-part strap member 14 which is fastened to the foot-piece 10 at one end of each part and the other ends have a buckle 15 and apertures 16, thus serving to properly hold the device to the foot.

To assist in propelling the swimmer through the water and to serve as means by which the person may walk, I provide a plurality of blades or members 17 and 18 the number of which may be varied as desired. As shown, there are two members which are considerably larger than the foot-piece 10 and extend on two sides thereof laterally therefrom. These blades or wings may be made of wood, aluminum or any other material and may be entirely covered with rubber or any other suitable material, or may be protected simply at their edges, as by a band or strip 19. The band or strip 19 may be of rubber or other material and serves as one means for holding the two members together and in such a way that the same may be folded or collapsed, and said members form a two-part propelling device having the line of division lengthwise of the foot-piece 10 and arranged under said foot-piece. The member 17 may be somewhat larger than the member 18 so far as the width is concerned, as the member 18 if made too large might interfere with the movement of the feet while swimming. These members are pivotally held together as by the hinges 20 located at the front and rear of the foot-piece 10 and said hinges are held in any desired way to said foot-piece, the movement of the members being angularly with respect to the foot-piece.

As the foot-piece 10 rests upon the members 17 and 18, it will be seen that when the feet are forced outward, there being a device for each foot, the said members will rest against the under surface of the foot-piece to prevent further outward movement there-

of and in a position to give the greatest resistance to the water, but when the feet are drawn inward toward the body the two wings or blades will move inward as shown in Fig. 4 and in this position will offer as little resistance to the water as possible. The inward or collapsing movement of the blades or members 17 and 18 are against the tension of the springs 21, the latter being secured at one end to the outer edge of the blades or members and at their other ends are secured to opposite sides of the foot-piece 10, the tension of said springs being just sufficient to hold the blades in a substantially horizontal position, or such as shown in Figs. 1 to 3, in order that the person may use the same to walk with ease while the devices are on the feet.

From the foregoing it will be seen that a simple and efficient device is provided which may be made of various sizes and which may be readily applied to the feet; that simple means is provided whereby the device may be held to the feet and serve as a means to permit the user to walk thereon; and that said device will serve as an effective means

to assist the swimmer in moving swiftly through the water.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

A swimming device comprising a foot-piece, means for attaching the foot-piece to the foot, a pair of wing members each hinged to the lower face of the foot-piece along the longitudinal axis thereof, to lie in a plane against the bottom of the foot-piece, and to swing downwardly therefrom toward each other, a pair of springs each extending from the outer edge of one of the wings in a transverse direction to the side edge of the foot-piece, to normally hold the wings in a plane, but to permit the swinging downward of the wings by pressure thereon, and a continuous annular rubber strip secured to the edges of both of the wings.

This specification signed and witnessed this 8th day of October A. D. 1910.

EMANUEL GEORGE HALVORSEN.

Witnesses:

W. A. TOWNER, JR.,  
C. BARTELS.