July 28, 1942. R. A. CONLEY 2,290,943

SWIMMING DEVICE

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FIG. 1.

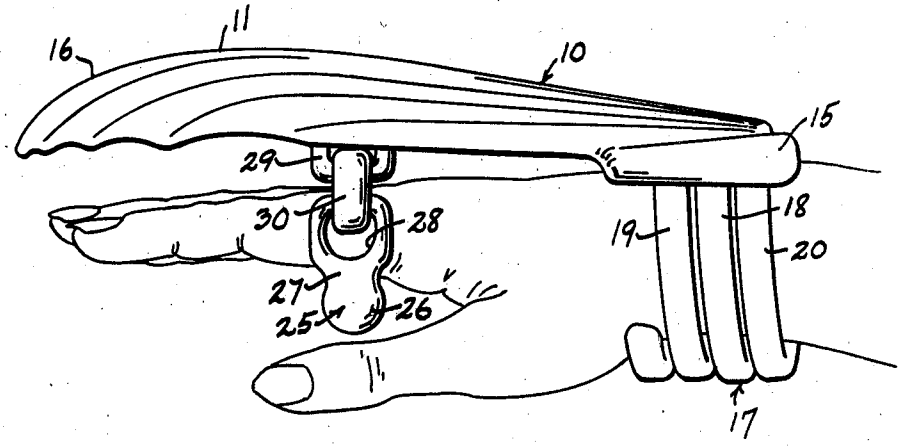
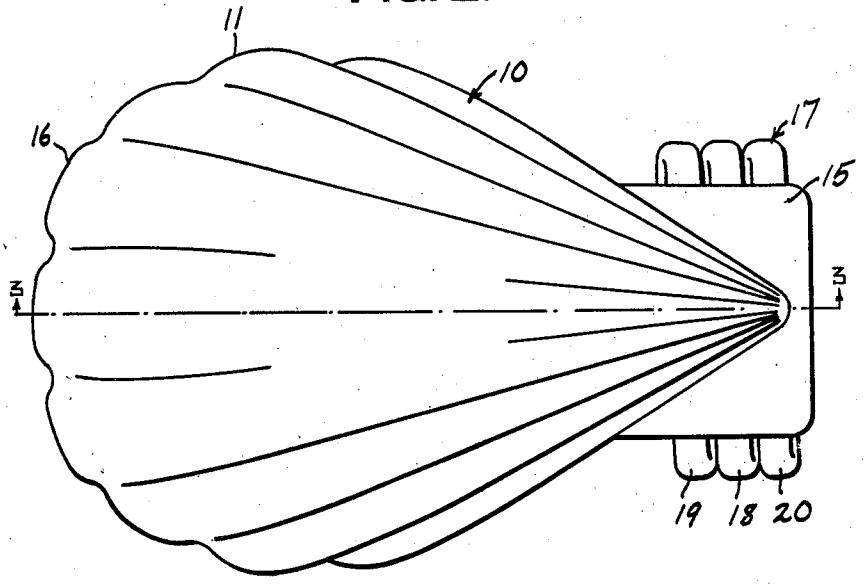


FIG. 2.



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FIG. 3.

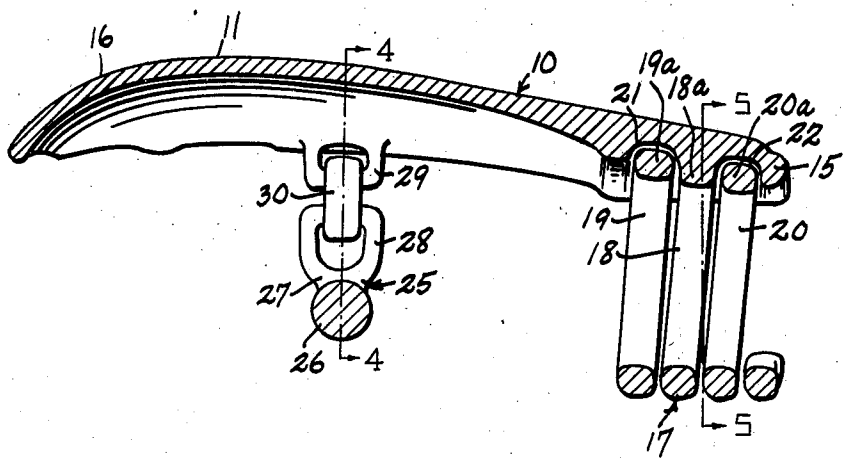


FIG. 4.

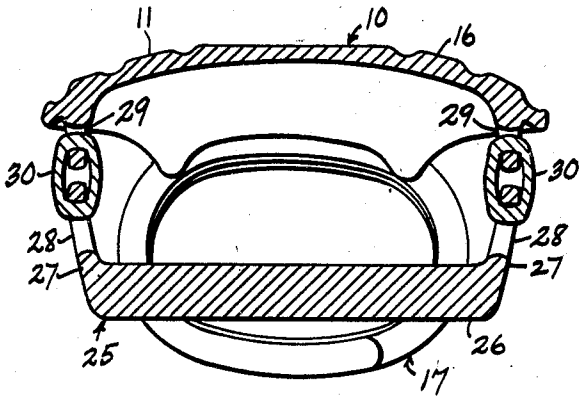
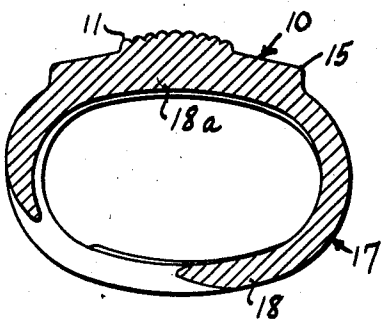


FIG. 5.



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UNITED STATES PATENT OFFICE

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SWIMMING DEVICE

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Application June 24, 1940, Serial No. 342,163

4 Claims. (Cl. 9—21)

The invention relates to improvements in swimming devices of the character which include a plate or paddle member to be worn on the hand of a swimmer to increase the surface used to propel the body, in the act of swimming, beyond that of the human hand, and the primary objects of the invention are to increase the speed and skill of the accomplished swimmer without additional effort or to make ordinary speed and pleasure possible with less effort; to assist the feminine swimmer, whose hands are often small, to attain more speed with the same effort and thereby enjoy the companionship of stronger swimmers; and to aid the beginner learning to swim by giving him more propelling and sustaining power even with improper strokes, thus increasing the beginner's confidence and progress.

Another object of the invention is to provide a plate to be worn on the hand of a swimmer and simulating the appearance of one half of a bivalve shell.

Yet another object of the invention is the provision of improved means for removably securing the plate to the hand and wrist of a swimmer.

A further object is to provide a swimming device of the character described which may be economically formed, as by molding, from a single material, such as a plastic.

A still further object resides in the provision of a swimming device including a plate provided with a wrist encircling bracelet and a hand stirrup from which the fingers may be withdrawn without removing the bracelet so that the hand may be used, as when climbing a ladder to a diving tower or out of a pool.

Other objects and advantages of the invention will become apparent during the course of the following detailed description, taken in connection with the accompanying drawings, forming a part of this specification, and in which drawings:

Figure 1 is a view in side elevation of the swimming device as worn on the hand and wrist of a swimmer.

Figure 2 is a top plan view of the swimming device.

Figure 3 is a central vertical longitudinal sectional view substantially along the line 3—3 of Figure 2.

Figures 4 and 5 are vertical transverse sectional views of the device, substantially along the lines 4—4 and 5—5, respectively, of Figure 3.

In the drawings, which for the purpose of illustration show only a preferred form of the invention, and wherein like reference characters denote like parts thruout the several views, the numeral 10 designates the swimming device as a whole, including a plate 11 shaped to simulate the appearance of one-half of a bivalve shell, and comprising a butt portion 15 of a size to cover the wrist of a swimmer and simulating the hinge section of a half shell, and a concavo-convex main body portion 16 of a size to cover the hand of a swimmer and simulating the valve section of a half shell.

In order to releasably secure the butt portion 15 to the wrist of a swimmer, there is provided in a helical bracelet 17 of flexible resilient material and including an intermediate convolution 18 having a segment 18*a* fused, vulcanized, cemented or otherwise integrally formed transversely of the inside of the butt portion 15. Disposed adjacent the intermediate convolution 18 are end convolutions 19, 20 having segments 19*a*, 20*a* respectively, disposed in grooves 21, 22 in the butt portion 15 at opposite sides of the integral segment 18*a*.

Disposed transversely of the main body portion 16 and in spaced relation to the inside thereof is a stirrup 25 comprising a cylindrical bar 26 and opposite sides 27 including eye portions 28. Projecting from the inside of the main body portion 16 are spaced apart eye portions 29 connected to the eye portions 28 by links 30.

To don the swimming device, the hand is slipped thru the bracelet toward and over the stirrup bar 26 so that the palm of the hand will rest thereon, as shown in Figure 1 of the drawings. The bracelet, being formed of resilient flexible material, may expand circumferentially during passage of the hand therethru and will constrict thereafter so as to substantially fit the wrist. The end convolutions 19, 20 may be twisted toward the intermediate convolution 18, in order to circumferentially expand the bracelet sufficiently to permit passage of the hand therethru. Attention is invited to the longitudinal resilient flexibility of the bracelet which permits flexing of the wrist during the execution of the various swimming strokes and maneuvers.

Various changes may be made in the form of invention herein shown and described without departing from the spirit of the invention or the scope of the following claims.

I claim:

1. A swimming device comprising a plate disposable along the hand and wrist of a swimmer and a helical bracelet, comprising a resiliently flexible intermediate convolution and resiliently flexible end convolutions, of a size to fit the wrist

of a swimmer, said bracelet having a portion of its intermediate convolution integral with the plate, and said end convolutions, free of attachment to said plate, to permit circumferential enlargement of the bracelet whereby the hand of the swimmer may be slipped therethru and at least three convolutions of the bracelet embracing the wrist of the swimmer.

2. A swimming device comprising a plate disposable along the hand and wrist of a swimmer and a helical bracelet of a size to approximately fit the wrist of a swimmer, said bracelet having a convolution including a segment integral with the plate and an adjacent convolution, spaced apart from the first-named convolution, said plate being provided with a groove adjacent said integral segment with a segment of said adjacent convolution disposed within said groove and free of attachment to the walls of said groove.

3. In a swimming device, a plate to be disposed along the hand and wrist of a swimmer, said plate being provided with spaced apart eye portions, a stirrup including a bar on which the swimmer's hand may be removably disposed and eye portions at opposite sides of the bar, and links connecting the eye portions of the bar to the eye portions of the plate, said links being of such length that the upper surface of the swimmer's hand, upon said bar, will be spaced considerably below said plate.

4. A swimmer's device comprising a plate shaped to simulate one-half of a bivalve shell and including a hinge section of a size to cover the wrist of a swimmer and a flaring concavo-convex valve section of a size to cover the swimmer's hand, a helical bracelet to fit the swimmer's wrist and resiliently flexible for circumferential expansion to permit slipping of the swimmer's hand therethru and to permit bending of the swimmer's wrist, said bracelet including a convolution having a segment integral with the hinge section, and a stirrup including a bar on which the palm of the swimmer's hand may be removably disposed, and opposite sides provided with links connecting the stirrup to the opposite marginal edges of the valve section.

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