Aug. 20, 1968 J. L. WEBB 3,397,414

HAND PADDLE

Filed April 10, 1967

FIG. 1.

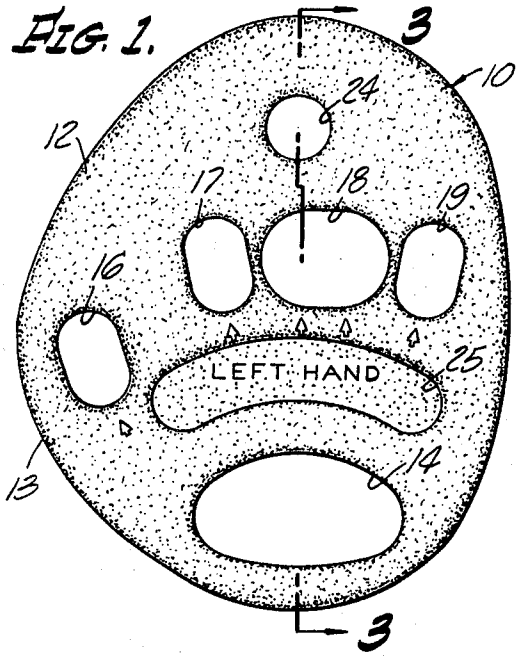
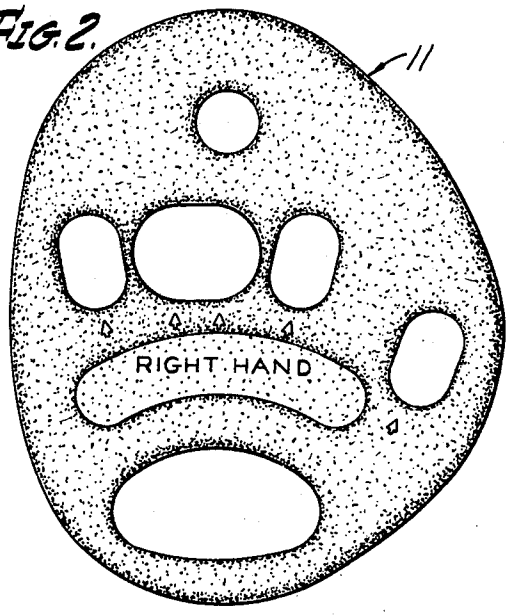


FIG. 2.



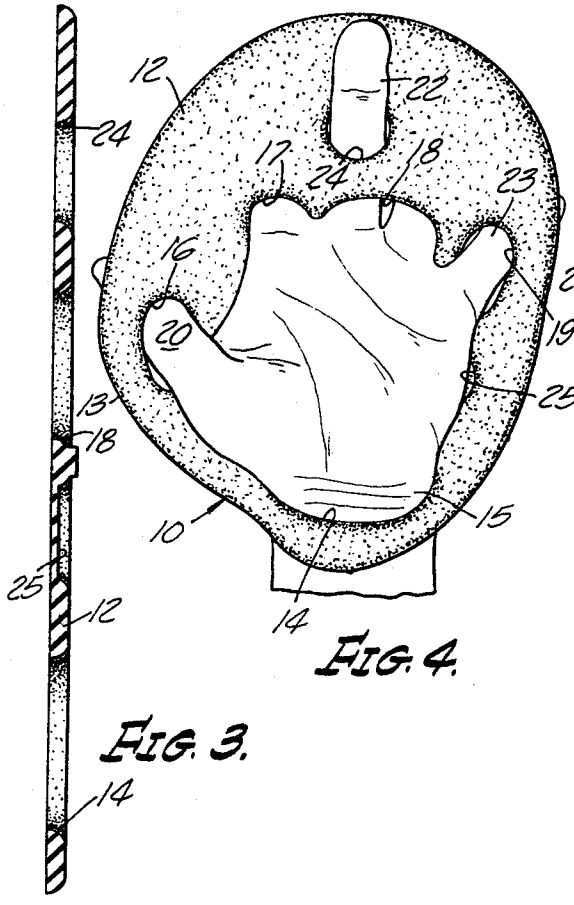


FIG. 4.

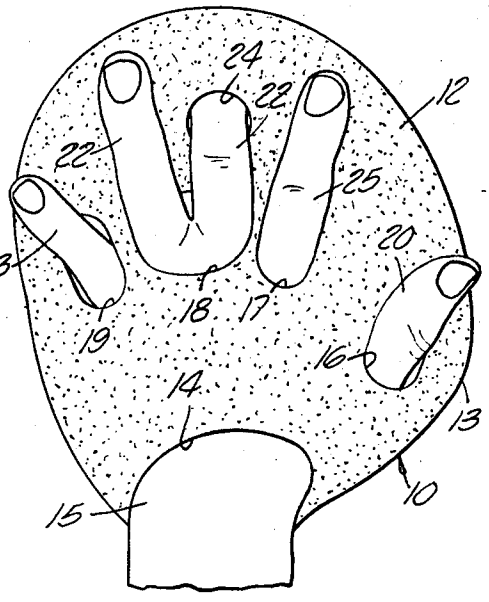


FIG. 5.

FIG. 3.

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HAND PADDLE

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6 Claims. (Cl. 9—307)

ABSTRACT OF THE DISCLOSURE

An apparatus for use by swimmers, surfers and the like to be attached to the hand of the user to increase the propulsion area of the hand without significantly increasing drag. A flexible member is provided having an opening for the wrist and a plurality of openings spaced therefrom for the fingers, which flexible member constitutes a substantially continuous area wider than that of the hand and fingers and yet controlled thereby and which has the added feature of springing away from the back of the hand when forced through the water to provide a second propelling area.

This invention relates to a hand paddle or mit adapted for use by swimmers, surfers and the like to improve the effectiveness of the propulsion area of the human hand.

It is an object of this invention to provide a hand paddle or mit which is flexible and yet strong and durable and which substantially doubles the propelling area of the hand when used by surfers, swimmers, scuba divers and the like, propelling by hand stroking through the water.

Devices are known in the general classification of a swim mit for accomplishing some of the objects of the present invention and it is an object of the present invention to improve upon such known devices by making the same more reliable, more controllable by the hand of the user and by reason of the peculiarity of construction to permit the mit in its central portion to separate from the back of the hand during the propelling stroke to add an additional water contacting and hence propelling area. To accomplish this last objective it is, of course, necessary that the device be strong and yet completely flexible. In the use of the word flexible it is intended herein to include devices which are elastic but not to be limited thereby, as the same or many of the same advantages can be obtained by a similar device of a substantially inelastic material such as canvas, sailcloth or the like.

These and other objects, features and advantages will be apparent from the annexed specification in which:

FIGURE 1 is a plan view of the bottom or inside of the left hand mit formed in accordance with the present invention;

FIGURE 2 is a view similar to FIGURE 1 for a right hand mit;

FIGURE 3 is an enlarged section taken along the line 3—3 of FIGURE 1;

FIGURE 4 is a view similar to that in FIGURE 1 showing the hand of the user inserted therein; and

FIGURE 5 is a top plan view of the device shown in FIGURE 1 with the hand of the user inserted therein.

Referring now more particularly to the drawings and particularly to FIGURES 1 and 2, the invention comprises a pair of mits **10** and **11** which are substantial mirror images of each other and therefore constitute left or right hand mits. Referring more particularly to the mit **10** shown in the remaining figures, it is comprised preferably of a generally flat, relatively thin unitary piece **12** preferably of natural or synthetic rubber roughly elliptical in shape, but having one edge bulging outwardly as at **13** adjacent the thumb side. An enlarged opening **14** is provided near the base of the mit through which the wrist **15** of the user may extend as shown in FIGURES 4 and

5. Spaced forwardly from the opening **14** and to one side is an opening **16** in the form of a generally forwardly extending ellipse which is intended as the thumb hole. An index finger hole **17**, a middle finger hole **18** and a little finger hole **19** are formed in the mit substantially in a row, but spaced from each other as shown. The hole **16** as above explained accommodates the thumb **20**. The hole **17** accommodates the index finger **26** and the hole **18** is extended laterally so as to accommodate both of the middle fingers **21** and **22**, while the hole **19** accommodates the little finger **23**. Aligned with one side of the hole **18** and spaced towards the upper end of the mit is the final hole **24** which is provided for a reentry for the middle or longest finger **21**.

Finally, the mit is provided with an arcuate shaped recessed portion **25** which extends only part way through the thickness of the mit and forms an area to accommodate the knuckles of the hand of the user and also permits a flexing of the mit in this area.

In use the device is taken as shown in the drawings, the hand inserted through the opening **14** until the wrist portion is surrounded by the opening **14**, the thumb and fingers are disposed as indicated with the middle finger **21** weaving through the opening **18** and back through the opening **24**. With the mit thus in place on either hand, it will be noted that it is in complete control of the user in that by closing the hand the device may be substantially collapsed so as to present no or substantially no additional obstruction upon the return stroke of the hand in the water when swimming. However, when the hand is opened the device will be extended substantially as shown in FIGURES 4 and 5 and will present an area for propelling through the water greatly in excess of that of the ordinary hand and fingers of the user. However, assuming that the device as shown in FIGURES 4 or 5 is being propelled through the water, water will be entrapped behind the hand of the user and generally in the area of the opening **25** and cause this general area of the mit to open up and separate from the back of the hand, thus presenting a second and wholly independent area for working against the water to provide propulsion. It will be obvious, however, that this opening up of the mit from the hand to present this additional propulsion area does not occur upon the return stroke, as the mit is forced against the back of the hand and additional drag is not placed upon the return stroke in swimming.

While the foregoing description has been made primarily with respect to the left hand glove, it will be apparent that everything that has been said with respect to the left hand glove is equally applicable to the right hand glove except that the parts are reversed in substantial mirror image.

While there has been described what is at present considered a preferred embodiment of the present invention, it will be appreciated by those skilled in the art that various changes and modifications can be made therein without departing from the essence of the invention and it is intended to cover herein all such changes and modifications as come within the true spirit and scope of the appended claims.

I claim:

1. A device of the type described comprising: a generally flat flexible member; an elongated aperture through said member for insertion of the hand of the user and adapted to encircle the wrist of the user; a plurality of spaced smaller apertures formed in said member and adapted to receive each of the fingers and thumb of the user; and another aperture in said member, spaced from said other apertures and adapted to receive the tip of the middle finger to dispose the tip of said middle finger on the opposite side of said member from the tips of all other fingers.

2. A device as set forth in claim 1 in which one of said smaller apertures is adapted to receive the two middle fingers of the user.

3. A device as set forth in claim 1 in which said member is provided with a recessed portion adjacent the knuckles of the user.

4. A device as set forth in claim 1 in which the portion of said member on the back of the hand of a user separates from the back of said hand and forms a second water engaging surface upon a forceful stroke of said hand through water.

5. A device as set forth in claim 2 in which said member is provided with a recessed portion adjacent the knuckles of the user.

6. A device as set forth in claim 2 in which said member is provided with a recessed portion adjacent the knuckles of the user and in which the portion of said member on the back of the hand of a user separates from the back of said hand and forms a second water engaging surface upon a forceful stroke of said hand through water.

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