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SWIMMING AID

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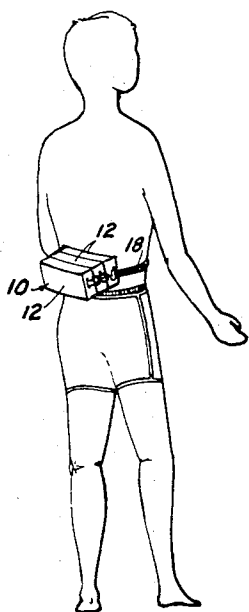


*Fig. 1*

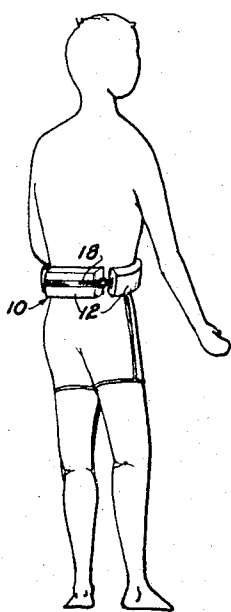


*Fig. 2*

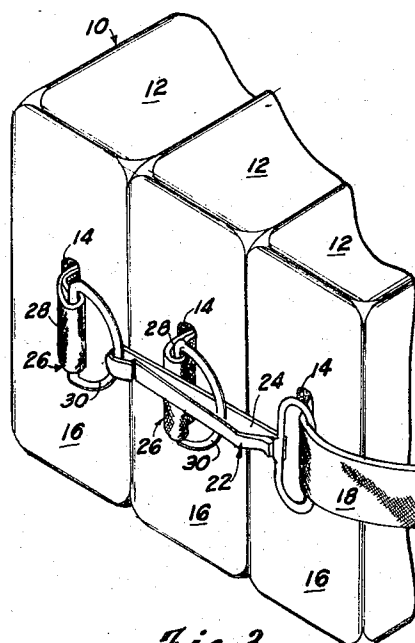


*Fig. 3*

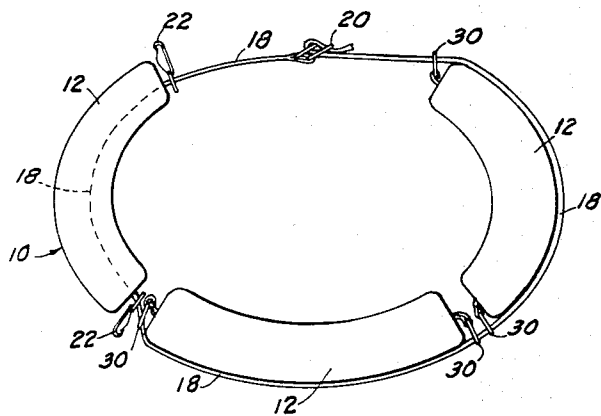


*Fig. 4*

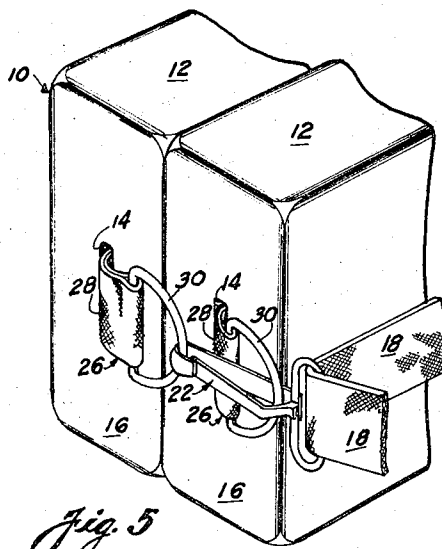


*Fig. 5*

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**SWIMMING AID**  
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## ABSTRACT OF THE DISCLOSURE

A compact universal swimming aid composed of three substantially rectangular, flexible, non-absorbing, polyethylene foam, buoyant pads which are capable of being joined together in a first stacked arrangement to provide a concentrated amount of buoyancy or a second end to end arrangement to provide a distributed amount of buoyancy. In the stacked and end to end arrangements the long axis of each of the buoyant pads is perpendicular to the long axis of the individual to which the swimming aid is attached.

## BACKGROUND OF THE INVENTION

The present invention relates to a compact universal swimming aid for children and adults. More particularly, the present invention provides an adjustable device for use by children in learning to swim and by adults when boating, bathing or water skiing.

Presently, swimming aids of the type contemplated in the present invention consist essentially of an elliptically shaped solid Styrofoam body strapable to the lower lumbar region of an individual's back. The long axis of this type swimming aid is parallel to the long axis of the individual's body. Therefore, only slight upward movement of the elliptical body causes the upper end thereof to be positioned substantially adjacent the cervical region of one's spinal cord, a relatively unexposed unprotected region of the spinal cord. A sudden rearward thrust of the head with the elliptical body positioned as described above could cause quite severe damage to the cervical region of the cord.

Moreover, these elliptical swimming aids are solid, one-piece Styrofoam and cannot be adjusted as to total buoyant force imparted to the user. Therefore, a user has only two choices when using this prior art device, to use the device and all of its buoyant force, or to not use the device and attempt to maintain oneself without any aid or assistance.

## SUMMARY OF THE INVENTION

It is an object of the present invention to provide a swimming aid which produces an adjustable amount of buoyancy so that a user may use only that amount of buoyancy required to maintain himself in a proper position in the water.

Another object of the invention resides in the provision of a swimming aid which is far more safe and comfortable in use while also being quite compact.

A further object of the invention is the provision of a swimming aid which may be used to gradually build the confidence of a young inexperienced swimmer.

Another object of the invention resides in the provision of a swimming aid comprising substantially elongate rectangular buoyant pads which may be placed around a user's body perpendicular to the long axis of that user's body so that the possibility of injury to the cervical region of that user's spinal cord will be eliminated.

A further object of the invention resides in the provision of a swimming aid which may be rearranged to pro-

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vide an end to end arrangement of buoyant pads which may be placed around the waist of a user. In the end to end arrangement, the buoyant force of the pads is substantially evenly distributed about the user and protection for vital organs in the lateral abdominal region is provided.

Another object of the invention resides in the provision of a swimming aid which does not hinder the participation in various water sports by the user.

A further object of the invention is the provision of a swimming aid which is simple in construction, easy in operation and inexpensive to manufacture.

Briefly described, the universal swimming aid which achieves the above objects and embodies other features comprises three substantially rectangular buoyant pads joined together one on top of the other in a stacked configuration in a first arrangement and in an end to end configuration in a second arrangement. Both arrangements include a belt for joining the aid to a user so that the long axes of the buoyant pads are mutually parallel and are perpendicular to the long axis of the body of the user.

Other objects, features and advantages of the present invention will become apparent from the following description, when taken in conjunction with the accompanying drawings, wherein like characters of reference designate corresponding parts throughout the several views.

## BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a rear perspective view showing the swimming aid of the present invention positioned in one manner on a user's back.

FIG. 2 is a rear perspective view showing the swimming aid of the present invention positioned in an alternate manner on a user's back.

FIG. 3 is an end perspective view partially broken away showing the joining arrangement when the present invention is positioned as shown in FIG. 1.

FIG. 4 is a top view of the joining arrangement when the present invention is positioned as shown in FIG. 2.

FIG. 5 is an end perspective view of an alternative embodiment of the invention.

## DESCRIPTION OF THE ILLUSTRATED EMBODIMENT

Referring now specifically to FIGS. 1-4, it may be seen that the universal swimming aid 10 of the present invention is comprised of three elongate substantially rectangular pads 12 defining longitudinally extending passageways 14 extending through pads 12 and exiting at opposite ends 16 thereof. It should be understood that FIG. 3 shows only one end 16 of each pad 12; the opposite end of each pad 12 being constructed and arranged similarly to the end shown. Received within one passageway 14 of one pad 12 is a belt 18 of a length sufficient to encircle the waist of a wearer. A double ring 20 is fixed to one end of belt 18 while the opposite end of belt 18 is doubled back on itself and stitched thereto to provide a conventional securing arrangement.

Carried by belt 18 and slidably movable thereover are a pair of snap clasps 22 (one of which is shown). One snap clasp 22 is positioned adjacent one end 16 of pad 12 while the other snap clasp (not shown) is positioned adjacent the opposite end (not shown) of pad 12. Each snap clasp 22 defines an elongate receiving area 24 capable of releasably receiving a plurality of securing rings.

Each of the other two pads 12 includes straps 26 passing through the passageways 14. Each strap 26 is of a

length sufficient to provide a short extension thereof protruding from ends 16 of pad 12. Each extension is doubled back on itself and stitched thereto to provide a retaining loop 28. Carried by each retaining loop 28 is a securing ring 30.

Thus, it may be seen that of the three rectangular pads 12 provided, two define passageways 14 within which are received straps 26 which terminate in retaining loops 28 positioned substantially adjacent ends 16 of pads 12. Carried by these loops 28 are securing rings 30. The other pad 12 also defines a passageway 14 which receives a belt 18 of a length sufficient to secure that one pad to a user's back. Carried by the belt 18 are a pair of snap clasps 22 positioned adjacent the opposite ends 16 of pad 12.

Pads 12 are preferably constructed from a soft, buoyant, non-absorbing polyethylene foam and are covered by a flexible plastic skin which functions to substantially seal the pad 12 and enhance its wearing characteristics. Moreover, each pad 12 is of a length, width and thickness sufficient to provide individually less than the amount of buoyancy required to maintain a child in a swimming position but sufficient buoyancy when grouped in threes to provide adequate maintenance of the individual in the water. It has been found that substantially dense polyethylene foam cut into pads of 7 inches in length, 4½ inches in width and 1½ inches in thickness perform admirably. However, the present invention is not limited to these specific dimensions but includes all sizes of pads which, when grouped together, provided the necessary amount of buoyancy. Also, the pads of the present invention may be constructed from other flexible buoyant materials such as polyurethane and foamed rubber.

The pads 12 are joined together in two different arrangements to provide assistance to one participating in water sports. For teaching a non-swimmer the art of swimming, the pads are arranged as shown in FIGS. 1 and 3 to provide a concentrated amount of buoyancy centered at the lower lumbar region of the user's back. In this location and arrangement, the pads permit full use of the arms in the required swimming strokes and do not interfere with the requisite leg strokes. By centering the point of additional buoyancy in the lower lumbar region of the back, the trunk of the body is maintained in a proper horizontal relationship in the water.

As shown best in FIG. 3, the above described arrangement is accomplished by stacking the two pads carrying straps 26 on top of the belted pad so that the rings 30 carried by straps 26 mutually align with themselves and with snap clasps 22 carried by belt 18. Snap clasps 22 then engage in the aligned rings 30 so that all three pads 12 are secured to one another and are carried by the belt 18.

The wearer then secures the swimming aid 10, arranged as above described, to his back and enters the water. As this wearer becomes proficient in the art of swimming, the amount of buoyancy imparted by the aid 10 may be adjusted by quickly and easily removing the outermost pad. This may be accomplished by snappingly disengaging snap clasps 22 from their position receiving and retaining the outermost pair of securing rings 30. With the removal of one pad, the wearer will be required to become more proficient in his swimming ability to maintain himself in the water. Finally, the second pad is removed from the aid just as the first pad was removed. At this point, the aid 10 does not provide enough buoyancy to maintain the swimmer but it does supply a needed and welcomed confidence factor to the swimmer.

Furthermore, it may be seen that from the described arrangement, the swimming aid 10 is positioned so that severe injury to the cervical region of the user's back is negated. The long axis of each pad 12 extends around the waist of the user in a plane perpendicular to the axis of the body of the user. Thus, the aid's bulk and size are distributed about the lower back region of the user. It should be understood, of course, that the aid 10

is quite compact and is preferably manufactured from a flexible foamed material so that the possibility of injuring oneself while using the aid is quite small.

If it should be found that the placement of all three pads in the back region causes too severe a tipping force forward as the user enters the water, the arrangement may be altered so that the belted pad is positioned in front of the user and the other two pads are positioned as previously described. This arrangement would require only that the snap clasps 22 be slidingly moved over belt 18 so that the belted pad 12 is separated from the other two pads a distance sufficient to accommodate the trunk of a user's body.

For use by individuals in water sports other than swimming, the swimming aid may be arranged as shown in FIGS. 2 and 4. In this arrangement, the belted pad is slidingly moved along belt 18 until one end 16 is adjacent double rings 20. Snap clasps 22 are then positioned immediately adjacent the opposite ends 16 of the belted pad and the other two pads are successively threaded onto belt 18 by passing the belt 18 through securing rings 30 and over the outside of the pads. The swimming aid then assumes the configuration of jointed belt which is securable around the waist of the user. In this position, the pads are joined, in effect, end to end and substantially encompass the waist of the user so that a distributed buoyancy is provided to maintain the user in a substantially upright position in the water. Moreover, this arrangement protects certain vital organs in the lower lateral abdominal region from injury during the participation in water sports.

Alternatively, the swimming aid may be arranged as in the two previously disclosed groupings but with the belted pad slidingly removed from the belt 18. In this arrangement (FIG. 5), all the pads 12 would be secured to the belt 18 by snap clasps 22. Of course, three such pads could be secured by snap clasps 22 to provide an equal amount of buoyancy.

Having thus described the invention, what is claimed and desired to be secured by Letters Patent is:

1. A swimming aid comprising a belt of a length sufficient to encircle the waist of a user; a plurality of buoyant removable pads; and means for removably securing said pads to said belt, said means for securing said pads to said belt including

(a) a passageway defined by one of said pads, said belt being received within said passageway to carry said one pad;

(b) a pair of clasps retained by and slidably positioned on said belt, one of said clasps lying adjacent one end of said one of said pads and the other of said clasps lying adjacent the opposite end of said one of said pads; and

(c) a plurality of pairs of securing members attached to opposite ends of the other of said pads and engaged by said clasps.

2. A swimming aid as recited in claim 1 wherein said clasps define elongate receiving areas, each area being capable of receiving a plurality of securing members, said pads are coextensive in length so that opposite securing members align with other opposite securing members when one pad is positioned on top of another and said clasps engage said aligned securing members.

3. A swimming aid comprising:

(a) a belt of a length sufficient to encircle the waist of a user;

(b) a plurality of buoyant removable pads mutually coextensive in length;

(c) a passageway defined by one of said pads, said belt being received within said passageway to carry said one pad;

(d) a plurality of pairs of securing rings attached to opposite ends of the other of said pads; and

(e) a pair of snap clasps retained by and slidably positioned on said belt, said clasps defining elongate

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receiving areas, each area capable of receiving a plurality of securing rings, one of said clasps lying adjacent one end of said one of said pads and the other of said clasps lying adjacent the opposite end of said one of said pads, 5  
whereby said pads are securable to one another and to said belt in a first arrangement by positioning said other of said pads on top of said one pad, aligning opposite securing rings with other opposite securing rings, and causing said snap clasps to engage said aligned securing rings; and said pads are securable to one another and 10  
to said belt in a second arrangement by slidably positioning said one pad at one end of said belt, positioning said other pads in an end to end relationship with said one pad and passing said belt through said securing rings and 15  
over said pads to retain said pads on said belt.

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