H. WHITE.

SWIMMING APPLIANCE.

APPLICATION FILED FEB. 9, 1915.

1,160,023. Patented Nov. 9, 1915.

Fig. 1.

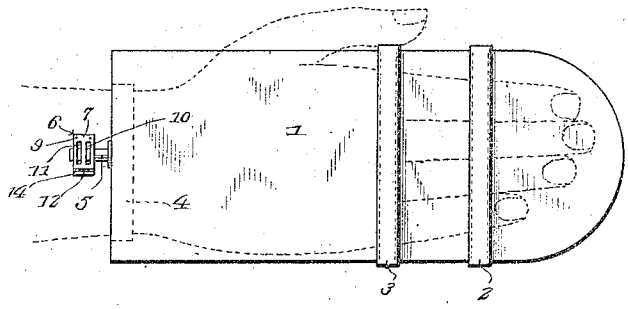


Fig. 2.

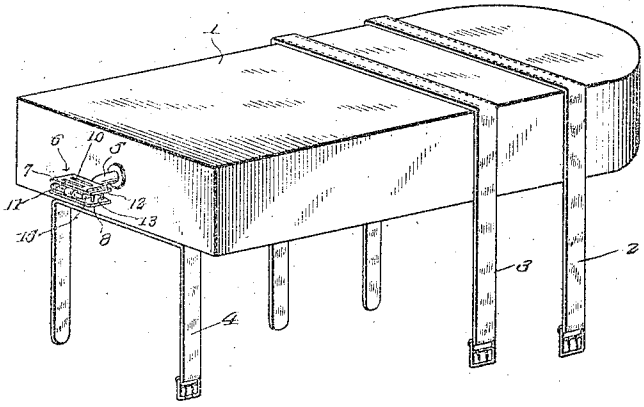


Fig. 3.

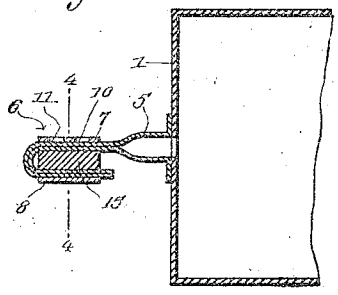


Fig. 5.

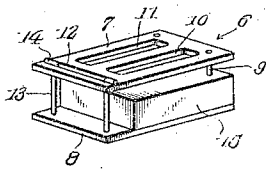
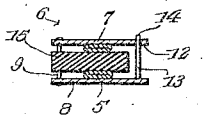


Fig. 4.



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SWIMMING APPLIANCE.

1,160,023. Specification of Letters Patent. Patented Nov. 9, 1915.

Application filed February 9, 1915. Serial No. 7,210.

To all whom it may concern:

Be it known that I, HOWE WHITE, a citizen of China, residing at Ho-nan fu, in Central China, have invented new and useful Improvements in Swimming Appliances, of which the following is a specification.

My invention relates to a swimming appliance, designed especially for use in instructing beginners in the art of swimming.

Heretofore, it has been common to employ inflated bags, or so called water wings, applied to or about the body of the person learning to swim, in order to give proper buoyancy to allow the learner to float and impose confidence in him, while he is instructed in the swimming strokes. Devices of this kind are, however, to a certain degree objectionable and inefficient, in that they give so much buoyancy that the beginner is liable to rely too much upon the buoying medium, with the result that the beginner does not acquire the art of sustaining himself in the water without artificial aid for a long period, and sometimes not at all.

The primary object of my invention is to provide a swimming appliance which overcomes this objection, and which is adapted to be worn upon the hands of the user, so as to give just a sufficient buoying capacity to impose confidence, and without giving enough to relieve the user of the task of learning to support his body while acquiring a knowledge of the swimming strokes.

A further object of the invention is to provide a swimming appliance which is adapted to be secured to the hand in a ready and convenient manner and to effectually subserve its intended function.

The invention consists of the features of construction, combination and arrangement of parts herein fully described and claimed, reference being had to the accompanying drawing in which:—

Figure 1 is a perspective view showing the application of the invention. Fig. 2 is a similar view of the device detached. Fig. 3 is a fragmentary longitudinal section on an enlarged scale, through the air inlet tube and adjacent end of the buoyant body. Fig. 4 is a transverse section on the line 4—4 of Fig. 3. Fig. 5 is a detail perspective view of the tube clip detached.

In carrying my invention into practice, I provide a buoyant body 1, which is comparatively shallow in depth, and of substantially oblong rectangular form, and of a length to extend along the back of the extended hand between the wrist and end of the middle finger. This buoyant body, which consists of a thin, elastic rubber sack of the form set forth, is provided with straps or fastening members 2, 3 and 4, which are designed to be passed around the hand to hold the buoyant body in position and maintain the hand in open or extended relation. The forward strap 2 is adapted to be passed around the extended fingers at a point in rear of the end of the little finger, while the strap 3 is passed around the fingers adjacent their point of junction with the body of the hand, and the strap 4 is passed around the wrist, as shown.

The inner or rear end of the buoyant body 1 is provided at its inner or rear end with an air inlet or filling tube 5, by which it may be filled with air, hydrogen or other buoyant gas, from a suitable source of supply. This tube is adapted to be bent upon itself and held pinched and closed by means of a novel type of clip 6. This clip consists of a pair of parallel plates 7 and 8, connected at one end by resilient posts or stems 9, of sufficient resiliency or looseness of connection with one or both plates to permit the plate 7 to be rocked or moved to a certain degree toward and from the plate 8. The plate 7 is provided with a pair of elongated longitudinal slots 10 and 11 and also provided at its free end with a cross slot 12. The free end of the plate 8 carries a pair of spring locking pins 13 arranged in transverse alinement with each other and in longitudinal alinement with the respective posts 9, the free ends of which pins pass through the slot 12 and terminate in laterally bent combined locking heads and finger pieces 14. Disposed between the plates is a clamping member 15 of rubber or other suitable material, which slidably engages the posts 9. When the buoyant body 1 is filled and it is desired to close the tube 5 against the loss of air or gas, the tube is first passed transversely in one direction through the space between the plate 7 and adjacent clamping member 15, and is then bent reversely or looped upon itself and passed transversely between the plate 8 and clamping member 15, and the plate 7 which is disconnected from the pins 13, or in open position to permit the tube to be threaded as described, is then engaged with the pins 13 by pressing said pins to-

ward each other to allow them to pass through the slot 12 when the plate 7 is pressed down, whereby the bent portions of the tube 5 are clamped and pinched to close said tube against the escape of air. It will, of course, be understood that when the plate 7 is so pressed down and the pins 13 released, said pins will spring away from each other and their heads 14 will engage and interlock with the end walls of the slot 12. To release the clip it is simply necessary to press the pins 13 inwardly to bring the heads 14 into alinement with the slot, whereupon the plate 7 may be moved to open position, thus releasing the pressure upon the tube, which may then be withdrawn from engagement with the clip. When the clip is applied it will thus hold the tube closed against any possibility of the escape of air or gas, or dislodgment of the clip by contact with extraneous objects.

In use, devices of the character described are secured to both hands of the person who is instructed in the art of swimming and he is then given proper instructions as to the mode of making the strokes, etc., and maintaining his body in a state of equilibrium in the water. The appliance will not interfere with the free use of the arms or hands, but will give sufficient buoyancy to overcome the tendency of the body to sink, thereby giving the beginner sufficient confidence so that it may confine his attention principally to the art of learning the stroke, while to a certain degree learning the art of maintaining his body in a proper position in the water to overcome the force of gravity. Users of these appliances therefore quickly learn the art of swimming, as they are compelled to some degree to learn to maintain themselves in a state of equipose to compensate for the difference in specific gravity between the body and the water, while at the same time a sufficient amount of buoyancy is furnished to give the beginner an adequate amount of confidence in himself. The device in this respect is much superior to floats or like devices applied to the body, which entirely sustain the weight of the body, and do not require any exertion on the part of the student in maintaining himself afloat.

I claim:—

A swimming appliance comprising a hollow, elastic, inflatable body of a size to fit against the back of the extended hand of the user, said body being provided at its inner end with an inflating tube, fastening members applied to the body to engage the hand to hold the device applied and the portions of the hand extended, and means applied to said tube to hold the same compressed, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

HOWE WHITE.

Witnesses:
HU LINGI,
LIM KA SIN.