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SWIMMING PADDLE

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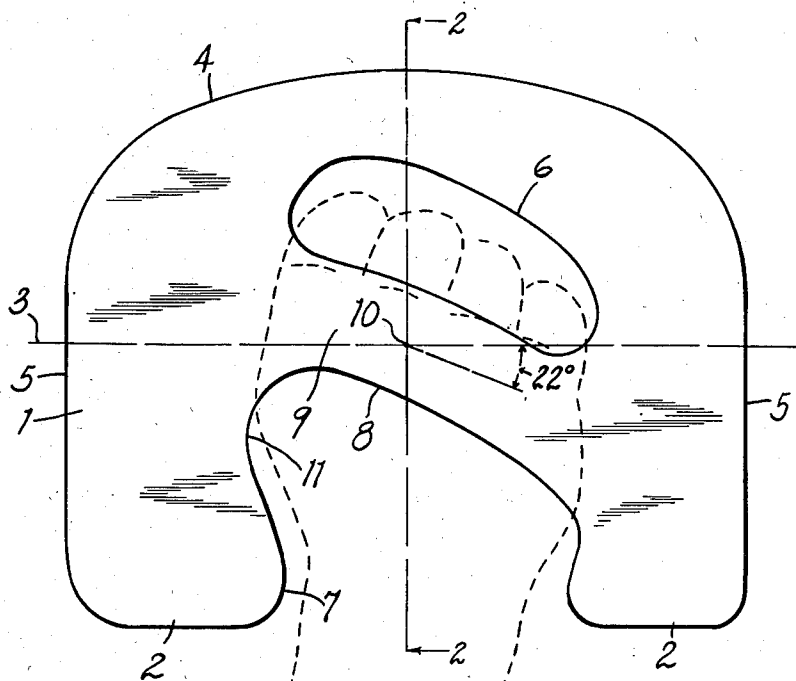


Fig. 1.

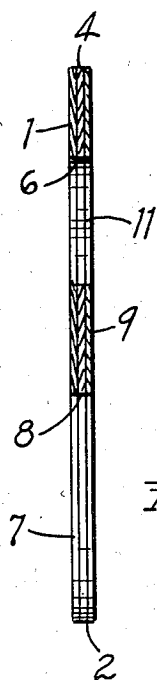


Fig. 2.

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SWIMMING PADDLE

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4 Claims. (Cl. 9—21)

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This invention relates to improvements in swimming paddle.

The principal objects of this invention are:

First, to provide an improved form of paddle to be held in the hands of a swimmer for increasing the force which may be exerted by the hands.

Second, to provide a swimming paddle which is accurately balanced with respect to its grip so that the paddle does not exert any twisting force on the user's hand and thus require the exertion of unnecessary energy in holding the paddle straight.

Third, to provide a swimming paddle having a grip portion arranged to engage the hand in the natural position of the hand in swimming motion.

Fourth, to provide a swimming paddle having water engaging or working surfaces which are balanced with respect to the grip portion of the paddle so that the forces of the water against the paddle are balanced about a central point engaged by the center of the swimmer's hand.

Other objects and advantages relating to details of my paddle will be apparent from a consideration of the following description and claims.

The drawings of which there is one sheet illustrate a preferred form of my paddle.

Fig. 1 is a plan view of my paddle with the outline of swimmer's hand superimposed thereon in dotted lines and in the position in which the paddle will be gripped.

Fig. 2 is a cross sectional view taken along the medial longitudinal plane of the paddle indicated by the line 2—2 in Fig. 1.

I am aware that various forms of paddles and similar devices have been devised for increasing the effective area of the human hand for increased thrust while swimming. My present paddle accomplishes the same general purpose in a manner which substantially eliminates any side thrust or twisting action of the paddle and permits the swimmer to exert his entire thrust in obtaining useful swimming thrust.

My paddle consists of a flat sheet of plywood 1 shaped and configured as illustrated to provide a generally straight rear edge 2 approximately parallel to the transverse medial axis 3 and a smoothly rounded front edge 4. The side edges of the paddle 5—5 are preferably straight and parallel and are symmetrical about the longitudinal medial axis indicated by the section line 2—2.

Within the foregoing general outline of my paddle I have formed a smoothly curved elongated

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finger opening 6 which is rearwardly and outwardly inclined toward the outer side of the paddle. By outer side I refer to the side edge of the paddle which will be away from the user's body when the paddle is gripped in a palm downward position by the user's hand. The rear or lower edge 2 of the paddle is centrally notched or cut away as at 7 to form a palm and wrist opening extending forwardly toward the finger opening 6. The wrist opening 7 is not exactly centered transversely of the paddle being disposed slightly toward the outer side of the paddle whereby the width of the outer side portion is approximately $\frac{5}{6}$ of the width of the inner side portion measured at the widest parts of the side portions. The increased width of the inner side portion over the outer side portion results in the area of the inner side portion being greater than the area of the outer side portion so that the force exerted by the water against the paddle while swimming is exerted more against the inner side of the paddle where it can be more effectively resisted and controlled by the stronger inner portions of the hand. The front edge of the wrist opening 7 extends obliquely, rearwardly and outwardly as at 8 in generally parallel relation to the rear edge of the finger opening thus providing an inclined grip portion 9, the axis of which is inclined rearwardly and outwardly at approximately 22° from the transverse axis 3 of the paddle.

Attention is called to the fact that the approximate center of the paddle indicated by the intersection of the transverse axis 3 and the section line 2 lies approximately under the knuckle of the hand as at 10 when the paddle is gripped by the user. The inclined position of the grip portion 9 places the grip along approximately the same line and therefore underneath the knuckle line of a normal hand when the paddle is gripped with the hand and forearm in natural straight position. The inner edge of the wrist opening 7 is curved transversely inwardly of the paddle as at 11 to provide clearance for the thumb and thumb joint of the user's hand while still retaining the rear edge of the paddle and the wrist notch in close proximity of the wrist.

It will be noted that the paddle 1 is reversible so that it can be gripped in either the right or left hand and still retain the balanced relationship between the hand and the surface of the paddle. While I have illustrated the paddle as being formed of plywood any generally flat construction can be utilized and if desired the thick-

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ness of the paddle may be varied to provide a thicker grip portion and tapered periphery on the paddle.

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

1. A paddle adapted to be gripped in the hand as a swimming aid comprising, a generally flat panel having straight symmetrical side edges joined by a smoothly rounded front edge and a rear base edge generally perpendicular to the longitudinal axis of the paddle and said side edges, the rear edge and portion of said panel being notched forwardly in a wrist opening terminating in a rearwardly and outwardly inclined edge, the side edges of said wrist opening being concave outwardly of said panel, the forward portion of said panel forming an elongated finger opening inclined rearwardly and outwardly in generally parallel relation to the forward edge of said wrist opening whereby a rearwardly and outwardly inclined grip portion is formed between said wrist opening and finger opening at an angle of approximately 22° with respect to the transverse axis of the panel, said grip portion being positioned on said panel whereby the base knuckle of the second finger of the hand gripping said grip portion will be positioned approximately over the transverse and longitudinal center of the panel, said wrist opening being located closer to the outer edge of said panel than the inner edge thereof.

2. A paddle adapted to be gripped in the hand as a swimming aid comprising, a generally flat panel having symmetrical side edges joined by a smoothly rounded front edge and a rear base edge generally perpendicular to the longitudinal axis of the paddle, the rear edge and portion of said panel being notched forwardly in a wrist opening terminating in a rearwardly and outwardly inclined edge, the forward portion of said panel forming an elongated finger opening inclined rearwardly and outwardly in generally parallel relation to the forward edge of said wrist opening whereby a rearwardly and outwardly inclined grip portion is formed between said wrist opening and finger opening at an angle with respect to the transverse axis of the panel, said grip portion being positioned on said panel whereby the base knuckle of the second finger of the hand gripping said grip portion will be positioned approximately over the transverse and longitudinal center of the panel, said wrist opening being located closer to the outer edge of said panel than the inner edge thereof.

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3. A paddle adapted to be gripped in the hand as a swimming aid comprising, a generally flat panel having side edges merging with a smoothly curved front edge and a rear edge generally perpendicular to the longitudinal axis of the paddle, the rear edge and portion of said panel being notched forwardly in a wrist opening terminating in a rearwardly and outwardly inclined edge, the forward portion of said panel forming an elongated finger opening inclined rearwardly and outwardly in generally parallel relation to the forward edge of said wrist opening whereby a rearwardly and outwardly inclined grip portion is formed between said wrist opening and finger opening at an angle with respect to the transverse axis of the panel approximately equal to the angle between the line of the knuckles and a line perpendicular to the line of the forearm of a normal hand and arm in natural straight position, said grip portion being positioned on said panel whereby the base knuckle of the second finger of a hand gripping said grip portion will be positioned approximately over the transverse and longitudinal center of the panel.

4. A paddle adapted to be gripped in the hand as a swimming aid comprising, a generally flat panel having side edges merging with a transversely rounded convex front edge and a transverse rear edge, the rear edge and portion of said panel being notched forwardly in a wrist opening terminating in a rearwardly and outwardly inclined edge, the forward portion of said panel forming an elongated finger opening inclined rearwardly and outwardly in generally parallel relation to the forward edge of said wrist opening whereby a rearwardly and outwardly inclined grip portion is formed between said wrist opening and finger opening at an angle with respect to the transverse axis of the panel approximately equal to the angle between the line of the knuckles and a line perpendicular to the line of the forearm of a normal hand and arm in natural straight position.

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