July 3, 1945. F. J. HORTON 2,379,526

SEA SCOOTER

Filed Sept. 4, 1944

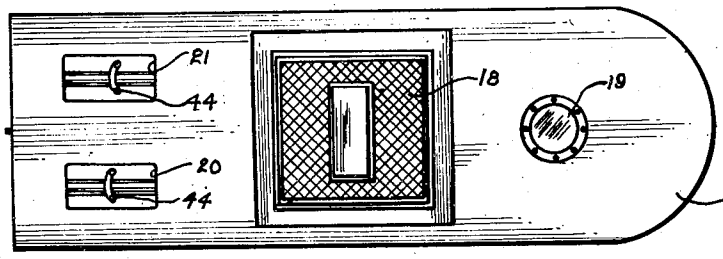


Fig 1

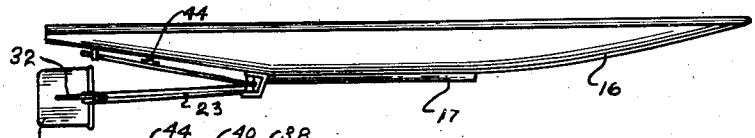


Fig 2

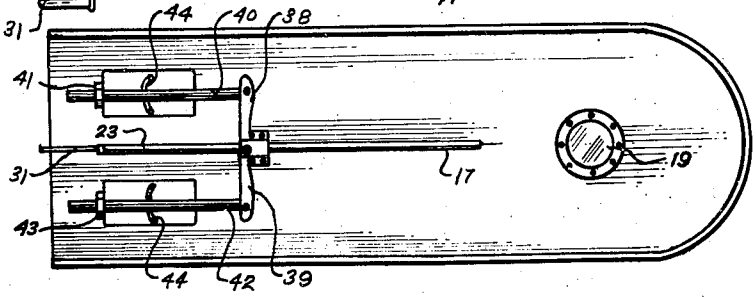


Fig 3

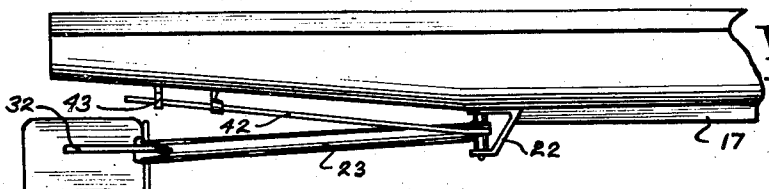


Fig 4

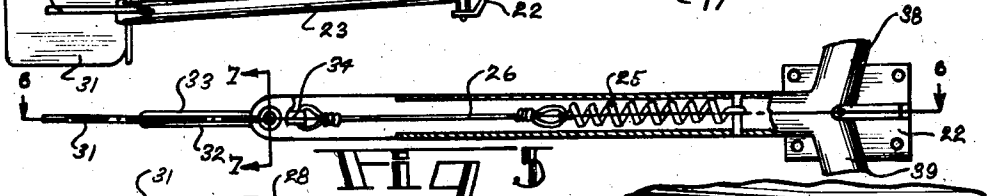


Fig 5

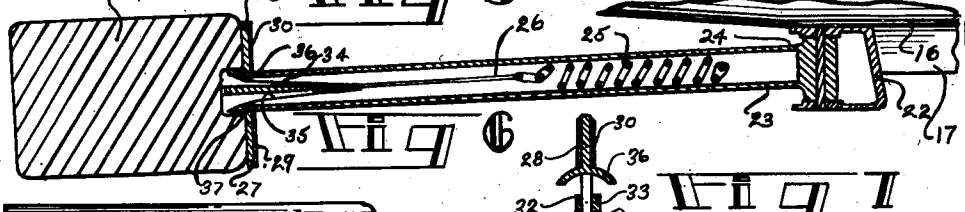


Fig 6

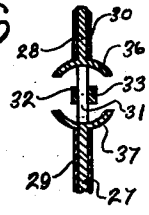


Fig 7

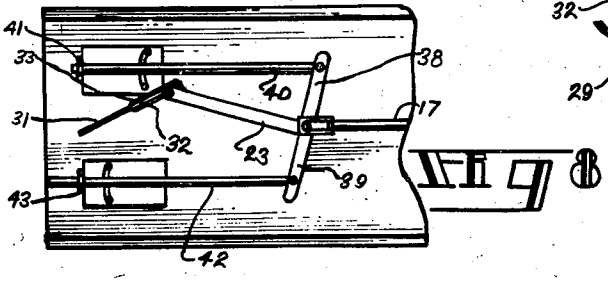


Fig 8

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SEA SCOOTER

Frank J. Horton, Detroit, Mich.

Application September 4, 1944, Serial No. 552,699

6 Claims. (Cl. 9—18)

My invention relates to a new and useful improvement in a self-propelled float. The invention comprises a supporting body sufficiently buoyant to support the weight of a single person in the water. This body is of sufficient length to permit a person to lie lengthwise on the body and it is an object of the present invention to provide means whereby the person, while lying on the supporting body, may effect its propulsion through water.

It is another object of the invention to provide in a device of this kind a propelling mechanism so arranged and constructed that when in operation it will simulate and function similar to the tail of a fish when the same is being whipped from side to side.

Another object of the present invention is the provision in a device of this type of a propelling paddle mounted on a swingable arm and swingably mounted on the arm and provided with resilient means for normally resisting its swinging in either direction and tending to restore it to its original position.

Another object of the invention is the provision in a device of this kind of a propelling mechanism having a pivotally mounted paddle provided with other mechanism so that when the paddle supporting mechanism is swung to one side carrying the paddle with it, another mechanism will operate to swing the paddle on its own pivot at the end of the structure of the supporting body.

Other objects will appear hereinafter.

It is recognized that various changes and modifications may be made in the detail of structure illustrated without departing from the invention itself and it is intended that such variations and modifications shall be encompassed within the scope of the claims forming a part hereof.

Forming a part of this specification is a drawing in which,

Fig. 1 is a top plane view of the invention;

Fig. 2 is a side elevational view of the invention;

Fig. 3 is a bottom plane view of the invention;

Fig. 4 is a fragmentary, side elevational view of the invention, slightly enlarged;

Fig. 5 is a bottom plane view, slightly enlarged, of certain parts with parts broken away and parts shown in section;

Fig. 6 is a sectional view taken on line 6—6 of Fig. 5;

Fig. 7 is a sectional view taken on line 7—7 of Fig. 5;

Fig. 8 is a bottom plane view of the invention showing the mechanism in one position of operation.

In the drawing, I have shown the device embodying a supporting body having the top 15 and the bottom 16 and of sufficient buoyancy as to support the weight of a person when the supporting body is placed in the water. On the top 15 is provided a mat 18 and a window 19 is formed through the body. Openings 20 and 21 are formed in the body through which the operator's foot may project when desired. Mounted on the keel 17 is a supporting bracket 22. A tube 23 is provided with a head 24 which is pivotally mounted on the bracket 22, the tube extending longitudinally of the body. Positioned within the tube 23 and attached thereto at one end is a spring 25, the opposite end of which is attached to a rod 26 which is pivotally connected to a bar 34 which is formed forked to provide the attaching plates 32 and 33 which are secured to opposite sides of a propelling paddle 31. The tube 23 is cut away at opposite sides of its rear end to provide the springing apart tongues 35 and 36. Secured to and projecting upwardly from the tongue 36 is a rod 28 about which is curled the knuckle 30 formed from the paddle 31. Projecting downwardly from the tongue 35 and secured thereto is a rod 27 around which is curled the knuckle 29 formed from the paddle 31 so that the member 31 is thus pivotally mounted on the rods 27 and 28 which are in axial alignment. It will be noted that the bar 34 projects rearwardly beyond the forward end of the paddle 31 and beyond the point of pivot of the paddle 31.

Secured to and projecting outwardly from the head 24 at opposite sides thereof are the arms 38 and 39. The arm 38 is pivotally connected to one end of a rod 40, the opposite end of which is slidably projected through a guide bracket 41 depending from the bottom 16. Pivotally connected to the end of the arm 39 is one end of a bar 42, the opposite end of which is slidably projected through a guide bracket 43 depending from the bottom 16. Fixedly mounted on these bars 40 and 42 in registration with the openings 21 and 22 are foot pedals 44.

The construction is such that when a person is lying prone on the top 15, the feet may be projected through the openings 20 and 21 to engage the pedals 44 and these pedals may be alternately pushed rearwardly so as to rock the arms 38 and 39. As these arms 38 and 39 rock, the tube 23 is swung to one side of the other. As it swing to one side, the resistance of the water will effect a swinging of the paddle 31 on its pivot, as shown in Fig. 8. This swinging of the paddle 31 on its pivot will be against the tension of the spring 25. The swinging of the paddle in this manner will effect a forward movement of the supporting body. Because the spring is under tension when the tube 23 reaches its limit of swinging to either side, the spring will effect a further movement of the paddle after the tube

23 has ceased moving so that the spring would bring the paddle, in the view shown in Fig. 8, over farther until it was in alignment with the tube 23. This function will take place upon the swinging of the tube to either side. While the swinging of the tube and paddle to either side effects a forward propulsion of the supporting body, the spring action on the paddle itself, after the limit of swinging of the tube 23 is reached, will add a further impulse to the forward movement and lend a sort of "kick," thus considerably increasing the efficiency of the device as a propelling mechanism. It is believed obvious that a structure such as described is one which may afford considerable entertainment and amusement to the user while, at the same time, affording means for propelling one's self over a body of water.

What I claim as new is:

1. A device of the class described, comprising: a supporting body having a pair of openings formed therethrough adjacent one end; a pivotally mounted, rocking beam on the bottom of said body; a pair of rods each pivotally connected at one end to the outer end of said beam and projected slidably across said openings; a foot-engaging member carried by each of said rods for effecting a rocking of said beam; a supporting arm fixedly mounted on said beam and projecting outwardly therefrom; and a propelling paddle swingably mounted on said supporting arm and extending outwardly therefrom.

2. A device of the class described, comprising: a supporting body having a pair of openings formed therethrough adjacent one end; a pivotally mounted, rocking beam on the bottom of said body; a pair of rods each pivotally connected at one end to the outer end of said beam and projected slidably across said openings; a foot-engaging member carried by each of said rods for effecting a rocking of said beam; a supporting arm fixedly mounted on said beam and projecting outwardly therefrom; a propelling paddle swingably mounted on said supporting arm and extending outwardly therefrom; and resilient means normally resisting swinging movement of said paddle and tending normally to maintain said paddle in longitudinal, axial alignment with said supporting arm.

3. A device of the class described, comprising: a supporting body of sufficient buoyancy to support a person in the water and having adjacent one end a pair of openings formed therethrough; a supporting arm pivotally mounted on the bottom of said body and extending rearwardly thereof; a propelling paddle pivotally mounted on the free end of said supporting arm and projecting outwardly therefrom; a laterally projecting arm on the pivoted end of said supporting arm and projecting outwardly from opposite sides thereof; connecting members each pivotally connected to the end of each of said laterally projecting arms and slidably projected across said openings; and foot-engaging means mounted on each of said connecting means and accessible through said openings whereby a person on said body may through engagement with the feet effect a swinging of said supporting arm.

4. A device of the class described, comprising: a supporting body of sufficient buoyancy to support a person in the water and having adjacent one end a pair of openings formed therethrough; a supporting arm pivotally mounted on the bottom of said body and extending rearwardly thereof; a propelling paddle pivotally mounted on the free end of said supporting arm and projecting outwardly therefrom; a laterally projecting arm on the pivoted end of said supporting arm and projecting outwardly from opposite sides thereof; connecting members each pivotally connected to the end of each of said laterally projecting arms and slidably projected across said openings; foot-engaging means mounted on each of said connecting means and accessible through said openings whereby a person on said body may through engagement with the feet effect a swinging of said supporting arm; and resilient means for normally resisting swinging movement of said paddle and tending to maintain the same in longitudinal, axial alignment with said supporting arm.

5. In a device of the class described: a supporting body having a pair of openings formed therethrough; a tubular member swingably mounted on the bottom of said body and extending rearwardly thereof; a pair of laterally projecting arms each secured at one of its ends to the end of said tubular member and projecting outwardly therefrom; connecting rods each pivotally connected at one end to the outer end of each of said laterally projecting arms and slidably projected across said openings; foot-engaging means on each of said connecting rods, the said openings accessible to the foot of a person on said body for effecting a swinging of said tubular member from one side to the other; a propelling paddle pivotally mounted on the free end of said tubular member and projecting outwardly therefrom and swingable on its pivot relatively thereto; and resilient means normally tending to resist swinging movement of said paddle on its pivot and to restore said paddle to its normal position after swinging movement on its pivot.

6. In a device of the class described: a supporting body having a pair of openings formed therethrough; a tubular member swingably mounted on the bottom of said body and extending rearwardly thereof; a pair of laterally projecting arms each secured at one of its ends to the end of said tubular member and projecting outwardly therefrom; connecting rods each pivotally connected at one end to the outer end of each of said laterally projecting arms and slidably projected across said openings; foot-engaging means on each of said connecting rods, the said openings accessible to the foot of a person on said body for effecting a swinging of said tubular member from one side to the other; a propelling paddle pivotally mounted on the free end of said tubular member and projecting outwardly therefrom and swingable on its pivot relatively thereto, said tubular member being bifurcated at its free end to provide an upper tongue and a lower tongue; a connecting member mounted on said paddle and projected inwardly of said tube between said tongues and terminating between said tongues; and a spring in said tube connected at one end in fixed relation to said tube and at its opposite end to the connecting member on said paddle for normally resisting swinging movement of said paddle on its pivot end and for restoring said paddle to normal position after swinging movement on its pivot.

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