Sept. 10, 1935. A. E. STOKER 2,014,192

SWIMMING MACHINE

Original Filed Nov. 17, 1930

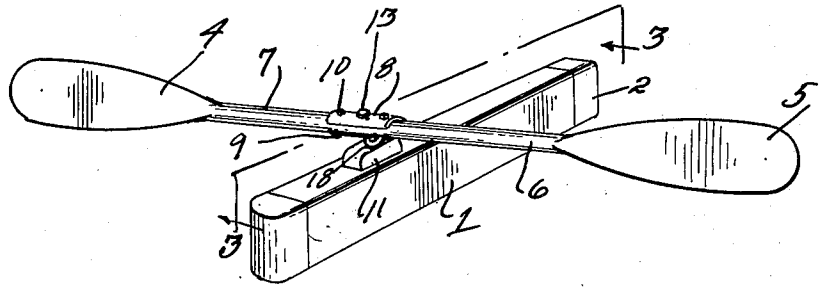


Fig. 1

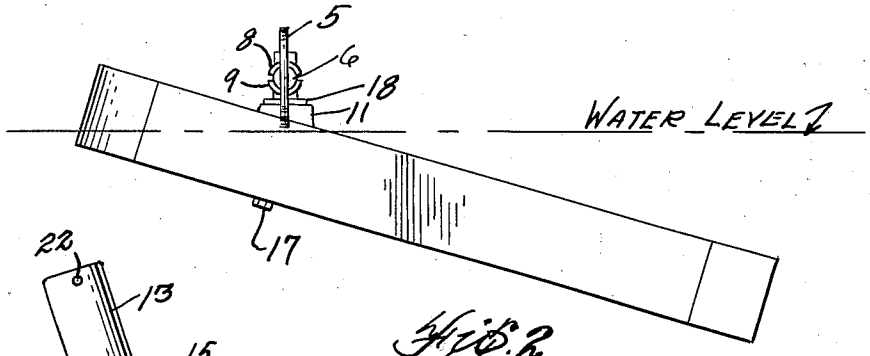


Fig. 2

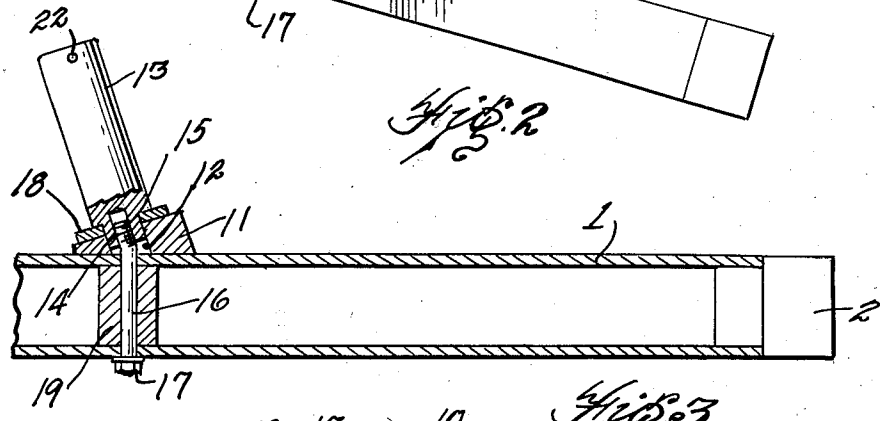


Fig. 3

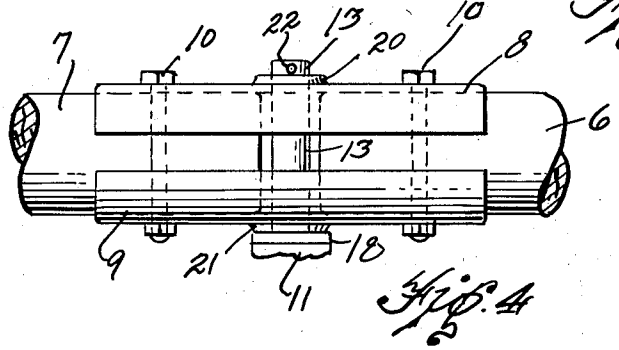


Fig. 4

INVENTOR.
ALBERT E. STOKER

BY

ATTORNEY.

Patented Sept. 10, 1935

2,014,192

UNITED STATES PATENT OFFICE

2,014,192

SWIMMING MACHINE

Albert E. Stoker, Detroit, Mich., assignor of one-fourth to Charles E. Wisner, Detroit, Mich.

Application November 17, 1930, Serial No. 496,245
Renewed November 4, 1933

3 Claims. (Cl. 9—18)

This invention relates to swimming machines, and the object of the invention is to provide a device of this character that has sufficient buoyancy to keep the heaviest person floating near the surface of the water and which is provided with paddles extending crosswise of the buoyant body and pivoted to operate in a single plane and whereby operation of the paddles will cause the operator to move through the water at rapid speed and without undue fatigue.

Another object of the invention is to provide a swimming machine consisting of a hollow buoyant body and a pair of paddles mounted on the top of the buoyant body and pivoted about a vertical axis when the device is in operation in the water and the buoyant body in rear of the paddles being free from obstruction so that the operator may alternately pull first one paddle and then the other through the water and since no obstructions are upon the buoyant member the operator will be permitted the free use of his arms in manipulating the device.

Another object of the invention is to provide a swimming machine consisting of a buoyant body that will support the weight of an operator and a pair of paddles pivoted to the top of the buoyant member and the pivot point so positioned that the flat portions of the paddles will lie in a vertical plane when the device is in use and the pivot point positioned sufficiently in the rear of the front end of the buoyant member so that the alternate operation of the paddles will not tend to cause the buoyant member to travel in a zigzag path through the water.

These objects and the several novel features of the invention are hereinafter more fully described and claimed, and the preferred form of construction by which these objects are attained is shown in the accompanying drawing in which—

Fig. 1 is a perspective view of my improved swimming machine.

Fig. 2 is a side elevation thereof showing the position it will assume in the water when an operator is lying on the rear end thereof.

Fig. 3 is a vertical longitudinal section taken on line 3—3 of Fig. 1.

Fig. 4 is a detail elevational view showing the means for securing the paddles to the buoyant member.

Referring now to the drawing, the main body portion 1 is hollow throughout its length and the rear end is closed by means of the block 2 while the front end is closed by means of the block 3, both being caulked in place to form water tight joints between the blocks 2 and 3 and the hollow member 1. It will be seen by reference to Fig. 1 that the block 3 is rounded throughout its vertical height to allow the member 1 to be easily moved through the water. The paddles 4 and 5 have their inner ends clamped between the upper and lower castings 8 and 9 and held in place by the bolts 10 extending through the castings 8 and 9 and the ends of the paddles.

A block 11 is mounted upon the upper face of the member 1 and is provided centrally thereof with the aperture 12 and, as will be seen by reference to Fig. 3, the upper face of the member 11 is set at an angle to the upper face of the member 1. A pin 13 is provided at its lower end with a reduced portion 14, the same being inserted in the aperture 12. The reduced end portion 14 is provided centrally thereof with the threaded aperture 15 for receiving the threaded end of the rod 16 the same extending through the member 1 and having the nut 17 threaded thereon and abutting the lower face of the member 1. A washer 18 may be interposed between the lower end of the enlarged portion of the pin 13 and the upper face of the member 11. A collar 19 surrounds the rod 16 between the upper and lower faces of the member 1 to prevent the nut 17 from being threaded too far on the rod 16 and thus distorting the member 1. The pin 13 extends through suitable apertures formed in the bosses 20 and 21 provided respectively upon the upper and lower clamping members 8 and 9 and, as will be seen by reference to Fig. 4, the ends 6 and 7 of the respective paddles 4 and 5 stop short of the pin 13 so that the paddles may be oscillated about the pin 13. After the paddles have been placed over the pin 13 a cotter pin may be inserted in the hole 22 provided near the upper end of the pin.

By reference to Fig. 3, it will be seen that the pin 13 extends at an angle to the upper face on the member 1 and the flattened portions of the paddles 4 and 5 will be assembled to the member 1 to stand at the same angle so that when the device is in the water and the operator lying upon the rear end thereof the flat portions of the paddles 4 and 5 and the pivot pin 13 will stand in a plane perpendicular to the surface of the water and the lower edge of the paddles will be slightly above the water level, as will be more readily understood by reference to Fig. 2.

When it is desired to assemble the device, the rod 16 will be threaded into the lower end of the pin 3 and then bent to the proper angle. The vertical portion will then be inserted through the member 1 and the sleeve 19 and the nut 17 drawn

up tight against the lower face of the member 1. The paddles 4 and 5 which have previously been assembled with the clamping members 8 and 9 will then be positioned upon the pin 13 and a cotter pin inserted in the hole 22 in the upper end of the pin whereupon the device is ready for use. The operator will then take his position upon the member 1 lying upon the upper face and parallel thereto with his arms extended in front of him and his hands grasping the rounded portions of the paddles. Then, by a slight rolling of his body from side to side the flattened portions of the paddles will be caused to be dipped into the water and then as one of the paddles is dipped into the water and pulled toward the rear and then brought out of the water and the opposite paddle dipped into the water and brought toward the rear, the device will be given a forward motion at a fairly rapid rate of speed.

It will be understood that, since the paddles are positioned a considerable distance to the rear of the rounded end 3 and that since the vertical area of the submerged buoyant member is sufficient to overcome the tendency to follow a zigzag course, the device will tend to hold a straight course when in operation.

The buoyant member is greater in length than width and is substantially rectangular in cross section at any point of its length and has a flat unobstructed bottom and side faces. The paddles are positioned a distance back of the forward end and provide a rear upper face on which a person may lie in swimming position at the rear of the paddles. Thus, due to the position of the swimmer when lying on the device when in the water, the buoyant member must assume a position at an angle to the water surface as indicated in Fig. 2.

From the foregoing description it becomes evident that I have provided a swimming machine which will permit the operator of the same to be moved through the water at a rapid rate of speed and without undue fatigue, and further that, due to the construction, the operator is permitted the free use of his arms and likewise, due to the construction, the device will be caused to traverse a straight path.

Having thus fully described my invention, what I claim is—

1. A device of the character described, comprising a hollow box like buoyant member rectangular in cross section, the height of the same being greater than the width thereof, a pair of paddles pivotally mounted upon the top face of the buoyant member and at an angle to the same so that when the device is in operation in the water and a swimmer positioned on the rear end of the buoyant member the paddles normally occupy a position in a plane perpendicular to the surface of the water said pivotal mounting being of a character to prevent oscillation of the paddles thereon in a plane perpendicular to the water.

2. A device of the character described comprising a buoyant member of greater length than width and of a rectangular form in cross section having flat unobstructed bottom and sides faces, a pair of paddles rigidly connected together and mounted at a distance to the rear of the forward end requiring a person to lie upon the device to the rear of the paddles and thus cause the buoyant member to take a position at an angle to the horizontal when in the water, and a pivot for the paddles extending upwardly from the upper face of the buoyant member at less than a right angle to the longitudinal center line of the buoyant member whereby the axis of the pin is practically perpendicular to the water surface when a swimmer is positioned on the device, said pivot being of a construction permitting oscillation of the paddles in a horizontal plane and preventing movement of the paddles relative thereto in vertical plane whereby it is required that the buoyant member be oscillated about its longitudinal axis to cause the paddles to alternately dip into the water.

3. A device of the character described comprising a buoyant body of greater length than width, a pair of paddles rigidly connected together, a mounting for the paddles near the forward end of the body comprising a pin extending at less than a right angle to the longitudinal axis of the body and brought to vertical position in relation to a water surface by the weight of a swimmer on the body to the rear of the pivot, said mounting being constructed to permit oscillation of the paddles in a substantially horizontal plane and preventing oscillation on the mounting in any other plane and providing a construction necessitating the rolling of the body from side to side to cause the paddles to alternately dip into the water.

ALBERT E. STOKER.