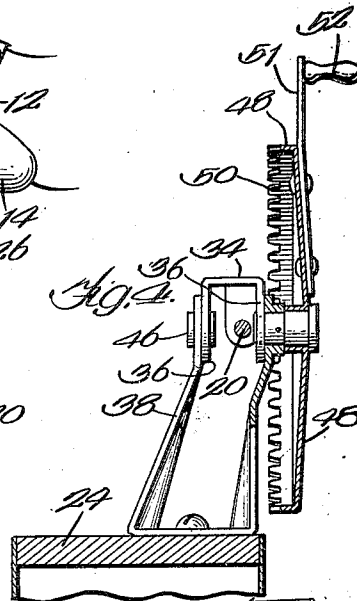
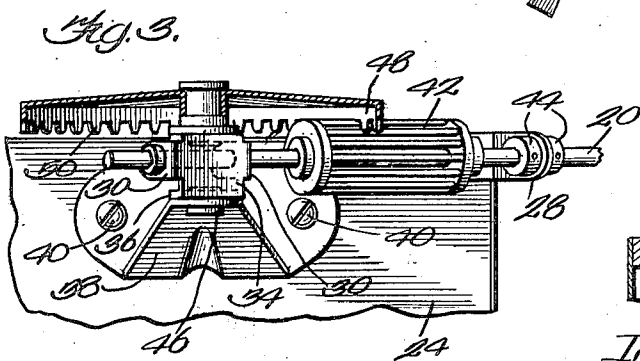
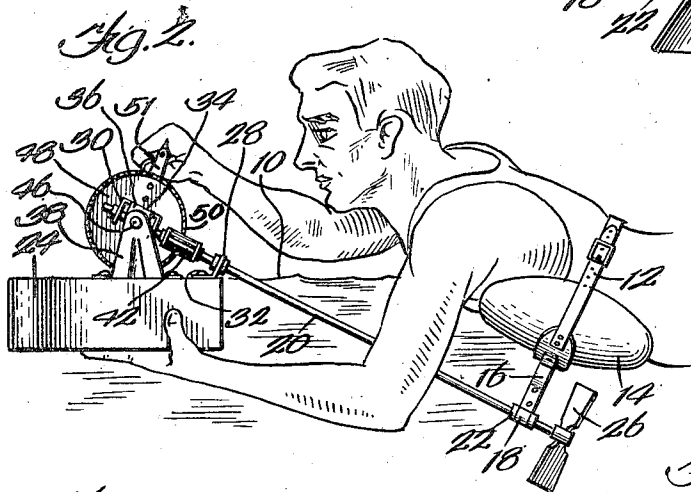
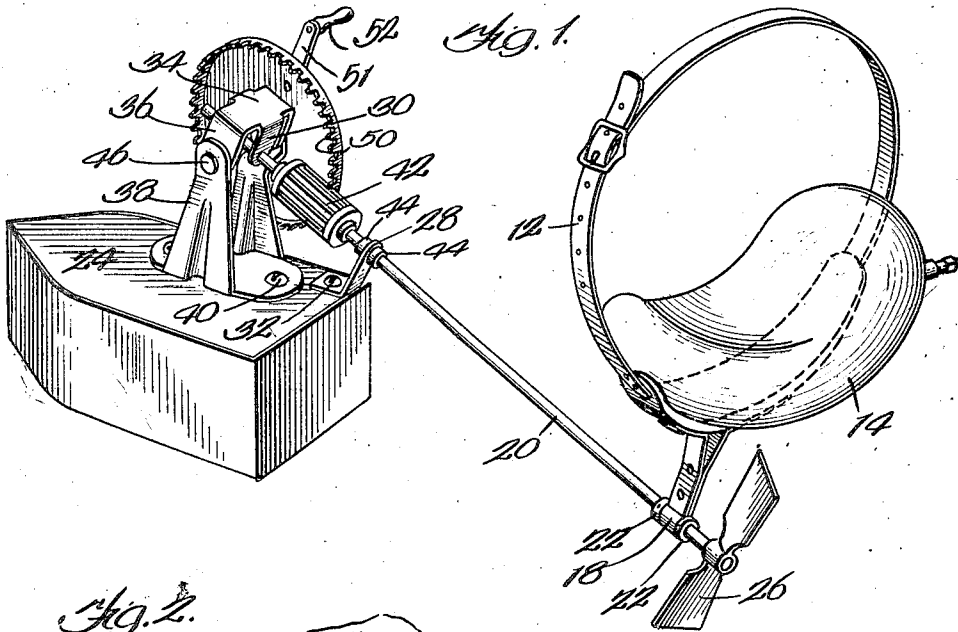


1,433,563.

Patented Oct. 31, 1922.



Inventor:
Lymon P. Osterhout
By Cheever Hox & Co.

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1,433,563

UNITED STATES PATENT OFFICE.

LYMAN P. OSTERHOUT, OF KENOSHA, WISCONSIN.

SWIMMER'S MOTOR.

Application filed November 4, 1921. Serial No. 512,743.

To all whom it may concern:

Be it known that I, LYMAN P. OSTERHOUT, a citizen of the United States, residing at Kenosha, in the county of Kenosha and State of Wisconsin, have invented a certain new and useful Improvement in Swimmers' Motors, of which the following is a specification.

Bathers in open water whether able to swim or not have long felt the need of some sort of mechanism by which they can propel themselves through the water with less effort and skill than is required in ordinary swimming. The object of this invention is to provide a propelling mechanism for use in the water adjacent to the person who desires to be propelled and means readily operatable by such person for driving the propelling mechanism. Somewhat specifically the invention consists in placing a propeller or paddlewheel under the swimmer and providing in front of the normal swimming position of the bather, a means by which he can readily by hand drive the propelling mechanism. The invention further consists in many features and details of construction hereafter more fully set forth in the specification and claims.

Referring to the drawings in which like numerals indicate the same parts throughout the several views—

Figure 1 is a perspective view of a complete mechanism illustrating this invention in its preferred form.

Figure 2 shows a bather or swimmer equipped with and using the mechanism of Fig. 1.

Figure 3 is a plan view of the motor mechanism.

Figure 4 is a vertical sectional detail view.

In the preferred form of mechanism illustrating the invention the man shown in Fig. 2 is supposed to be in the water 10 of a river or lake of sufficient size so that he desires ready propulsion a substantial distance over the surface of the water. Around the swimmer's waist is a belt 12 preferably, but not necessarily, equipped with an air cushion 14 or other buoyant life preserver device adapted to rest under and sustain the body of the swimmer just as any conventional form of life preserver does. Rigidly attached to the belt 12 below the body of the swimmer and in the particular case here illustrated below the life preserver pad 14 is a vertically depending bracket or post 16

carrying at its bottom a shaft bearing 18 in which is journaled a rotatable shaft or rod 20 held against longitudinal movement with reference to the post 18 by any suitable means such as the collars 22.

This shaft 20 should be of sufficient length so that when the operator is in the swimming position shown in the drawings the shaft is of sufficient length to reach from the post 18 up to a little boat or float 24 of any convenient construction resting in the water in front of the swimmer but within reach of his hands as shown in Figure 2.

The position of shaft 20 which is below the swimmer in the particular case here illustrated its end, has rigidly attached to it by any suitable means a rotatable propeller 26. The other end portion of the shaft is carried in two spaced-apart bearings 28 and 30, the former attached to the rear end of the boat by any suitable means as for instance the screw 32, while the latter is in the particular case here illustrated part of a metallic stamping 34 having two depending parallel arms 36 pivoted in shaft 46 carried by an upright standard 38 secured to the boat 24 by screws 40 of conventional form.

Intermediate between the bearings 28 and 30 is a gear wheel 42 of substantial length but of less length than the distance between the bearings 28 and 30. This gear is rigidly attached by any suitable means to the shaft 20, slidable through the bearings 30 and bearing 28 except as it is detachably locked against such longitudinal movement by the collars 44.

Journaled in the upright supports 38 heretofore referred to and forming the pivot for the arms 36 of stamping 34 is a horizontal transverse shaft 46 carrying wheel 48 with laterally projecting gear teeth 50 adapted to mesh with the gear wheel 42. The thickness of the teeth 50 is not anywhere near as great as the lengths of the teeth on gear 42 with the result that the operator may by loosening the tightening devices 44, heretofore referred to, adjust the shaft longitudinally of the bolt a distance equal to the length of the gear teeth 42 and thus allow for fitting the device to swimmers of different sizes particularly as regards arm lengths. The wheel 48 has rigidly attached to it an operating lever 51 and hand engageable handle 52 adapted to be grasped as shown in Fig. 2.

In the operation of the device the swim-

mer equips himself with the mechanism as shown adjusting the shaft with reference to the boat in the manner described so that he can conveniently take hold of handle 52 and rotate the wheel 48. Thereupon he has only to vigorously rotate the wheel 48 to drive the propeller 26 with sufficient power to carry him wherever he wants to go.

There is sufficient play in the belt 12 and the other parts of the mechanism so that the swimmer can by hand slightly vary the angularity of the boat 24 with reference to the length of his body and effect steering in this way but the intention is that the real steering shall be done by the feet of the user (not shown in the drawing trailing out behind the mechanism here described).

By actual test the mechanism from which these drawings were made propels a bather through the water with greater speed than is possible for an ordinary Evinrude equipped row boat.

The device is of positive use for bathers without a boat who want to get somewhere across a stretch of water and will doubtless be found of great interest at summer amusement resorts.

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

1. In mechanism of the class described, a boat or float adapted to rest in water in front of a swimmer, a belt adapted to pass around the body of such swimmer, a shaft

journalled on the boat and journalled on the belt, a propeller on that part of the shaft which is adjacent to the belt, a driving mechanism on the part of the shaft which is adjacent to the boat adapted to be manipulated by a swimmer wearing the belt, and means for adjusting the effective length of the shaft between the boat and belt without disturbing the operation of the propelling mechanism.

2. In mechanism of the class described, a life saving belt for application to a swimmer, a shaft supporting bearing depending from said belt, a shaft journalled in said bearing, a propelling wheel on the shaft adjacent to the bearing, a float or boat adapted to rest in the water in front of a swimmer in the water and wearing said belt, means on the boat supporting an adjacent portion of said shaft, a rotatable gear wheel carried by the boat, means within reach of the swimmer for rotating the gear wheel, a gear connection between said gear wheel and the shaft, and means for adjusting the effective length of the shaft with reference to the boat without disturbing the effectiveness of said intermeshing gears for the purposes set forth.

In witness whereof, I have hereunto subscribed my name in the presence of two witnesses.

LYMAN P. OSTERHOUT.

Witnesses:

MAGNUS NORLANDER,
EBBA NORLANDER.