

April 30, 1946.

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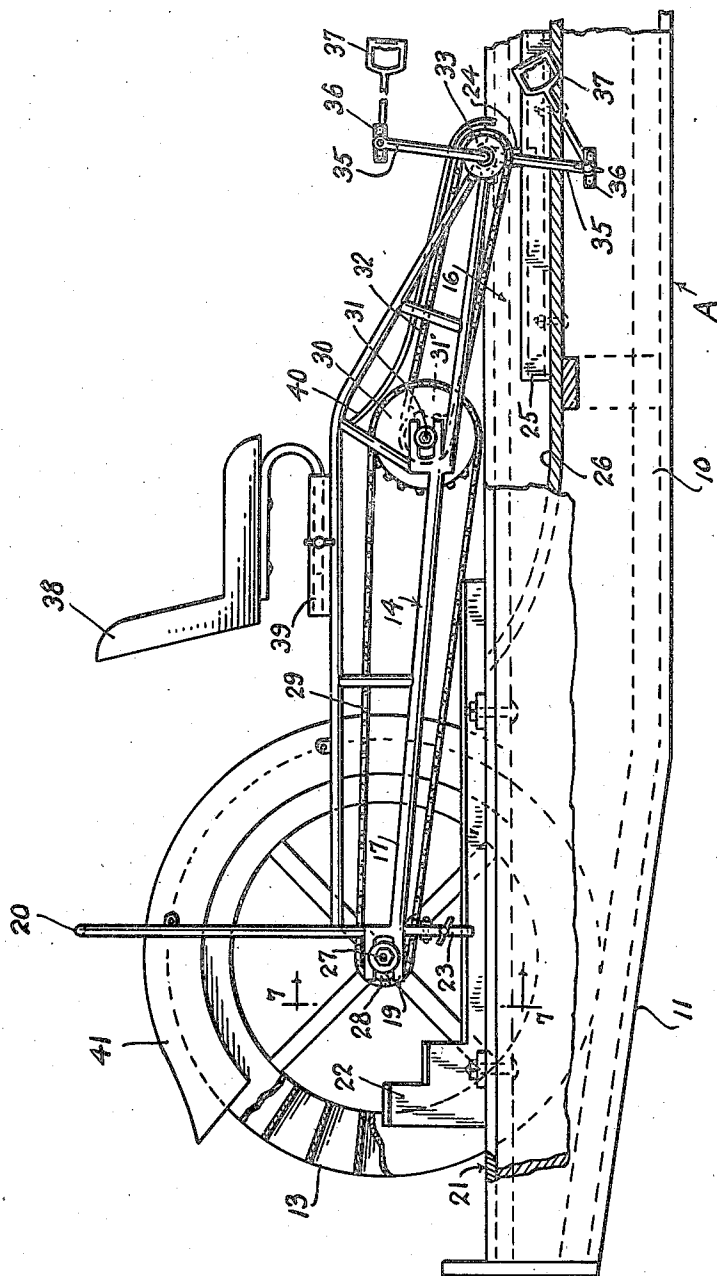
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ADJUSTABLE MOUNTING AND PROPULSION MEANS

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4 Sheets-Sheet 1

Fig. 1.



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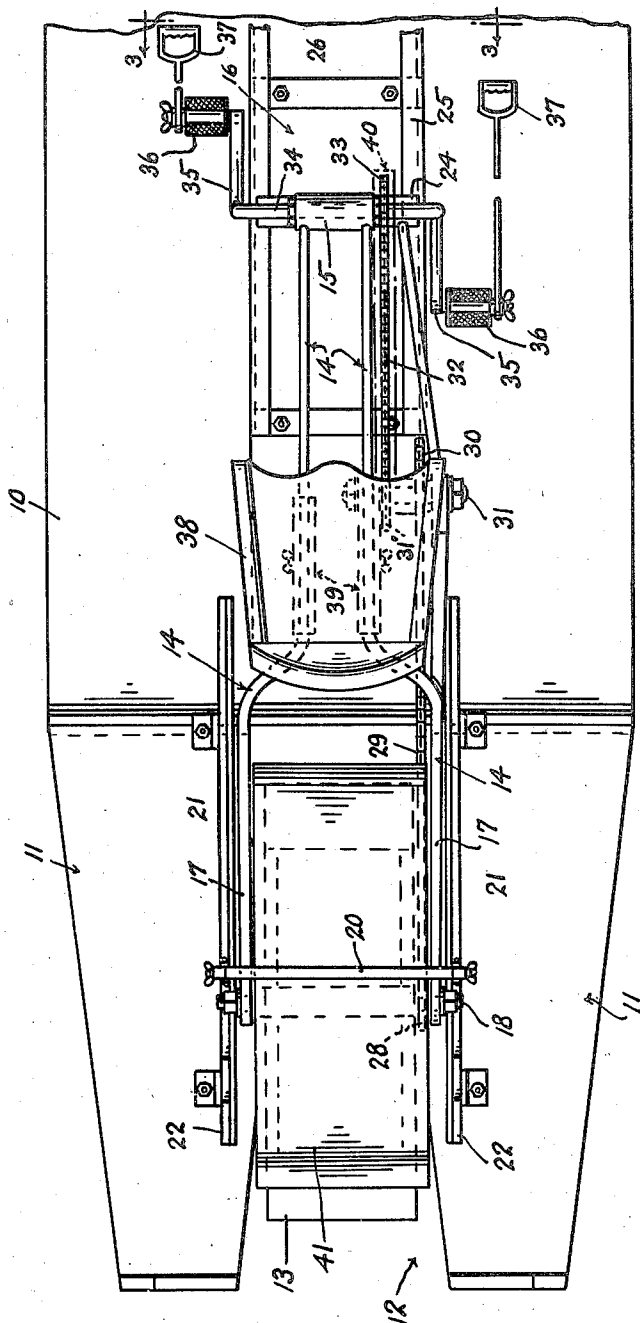
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Fig. 2.



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Fig. 3.

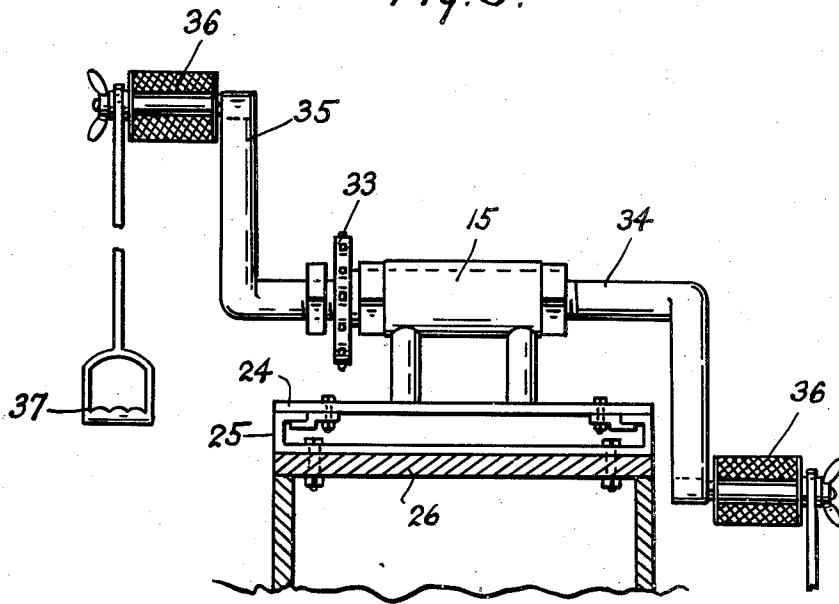


Fig. 4.

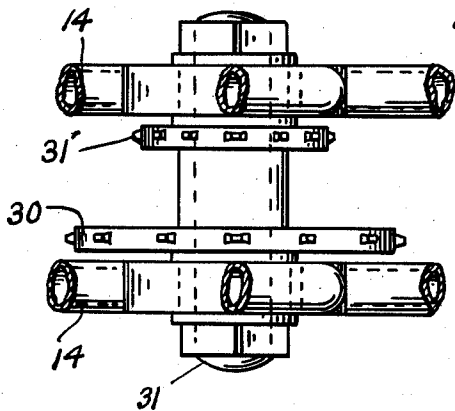
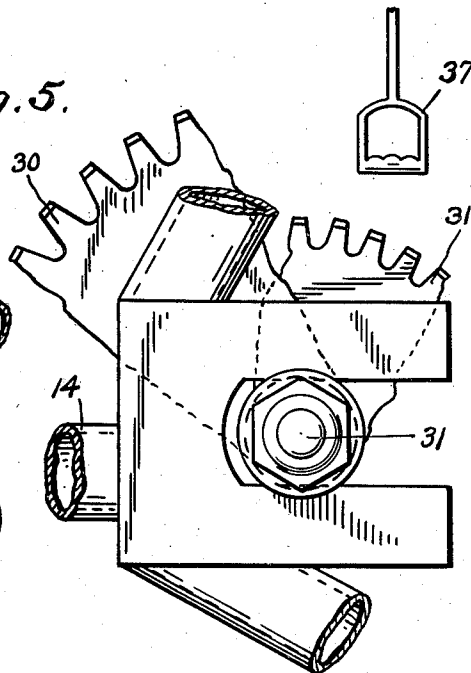


Fig. 5.



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4 Sheets-Sheet 4

Fig. 6.

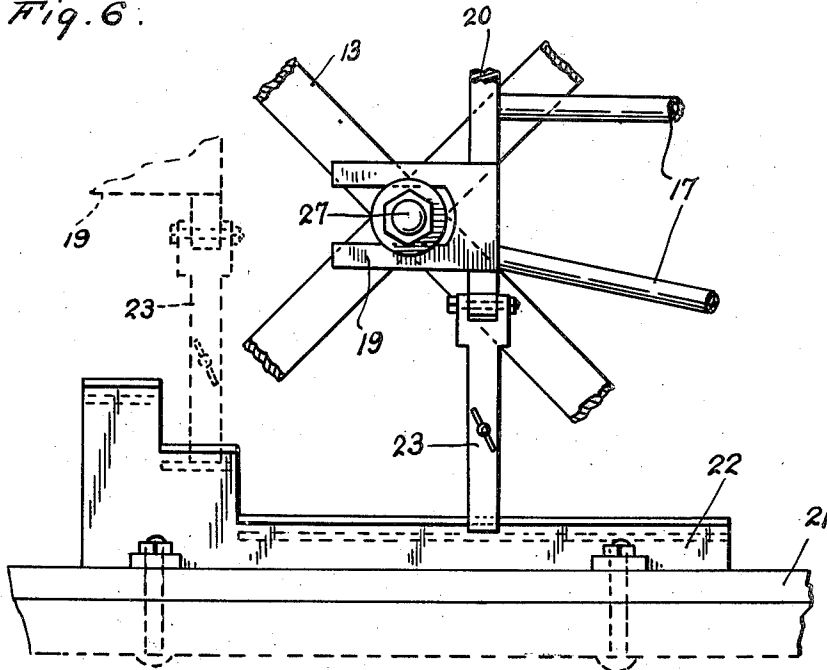
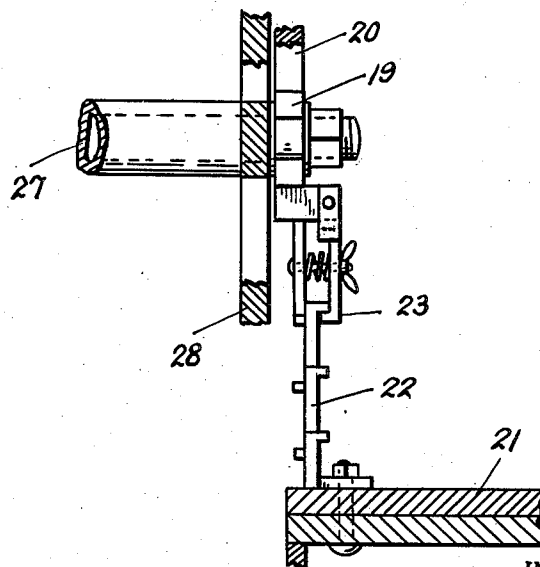


Fig. 7.



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ADJUSTABLE MOUNTING AND PROPULSION MEANS

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Application April 28, 1944, Serial No. 533,173

6 Claims. (Cl. 115—2)

The invention relates to a boat construction, and more especially to foot or hand and foot operated propelling apparatus for water craft.

The primary object of the invention is the provision of an apparatus of this character, wherein through the use of a bladed or paddle wheel driven by foot or hand and foot power a boat can be readily and easily propelled, without undue exertion on the part of one or two operators, the apparatus being designed for fly-casting fishman's boats and is novel and unique in its construction and arrangement, it being quickly and easily installed, adjusted and detached, and can be foot or hand and foot powered optionally.

Another object of the invention is the provision of an apparatus of this character, wherein the same is of a bicycle type, manually operating a water wheel for the propulsion of a water craft, thereby enabling the proper positioning thereof for fly-casting purposes while fishing in a body of water, the speed of travel of such boat being under the control of the operator of the apparatus when installed therein.

A further object of the invention is the provision of an apparatus of this character, which is simple in construction, thoroughly reliable and efficient in operation, conveniently actuated with ease and dispatch, strong, durable, requiring a minimum amount of exertion in the working thereof, manually operated, and inexpensive to manufacture and install.

With these and other objects in view the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings which show the preferred embodiment of the invention, and pointed out in the claims hereunto appended.

In the accompanying drawings:

Figure 1 is a fragmentary side elevation of a boat showing the apparatus constructed in accordance with the invention installed therein.

Figure 2 is a top plan view thereof.

Figure 3 is a sectional view taken on the line 3—3 of Figure 2 looking in the direction of the arrows.

Figure 4 is a detail fragmentary plan view of the sprocket wheel axle mounting shown in Figure 5.

Figure 5 is a side view of the showing in Figure 4.

Figure 6 is a fragmentary side view showing by full lines one adjusted position of the apparatus, and by dotted lines another adjusted position thereof.

Figure 7 is an edge view thereof.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, A designates generally the fore portion of a water craft of the fly cast fishing boat type, having a hull or body 10 provided longitudinally thereof along opposite sides of its central longitudinal median with pontoon areas 11, while at one end of the hull or body 10 aligned with the said median and opening through such end is a bifurcation or gap 12 for accommodating a peripherally bladed or paddle wheel 13 which is the driving propeller for the craft.

The wheel 13 is a part of the propelling apparatus constituting the present invention, comprising a pair of spaced companion or matched bicycle frames 14 which at their forward ends are joined with each other by a horizontally arranged pedal axle housing 15, and this end forwardly dips into a tread pit 16 within the hull or body 10, while the aft portions of these frames 14 creates a rear fork portion 17 for the wheel 13; its axle 18 being adjustably mounted in the slotted bracket terminals 19 of such fork portion. Bridging the wheel 13 and rising from the terminals 19 of the forked portion 17 is a cross bracing strut 20 which joins the frames 14 at such end portion.

Secured to the tops 21 of the pontoon areas 11 of the hull or body 10 at opposite sides of the bifurcation or gap 12 for the wheel 13 are parallel vertically stepped elevating and guide tracks 22 for selectively clamping thereon jawed coupling or attaching devices 23 on the terminals 19 for adjustably elevating and supporting the rear fork portion 17 of the bicycle framing 14.

The pedal axle housing 15 at the other end of the framing 14 is also equipped with jawed sliding runner 24 attached to tracks 25 secured to the flooring 26 of the pit 16 within the hull or body 10 of the boat, thus it can be seen that the apparatus may be shifted longitudinally of the craft for the proper setting of such apparatus within the same, and also the said wheel 13 can be raised or lowered with relation to the water line of the said craft for proper and effective water propulsion thereof in accordance with the load burden thereon.

The hub 27 of the wheel 13 has fixed thereto a sprocket chain gear 28 over which is trained a driven sprocket chain 29, it being also trained over a sprocket gear 30 journaled at 31 in the framing 14 for adjustment. The arbor or axle

of this gear 30 also has fixed thereto a sprocket gear 31' having trained thereover the driving sprocket chain 32, which is also trained over a driving sprocket gear 33 fixed to the axle 34 of the pedal cranks 35 having the foot pedals 36, the axle 34 being journaled in the housing 15, and by foot pedal operation the wheel 13 will be rotated for propelling the water craft. The pedal cranks 35 have detachably connected thereto hand gripping actuators 37 so that both foot and hand power operation of the apparatus can be had, or such apparatus can be operated by foot power alone. The framing 14 has fitted thereto an operator's seat 38, which is adjustably bracketed at 39 to such framing to regulate this seat with relation to the pedals 36 as may be required by the said occupant of the seat. When the apparatus is actuated by both foot and hand power this will require two operators, but when it is powered by the feet through pedaling action, only one operator is required for this purpose.

The wheel and the sprocket chain 32 have overhanging the same fenders or guards 40 and 41, respectively, which are suitably supported by the framing 14, as will appear from Figure 1 of the drawings.

When it is desired to drive the craft by a propulsion motor of the over-board type, then the wheel 13 of the apparatus can be elevated out of contact with the body of water, so as to eliminate any interference thereby, and in this instance the motor is located at the other end of such craft remote from the apparatus. When the motor power is used, the apparatus is entirely inactive, the latter only being used for man-power operation of the craft. The craft with the apparatus installed therein is used more especially by fisherman for fly-casting purposes in fishing in water areas.

What is claimed is:

1. In a boat, a hull having a bifurcated end, a paddle wheel arranged within the bifurcation, vertical upwardly extending means for supporting said wheel, foot pedal operated mechanism actuating said wheel, and parallel vertically stepped elevating and guide tracks coacting with said vertically upwardly extending means for adjustably elevating and supporting the wheel and mechanism.

2. In a boat, a hull having a bifurcated end, a paddle wheel arranged within the bifurcation, vertical upwardly extending means for supporting said wheel, foot pedal operated mechanism actuating said wheel, parallel vertically stepped elevating and guide tracks coacting with said vertically upwardly extending means for adjustably elevating and supporting the wheel and mechanism and a framing connected to said upwardly extending means for supporting the said foot pedal operated mechanism.

3. In a boat, a hull having a bifurcated end, a paddle wheel arranged within the bifurcation, vertically upwardly extending means for supporting said wheel, foot pedal operated mechanism actuating said wheel, parallel vertically stepped

elevating and guide tracks coacting with said vertically upwardly extending means for adjustably elevating and supporting the wheel and mechanism, a framing connected to said upwardly extending means for supporting the said foot pedal operated mechanism and means for adjustably connecting the framing to the hull.

4. In a boat, a hull having a bifurcated end, a paddle wheel arranged within the bifurcation vertically upwardly extending means for supporting said wheel, foot pedal operated mechanism actuating said wheel, parallel vertically stepped elevating and guide tracks coacting with said vertically upwardly extending means for adjustably elevating and supporting the wheel and mechanism, a framing connected to said upwardly extending means for supporting the said foot pedal operated mechanism, tracks extending longitudinally of and attached to the flooring of said hull, jawed runners connected to said frame, coacting with said tracks, for adjustably connecting the framing to the hull, pedal cranks for actuating said foot pedal operated mechanism and hand and foot actuators connected to said pedal cranks.

5. In a boat, a hull having a bifurcated end, a paddle wheel arranged within the bifurcation, vertically upwardly extending means for supporting said wheel manually operated mechanism for actuating said wheel parallel vertically stepped elevating and guide tracks coacting with said vertically upwardly extending means for adjustably elevating and supporting the wheel and mechanism, a framing connected to said upwardly extending means for supporting the said manually operated mechanism, tracks extending longitudinally of and attached to the flooring of said hull, jawed runners connected to said frame coacting with said tracks for adjustably connecting the framing to the hull, bell cranks for actuating said manually operated mechanism, hand and foot actuators connected to said bell cranks and an operator's seat adjustable longitudinally of said hull connected to the framing.

6. In a boat, a hull having a bifurcated end, a paddle wheel arranged within the bifurcation vertically upwardly extending means for supporting said wheel, manually operated mechanism for actuating said wheel, parallel vertically stepped elevating and guide tracks coacting with said vertically upwardly extending means for adjustably elevating and supporting the wheel and mechanism, a framing connected to said upwardly extending means for supporting the said manually operated mechanism, tracks extending longitudinally of and attached to the flooring of said hull, jawed runners connected to said frame coacting with said tracks for adjustably connecting the framing to the hull, bell cranks for actuating said manually operated mechanism, hand and foot actuators connected to said bellcranks, an operator's seat adjustable longitudinally of said hull connected to the framing and pontoon areas in the hull at opposite sides of the bifurcation.

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