June 30, 1942. C. WEBER 2,288,504

LEVER CONTROLLED TROLLING PLATE FOR OUTBOARD MOTORS

Filed June 30, 1941

Fig. 1.

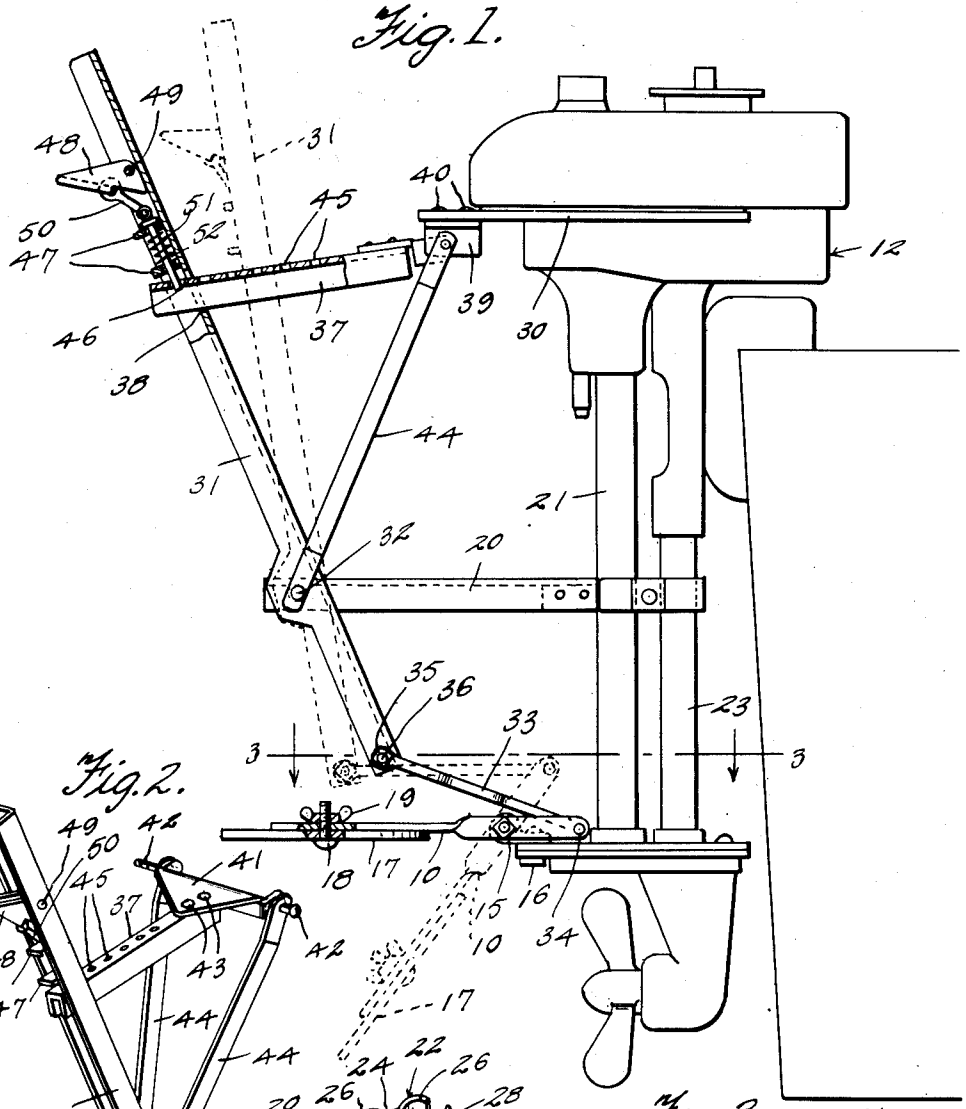


Fig. 2.

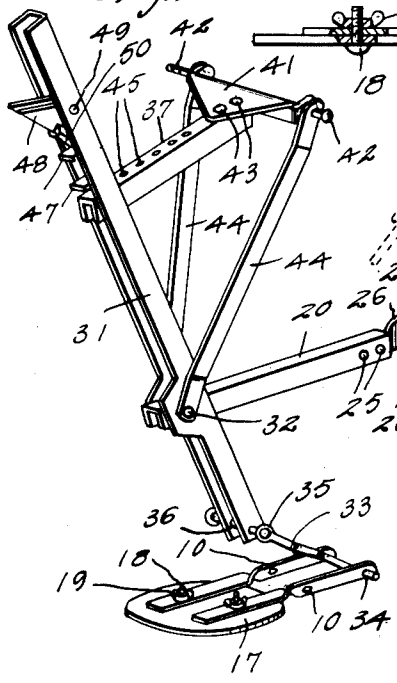
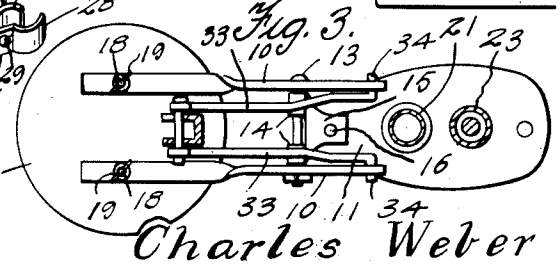


Fig. 3.



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LEVER CONTROLLED TROLLING PLATE FOR OUTBOARD MOTORS

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2 Claims. (Cl. 115—17)

This invention relates to a lever controlled trolling plate for outboard motors.

Outboard motors are prone to stall when slowed down to a speed adaptable for fishing with trolling lines, and with this in mind, the present invention provides a hinged plate disposed in rear of the propeller and adapted to be controlled from the operators seat to swing from a horizontal feathering position through an arc to approximately a vertical position in rear of the propeller, to oppose forward movement of a boat under action of the propeller, so that the boat will be held back to the proper speed for trolling while the motor can be running at its normal or increased speed.

A further object is to provide means for attaching the trolling plate at three points to the outboard motor so that the device cannot be easily displaced or damaged.

A further object is to provide a ratchet bar associated with a single lever and pawl through the medium of which the operator may swing the trolling plate to any desired angular inclination while trolling, to suit the speed of the boat to the conditions of weather and water.

A further object is to provide a device of this character which will be formed of a few strong, simple and durable parts, which will be inexpensive to manufacture, and which will not easily get out of order.

With the above and other objects in view, the invention consists of certain novel details of construction and combinations of parts hereinafter fully described and claimed, it being understood that various modifications may be resorted to within the scope of the appended claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawing forming a part of this specification:

Figure 1 is a side elevation of a lever controlled trolling plate, constructed in accordance with the invention, attached to an outboard motor.

Figure 2 is a perspective view of the lever controlled trolling plate detached from the motor.

Figure 3 is a cross sectional view taken on the line 3—3 of Figure 1, showing the trolling plate and its connections to the cavitation plate of the motor and to the controlling lever, in top plan.

Referring now to the drawing in which like characters of reference designate similar parts in the various views, the lever controlled trolling plate comprises a pair of relative spaced arms 10 which are pivoted between the ends to the anti-cavitation plate 11 of an out-board motor 12 through the medium of a pivot pin 13 passed through a pair of hinge ears 14 formed integral with a plate 15, which is secured to the anti-cavitation plate by a bolt 16 or other connector, as best shown in Figure 3. A substantially circular trolling plate 17 is secured to the outer ends of the arms by bolts 18 and wing nuts 19.

A horizontal arm 20 extends rearwardly from the exhaust pipe 21 of the outboard motor and is secured in place by a two-part clamp 22, which embraces the exhaust pipe and the shaft inclosing tube 23 of the outboard motor. The clamp comprises a plate 24 which is secured to the arm 20 by bolts 25 or other connectors and which is provided with two semi-tubular jaws 26. A clamp bolt 29 is engaged through both plates to draw the jaws together. The two-part clamp secures the horizontal arm 20 to the exhaust pipe and shaft inclosing tube at a point substantially midway between the base 30 of the motor and the anti-cavitation plate 11.

A control lever 31 is pivoted intermediate its ends to the horizontal arm 20 through the medium of a pivot pin 32. A pair of spaced links 33 are pivotally connected at the lower ends 34 of the links being bent outwardly and engaged through openings in the arms. The upper ends of the links are provided with eyes 35 through which and the lower end of the control lever 31, a pivot pin 36 is engaged.

A ratchet bar 37 is secured at one end to the motor base 30 and at the free end is slidably engaged through an opening 38 in the control lever 31. For securing the ratchet bar to the motor base, a pair of angular brackets 39 are riveted as shown at 40, or otherwise secured to the base. A substantially triangular plate 41 is provided with hinge lugs 42 which are engaged through openings in the angular brackets 39. The plate 41 is riveted as shown at 43 or otherwise secured to the ratchet arm 37.

A pair of inclined brace rods 44 are provided with openings at the upper ends to receive the pintles 42 and at the lower ends are provided with openings to receive the pivot pin 32 of the control lever 31.

It will here be pointed out that the angular brackets 39, clamps 22, and plate 15, attach the device at three points to the outboard motor so that displacement and breakage is positively prevented.

The ratchet bar 37 is provided with a longitudinal row of openings 45, which receives a latch pin 46 which is slidably mounted in guides

47 carried by the operating lever. A grip 48 is pivoted to the lever 31, as shown at 49, and is connected by a link 50 to the latch pin 46. A helical spring 51 is sleeved on the latch pin and bearings against a collar 52 on the latch pin to releasably hold the latch pin in one of the openings 45.

In released position the trolling plate 17 extends substantially horizontally from the outboard motor in rear of and above the propeller so as to feather in the water and present no obstruction to the speed of the boat when the motor is running. As the operator grips the upper end of the control lever and the grip 48, the latch pin 46 will be withdrawn from one of the openings 45 in the ratchet bar so that the operator may draw the lever toward him with resultant rocking of the trolling plate 17 on the hinge pintle 13 to any desired angular inclination in rear of the propeller, as shown by dotted line in Figure 1, and upon the operator releasing his grip on the latch and lever, the latch pin will be received in another one of the openings 45 to releasably hold the trolling plate in adjusted position. The angular inclination of the trolling plate may thus be varied at will during normal or advanced speed of the outboard motor to prevent drag of greater or less degree on the boat and slow down the speed of the boat to permit trolling under various weather and water conditions.

From the above description it is thought that the construction and operation of the invention will be fully understood without further explanation.

What is claimed is:

1. A device for controlling the speed of a motor boat having an outboard motor provided with a driven propeller, an exhaust pipe, a propeller shaft inclosing tube, and an anti-cavitation plate, said device comprising a pair of relatively spaced arms pivoted between their ends to the anti-cavitation plate, a substantially circular trolling plate secured to the outer ends of the arms, links connected to the inner ends of the arms, a horizontal arm extending rearwardly from the exhaust pipe, a clamp embracing the exhaust pipe and the shaft inclosing tube and securing said arm to the pipe and tube, said arm being disposed between the anti-cavitation plate and the base of the motor, braces extending from the base of the motor to the outer end of the arm, a lever pivoted between its ends to the arm having its lower end pivotally connected to said links, said lever being provided near its upper end with an opening, a ratchet bar pivotally secured to the base of the motor and extending rearwardly from the motor through said opening, and a latch carried by the lever engaging the ratchet bar to hold the trolling plate in adjusted positions from horizontal to vertical position in rear of the propeller.

2. A device for controlling the speed of a motor boat having an outboard motor provided with a driven propeller, an exhaust pipe, a propeller shaft inclosing tube, and an anti-cavitation plate, said device comprising a trolling plate, means for pivotally securing the trolling plate to the anti-cavitation plate at an angle to the propeller in rear of the propeller, an arm projecting rearwardly from the exhaust pipe and propeller shaft inclosing tube, a lever pivoted intermediate its ends to the outer end of the arm and pivotally connected at its lower end to said means for rocking the plate to various angular adjusted positions, a ratchet bar projecting rearwardly from the outboard motor, and a spring pressed latch carried by the lever engaging the ratchet bar to hold the trolling plate in its adjusted positions.

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