March 8, 1960 W. F. HUDSON 2,927,477

STEERING ATTACHMENT FOR AN OUTBOARD MOTOR

Filed July 13, 1959

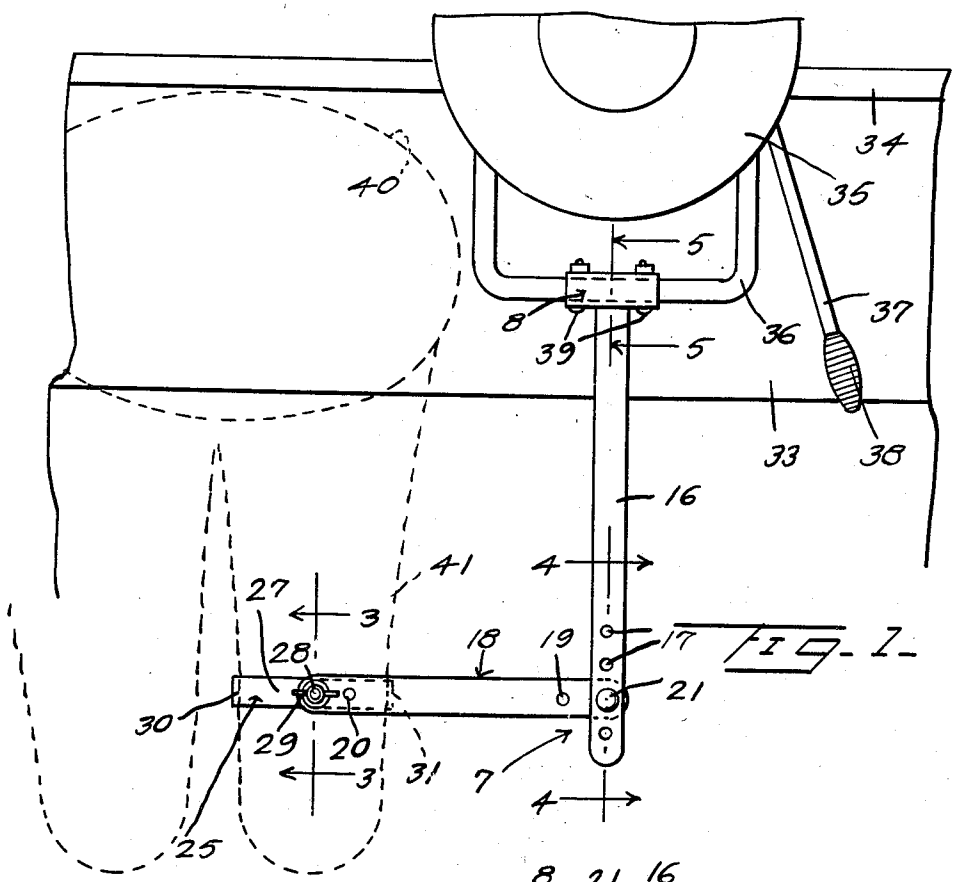


FIG. 1.

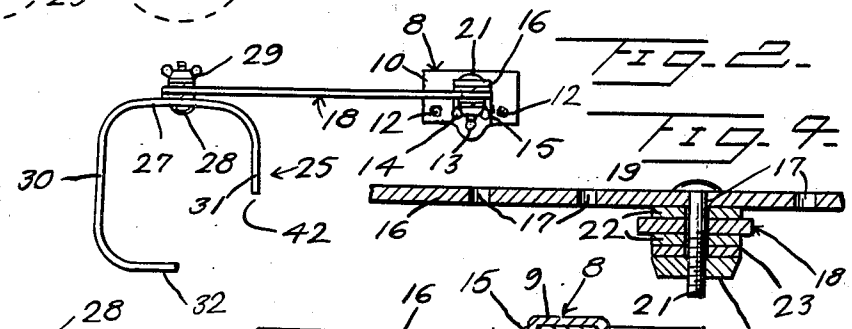


FIG. 2.

FIG. 4.

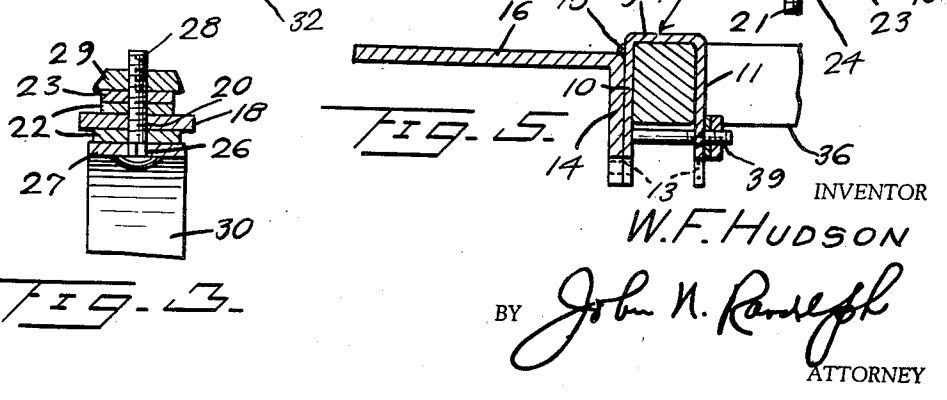


FIG. 5.

FIG. 3.

INVENTOR
W. F. HUDSON
BY John N. Randolph
ATTORNEY

United States Patent Office 2,927,477 Patented Mar. 8, 1960

2,927,477

STEERING ATTACHMENT FOR AN OUTBOARD MOTOR

Wisheart F. Hudson, Washington, D.C.

Application July 13, 1959, Serial No. 826,620

5 Claims. (Cl. 74—515)

This invention relates to a steering attachment which may be readily connected to a part of a conventional outboard motor to enable the outboard motor to be steered by movement of the leg of the operator and to leave both hands of the operator free for other purposes such as holding and manipulating a fishing rod and reel.

More particularly, it is an aim of the present invention to provide an attachment primarily intended for use for trolling and so that the operator of the boat may steer the boat by a back and forth movement of one leg while sitting on the stern seat of the boat, and leaving both hands of the operator free.

A further object of the invention is to provide a steering attachment which may be readily adjusted for most conveniently positioning parts of the attachment whereby one end of the attachment may be detachably secured rigidly to a swingably movable part of the outboard motor and the other end of the attachment may be conveniently connected to the leg of the operator.

Various other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, illustrating a presently preferred embodiment thereof, and wherein:

Figure 1 is a plan view of the attachment, shown in an operative position;

Figure 2 is a front elevational view of the attachment alone;

Figure 3 is an enlarged fragmentary vertical sectional view, taken substantially along a plane as indicated by the line 3—3 of Figure 1;

Figure 4 is an enlarged fragmentary sectional view, taken substantially along a plane as indicated by the line 4—4 of Figure 1, and

Figure 5 is a similar view, taken substantially along a plane as indicated by the line 5—5 of Figure 1.

Referring more specifically to the drawing, the steering attachment in its entirety is designated generally 7 and includes a clamp 8 of substantially U-shape cross section. The clamp 8 comprises an intermediate portion 9 and side walls 10 and 11 which project from said intermediate portion 9 and which are normally disposed substantially parallel to one another. The clamp 8 is formed of a resilient material, preferably metal, so that the walls 10 and 11 thereof may be sprung apart or may be drawn toward one another. Said walls 10 and 11 have aligned openings 12 and aligned openings 13. A rigid bar has a downturned end 14 which is secured to the outer side of the wall 10 in any suitable manner, as by welding, as seen at 15 in Figure 2. The other longer end of the bar comprises a substantially straight rigid arm 16 which extends outwardly from the wall 10 adjacent the intermediate portion 9 of the clamp and which is disposed in a plane substantially parallel to the plane of the clamp portion 9, as seen in Figure 5. The bar portion 14 is secured to the wall 10 substantially intermediate of its ends and extends to the bottom edge of said intermediate portion of the wall 10. Accordingly, the bottom part of the bar portion 14 is provided with an opening 13 which aligns with the opening 13 of the wall 10 and also the opening 13 of the wall 11, and which openings 13 are disposed a greater distance from the intermediate portion 9 of the clamp than the openings 12. The openings 12 are located adjacent the ends of both walls 10 and 11. The other end of the arm 16, located remote from the clamp 8, is provided with a series of longitudinally spaced openings 17.

The steering attachment 7 includes a second elongated rigid bar forming a link member 18 which is provided with longitudinally spaced openings 19 adjacent one end thereof, and longitudinally spaced openings 20 adjacent its opposite end. As seen in Figure 4, one end of the link member 18 is normally disposed beneath the last mentioned or forward end of the arm 16 and with one of the openings 19 thereof in alignment with one of the openings 17 for receiving the shank of a headed bolt 21 which extends downwardly through said aligned openings 17 and 19 and through two flat washers 22 and a split spring washer 23. A wing nut 24 engages the threaded shank end of the bolt 21. The washers 22 are disposed against opposite sides of the link member 18, so that one washer is disposed between the arm 16 and link member 18, and the spring washer 23 is disposed between the other washer 22 and the nut 24.

A leg embracing member or clip 25, preferably formed of a single strip of a resilient material such as spring metal, is swivelly mounted beneath the other end of the link member 18 by a fastening means as illustrated in Figure 3. Said fastening means includes a carriage bolt which extends upwardly through a noncircular opening 26 in a top portion 27 of the clip 25. The carriage bolt 28 has a noncircular portion adjacent the head thereof which fits nonturnably in the opening 26. The bolt 28 extends upwardly through and turnably engages in one of the openings 20 of the link member 18 and has flat washers 22 thereon disposed against opposite sides of the link member 18 and a split spring washer 23 disposed between the upper washer 22 and a wing nut 29, which threadedly engages the upper part of the bolt 28.

The spring clip 25 includes spring legs 30 and 31 which extend downwardly from the ends of the top portion 27. The leg 30 is longer than the leg 31 and has an inwardly turned terminal portion 32.

For the purpose of illustrating a preferred application and use of the steering attachment 7, a part of the stern of a small boat is shown in Figure 1 including a part of the stern seat 33 and a part of the transom 34. A portion of a conventional outboard motor 35 is shown mounted on the transom 34 and is attached thereto in a conventional manner. The outboard motor 35 has a forwardly extending substantially U-shaped carrying handle 36. A tiller or steering arm 37 extends forwardly from the outboard motor 35 on the left hand side of the carrying handle 36, as is conventional, and has a handle 38 at its forward end of a conventional type which is swivelly mounted to provide a throttle control.

The clamp 8 is engaged over the transverse front portion of the carrying handle 36 and is detachably secured immovably thereto by bolt and nut fastenings 39 which extend through the aligned openings 12 of the walls 10 and 11 and beneath the front portion of the handle 36 and which are adapted to be tightened for drawing the walls 10 and 11 together and into tight clamping engagement with the carrying handle. The openings 13 are provided to receive one of the bolt and nut fastenings 39 for securing the clamp 8 to the handle 36, if the vertical thickness of the front portion of said handle is greater than as illustrated in Figure 5, so that the bolts of the fastenings 39 cannot engage the openings 12 and pass under the handle 36.

The arm 16 extends forwardly from the carrying handle 36 and the link member 18 preferably extends to the right from the arm 16, or in a direction away from the tiller 37. As indicated in broken lines in Figure 1 at 40, the operator assumes a position sitting on the seat 33 facing to the front and to the right of the motor 35. The spring clip 25 is applied to the left leg 41 of the operator, above and adjacent the knee, by spreading the spring legs 30 and 31 to enlarge the gap 42 of said spring clip 25 sufficiently so that the clip can be applied to the leg. The wing nuts 24 and 29 are tightened enough so that there will be some frictional resistance to swinging movement of the link member 18 relative to the arm 16 and to swivel movement of the clip 25 relative to the link member 18. The operator, by swinging the leg 41 to the left or toward the arm 16, will move the clip 25 to the left to exert a thrust on the link member 18 toward the arm 16 for swinging said arm, the carrying handle 36 and the swivelly mounted parts of the motor 35 to the left for causing the motor to steer the boat, moving forwardly, to the right. If the leg 41 is swung in the other direction or the right, the clip 25 in moving to the right will exert a pull on the link member 18 to swing the arm 16, handle 36 and the swivelly mounted parts of the motor 35 to the left, for steering the boat in the opposite direction or to the left. It will thus be seen that the steering attachment 7 may be effectively utilized for steering an outboard motor driven boat with the leg and while the operator is in a seated position, leaving both hands of the operator free for handling a rod and reel while trolling.

The bolt 21 can be engaged with different ones of the openings 17 for varying the spacing between the clamp 8 and link member 18, and said bolt 21 may selectively engage either opening 19 and the bolt 28 may selectively engage either opening 20 for most conveniently locating the leg embracing clip 25 to suit the operator. Also, the clamp 8 may be applied from below to the carrying handle 36 to offset the arm 16 downwardly for offsetting the clip 25 downwardly, or the link member 18 may be positioned above rather than beneath the arm 16 for offsetting the clip 25 upwardly. In either of said adjustments, the clip 25 is swivelly supported beneath the link member 18.

Obviously, the link member 18 could be turned to extend in the opposite direction from the arm 16 if the operator prefers to be seated to the left rather than to the right of the motor 35. Likewise the steering attachment could be utilized with the operator facing to the rear and seated on a seat of the boat, not shown, disposed forwardly of the stern seat 33 and forwardly of the link member 18.

Various modifications and changes are contemplated and may be resorted to, without departing from the function or scope of the invention as hereinafter defined by the appended claims.

I claim as my invention:

1. A leg operated steering attachment for an outboard motor comprising a clamp detachably secured rigidly to a swingably movable part of an outboard motor, a rigid arm fixedly connected at one end thereof to the clamp and extending from the clamp in a forward direction relative to the outboard motor, a rigid link member, means pivotally connecting said link member adjacent one end thereof to the arm remote from said clamp for swinging movement of the link member relative to the arm in substantially a horizontal plane, a leg embracing member, and means swivelly attaching said leg embracing member to an underside of said link member remote from the arm for suspending the leg embracing member in a depending substantially vertical position beneath the link member, said link member being supported by and disposed at an angle to the arm whereby movement of the leg embracing member in directions toward or away from the arm will exert a thrust or pull on said link member for swingably moving the arm and clamp and the outboard motor part to which said clamp is secured.

2. A leg operated steering attachment for outboard motors as in claim 1, said first mentioned means and last mentioned means each being adjustably connected to said link member for varying the spacing between said leg embracing member and the arm, and said first mentioned means being adjustably connected to said arm for varying the spacing between said link member and the clamp.

3. In combination with an outboard motor having a carrying handle, a leg operated steering attachment comprising a clamp detachably secured rigidly to the carrying handle, a rigid arm fixed to said clamp and extending therefrom in a forward direction from the outboard motor, a rigid link member extending laterally from said arm remote from the clamp, means pivotally connecting said link member to the arm for swinging movement of the link member relative to the arm in substantially a horizontal plane, a leg embracing clip, and means swivelly connecting said clip to the underside of the link member, remote from the arm, whereby movement of the leg embracing member toward or away from said arm will effect a swinging movement of the arm and carrying handle for steering the outboard motor, the plane of said clip being disposed substantially normal to the planes of the carrying handle, arm and link member, said link member being supported by the arm and said clip being supported by the link member.

4. A steering attachment for an outboard motor as in claim 3, said clip having resilient jaws adapted to yieldably embrace the leg above the knee.

5. A steering attachment as in claim 3, said first mentioned means being adjustably connected to the arm and link member and said last mentioned means being adjustably connected to the link member for varying the spacing between the clip and arm and the spacing between said clamp and the link member.

References Cited in the file of this patent

UNITED STATES PATENTS

1,314,995	Whigam et al.	Sept. 2, 1919
1,809,021	Butler	June 9, 1931
2,224,276	Salmen	Dec. 10, 1940
2,543,490	England	Feb. 27, 1951
2,543,553	McAllister	Feb. 27, 1951
2,553,704	Murphy	May 15, 1951
2,561,440	Garson	July 24, 1951
2,590,820	Jedlicka	Mar. 25, 1952
2,600,852	Coots	June 17, 1952
2,624,212	Utguhart	Jan. 6, 1953