Nov. 7, 1961 L. J. SANDMAN 3,007,429

PORTABLE STEERING APPARATUS FOR OUTBOARD MOTOR BOATS

Filed Jan. 19, 1959

Fig. 1

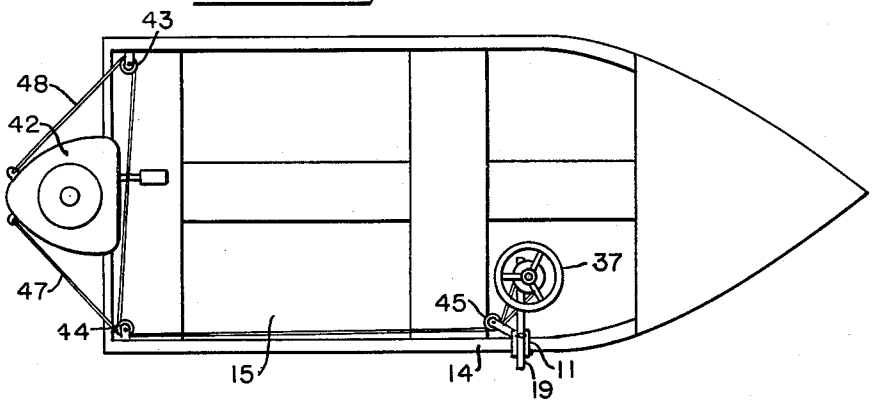


Fig. 2

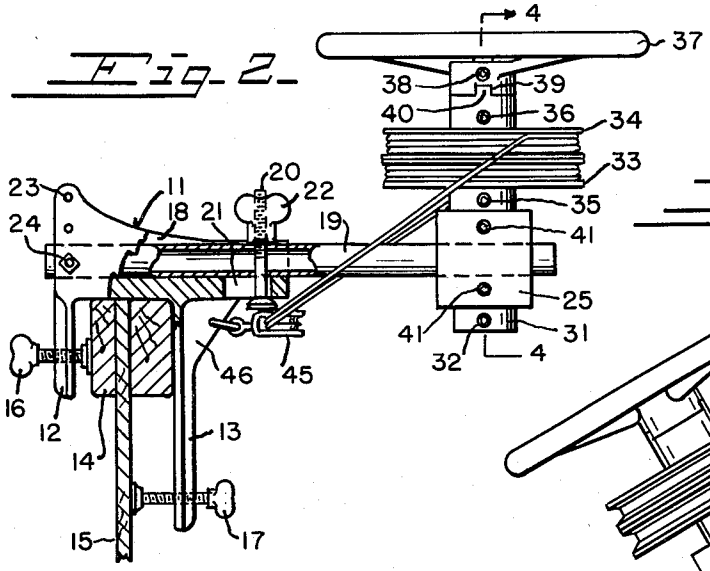


Fig. 3

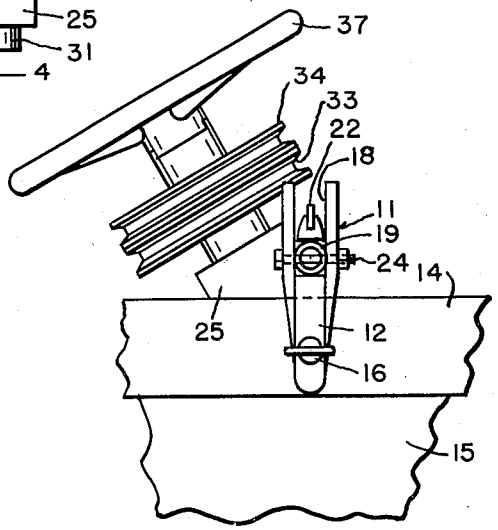
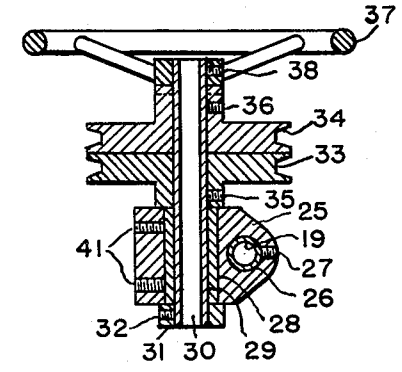


Fig. 4



INVENTOR.
LEONARD J. SANDMAN.
BY H. C. Kavel.
ATTORNEY.

United States Patent Office 3,007,429 Patented Nov. 7, 1961

3,007,429

PORTABLE STEERING APPARATUS FOR OUTBOARD MOTOR BOATS

Leonard J. Sandman, 8245 Royal Heights Drive, Cincinnati, Ohio

Filed Jan. 19, 1959, Ser. No. 787,419
3 Claims. (Cl. 114—160)

This invention relates to a portable apparatus for steering outboard motor boats from a position removed from the motor. I am aware that a number of devices have been proposed for this purpose, but in all instances they are quite complicated and costly and in many cases the devices interfere with free movement of persons in the boat. A great number of people carry outboard motors in their car for use on rented boats and with my improvement, which can be carried in a small package, they can quickly and easily install the steering apparatus on the boat to provide steering from a seat removed from the outboard motor. My device is constructed to be attached to either side of the boat whereby the user can sit on the left or the right, leaving the opposite side of the boat free for movement of persons in the boat.

The object of my invention is to provide a portable steering apparatus of simple construction which can be easily assembled and attached to boats of various cross-sectional contour with a minimum of effort.

A further object is to provide a steering column which can be adjusted to any angular position for ease of operation.

A further object is to provide means for adjusting the vertical position of the steering column relative to the contour of the side of the boat.

A further object is to provide means for adjusting the tension on the steering column.

My invention will be further readily understood from the following description and claims, and from the drawings, in which latter:

FIG. 1 is a plan view of a boat with my improvement mounted thereon.

FIG. 2 is a front elevation of my improvement, with the steering wheel in a vertical position, and partly broken away.

FIG. 3 is a side view of the same, with the steering wheel in angular position.

FIG. 4 is a detail vertical section, taken in the plane of the line 4—4 of FIG. 2.

My improved steering mechanism comprises a supporting member 11 having depending spaced apart arms 12 and 13 for attaching the supporting member to a gunwale 14 of a boat 15 by means of clamp bolts 16 and 17. The upper portion of the member 11 is formed to provide a channel 18 to support a transverse tube 19. The tube 19 is secured in the channel by means of a bolt 20 extending through a slot 21 in the base of the channel and through the tube 19 with a thumb nut 22 securing the tube to the channel. The other end of the channel side walls are provided with a series of apertures 23 for reception of a bolt 24 extending through the tube 19 and the walls of the channel to firmly hold the tube 19 in the channel.

A bearing block 25 is provided with a horizontal aperture 26, through which the tube 19 extends. The bearing block can be locked in adjusted position on the tube 19 in endwise position and/or angular position by means of the set screw 27. The bearing block 25 has a vertical aperture 28 for reception of a sleeve 29. A steering column 30 is rotatable in the sleeve and is held in endwise position by means of a collar 31 secured to the column by means of a set screw 32.

Sheaves 33 and 34 are received on the column above

the bearing block and held on the column by means of set screws 35 and 36. A steering wheel 37 is attached to the top of the column by a set screw 38. The hub of the steering column is provided with a key recess 39 for engagement with an extension 40 on the hub of the sheave 34. Set screws 41 in the bearing block 25 provide tension on the sleeve 29 to create the desired tension on the steering column 30.

The outboard motor 42 is mounted on the rear of a boat 15 and a single pulley 43 and a double pulley 44 are secured to the respective rear portions of the boat. A double pulley 45 is pivoted to a flange 46 on the supporting member 11. Flexible cords 47 and 48 have one end attached to the motor and extend over the pulleys with the other ends wound on and attached to the sheaves in reverse directions to provide steering of the boat.

With my improvement the steering wheel can be positioned on either side of the boat and the flexible cables adjusted to provide the proper direction of steering wheel manipulation to steer the boat. Attaching the device to a boat with angular gunwales, the bolt 24 is positioned in one of the other apertures 23 to set the tube 19 in a horizontal position.

The device can be easily assembled or disassembled and packed in a small package for transportation. The steering column can be tilted to any desired angle by loosening the set screw 27, tilting the column and then tightening the set screw. On some outboard motors the point of attachment of the flexible cables may be at the forward end of the motor. In such cases the set screws 35 and 36 are loosened and the sheaves rotated to wind the flexible cables in the opposite direction. The set screws are then tightened to provide the proper steering direction.

With the entire operating mechanism of the device secured to one side of the boat, it does not interfere with free movement of the occupants in the boat.

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

1. In combination with a boat having gunwales and an outboard motor mounted on the rear of said boat, a portable remote steering apparatus adapted to be mounted on the boat comprising a supporting member, said member provided with depending spaced arms having clamping bolts to firmly hold said member to one of the gunwales of the boat, the upper portion of said member forming a channel, a tubular member extending inwardly and supported in said channel, a vertical pivot bolt extending through said tubular member and said channel, a series of apertures in said channel for a cross-bolt to hold the end of the tubular member for adjusting the angular position of said tubular member relative to said channel a bearing block adjustable on the inner end of said tubular member, a steering column extending through said bearing block, sheaves on said column, a steering wheel connected to said sheaves, and flexible connections extending from said sheaves over pulleys and connected to said motor controlled by said steering wheel for changing the driving position of said outboard motor relative to said boat.

2. In combination with a boat having gunwales and an outboard motor mounted on the rear of said boat, a portable remote steering apparatus adapted to be mounted on said boat comprising a supporting member, said member provided with depending spaced arms, said arms having clamping bolts to firmly hold said member to a gunwale of the boat, the upper portion of said member forming a channel extending transverse of said boat, a tubular member extending inwardly and supported in said channel, a vertical pivot bolt extending through said

tubular member and said channel, a series of apertures in said channel for a cross-bolt to hold the end of the tubular member for adjusting the angular position of said tubular member relative to said channel, a bearing block adjustable on the inner end of said tubular member, a steering column extending through said bearing block, sheaves on said column, a steering wheel connected to said sheaves, flexible connections extending from said sheaves over pulleys and connected to said motor controlled by said steering wheel for changing the driving direction of said outboard motor, and means for adjusting the tension on said steering column.

3. In combination with a boat having gunwales and an outboard motor mounted on the rear of said boat, a portable remote steering apparatus adapted to be mounted on one side of said boat comprising a supporting member, said member provided with depending spaced arms, said arms having clamping bolts to firmly hold said supporting member to the gunwale of said boat, the upper portion of said member forming a channel, a tubular member extending inwardly and supported in said channel, a vertical pivot bolt extending through said tubular member and said channel, a series of apertures in said channel for a cross-bolt to hold the end of the tubular member for adjusting the angular position of said tubular member relative to said channel, a bearing block rotatably and endwise adjustable on the inner end of said tubular member, a steering column extending through said bearing block, means for adjusting the tension on said steering column, sheaves on said column, a steering wheel connected to said sheaves, and flexible connections extending from said sheaves over pulleys and connected to said motor controlled by said steering wheel for changing the driving direction of said outboard motor.

References Cited in the file of this patent

UNITED STATES PATENTS

964,879	Park	July 19, 1910
2,199,034	Witczak	Apr. 30, 1940
2,627,833	Schroeder	Feb. 10, 1953
2,838,021	West	June 10, 1958