Aug. 5, 1958 H. FREY 2,845,891

BOAT STEERING APPARATUS

Filed March 11, 1957

Fig. 1

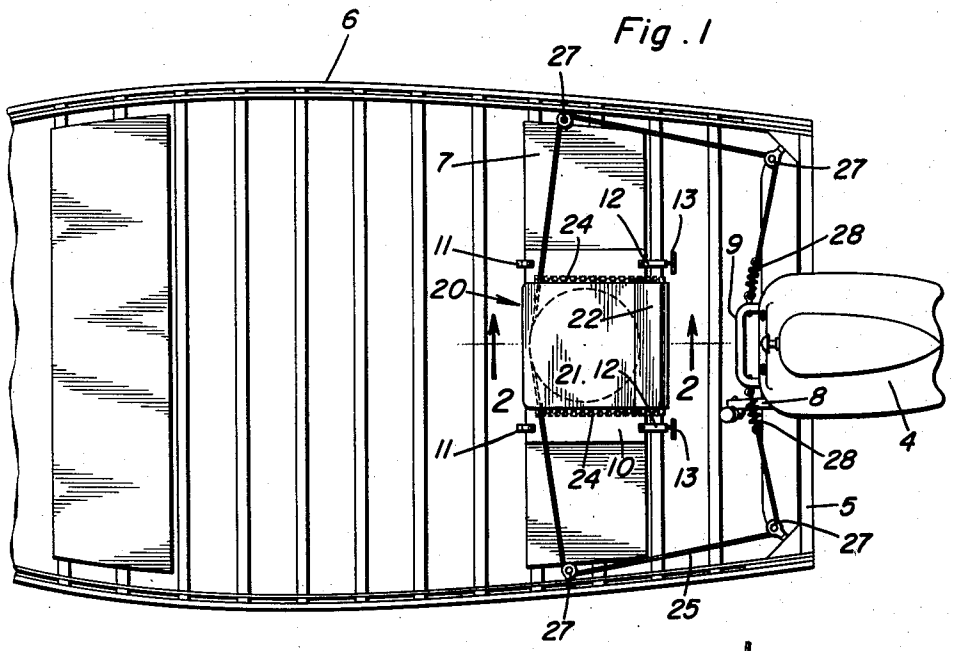



Fig. 3

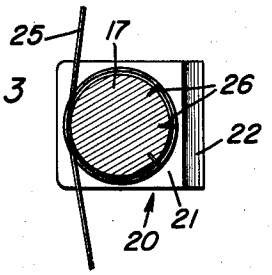
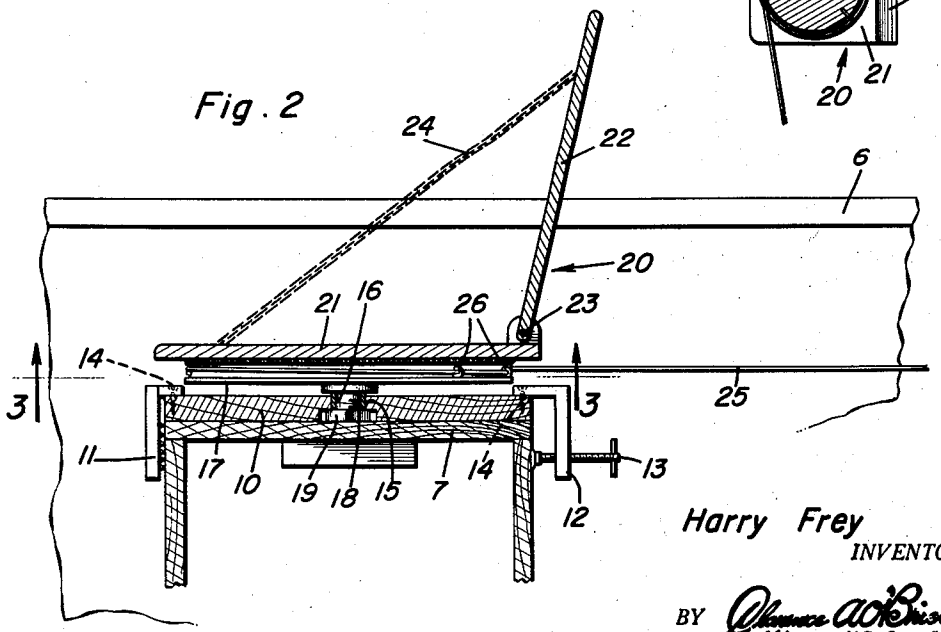



Fig. 2




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# BOAT STEERING APPARATUS

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1 Claim. (Cl. 114—144)

The present invention relates to new and useful improvements in steering apparatuses particularly for outboard motor propelled boats and has for its primary object to provide, in a manner as hereinafter set forth, novel means whereby the helmsman may steer such boats by bodily movement, thus leaving both hands free to be used for other purposes.

Another very important object of the invention is to provide a steering apparatus of the aforementioned character comprising a swivelled folding helmsman's chair which is adapted to be expeditiously mounted for use on one of the usual boat seats and removed therefrom when desired.

Other objects of the invention are to provide a boat steering apparatus of the character described which will be comparatively simple in construction, strong, durable, highly efficient and reliable in use, compact, of lightweight and which may be manufactured at low cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a top plan view, showing a steering apparatus embodying the present invention installed;

Figure 2 is a view in vertical longitudinal section, taken substantially on the line 2—2 of Figure 1; and

Figure 3 is a view in horizontal section, taken, substantially on the line 3—3 of Figure 2.

Referring now to the drawing in detail, it will be seen that reference character 4 designates a conventional outboard motor mounted on the transom 5 of a boat or hull 6 and swingable for steering the boat. The hull or boat 6 includes a stern seat 7. Reference character 8 designates the usual steering arm of the motor 4, said motor further including a lifting handle 9.

The embodiment of the present invention which has been illustrated comprises a base plate 10 of suitable wood or metal which is adapted to be removably secured on the boat seat 7. Toward this end, the base plate 10 is provided with front and rear clamps 11 and 12, respectively. The clamps 12 comprise hand screws 13 which are engageable with the seat 7. The front and rear clamps 11 and 12 are fixed, as by screws 14, on the base plate 10. The base plate 10 includes a raised contral opening 15 in which is mounted a bearing 16.

Swivelly mounted on the base plate 10 is a peripherally grooved horizontal pulley 17 of a substantial diameter. Fixed centrally on the pulley 17 and depending therefrom is a short threaded shaft or pin 18 which is journalled in the bearing 16. In the embodiment shown,



a retaining nut 19 is threaded on the shaft 18 beneath the plate 10 and recessed therein. Any other suitable means may be employed for rotatably mounting the pulley 17 on the plate 10.

Mounted on the pulley 17 is a helmsman's chair which is designated generally by reference character 20. The chair 20 includes a seat 21 which is fixed on the pulley 17. The chair 20 further includes a foldable back 22 which is hingedly mounted, as at 23, on the rear portion of the seat 21 for swinging movement in a vertical plane. Flexible braces in the form of chains 24 have their ends connected to the seat 21 and the free end portion of the back 22 for supporting said back in an upright or operative position.

A cable 25 has an intermediate portion wrapped once around the pulley 17 and secured thereto at 26. The cable 25 is trained around pulleys 27 appropriately located in the hull or boat 6 and has its ends yieldingly connected to the motor 4 from the opposite sides thereof by coil springs 28. The elements 25, 27 and 28 are preferably those of remote steering control accessories which are now available on the market.

It is thought that the operation of the apparatus will be readily apparent from a consideration of the foregoing. Briefly, the helmsman occupies the chair 20 and the motor 4 is normally held in its neutral or forward position, as shown. If a left turn, for example, is to be made, the occupant of the chair 20 turns in that direction, thus rotating said chair 20 counterclockwise as viewed in Figure 1 of the drawing. Through the medium of the cable 25, actuated by the grooved pulley 17, the motor 4 is swung in the opposite direction in an obvious manner. Of course, if a right turn is to be made the occupant of the chair 20 turns in that direction or clockwise. The construction and arrangement of the base 10 and the securing clamps 11 and 12 permit the device to be expeditiously mounted on seats of various types and dimensions. When the apparatus is removed from the boat the back 22 of the chair 20 may be swung downwardly on the seat 21 for compactness.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

In a boat having a seat and an outboard motor thereon swingable for steering, a horizontal pulley swivelled on said seat for rotation in opposite directions respectively, a rotary seat fixed on said pulley for rotation by a person on the rotary seat to rotate the pulley, and means for swinging said motor in opposite directions in response to rotation of said pulley in opposite directions comprising a cable wound around said pulley and operatively connected to said motor to swing the same.

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