No. 809,072.

PATENTED JAN. 2, 1906.

A. B. McCOY.

STEERING DEVICE FOR BOATS.

APPLICATION FILED MAR. 14, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

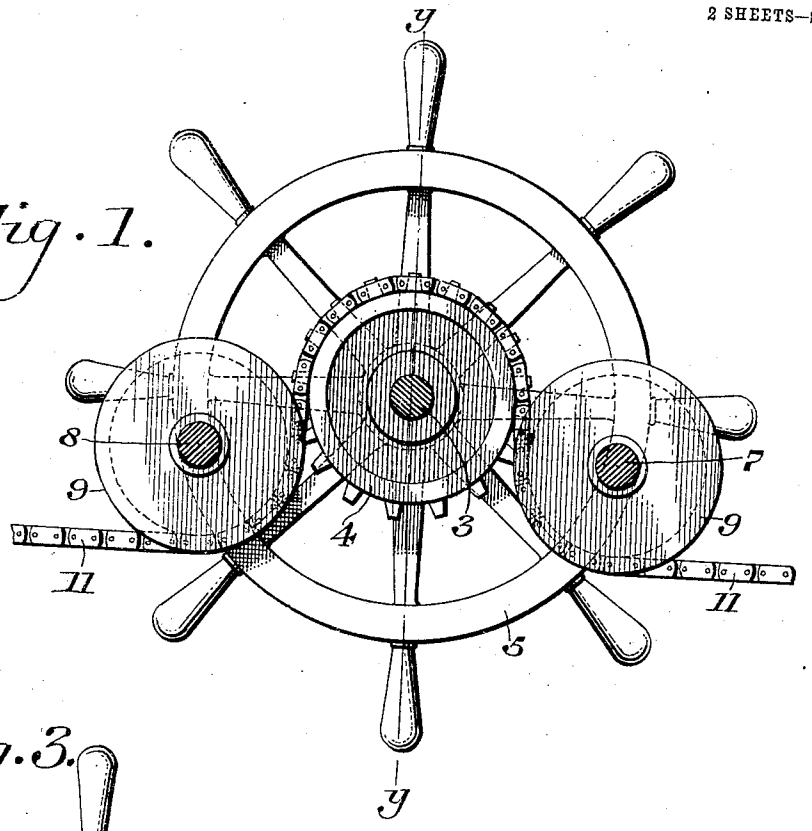


Fig. 3.

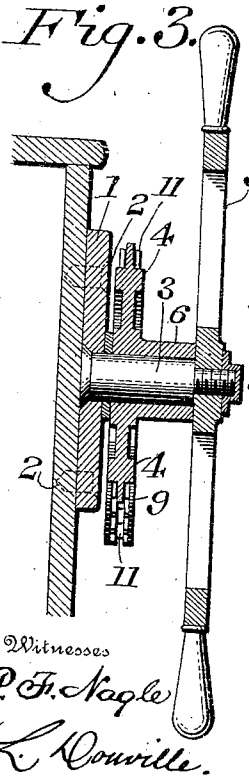
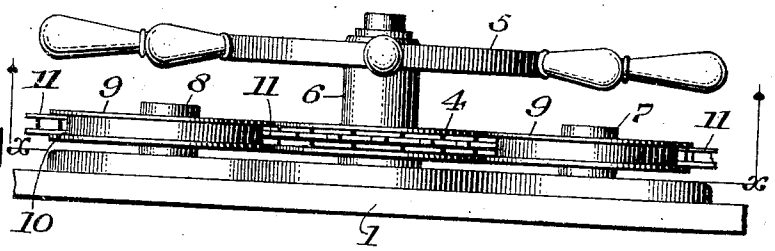


Fig. 2.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 4.

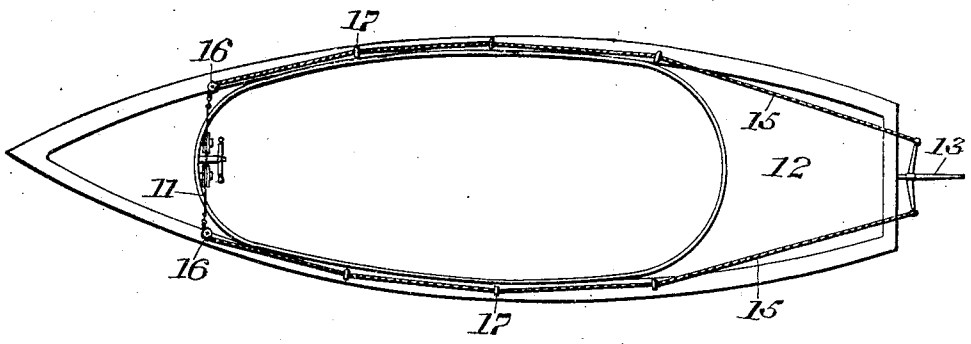
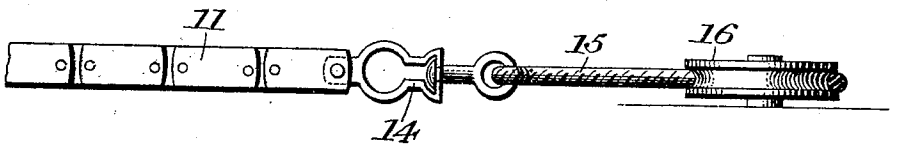


Fig. 5.



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UNITED STATES PATENT OFFICE.

ALONZO BURR McCOY, OF BURLINGTON, NEW JERSEY.

STEERING DEVICE FOR BOATS.

No. 809,072. Specification of Letters Patent. Patented Jan. 2, 1906.

Application filed March 14, 1905. Serial No. 250,026.

To all whom it may concern:

Be it known that I, ALONZO BURR McCOY, a citizen of the United States, residing at Burlington, in the county of Burlington, State of New Jersey, have invented a new and useful Steering Device for Boats, of which the following is a specification.

My invention consists of a new and useful steering device for boats wherein I provide direct action upon the tiller and dispense with the usual winding of the tiller rope or chain upon a drum.

Figure 1 represents a sectional view on line *x x*, Fig. 2, of a steering device embodying my invention. Fig. 2 represents a plan view thereof. Fig. 3 represents a sectional view on line *y y*, Fig. 1. Fig. 4 represents a plan view of a boat, showing the device in position thereon. Fig. 5 represents a plan view showing a portion of the device in detached position.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings, 1 designates a plate provided with suitable openings for the reception of screws 2, whereby the plate and device are secured in proper position upon the boat. 3 designates a shaft secured to said plate, upon which is mounted a sprocket-wheel 4, said sprocket being in suitable connection with the hand or steering wheel 5, in the present instance by means of the sleeve 6. 7 and 8 designate pins which are mounted on said plate 1. Mounted upon said pins are loose pulleys or sheaves 9, which are adapted to rotate in the same plane as that of the sprocket, the peripheries of which are provided with the grooves 10, as will be seen from Fig. 2, said pulleys being situated adjacent the wheel 4 and slightly below the same, but in such a position with respect thereto that the teeth of the sprocket pass into the grooves of each of said pulleys, whereby the latter serve not only to positively insure that the chain is properly directed or guided to the sprocket, but also serve as guards on each side of said sprocket to prevent the chain from leaving the same or from being twisted or fouled.

11 designates a chain which is in suitable connection with the rudder or tiller of the boat and which is passed around the pulleys and is in engagement with the teeth of the sprocket-wheel 4. The chain, as above stated, may be connected with the rudder in any suitable manner. In the drawings I have shown one means of connection, wherein 12 designates the boat to which the steering device is secured and which is provided with a rudder 13. Connected with the chain 11 at each end thereof, in the present instance by means of swivels 14, are the ropes 15, which pass around the pulleys 16 on each side of the boat and through suitable guides 17 and are connected with the rudder, whereby it will be seen that by movement of the chain the ropes on either side may be operated in the required direction in order to turn the rudder.

The operation will be readily seen. By means of my construction the rudder can be operated in either direction by turning the wheel 5, which rotates the gear 4 and carries with it the chain 11, which is movable in either direction, depending upon the movement of the wheel 5, and the boat is thus guided.

It will be evident that the chain passes directly from the rudder on each side and around the pulleys 9 and over or under the gear 4, and by reason of this construction fouling of the tiller-guides is prevented, since there is no winding upon a drum, as is usually the case and in which the tiller rope or chain often becomes tangled and the boat thus becomes unmanageable.

It will be evident that various changes may be made in the details of construction shown, and I do not, therefore, desire to be limited in every instance to the exact construction shown and described.

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

1. In a device of the character described, a sprocket rotatably mounted, a chain in engagement therewith and in suitable connection with the rudder and means situated adjacent said sprocket serving both to properly guide the chain thereto and to act as guards for preventing the chain from leaving said sprocket, whereby fouling is prevented.

2. In a device of the character described, a sprocket rotatably mounted, a chain in engagement therewith and in suitable connection with the rudder and pulleys situated adjacent said sprocket serving to properly guide the chain thereto and to act as guards to prevent the chain from leaving said sprocket.

3. In a device of the character described, a sprocket rotatably mounted on a frame, a chain in engagement therewith and in suitable connection with a rudder, and pulleys mounted on the frame and so located with

respect to said sprocket that the teeth thereof pass into the grooves of said pulley whereby said pulleys serve both to properly guide the chain to said sprocket, and prevent the same from leaving said sprocket.

4. In a device of the character described, a sprocket rotatably mounted, a chain in engagement therewith and in suitable connection with a rudder, pulleys mounted adjacent said sprocket and having grooves in their periphery into which the teeth of said sprocket are adapted to pass, whereby the said pulleys serve both to guide the chain and to prevent the same from leaving said sprocket and means for operating the said sprocket.

ALONZO BURR McCOY.

Witnesses:
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