(No Model.)

G. RIEXINGER.

BOAT PROPELLING MECHANISM.

No. 424,026. Patented Mar. 25, 1890.

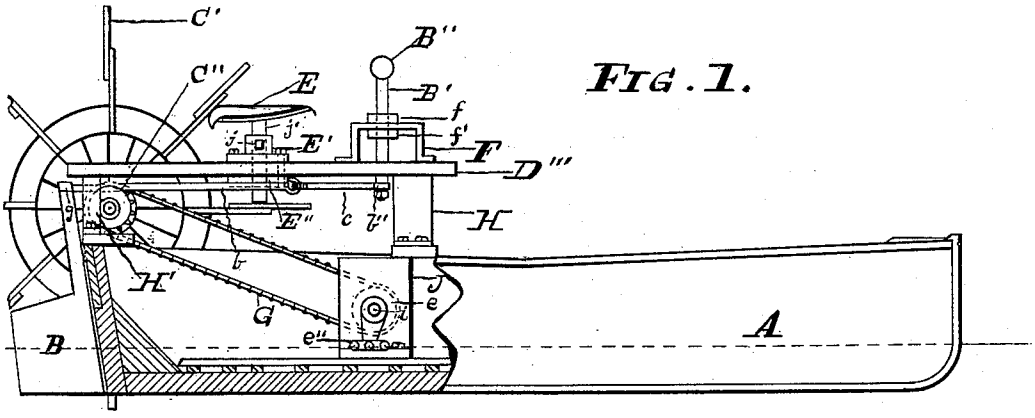


FIG. 1.

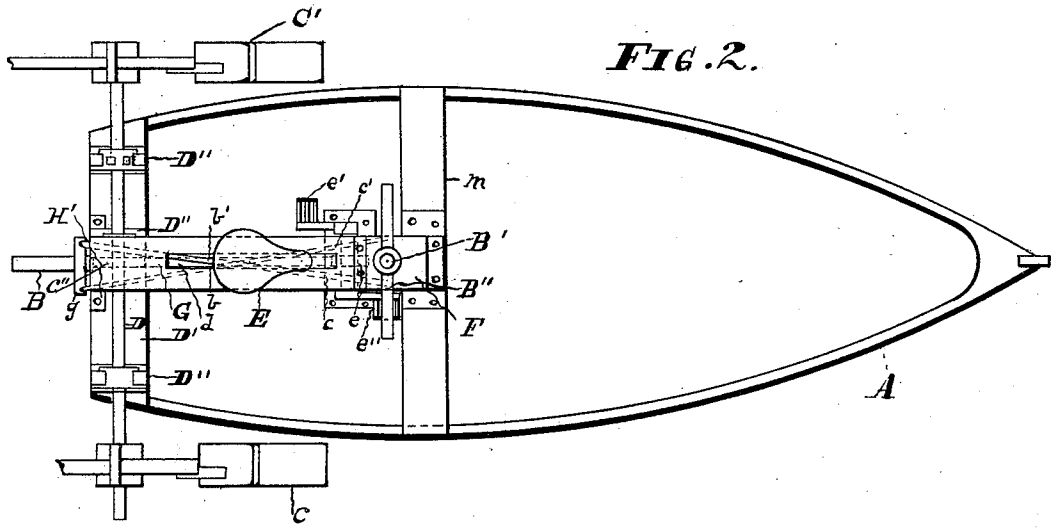
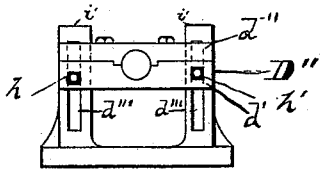


FIG. 2.

FIG. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

GEORGE RIEXINGER, OF BUFFALO, NEW YORK.

BOAT-PROPELLING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 424,026, dated March 25, 1890.

Application filed October 21, 1889. Serial No. 327,713. (No model.)

To all whom it may concern:

Be it known that I, GEORGE RIEXINGER, of Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements on Boat-Propelling Mechanism; and I do hereby declare that the following description of my said invention, taken in connection with the accompanying sheet of drawings, forms a full, clear, and exact specification, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has general reference to improvements in propelling mechanism for skiffs and other boats; and it consists, essentially, in the novel and peculiar combination of parts and details of construction, as hereinafter first fully set forth and described, and then pointed out in the claims.

In the drawings already mentioned, which serve to illustrate my said invention more fully, Figure 1 is a side elevation of a skiff or other boat, portions being broken away to illustrate the interior mechanism. Fig. 2 is a plan of the same, and Fig. 3 an elevation of one of the shaft-bearings.

Like parts are designated by corresponding letters of reference in all the figures.

The object of my invention is the production of a simple and efficient propelling mechanism for skiffs, punts, and other boats. To attain this result I construct my device essentially as shown in the drawings, in which—

A represents the boat, and B the rudder thereof.

C C′ are the paddle-wheels, removably fastened on a shaft D, which is journaled in bearings *d′*, adjustably fastened to standards D″. These standards D″ are provided with two vertical arms *i″ i′*, having longitudinal slots *d‴ d‴*. Upon these arms slide the bearings *d′*, which are provided with caps *d″* and with bolts *h h′*, passing through the slots to nuts on the opposite side, whereby the shaft and wheels may be raised and lowered, as well as held in any desired position, by the loosening or tightening of the bolts, as the case may be. These standards are securely bolted to a bottom board D′, which is fastened to the sides and stern of the boat.

Centrally upon the wheel-shaft D is placed a sprocket-wheel C″, over which runs a link belt G, which connects with a similar sprocket-wheel *e*, fastened to a shaft *i*, which is journaled in a U-shaped frame J, as clearly shown in Fig. 1 of the drawings. On the extremities of this shaft *i* are located pedals *e′ e″*, by means of which said shaft, and through it the wheel-shaft and paddles, are revolved in an obvious manner. The U-shaped frame J is bolted to the floor or foot-board and keel of the boat in any suitable manner.

D‴ designates the backbone, supported at the stern by a U-shaped standard H′, fastened to the bottom board D′, and at the forward end by a similar standard H, secured to a cross-board *m*. This backbone is provided with a longitudinal slot *d* for the reception of the lower end of a seat-bracket E, as hereinafter described. At the forward end of this backbone is placed a U-shaped bracket F to support a spindle B′ of the steering-gear, said spindle being provided with two collars *f f′*, placed over and under the horizontal portion of said bracket to prevent the spindle from lifting when operated. This spindle is provided at its lower extremity with a cross-bar *b″*, which engages the ends of crossed connecting-rods *b b′*, connecting the said cross-bar *b″* with a cross-bar *g* on the rudder B, already mentioned. These connecting-rods *b b′* may sometimes be provided with further rods *c c′* and connected together by eyes, as shown in Fig. 1. Upon the upper end of the spindle B′ is placed a tiller B″ to operate the steering-gear.

E is the operator's seat, provided with a downwardly-pending shank *j′*, passing through a central aperture provided in the seat-bracket E′ and held in position by a set-screw *j*, whereby the seat may be raised and lowered to suit the size of the operator. This seat-bracket E′ is provided on its lower end with a longitudinal rib to fit in the slot *d* of the backbone, and also with bolts to screw into a plate E″, placed on the under side of the backbone, whereby the said seat may be moved in either direction to suit the operator, and by the tightening of the bolts already mentioned hold the seat and bracket in any desired position.

In some cases certain portions of my device may be slightly altered—as, for instance, I may leave the connecting-rods of the steering-

gear parallel, as shown in Fig. 1, instead of crossed, without changing the nature of my invention.

Having thus fully described my invention, I claim as new and desire to secure to me by Letters Patent of the United States—

1. In hand-propellers, the combination, with the backbone D‴, having the longitudinal slot *d*, of the seat E, having the shank *j'*, journaled in the seat-bracket E', having the set-screw *j*, and the plate E'' underneath the backbone, substantially as described.

2. In a boat-propelling mechanism, the combination, with the backbone supported at its forward and after ends, as described, of the seat-bracket sliding on said backbone, the seat vertically adjustable in said bracket, the U-shaped frame fastened in the bottom of the boat, a shaft journaled within said frame and having centrally a sprocket-wheel within the parallel sides thereof and on the extremities outside of the frame cranks and pedals, bearings fastened to a cross-board on the boat, a paddle-shaft having paddles at both ends journaled in said bearings, a sprocket-wheel on said shaft, and a link belt connecting said sprocket-wheels, as described.

3. The combination, with the backbone having the seat, as described, and secured to cross-boards fastened to the boat, of an inverted-U-shaped frame secured to the forward end thereof, a vertical spindle having a handle at its upper end and with collars above and below the horizontal portion of said frame and journaled in said frame and backbone, a cross-bar secured to the lower end of said spindle, a rudder having a cross-bar, and jointed rods connecting said cross-bars and crossing each other, substantially as described.

4. The combination of the backbone provided with the seat and fastened by means of supports to cross-boards on the boat, a frame having a shaft and a sprocket-wheel on said shaft between the parallel sides thereof, said frame being fastened in the bottom of the boat, a series of vertically-adjustable bearings consisting of a base having slotted uprights, half-bearings secured together by bolts and sliding between said uprights, one of said half-bearings provided with apertures opposite said slots, bolts passing through said slots and apertures and having nuts, as described, paddle-shaft having paddle-wheels at both ends journaled in said bearings, a sprocket-wheel on said shaft, and a link belt connecting said sprocket-wheels, as described.

In testimony that I claim the foregoing as my invention I have hereto set my hand in the presence of two subscribing witnesses.

GEORGE RIEXINGER.

Attest:
WM. O. STARK,
THOMAS RIEXINGER, JR.