(No Model.)

J. R. ANDREWS.

RIDING OR MOORING BITT.

No. 572,397. Patented Dec. 1, 1896.

Fig. 1.

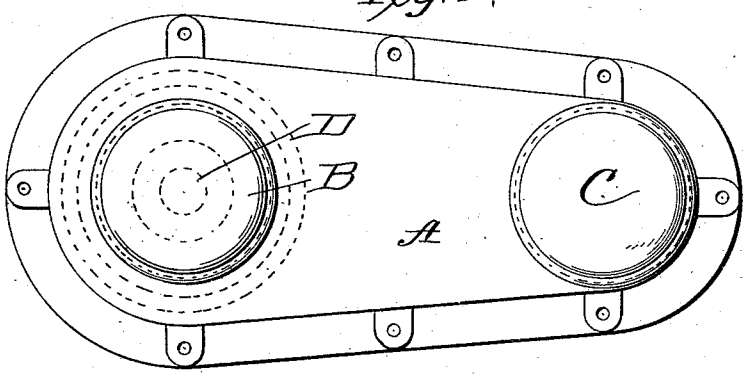


Fig. 2.

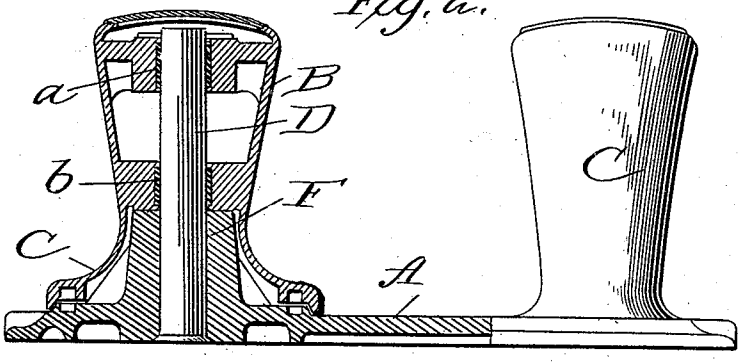


Fig. 3.

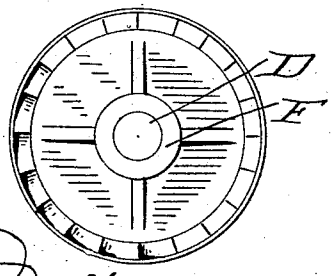
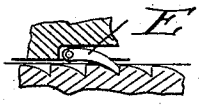


Fig. 4.



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UNITED STATES PATENT OFFICE.

JACOB R. ANDREWS, OF BATH, MAINE, ASSIGNOR TO THE HYDE WINDLASS COMPANY, OF SAME PLACE.

RIDING OR MOORING BITT.

SPECIFICATION forming part of Letters Patent No. 572,397, dated December 1, 1896.

Application filed July 19, 1895. Serial No. 556,469. (No model.)

To all whom it may concern:

Be it known that I, JACOB R. ANDREWS, a citizen of the United States, residing at Bath, in the county of Sagadahoc and State of Maine, have invented certain new and useful Improvements in Riding or Mooring Bitts, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to mooring and riding bitts which are ordinarily used in connection with a line or hawser in mooring vessels or warping them into docks.

Ordinarily in docking vessels or warping them through narrow places it is necessary usually to handle several lines independently of each other, and this requires a number of capstans or winches equal to the number of lines to be handled, or where there is but one capstan or winch it is necessary, after getting the desired strain on one line, to hold it temporarily in order that it may be removed from the capstan and secured to the bitts.

The object of the present invention is to save the time which this operation takes and to render unnecessary the use of a number of capstans and at the same time to furnish means by which the end can be accomplished in a much simpler manner.

In the accompanying drawings, Figure 1 represents my invention in a plan view. Fig. 2 is an elevation of a stationary bitt and with a movable bitt in section made according to my invention. Fig. 3 is a plan view of the toothed base, and Fig. 4 is a detail of the pawl and ratchet.

It will be understood that I do not limit myself to the location of the improved bitt made the subject of this application, as it may be used in any situation where it may be found useful.

In the accompanying drawings, Figs. 1 and 2 show a pair of bitts mounted upon a base-plate A, the bitt C being of ordinary and usual construction and being made rigid with the base. The bitt B, I have made movable upon a standard D, which is held in a socket or hub F, which projects upwardly from the base-plate A. The standard D is stationary and projects upwardly from the hub to provide a bearing for the bitt B, which conforms in shape generally to the ordinary bitt. The bitt B is a separate casting and is fitted to the standard D, as shown, contacting therewith at the points *a* and *b*, as shown in the left of Fig. 2, where a suitable packing may be inserted in a recess in the faces of the bearing parts of the casting. The lower end of the bitt flares outwardly, as shown at *c*, and is provided in its lower face with pockets, which receive pawls E, and these pawls are adapted to engage ratchet-teeth circumferentially arranged beneath the position of the pawls in the base-plate, as shown in Figs. 3 and 4.

In operation several turns of the line are taken around the bitt and the free end taken to the capstan or winch, and in the rotation of the capstan under power the line is drawn in as desired, as the bitt is free to rotate in the direction of rotation of the capstan or winch. The line may then be removed from the capstan and made fast around the bitt C. It will be seen that the pawls prevent rotation of the bitt B in the opposite direction and the friction of the turns of the line around the bitt is sufficient to hold it securely and prevent slipping. Thus the capstan or winch is left free to handle other lines, and with a movable bitt for each independent line a single capstan or winch is entirely sufficient to manipulate any number of lines quickly and in a most effective manner.

What I claim is—

A mooring or riding bitt, comprising a base, a spindle projecting upwardly from said base with a movable shell thereon, and a pawl-and-ratchet connection between the moving and the fixed parts, and a fixed bitt secured to or forming a part of the base whereby is provided a movable bitt adapted to be rotated to allow the line or hawser to be rounded upon the capstan and a fixed or stationary bitt to which the line may be tied or secured, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB R. ANDREWS.

Witnesses:
JOHN L. HYDE,
HUBERT H. MCCARTY.