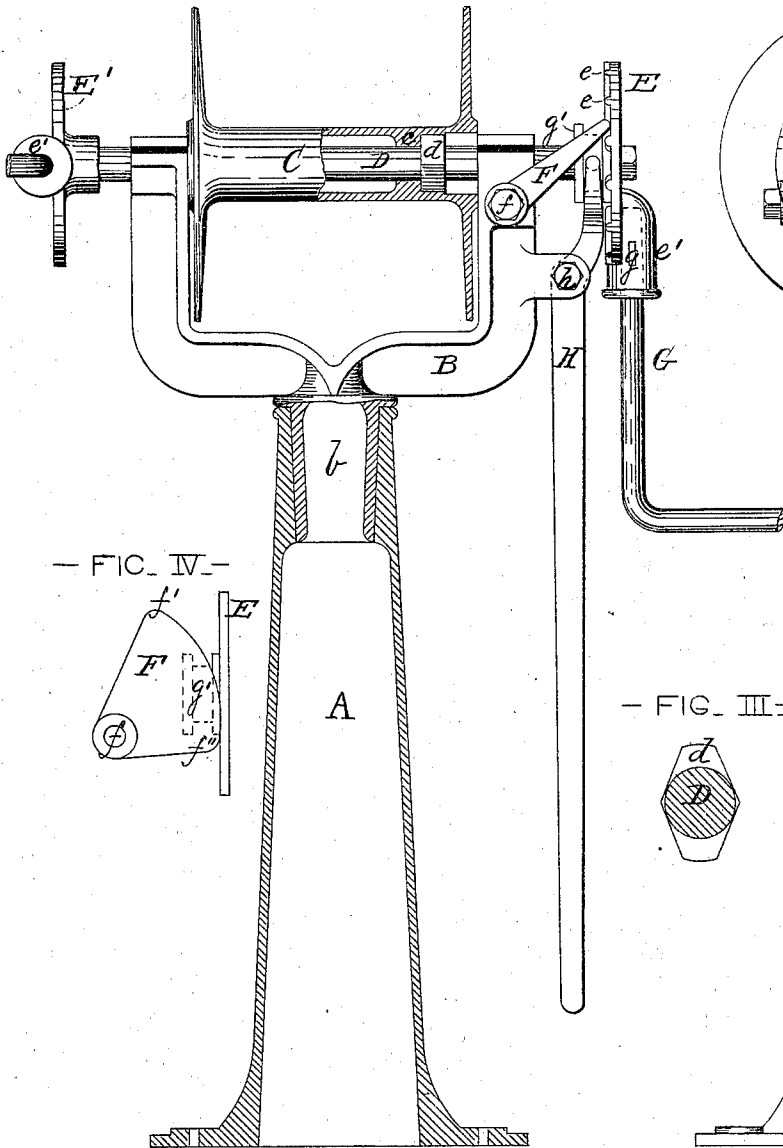


O. REEDER.
Windlasses.

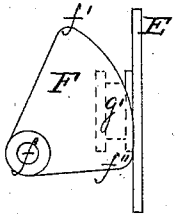
No. 135,009.

Patented Jan. 21, 1873.

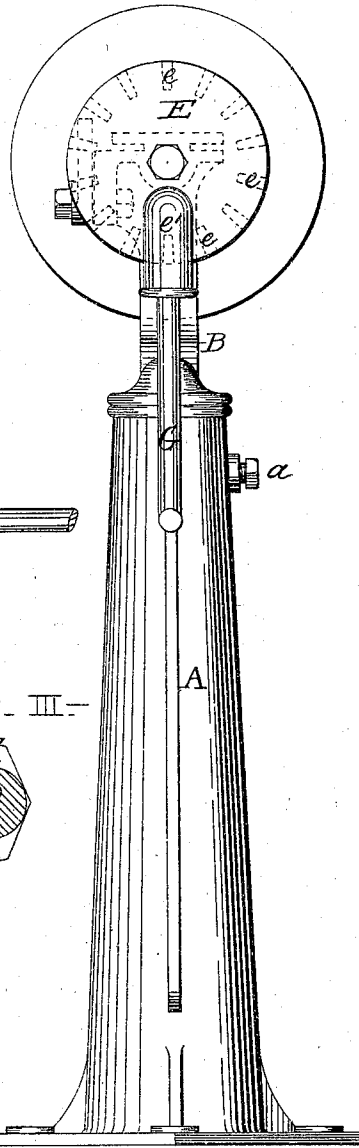
—FIG. I—



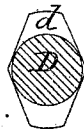
—FIG. IV—



—FIG. II—



—FIG. III—



—WITNESSES—

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UNITED STATES PATENT OFFICE.

OLIVER REEDER, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN WINDLASSES.

Specification forming part of Letters Patent No. **135,009**, dated January 21, 1873.

To all whom it may concern:

Be it known that I, OLIVER REEDER, of the city of Baltimore and State of Maryland, have invented certain Improvements in Machinery for Winding or Raising Oyster-Dredges, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing and to the letters of reference marked thereon.

My invention relates to certain improvements in machinery to be applied to vessels for the above-named purpose; and consists, first, in an improved mode of supporting and securing the winding devices to the deck; and, secondly, to certain parts used with a view to the protection of the hands operating the cranks of the winder in cases where, by the fouling of the dredge, a dangerous reverse movement is given to the cranks; and, thirdly, to a method of attachment and detachment of the cranks to and from the winding parts.

In the accompanying drawing, forming a part of this specification, Figure 1 is a part sectional front elevation of my invention; Fig. 2 is an end elevation of the same; Fig. 3 is an enlarged sectional view of a detached part of the machine; and Fig. 4 is a modification in the shape of another detached part of the machine.

Similar letters of reference indicate similar parts in all the figures.

A is a columnar frame secured permanently to the deck of the vessel. B is another part of the frame of the winder, separate from the column A, within the upper part of which the portion *b* of the upper frame is inserted. The frame B is thus placed so as to be able to turn freely upon or around the column as a center. C is the dredge-rope winding-drum, through which the shaft D passes longitudinally, resting within bearings formed upon the vertical extremities of the frame B. The shaft D is provided with a driver, *d*, forged upon it, which, as shown in Fig. 1, when the drum and shaft are to be revolved together, fits within a cavity of like shape as its own formed within the drum. To the right of this cavity is a circular recess, the diameter of which is greater than the greatest length of the driver. The

shaft D rests loosely within another bearing at the left of the figure, similar to that, *c*, in the drum. E is a disk, having, as shown in Figs. 1 and 2, teeth *e* upon the surface facing the drum. F is a pawl, pivoted to the frame B at *f*, and so elevated at its point of contact with the disk as to admit of a forward movement of the shaft, disk, and drum, without offering any obstacle thereto, but which elevated point will, upon a reversed movement of the winding-parts, catch the first opposing tooth of the disk at such an angle as will cause a sufficient strain, longitudinally of the shaft D, to draw the driver *d* from the cavity within which it in Fig. 1 is shown as resting. The driver, thus drawn into the recess at the right of the interior of the drum, is freed from the drum, which continues rapidly upon its reversed movement until the dredge is removed from the obstruction, while the driver, shaft, and cranks remain stationary. The disk E' at the other end of the shaft is plain or without teeth. A crank-socket, *e'*, is cast upon each disk, the ends of the cranks G fitting within the sockets, wherein they are secured by keys *g*. Attached to the inner side of the disk E is a hub, *g'*, having a groove, to which the forked end of the shifter H is applied. The shifter is pivoted at *h*, and is intended to be operated by hand by means of a rope attached to its lower end. In Fig. 3 the form of the driver *d* is shown upon an enlarged scale.

Fig. 4 illustrates a modification in the shape of the pawl F and disk E. The latter is plain or without teeth, while the pawl is eccentrically constructed, the upper point *f'* of the edge surface of the pawl being situated at a greater distance from the pivot *f* than the lower point *f''*, the points *f'* *f''* being connected by an arc of a circle described from an appropriate center. The joint operation of the pawl and disk, as shown in Fig. 4, is the same as that of the corresponding parts indicated in Figs. 1 and 2.

The purpose of the columnar frame A is principally to admit of the adjustment of the upper frame and the winding devices to an angle adapted to the direction in which the dredge-rope must lead from the vessel, and the set-screw *a* is used to hold the upper frame in the required position. The columnar frame has, however, other uses. It occupies but little space upon the deck, and when the winding

parts are not in use they can be removed. This style of lower frame is also convenient in that it allows for the ready shoveling up of the oysters thrown on the deck around the machine. The merits found in the other parts of my invention are those of simplicity, reliability, and cheapness.

I claim as my invention—

1. In an oyster-dredge winder, a lower fixed columnar frame, in combination with an upper adjustable frame for the winding devices, substantially as herein shown and described.

2. Within the bearings of the upper frame B, and passing through a winding-drum capable of only a revolving movement, the sliding shaft D, having the driver *d* and disk E, in

combination with the pawl F pivoted to the upper frame, substantially as herein set forth, for the purpose specified.

3. In the drum C, the cavity prepared for the reception of the driver *d* and conforming to its shape, and the circular recess of a diameter larger than the greatest length of the driver, as and for the purpose set forth.

4. The crank-sockets *e'*, in combination with the disks E E' and cranks G, substantially as and for the purpose specified.

OLIVER REEDER.

Witnesses:

JOSEPH CRUGG,
EDW. HAYES.