

J. K. Babcock,

Water Elevator:

No. 98218.

Patented Dec. 28, 1869.

Fig. 1.

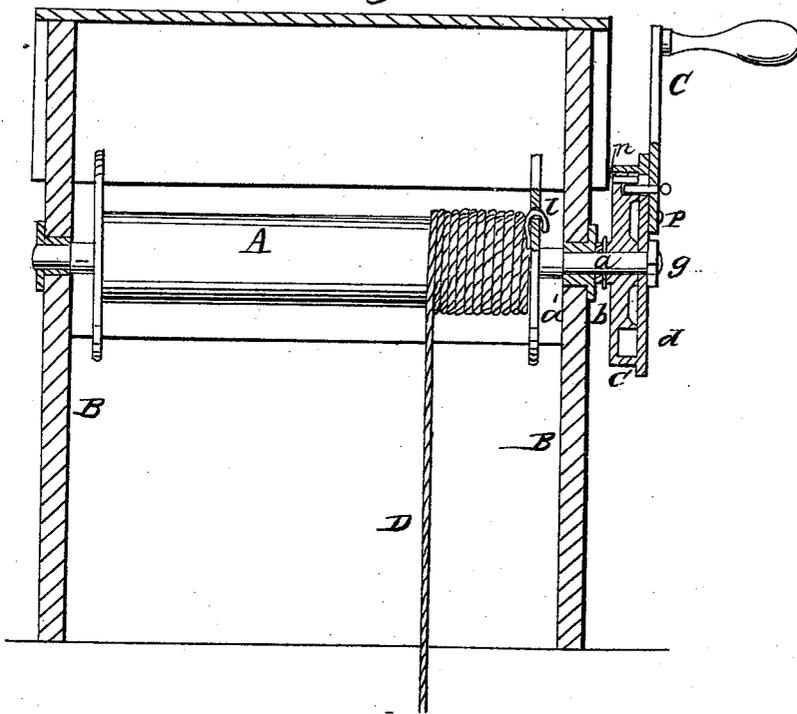


Fig. 3.

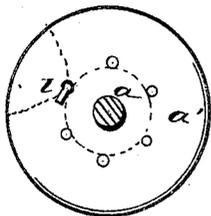
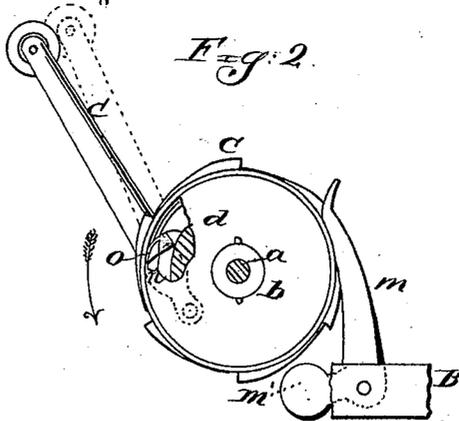


Fig. 2.



Witnesses:

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JABEZ K. BABCOCK, OF SHORTSVILLE, NEW YORK.

Letters Patent No. 98,218, dated December 28, 1869.

IMPROVEMENT IN WATER-ELEVATORS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JABEZ K. BABCOCK, of Shortsville, in the county of Ontario, and State of New York, have invented certain new and useful Improvements in Water-Elevators; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a vertical section of my invention;

Figure 2 is an elevation of the retaining-ratchet and crank; and

Figure 3 is an end view of the windlass.

The object and nature of my invention will be understood by reference to the specification and drawings.

To enable others to make and use my invention, I will describe its construction and operation.

I use, for elevating the bucket, the ordinary windlass A, fig. 1, fixed to the axle *a*, which is provided with suitable bearings in the curb B.

One end of this axle extends beyond the curb far enough to receive the disk *b* and ratchet *c*.

The disk *b* is fastened securely to the axle, and is provided with a flange, *d*, figs. 1 and 2, projecting from its outer face.

The ratchet *c* is fitted loosely upon the axle, being retained thereon by the nut *n*, and is engaged by the pawl *m*, fig. 2, pivoted to a convenient portion of the curb B, and held in contact with the ratchet by the counterbalance *m'*.

The crank C is pivoted to the face of the ratchet *c*, at considerable distance from its centre, as shown in fig. 1, and by dotted lines in fig. 2, and has secured to it, at the proper point, the stop *o*, which projects through a curved slot in the ratchet, and extends across the face of the flange *d*, on the disk *b*.

When the crank is in the position shown in full lines in fig. 2, this stop engages with a projection, *n*, formed upon the disk near its outer edge; but when the crank is drawn back, as indicated in dotted lines, the stop is freed from the projection, and bears against the flange *d*.

It is desirable that the crank should always occupy the position shown in full lines in fig. 2, when the bucket is at the point of discharge, so that its weight shall hold the stop and projection *n* in gear, thereby preventing the bucket from descending.

To effect this purpose, I make the point of attachment of the rope or chain D to the windlass adjusta-

ble by means of openings in the flange *a'*, fig. 3, any desired number of which is provided at the periphery of the drum.

The hook *l*, secured to the rope, enters these openings, and can be easily removed and attached in any of them.

This arrangement allows the relative position of the bucket when raised, and the crank, to be made the same, whenever the rope stretches, or its length is varied for different locations.

The adjacent faces of the stop *o* and projection *n* may, if desirable, be so inclined as that they shall wedge together by pressure on the crank, thus tending to prevent them from unlocking when the crank is in any other position than the one shown.

The operation of my invention is as follows:

When it is desired to lower the bucket, the crank is shifted upon the pivoted centre *p*, to the position shown in dotted lines in fig. 2, by which the disk and windlass are liberated, and the stop *o* made to act as a brake upon the flange *d*, controlling the speed of the descending bucket. The bucket being filled, a reverse movement of the crank in the direction of the arrow, fig. 2, causes the stop to engage with the projection *n*, and the bucket is elevated and held in any desired position by the ratchet *c* and pawl *m*. In place of the perforated flange *a'* and hook *l*, I may use hooks inserted in the drum of the windlass, and a ring secured to the rope and catching upon the hooks.

Only one projection *n* is provided upon the disk *b*, since, if more were used, they would neutralize the adjustment of the rope upon the windlass.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The crank C, pivoted eccentrically to the loose ratchet *c*, and provided with a projecting stop, *o*, in combination with disk *b* and projection *n*, for the purposes set forth.

2. The flange *d*, in combination with stop *o* and crank C, for the purpose specified.

3. The perforated flange *a'* and hook *l*, when used in combination with the ratchet *c* and winch C, for the purposes set forth.

JABEZ K. BABCOCK.

Witnesses:

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