W. E. Babcock,

Windlass Water Elevator,

No. 59,160. Patented Oct. 30, 1866.

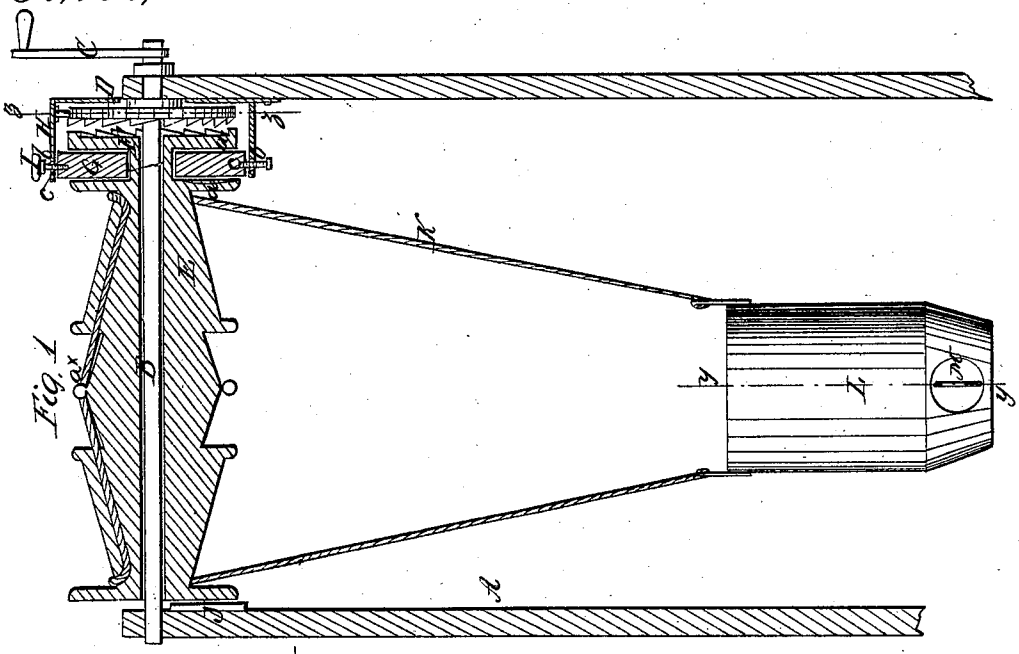


Fig. 1.

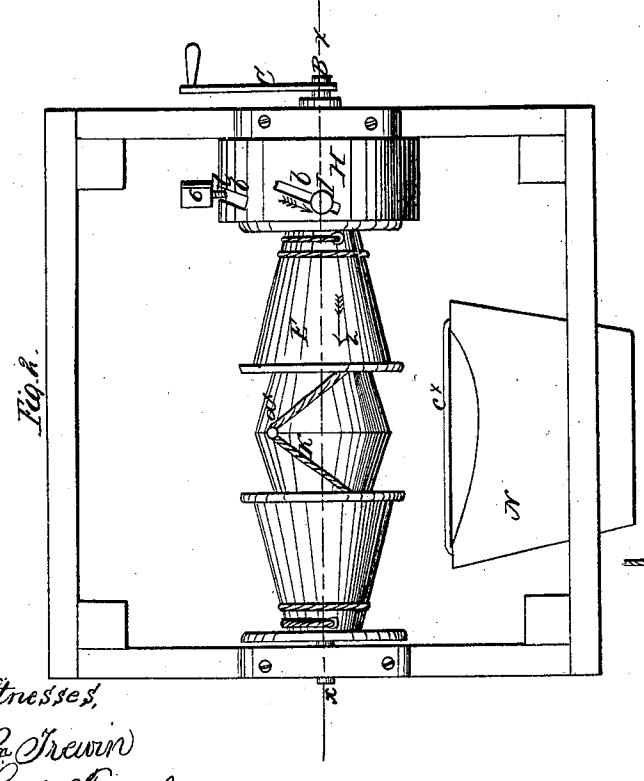


Fig. 2.

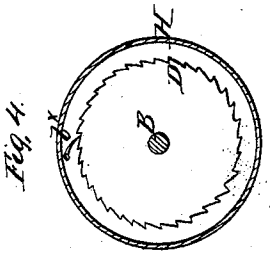


Fig. 4.

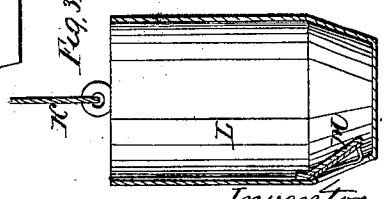


Fig. 3.

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UNITED STATES PATENT OFFICE.

W. E. BABCOCK, OF EAST PEMBROKE, NEW YORK.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. **59,160**, dated October 30, 1866

To all whom it may concern:

Be it known that I, W. E. BABCOCK, of East Pembroke, in the county of Genesee and State of New York, have invented a new and Improved Water-Elevator; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical section of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of the same; Fig. 3, a detached vertical section of a bucket pertaining to the same, taken in the line *y y*, Fig. 1; Fig. 4, a vertical section of a portion of the same, taken in the line *z z*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and improved device for drawing or elevating water for domestic purposes, and of that class in which a windlass and bucket are employed for the purpose.

The object of the invention is to obtain a device for the purpose specified which may be operated with the greatest facility, be capable of having a bucket-rope lengthened or shortened without any difficulty whatever, and also to obtain a bucket which will be cheap and durable.

A represents the box or curb, which may be of rectangular or other proper form, and having a shaft, B, placed horizontally on its upper part, with a crank, C, at one end and a ratchet-wheel, D, keyed firmly to it.

On the shaft B there is placed loosely a drum, E, at one end of which—the end adjoining the ratchet D—there is secured a ratchet, F; and a collar, G, is fitted loosely on the drum E, between two flanges, *a a*, said collar being by the side of the ratchet F.

H is a cylindrical box or case, which is secured to one side of the box or curb A, so as to inclose the ratchets D F and collar G, and this case H has three oblique slots, *b*, made in it, through two of which pins *c* pass, one of which is provided with a knob, I. A pin, *d*, passes through the other oblique slot, and has a weight, *e*, upon it. (Shown in Fig. 2.)

From the above description it will be seen that by grasping the knob I and turning the collar G backward, or in the direction indicated by arrow 1, the drum E will be moved on the shaft B in the direction indicated by arrow 2, and the ratchet F thrown out of gear with ratchet D, and when the collar G is released the upright *e* will turn it back to its original position, and the ratchet F will again engage with ratchet D. Thus, by this simple means for connecting the drum E with the shaft B and disconnecting it therefrom, the filled bucket may be raised, and, when emptied, allowed to rapidly descend into the well, to be refilled by a very simple manipulation.

By having a cleat or projection, J, attached to the inner side of the box or curb in line with the end of the drum opposite to that where the collar G is placed, the drum, when thrown out of gear from shaft B, may be pressed against said cleat or projection, so as to regulate the descent of the water, as required. This forms an excellent brake arrangement.

K is the bucket-rope, and L the bucket. The bucket I construct of zinc or galvanized iron, and it is provided with a valve, M, at its lower part, opening inward, said lower part of the bucket being contracted or made of inverted conical form, as shown clearly in Fig. 3.

The zinc or galvanized iron precludes the bucket being injured by rust, and it will prove to be far more durable than the ordinary wooden bucket. The top and bottom of the bucket may be inclined, if desired, or be horizontal.

The bucket-rope is attached to the upper end of the bucket at opposite points, and passes double around the drum E, and catches over a pin, $a^{\times}$, at the center of the drum.

It will be seen that the rope may be readily wound around the drum with one or more convolutions, so as to virtually lengthen or shorten it, according to the depth of the water in the well.

The ratchet D has a pawl, $b^{\times}$, engaged with it to prevent the shaft B turning in the wrong direction under the gravity of the bucket when the drum E is connected with said shaft.

The filled bucket, when raised, has its valve M brought in contact with a wire, $c^{\times}$, at the

inner end of a spout, N, and the water is discharged into the latter.

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

The shaft B, provided with the ratchet D, in connection with the drum E, placed loosely on the shaft, and provided with the ratchet F and loose collar G, and the case H, having the oblique slots *b* made in it, through which pins *c c* and *d*, attached to the collar, pass, one pin, *d*, being provided with a weight, *e*, and all arranged to operate in the manner substantially as and for the purpose set forth.

W. E. BABCOCK.

Witnesses:

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