H. F. Phillips

Windlass Water Elevator.

No. 30,657. Patented Nov. 13, 1860.

Fig. 1.

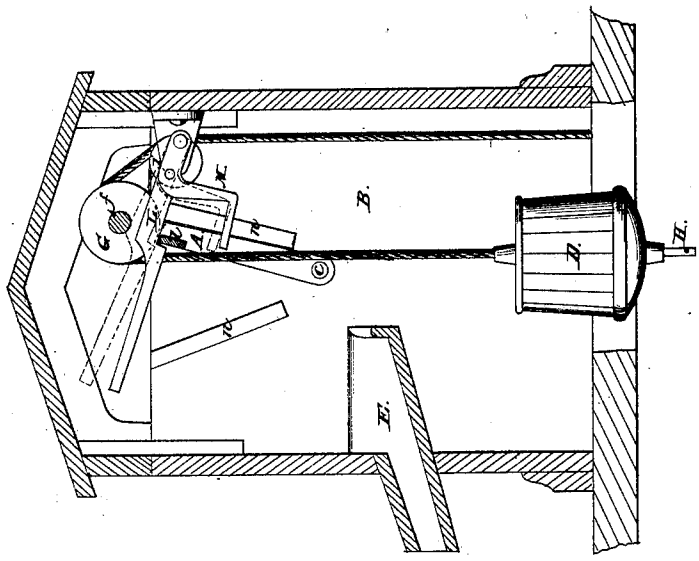
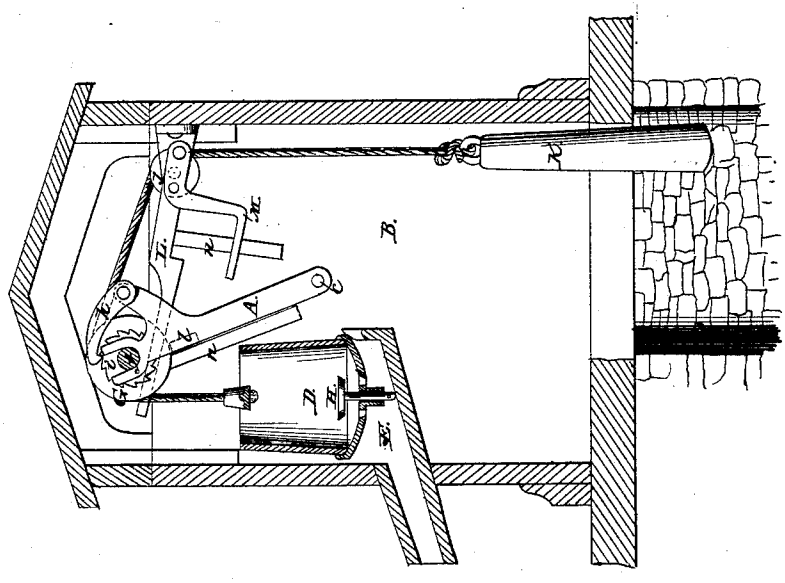


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

H. F. PHILLIPS, OF SENECA FALLS, NEW YORK, ASSIGNOR TO DOWNS & CO., OF SAME PLACE.

APPARATUS FOR DRAWING WATER FROM WELLS.

Specification of Letters Patent No. 30,657, dated November 13, 1860.

To all whom it may concern:

Be it known that I, H. F. PHILLIPS, of Seneca Falls, in the county of Seneca and State of New York, have invented a new and Improved Apparatus for Drawing Water from Wells; and I do hereby declare that the following is a full 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 a well and curb, showing the bucket in the act of ascending or descending in the well. Fig. 2, is a like vertical section, but showing the operating parts in the position for discharging the water from the bucket, which is represented in section.

Like letters designate corresponding parts in both the figures.

My invention is designed to facilitate the emptying of the water from the bucket, and also to reduce the labor of drawing it from the well.

My method of accomplishing these results consists in part in the employment of a pivoted frame A, which is attached to the sides of the well curb B, by the pivot *c*. It may also be attached in the same manner above, the roof of the curb being made high enough for the purpose, and have a similar result, as it is immaterial to what part it is attached provided it admits of the requisite motion to the parts which it supports, so as to swing the bucket D, from its position over the well to one directly over the spout E, and vice versa. This frame supports the crank shaft *f*, and main pulley G, in suitable boxes or bearings provided for that purpose on each side thereof. It also carries the pawl *h* which is pivoted to an arm on the frame in a proper position to act upon the ratchet wheel *i* on the crank shaft, to stop the motion of the bucket should it ever be required.

A friction pulley *j* is attached to the end of the curb directly back and in a line with the main pulley G, and a rope or chain passing over the two carries the bucket D, at one end and a weight K, at the other. These nearly correspond in weight when the bucket is empty, and the main pulley is made with a V groove on its face to prevent the rope slipping, as it merely passes over it, and is not wound up. Thus the weight of the water in the bucket is all that has to be raised by the crank or windlass, making the labor comparatively trifling.

A dog or catch-lever L, is pivoted to the side of the frame of pulley *j*, or in proximity thereto, which is provided with a notch which falls over the transverse bar *l* of the frame A, and holds the frame to that position which drops the bucket into the well. A bent arm M, is rigidly attached to lever L, in a position directly over the bucket, so that when it ascends the top thereof strikes this arm and the motion raises the lever, (as indicated by dotted lines in Fig. 1,) until it releases the bar *l*. At this point the operator having hold of the crank on the end of shaft *f*, pulls it forward by a slight effort which brings the swing frame A, forward sufficiently to place the bucket directly over the spout E, when the crank is reversed allowing the bucket to descend till it rests on the spout. As it does so the stem of the valve H, with which its bottom is provided, first strikes the bottom of the spout, causing the valve to rise, by which the water escapes into the spout or conductor. The bucket being emptied, the swing frame is again pushed back by means of the crank when the lever L, falls over it by its own weight, leaving it in readiness for use again.

The motion of the swing frame is limited by cleats *n n* upon the sides of the curb. The effect of the stationary pulley *j* and weight K, is such as to prevent the swing frame from moving forward too suddenly when released; and to assist in drawing it back to replace the bucket over the well when it is emptied.

I am aware that a valve in the bottom of a bucket is not new, and that I do not claim except in combination with the devices herein described. But

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

The combination and arrangement of the pivoted movable frame A or its equivalent, for sustaining the shaft *f* and main pulley G, with the stationary pulley *j*, weight K and bucket D and catch-lever L substantially as and for the purposes set forth.

H. F. PHILLIPS.

Witnesses:
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