Hudson & Billings,

Windlass Water Elevator,

No. 32,191. Patented Apr. 30, 1861.

Fig. 1.

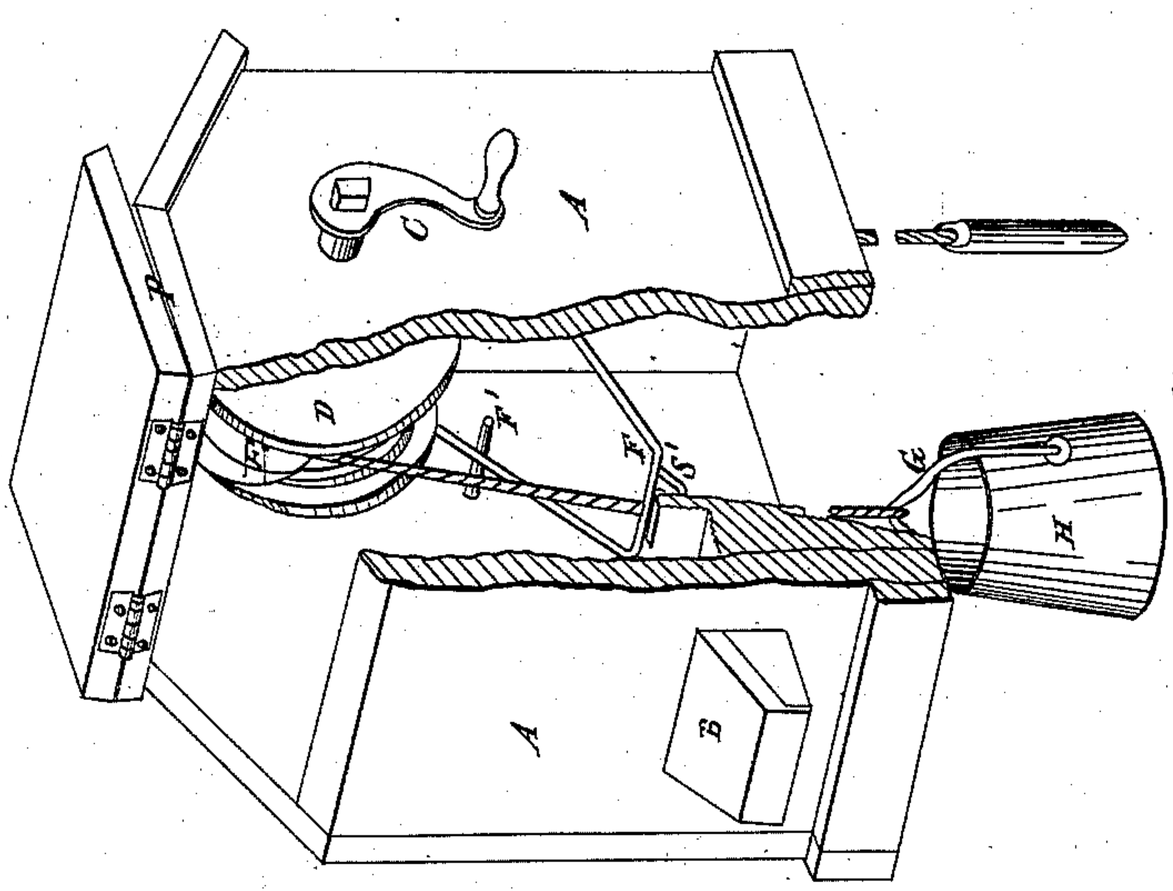


Fig. 2.

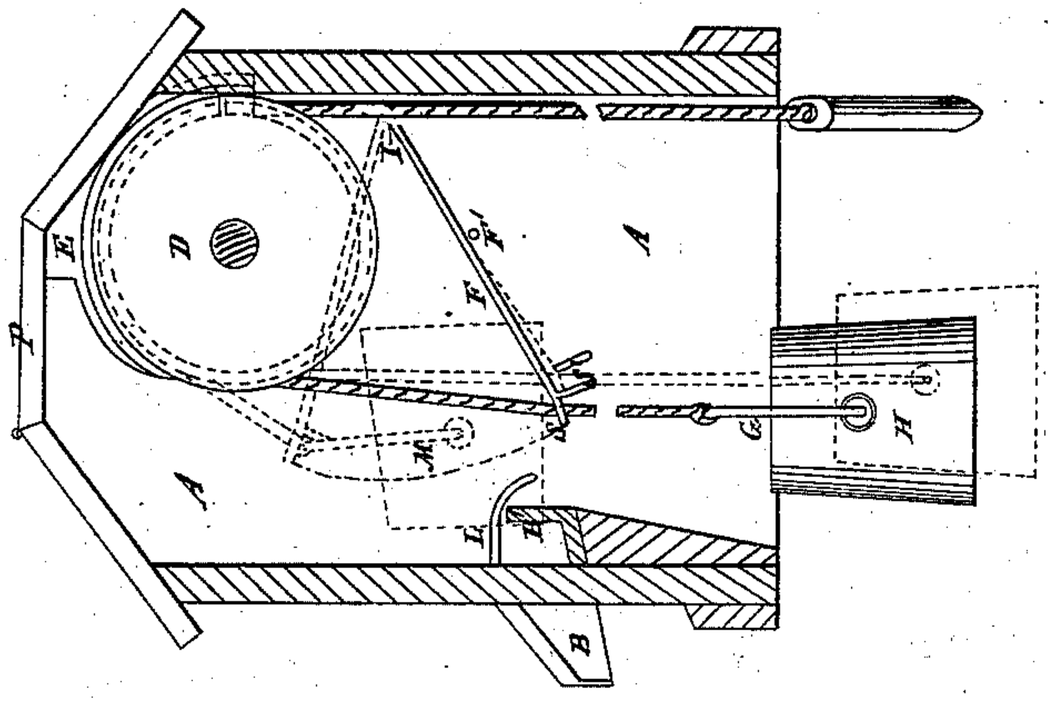


Fig. 3.

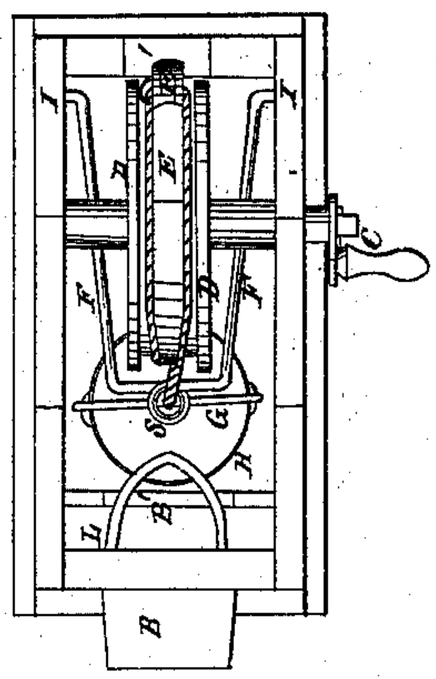


Fig. 4.

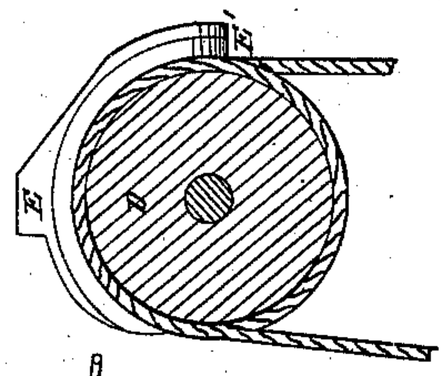
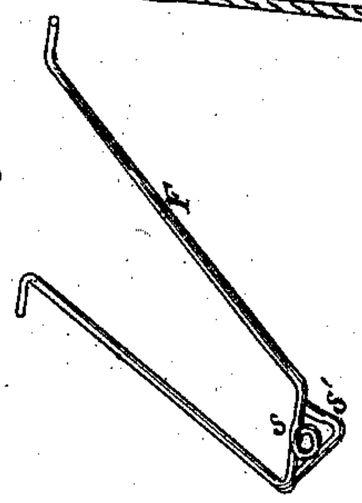


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

H. H. HUDSON AND G. W. BILLINGS, OF CLEVELAND, OHIO.

WATER-ELEVATOR.

Specification of Letters Patent No. 32,191, dated April 30, 1861.

To all whom it may concern:

Be it known that we, HENRY H. HUDSON and GEORGE W. BILLINGS, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Water-Drawers; and we do hereby declare that the following is a full and complete description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view, with part of the curb removed, to show the construction of the inside. Fig. 2, is a vertical section, Fig. 3, is a view of the top with the cover removed, Fig. 4, is a detached section.

The same characters denote corresponding parts in the different views.

My improvement relates to a water drawer, in which the rope attached to the bail of the bucket, passes through a loop hole, in an adjustable arm, by means of which, the bucket as it is raised, is brought in contact with a curved stationary bail; secured to the curb, just above the water spout, which turns the bucket and the water is discharged. There is also a share secured to the cover of the curb, with a friction roller at one end; fitting around the center of the pulley, to prevent the rope as it winds around, from crowding or overlapping.

In the several drawings A represents the curb, B, the water spout, and C, the crank, by means of which the bucket is raised and lowered.

D, is the pulley and E, a share secured to the cover P, that fits around the center of the pulley, pointed at one end, and having a friction roller E′ at the other, as is clearly shown in Figs. 2, and 4. The rope as it winds around the pulley, passes on each side of the share, and in this way prevents the rope from crowding or crossing, as it otherwise would, and prevent the easy ascent of the bucket. It is well known that where a rope winds around a pulley, a number of times, more or less friction is produced by the coils of rope rubbing and crowding against each other, and they sometimes cross, which greatly retards the operation. To obviate these difficulties, I introduce a share or divider between the coils of rope as before described, and the bucket ascends smoothly and easily without the least obstruction.

F, is an adjustable arm hinged to the sides of the curb at I, I, Figs. 2 and 3; resting on the pin F′. There is a loop hole S, Fig. 3, in the front part of this arm, through which the rope passes, that is attached to the bail G, of the bucket H. As the bucket is brought up, the rope passing through the loop hole S, in the arm F, brings the bail G, in contact with the arm, by still turning the crank, the arm is raised, and the bucket is carried over in an inclined direction, and brought under the curved stationary bail L, secured to the end of the curb, above the water spout, the bail L, passes into the bucket, which, together with the arm being drawn up, turns the bucket into the water spout, as indicated by the dotted lines M in Fig. 2. The bail G, is hinged to the sides of the bucket, about half way up, and passes over the top when the bucket is turned, as indicated. The bail L, is pointed as shown in Fig. 3, so that it will readily pass into the bucket as it ascends. It is also curved downward, as shown in Fig. 2, and gradually widens from the point, to render it still more sure and firm in turning the bucket.

The upper edge of the back end of the spout B, is curved out, as at B′, into which the side of the bucket passes, as, the bucket is turned into the water spout.

When the bucket ascends and descends, the arm and bucket are in the position indicated by the dotted lines N, the rope passing down vertically, through the loop hole S, in the arm. Just behind and below the loop S, in the arm F, Figs. 1, 2, 3 and 5, is a V projection downward, and at right angles to the arm F, seen at S′, Figs. 1 and 5, which acts against the bucket bail G, and swings the bucket into the position shown in Fig. 3, that is, the bucket being suspended by a round cord, rope or chain, has a tendency to swing around, so as to present the side to which the bail is attached to the spout, in which case, the bucket would not tip. This V shaped piece S′ brings the bucket bail uniformly flatwise to the spout as seen in Fig. 3.

What we claim as our improvement and desire to secure by Letters Patent is—

1. The dividing share E, either with or without friction rollers, at the ends, for separating the coil of rope upon the pulley D, as specified.

2. The arms F, with the guard S′, as shown, for the purpose of presenting the bucket in a right position to the spout, and causing its lateral movement toward the spout, in connection with a movable or stationary bail or tipper L, operating in the manner and for the purpose herein set forth.

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