A. J. CLEMMONS.

Improvement in Water Elevators.

No. 120,714. Patented Nov. 7, 1871.

Fig. 1.

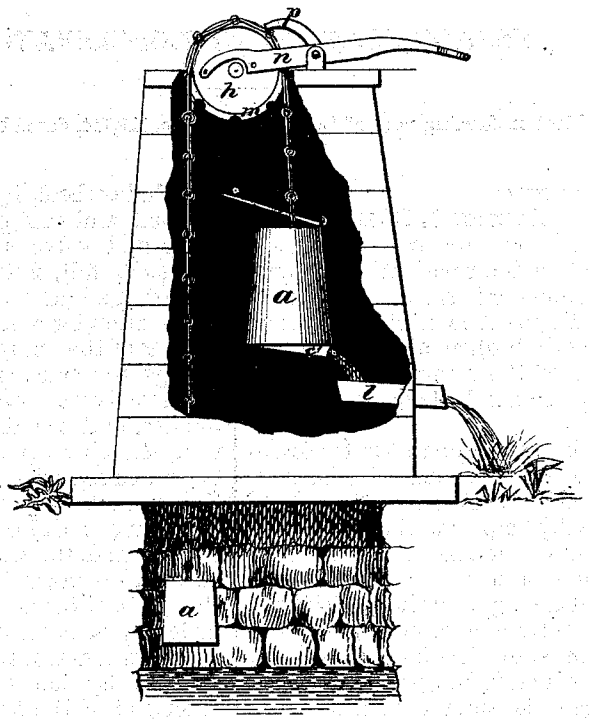


Fig. 3.

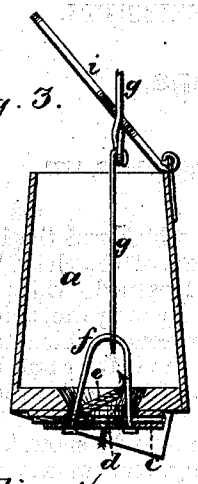


Fig. 4.

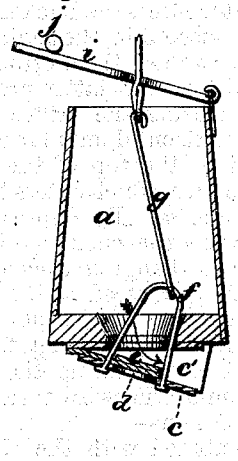
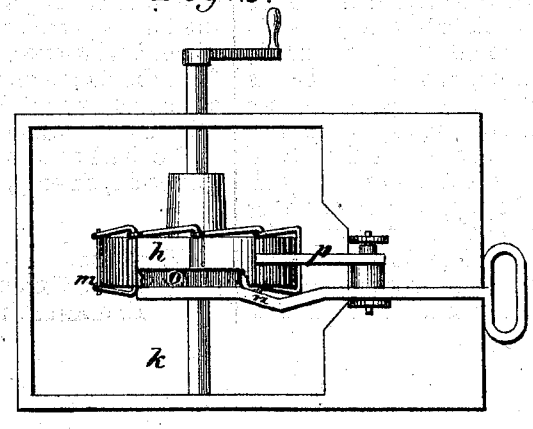


Fig. 2.



Witnesses.

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E. O. Brown

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Alvin J. Clemmons,

by Geo. E. Brown,

Atty

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS).

UNITED STATES PATENT OFFICE.

ALVEUS J. CLEMMONS, OF ABERDEEN, MISSISSIPPI.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 120,714, dated November 7, 1871.

To all whom it may concern:

Be it known that I, ALVEUS J. CLEMMONS, of the city of Aberdeen, Monroe county, Mississippi, have invented an Improved Water-Elevator, of which the following is a specification:

In the drawing, Figure 1 is a side elevation with part of the curb broken away; Fig. 2, a top view with part of the flange *m* removed; and Figs. 3 and 4, sectional elevations of the bucket.

This invention relates to apparatus for drawing water from a well by means of a bucket, chain, and chain-wheel; and it consists in a mechanism for automatically emptying the bucket and controlling the rotation of the chain-wheel by means of a brake and catch.

Referring to the drawing, *a* is the bucket, the same having in its bottom a circular hole, and attached to the under side of its bottom a chute, the lower part *c* of which is hinged at one end so as to play between the sides *c'* of the chute, forming, in fact, a valve, and having an orifice, *d*, the cover of which is a valve, *e*, hinged to the upper side of the valve *c*. A bail, *f*, extends upward from the valve *c*, through the circular hole in the bottom of the bucket *a*, to which bail is fastened the lower end of the chain *g*, that passes over the wheel *h* mounted on the top of the curb A. A lever, *i*, jointed at one end to the top of the bucket, at one side thereof, passes through one of the links of the chain *g*, said lever being widened at each side of the chain to prevent the latter from slipping off it. The lever *i* is long enough to strike, as the bucket ascends, a rod, *j*, placed across the curb beneath the shaft *k* of the chain-wheel, by which rod the lever *i* is depressed, and that part of the chain between the lever and valve *c* loosened, which allows the valve *c* to fall, thus opening the hole in the bottom of the bucket, through which the water escapes, running over the valve *c* and between the sides *c'* of the chute. The rod *j* at the same time swings the bucket to one side so far that the chute delivers water into the spout *l*. When the bucket, in descending, reaches the water in the well, the chain *g* loosens, the valve *c* falls, the valve *e* rises, and water enters the bucket through the orifice *d*. While ascending, the chain *g* draws the valve *c* tightly against the bottom of the bucket, and the water in the latter presses the valve *e* downward, closing the orifice *d*. The chain-wheel *h* has a horizontal annular flange, *m*. A lever, *n*, pivoted to the top of the curb A, bears a wooden cushion, *o*, which enters the space inclosed by the flange *m*. By depressing the outer end of the lever *n* the cushion *o* is forced against the inside of the flange *m*, thus operating as a brake. A pawl, *p*, secured to the pivot of the lever *n*, strikes the notched periphery of the wheel *h* whenever the brake *p* is let fall away from the flange *m*, thus preventing the rotation of the latter that would otherwise ensue.

I claim as my invention—

The bucket *a*, combined with the chute *c c'*, valves *c e*, chain *g*, and lever *i*, as described.

A. J. CLEMMONS.

Witnesses:
THOS. GIBSON,
E. MANAHAN.

(118)