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A. J. CLEMMONS.

Water Elevator.

No. 122,440.

Patented Jan. 2, 1872.

Fig. 1.

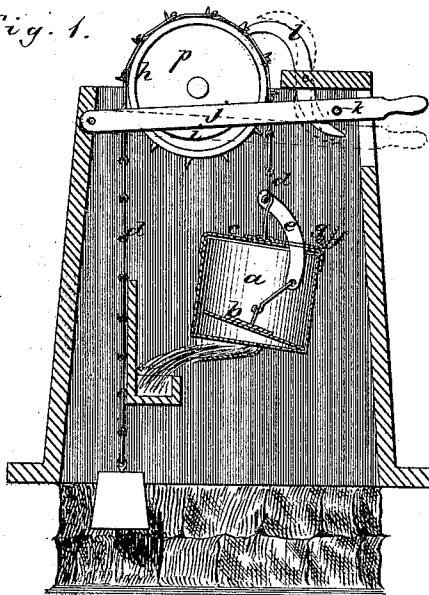


Fig. 2.

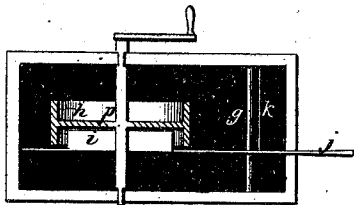
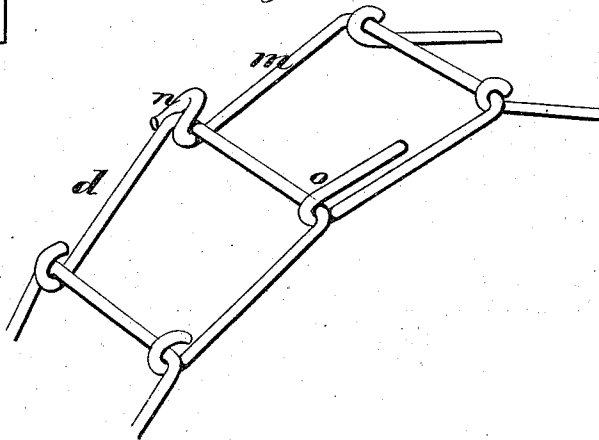


Fig. 3.



Witnesses.

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ALVEUS J. CLEMMONS, OF ABERDEEN, MISSISSIPPI.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 122,440, dated January 2, 1872.

Specification describing certain Improvements in Water-Elevators, invented by ALVEUS J. CLEMMONS, of Aberdeen, Monroe county, Mississippi.

Figure 1 is a sectional elevation of the curb and bucket, showing the latter in the act of discharging. Fig. 2 is a horizontal section through the wheel, and Fig. 3 is a perspective view of the chain.

This invention relates to apparatus for drawing water from wells by means of a bucket, chain, and chain-wheel; and it consists in mechanism for automatically operating the bucket-valve, and in mechanism for controlling the rotation of the chain-wheel, and in an improved construction of the chain.

Referring to the drawing, *a* is the bucket, having in its bottom a circular hole, which is covered by a valve, *b*. Across the top of the bucket extends a bail, *c*, to the middle of which is fastened the chain *d*. A link, *e*, fastened at its upper end to the chain, and made of bow shape, so as to avoid the middle of the bail passes through a slot in the latter, and, at its lower end, is fastened to the top of the valve *b*. A prong, *f*, fastened to the bail, extends therefrom a little to one side of the bucket. When ascending laden with water the weight of the latter keeps the valve *b* down, but when the prong *f* strikes a rod, *g*, placed crosswise of the curb, the bucket is stopped at that side, and the continued ascent of the chain inclines the bucket and lifts the valve by means of the link *e*, whereupon the water runs out of the bucket. The chain-wheel *p* has a flange, *h*, within which is a brake-shoe, *i*, fastened to a

lever, *j*, that is pivoted at one end to the curb and passes through a slot in the other side of the latter. A spring bar, *k*, extending from the curb is connected with the lever *j*, said spring being above the lower part of a scroll-shaped pawl, *l*. The spring *k* tends to keep the brake raised out of contact with the wheel, and when the lever *j* is thus raised the pawl *l* rests on the chain-wheel and prevents it from rotating. Pressing down the lever *j*, so as to bring the brake in contact with the flange *h* raises the pawl *l* from the wheel, the brake being then in position to prevent too rapid rotation of the wheel. The chain *d* has, at suitable intervals, a link, *m*, at one of whose ends is a spiral eye, *n*, and at the other end a hook, *o*. This hook and eye hold the next link in such manner as to prevent accidental separation during the working of the chain. When, however, it is desirable to shorten the chain, so as to suit a higher stage of water in the well, it can easily be done by removing from the hook *o* of the selected link *m* the link *d* next below and then turning said link out of the spiral eye *n*. To lengthen the chain reverse the process.

I claim as my invention—

1. The chain-wheel *p*, combined with the brake-shoe *i*, lever *j*, spring *k*, and pawl *l*, as described.

2. A chain having links *m*, provided with spiral eyes *n* and hooks *o*, as set forth.

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Witnesses:

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