J. DAYKIN.

Water Elevators.

No. 124,038. Patented Feb. 27, 1872.

Fig 1.

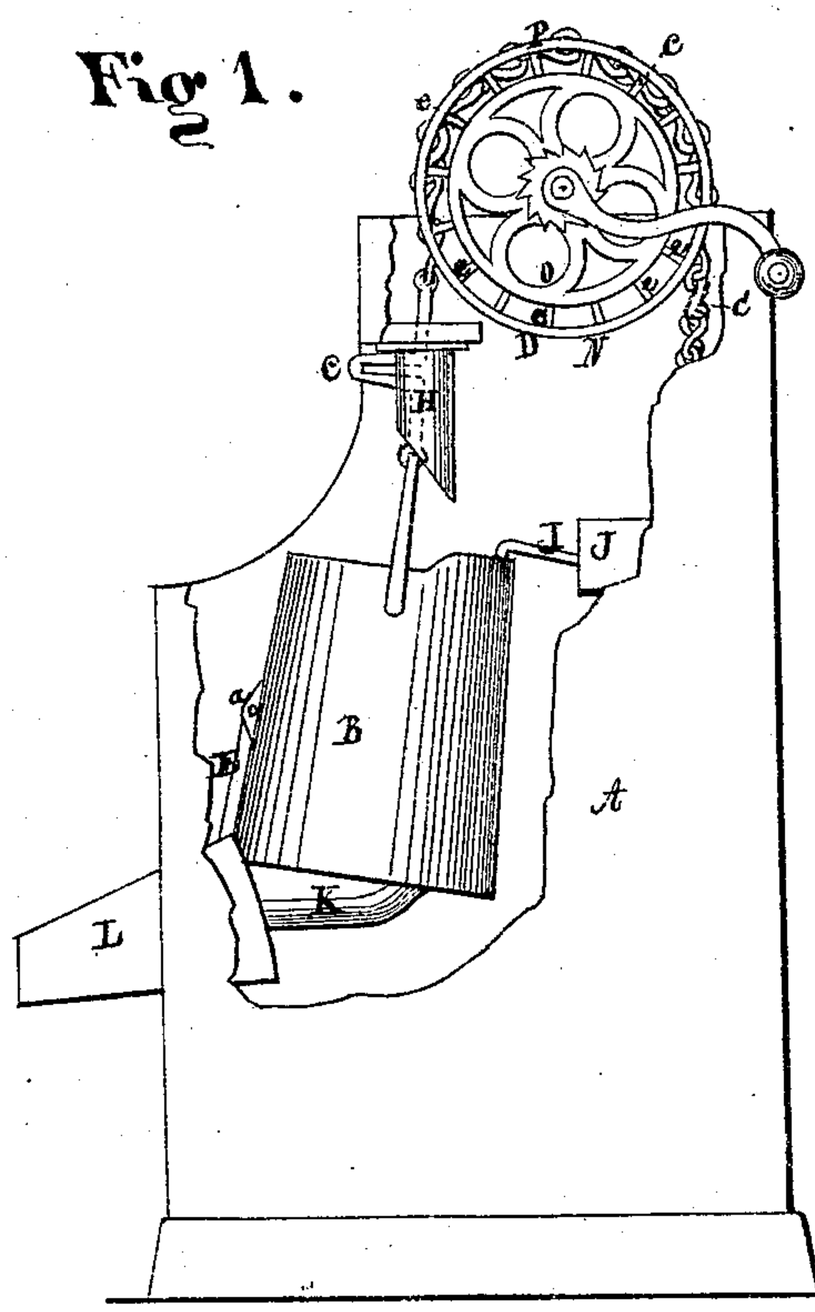
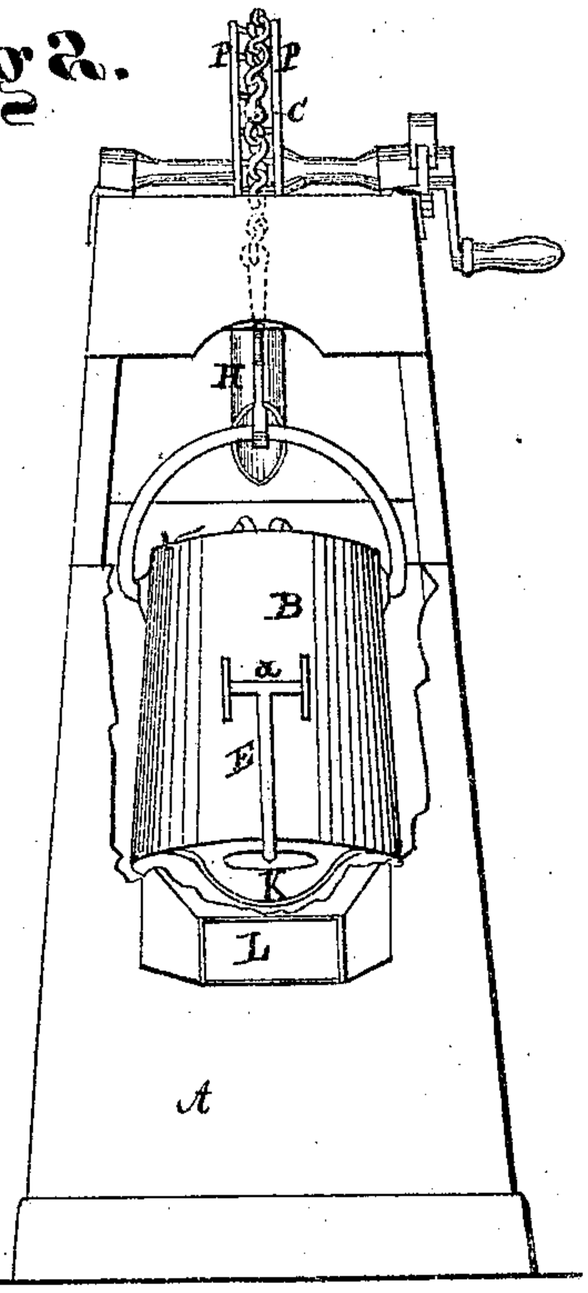
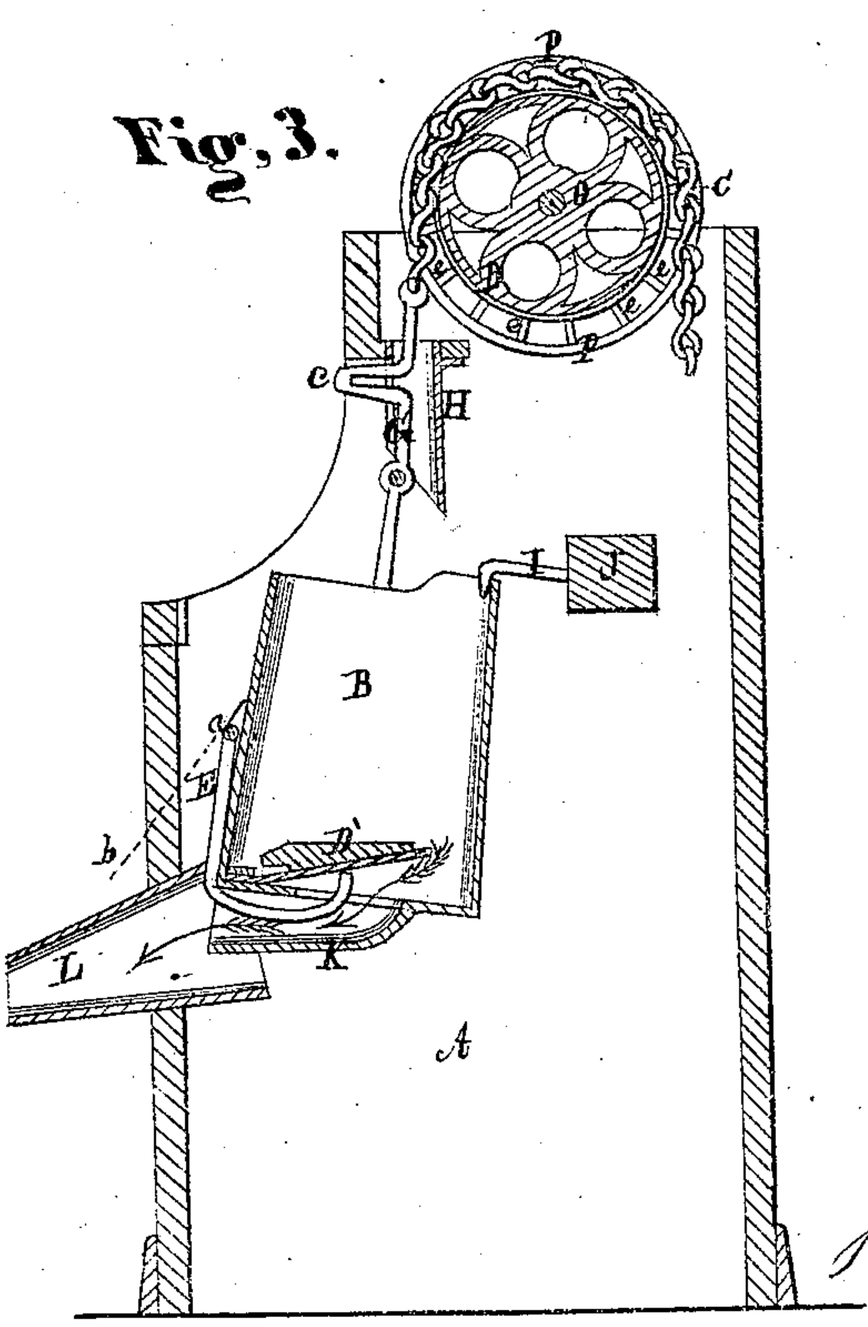


Fig 2.



Fig, 3.



Witnesses.

E. H. Burridge.
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per
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124,038

UNITED STATES PATENT OFFICE.

JAMES DAYKIN, OF CLEVELAND, OHIO.

IMPROVEMENT IN WATER-ELEVATORS.

Specification forming part of Letters Patent No. 124,038, dated February 27, 1872.

To all whom it may concern:

Be it known that I, JAMES DAYKIN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and Improved Water-Drawer; and I do hereby declare that the following is a full, clear, and complete description thereof, reference being had to the accompanying drawing making part of this specification.

Figure 1 is a side elevation of the water-drawer. Fig. 2 is a front elevation. Fig. 3 is a vertical transverse section.

Like letters of reference denote like parts in the different views.

The nature of this invention relates to a water-drawer; and the object thereof is to provide a simple, easy, and ready way to discharge the water from the buckets when raised from the well, said water being discharged from the bottom of the bucket on the opening of a valve operated by a lever, to which it is attached, said lever being made to strike against the side of the conductor for opening the valve, as and in the manner hereinafter more fully described.

In the drawing, A represents the curb; a part of the side thereof is shown as broken away, in order that the bucket B therein may be seen. Said bucket is attached to one end of a chain, C, thrown over a wheel, D, and which descends into the well, a weight being attached to the end thereof in order to draw it down. D′, Fig. 3, is a valve secured to the bottom of the bucket and opening on the inside, as shown in said figure. To the center of the valve is attached one end of a lever, E, whereas the opposite end is hinged to the outside of the bucket at the point *a*, which allows the lever to swing out from the side of the bucket when the valve is closing, as indicated by the dotted line *b*. To the bail of the bucket is attached one end of a link, G, Fig. 3, whereas the opposite end is attached to the chain. The middle of said link is so bent as to form a projecting finger, *c*, made to project through and slide along in a slot cut in the side of a short pipe, H, attached to the side of the curb and depends therefrom in line with the chain, and through which the chain passes. I, Fig. 3, is a hook secured in a cross-piece, J, extending across the curb, the purpose of which will presently be shown.

The operation of this water-drawer is as follows: The bucket is filled through the bottom, the valve D′ opening inwardly by the pressure of the water. On being drawn up the spout K is caused to turn in the proper direction for discharging the water into the conductor L by means of the link G above referred to, which as it enters the lower end of the tube the finger *c*, guided by the sloping end of the tube, turns the bucket around so that the spout K will front the conductor, as shown in Figs. 1 and 3, and which is continued in this position by the finger *c* projecting through the slot cut in the front side of the tube, as shown in Fig. 2. The bucket, on being raised to the proper height, the valve is then opened by the hook J, which catches on the rim of the bucket, the result of which is to throw the bottom forward so far as to cause the end of the conductor to press against the lever E and force it back against the side of the bucket, which, as a consequence, will throw upward the valve and allow the water to run out of the spout into the conductor, as indicated by the arrows. The position of the bucket, valve, and lever while in the act of discharging is as shown in Figs. 1 and 2, in which it will be seen that the bottom of the bucket is projected slightly forward and the lever close upon the side of the bucket and forcing upward the valve, and that the link G is within the tube, with the finger *c* projecting through the slot therein.

It will be obvious that by this device for discharging the bucket a flat chain is not required; a common round chain or a rope will answer, as the bucket is brought round in proper position for discharging by means of the oblique end of the tube, through which the chain runs, the projecting finger slides along the edge of the slope of the tube, turning the bucket around and retaining it in position while discharging by slipping upward

into the slot in the front of the tube, as aforesaid and shown in the drawing. The wheel D consists of a center, O, to the periphery of which is attached a pair of rings, P, secured thereto by short radial arms or spokes *e*, and which arms have an oblique or spreading direction from their insertion in the wheel or center O upward, so as to make a V-like groove for the chain to run in. The spokes are all equally distant apart, and so far as to allow each loop of the chain to fall between the spokes, and thereby hold the chain from slipping on the wheel.

Claim.

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

The lever E, valve D′, bucket B, conductor L, link G having a guiding finger *c*, slotted tube H, and wheel D, all arranged and combined to operate in the manner as described, and for the purpose specified.

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Witnesses:
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