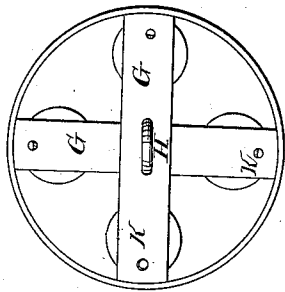
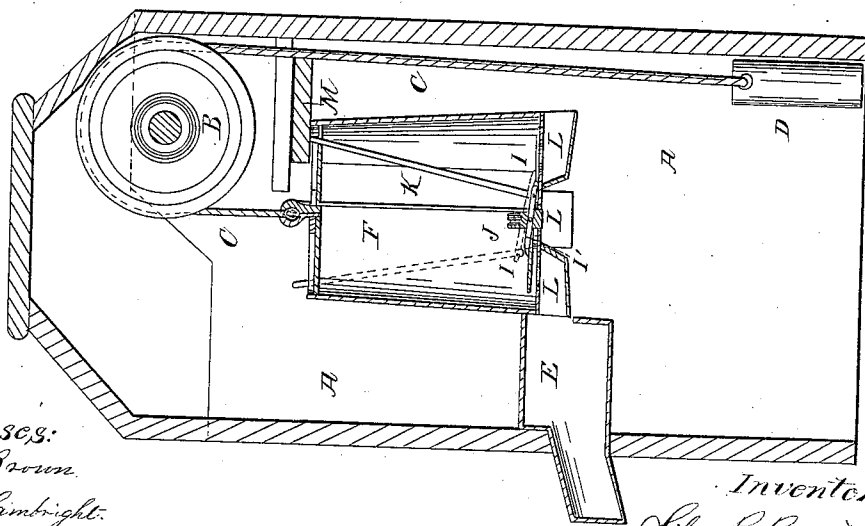
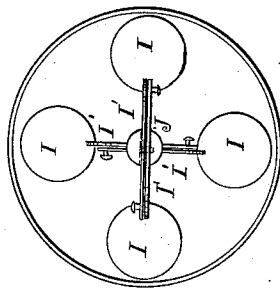


*S. R. Boardman,*  
*Windlass Water Elevator,*  
*No. 56,352,* *Patented July 17, 1866.*

*Fig. 2.*



*Fig. 3.*



*Witnesses:*  
*Edw. H. Brown.*  
*Jos. C. Lambright.*

*Inventor*  
*Silas R. Boardman*

# UNITED STATES PATENT OFFICE.

SILAS R. BOARDMAN, OF NEW YORK, N. Y.

## IMPROVEMENT IN WATER-DRAWERS.

Specification forming part of Letters Patent No. 56,352, dated July 17, 1866.

*To all whom it may concern:*

Be it known that I, SILAS R. BOARDMAN, of the city of New York, have invented new and useful Improvements in Water-Drawers; and I 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 part of this specification, in which—

Figure 1 is a vertical section. Fig. 2 is a view of the top of the bucket, and Fig. 3 is a view of the bottom of the bucket.

Like letters refer to like parts.

A represents the curb. B represents the windlass-wheel, which carries the lifting-rope. C represents the rope, and D represents the weight that balances the bucket. E represents the stationary curb-spout, into which the water is received from the bucket.

F represents the bucket. The top of this is provided with two bars, G G, which cross at right angles, at the junction of which a ring, H, is inserted, to which the lifting-rope is attached.

The bottom of the bucket is furnished with four valves, I, located at equal distances from each other and opening upward.

I' represents a lever (there being one to each valve) the fulcrum of which is in the center of the bottom of the bucket, as seen at J. One end of this lever is attached to the valve and the other is attached to the valve-stem K.

Beneath each valve is a spout, L, attached to the bottom of the bucket, which serve to conduct the water from the bucket into the spout E whenever the bucket is brought to the position shown in Fig. 1.

M represents a board that is placed transversely across the curb at a point that is even with the top of the bucket when it is at its highest point and upon the back side.

The valve-stems K all project a little distance above the top of the bucket through the pieces G, and when the bucket is drawn up

filled with water, whichever side happens to be presented to the spout E the valves upon that side are opened by the downward pressure of one, or at most two, of the stems K, and thereby the water is discharged from the bucket into the spout E.

By this arrangement I am enabled to use a round rope of cord for raising the bucket from the well, and thus wholly dispense with the use of a flat chain.

If desired, three valves may be used instead of four, with the same results.

I am aware of the patent of W. E. Pratt, February 16, 1864, his bucket having two valves, and suspended by a flat chain in connection with a rope. This I do not claim. I use a rope only, my bucket having three or more valves.

By my method I dispense with the chain, and, under all circumstances, secure the opening of one or two valves, in whatever position the bucket may be, resulting from a torsion of the rope. I thus secure the efficient working of the elevator, perhaps more economically.

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

1. A well-bucket having three or more valves in the bottom thereof, and arranged at equal distances from each other, each valve being provided with a stem so arranged and operated that the ascent of the bucket will open those and those only that are upon that side of the bucket presented to the curb-spout, as and for the purpose specified.

2. In combination with a series of valves arranged around the bottom of the bucket, as described, a corresponding number of spouts attached to the bottom of the bucket, as and for the purpose set forth.

SILAS R. BOARDMAN.

Witnesses:

EDM. F. BROWN,  
GEO. C. LAMBRIGHT.