E. Andrus,

Windlass Water Elevator,

No. 30,608. Patented Nov. 13, 1860.

Fig 1

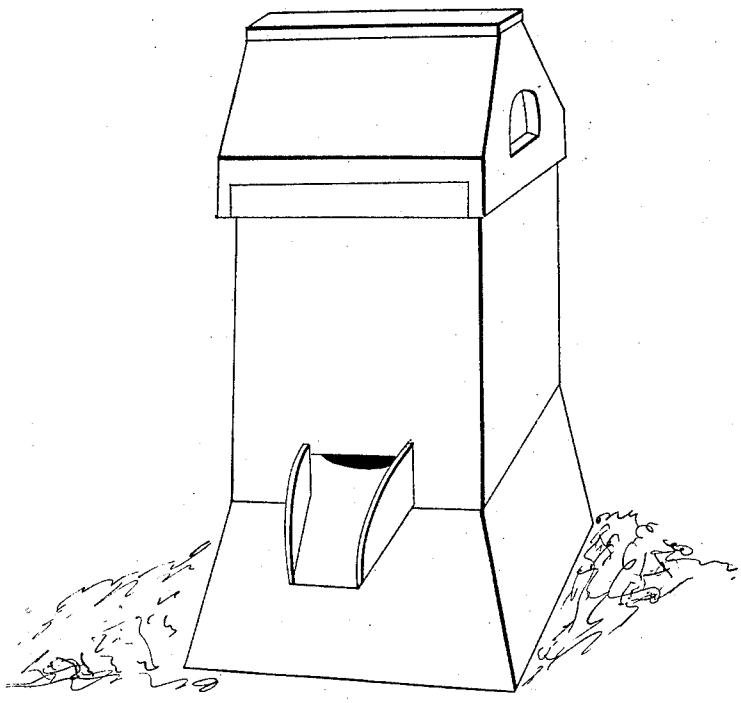


Fig: 3.

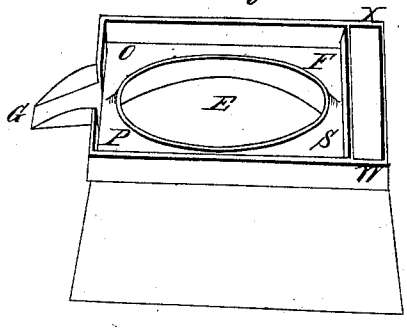
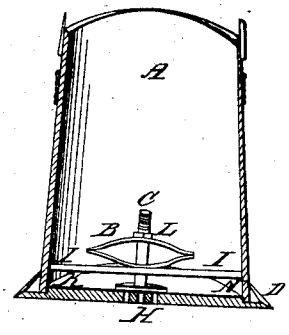


Fig: 2



Witnesses.
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UNITED STATES PATENT OFFICE.

ELLIOT ANDRUS, OF GENEVA, NEW YORK.

APPARATUS FOR DRAWING WATER FROM WELLS.

Specification of Letters Patent No. 30,608, dated November 13, 1860.

To all whom it may concern:

Be it known that I, ELLIOT ANDRUS, of Geneva, in the county of Ontario, in the State of New York, have invented a new and improved apparatus for emptying or discharging water or other fluid from a bucket, by which it may be raised without the application of the hands to or the inversion of the bucket; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists in providing a bucket for raising water the diameter of whose base is greater than the top, with a detached bottom so constructed that it may be kept in its place by means of a spring; also a curb or case to be placed over the mouth of the well or other place from which the fluid is to be drawn or elevated, with a diaphragm or division so constructed that when the bucket is drawn up through the opening in this diaphragm the projecting flange on the detached or movable bottom of the bucket will be caught by the diaphragm and held while the body of the bucket is drawn up from the bottom through the elasticity of the spring, and thus an aperture or opening made through which the fluid will be discharged from the bucket onto the upper side of the diaphragm and through a spout into a pail or other vessel.

To enable others skilled in the art to make and use my invention I will proceed to describe its construction and operation.

I construct my bucket of wood or other suitable material in a conical form, making it larger in diameter at the bottom than the top with straight sides as represented in Fig. 2, of the accompanying drawings. The bottom of the bucket I construct of metal or other suitable material separate from the rest of the bucket with a flange projecting beyond the sides of the bucket as represented at letter D Fig. 2 with that part of the bottom inside of the bucket raised so as to make a close joint with the sides of the bucket—as shown at letters K, N, Fig. 2, with a standard or stem in the center, by which it is attached to the bucket and kept in its place by the force of a spring, as represented at C Fig. 2, with a nut L by which the tension of the spring may be regulated, to keep the bottom tight in its place.

I construct a cross piece or bar in the lower part of the bucket for the purpose of keeping the bottom in its place and as a bed-piece for the spring to rest on, and through which the standard or stem passes as represented at I, I, Fig. 2. I also construct a curb or case of any convenient form as represented at Fig. 1, with a division or diaphragm as represented at letters O, P, S, F, Fig. 3, with an opening in it large enough to allow the body of the bucket to pass through, and so that the flange on the bottom of the bucket will exactly fit in it making a close joint and permitting the bottom of the bucket to come up even or flush with the top of the diaphragm but not allowing it to pass through when the bucket is drawn up to it. I also construct an opening through the diaphragm or division O, P, S, F, Fig. 3, on one side of the curb as represented at W, X, through which a rope or chain may work with a counterbalance to the bucket in such a manner, and for the purpose of keeping the rope or chain dry and separate from the water.

The operation of my invention is as follows: When the bucket is lowered into the water by means of a windlass or other apparatus, the water enters the bucket through the valve H, Fig. 2, in the bottom of the bucket. When filled the bucket is drawn up by means of the windlass, (the spring B, Fig. 2, keeping the bottom firm in its place) through the opening in the diaphragm O, P, S, F, Fig. 3, till the flange D is drawn up to the rim or flange F of the diaphragm where it is caught and held when by continuing to press on the handle of the windlass the body of the bucket is raised by the flexure of the spring B, Fig. 2, from the bottom and an opening is made sufficient to discharge the water from the bucket onto the diaphragm passing out at the spout G, Fig. 3.

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

The arrangement and combination of the several parts for the purpose, and to accomplish the results, as above specified of emptying a bucket.

ELLIOT ANDRUS.

Witnesses:
M. L. BELLOWS,
C. K. BELLOWS.