

W. LOTT.
PUMP.

No. 172,754.

Patented Jan. 25, 1876.

Fig. 1.

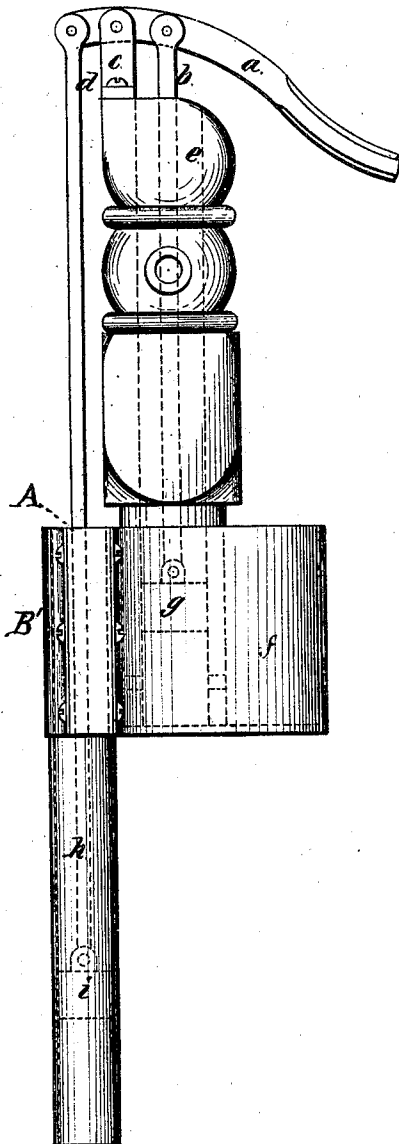


Fig. 2.

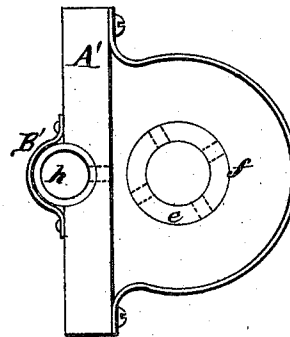
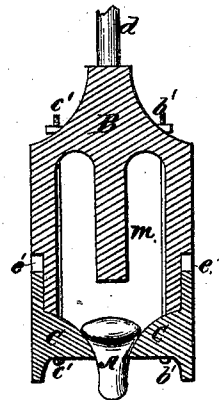


Fig. 3.



Witnesses.

St. H. Whitmore
Sam. B. Cooke

Inventor.

William Lott

UNITED STATES PATENT OFFICE.

WILLIAM LOTT, OF ELMWOOD, ILL., ASSIGNOR OF TWO-THIRDS HIS RIGHT
TO MOSES PHILBROOK AND JOHN WOODROW, OF SAME PLACE.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. 172,754, dated January 25, 1876; application filed
November 1, 1875.

To all whom it may concern:

Be it known that I, WILLIAM LOTT, of Elmwood, in the county of Peoria and State of Illinois, have invented a certain new and useful Improvement in Pumps for raising water from deep wells; and do here by declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings making a part of this specification, in which like letters refer to like parts, and in which—

Figure 1 is a perspective view. Fig. 2 represents the top view of the reservoir or box for holding the water at or about the middle of the well.

This invention relates to a double-acting pump having the reservoir or tank attached by screw-bolts to a plate, A, made long enough transversely, so that its ends will bear upon the sides of the well, and thus give a firm and steady support to the reservoir connected with the upper and lower tubing of the pump about the middle of the well, the upper end of the lower tubing being let in the said plate and fastened thereto by a strap-plate, B, and screw-bolts, the lower end of the upper tubing being properly secured to the bottom of the said reservoir, and its upper end connected directly with the main stock of the pump, having a handle or lever, and provided with a spout, the said handle carrying double piston-rods provided with bucket-valves arranged to work in the said tubing; also, to peculiarly-constructed bucket-valves made in two sections, the upper section being connected to the end of the piston-rod and secured to the lower section by rods and screw-nuts, the said upper section having a stop, *m*, constructed downwardly from the center on the interior thereof to prevent the valve from coming out of the opening in which it works, in combination with an adjustable ring to permit the bucket to expand with the pressure of the water as it is being raised up; the object of the invention being to simplify the construction of this kind of a pump, so that it can be more efficiently adapted for the purpose of raising water from deep wells, as will be hereinafter more fully explained.

a represents the handle of the pump substantially connected with the upper or main tubing of the pump, as shown, and to which is attached the two pistons *d* and *b*.

C represents the iron device securely fastened at the top part of the upper tubing of the pump, by which and the action of the lever one piston is forced down while the other is being raised up, thereby permitting one of the buckets connected at the lower end of the piston-rods in the usual way to fill with water while the other is being emptied. *e* represents the upper tubing or main stock of the pump. *i* and *g* represent the buckets attached to the lower ends of the piston-rods *b* and *d*. *f* represents the reservoir for holding the water at the middle of the well, and connected with the lower tubing at its upper end substantially with bolts or screws, as shown in Fig. 2. *h* represents the lower part of the tubing, which extends from the reservoir to the bottom of the well.

Fig. 3 represents the bucket attached to the piston-rods *b* and *d*. This is made in sections and connected with bolts *c'* and *b'*.

B represents the shape of the upper section of the bucket. *d* represents the piston-rod near the upper part of the bucket. *C C* represent the shape of the lower section of the bucket. *e' e'* represent the adjustable ring, which is held in its place on the outside of the bucket by a recess in the same, permitting it to expand with the pressure of water as it is raised up.

A represents the valve, with a stem which passes through the opening in the lower part of the bucket, which is raised up as the bucket is forced down, thereby permitting the water to pass through, and then going back to its place by the weight of the water as the bucket is being raised up.

Having thus described my invention, what I claim therein as new, and desire to secure by Letters Patent, is—

1. In a double-acting pump having a main stock provided with a spout and pivotal handle or lever carrying the piston-rods provided with bucket-valves, the reservoir or tank *f*, connected with the upper and lower tubing *h*

g by means of plate A, the upper end of lower tubing being fastened thereto by a strap-plate, B, and screw-bolts, substantially as shown and set forth.

2. The bucket-valve made in two sections, B C, the upper section, B, being connected to the piston-rod *d*, and secured to the lower section C by means of the rods *c'* *b'* and screw-nuts, and having a downwardly-projecting

stop, *m*, to prevent the valve A' from coming out of the opening in which it works, in combination with adjustable ring *e'*, substantially as shown and set forth.

In testimony thereof I hereunto set my hand and seal this 29th day of October, 1875.

Witnesses: WILLIAM LOTT. [L. S.]
J. I. ROSE,
N. D. JAY.