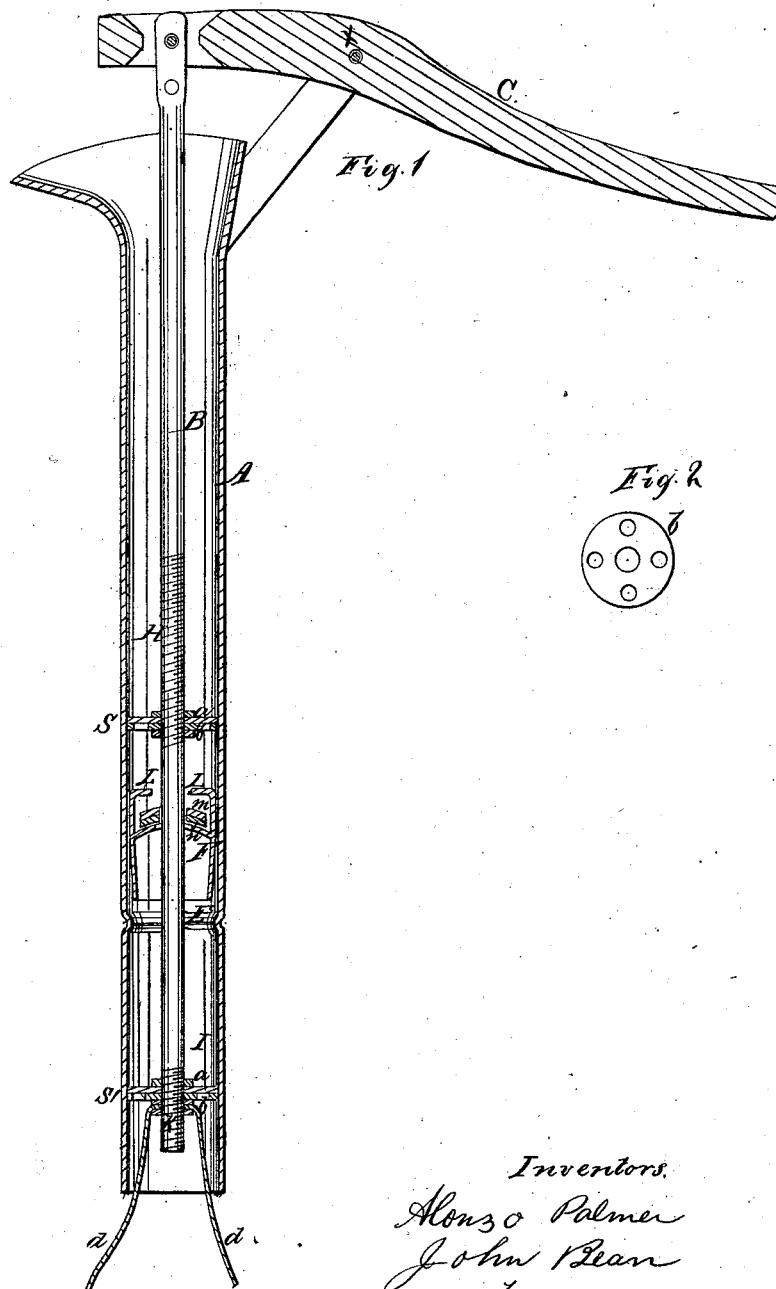


Bean & Palmer,

Pump Lift,

No 55,155,

Patented May 29, 1866.



Witnesses
John P. Jacobs
Charles Simpson

Inventors.
Alonso Palmer
John Bean
by
Alexander & Watson
Attys.

UNITED STATES PATENT OFFICE.

ALONZO PALMER AND JOHN BEAN, OF HUDSON, MICHIGAN.

IMPROVEMENT IN SUBTERRANEAN RESERVOIRS FOR WELLS.

Specification forming part of Letters Patent No. 55,155, dated May 29, 1866.

To all whom it may concern:

Be it known that we, ALONZO PALMER and JOHN BEAN, of Hudson, county of Lenawee, and State of Michigan, have invented certain new and useful Improvements in Machines for Forming Subterranean Reservoirs for Wells; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

A represents a cylindrical tube with one or more indentations pressed into the side of it, as seen at E, for the purposes hereinafter to be described. Said cylinder is also provided with a spout at its top to carry the water from the tube.

B represents a perpendicular shaft extending through the center of the cylinder A. This shaft is held in its place by the handle C, which handle is made in any of the known or ordinary forms, being pivoted to the cylinder A and the top of the shaft B.

Near the center of the shaft B there is formed a screw, H, as there is, also, one at the bottom, at K.

Secured to the screws H at the center and K at the bottom are disks S and S'. These disks consist merely in a metallic plate, *a*, circular in form, with holes cut within it and made to fit within the cylinder, and a piece of leather, *b*, made so as to fit snugly in the cylinder and placed directly upon the metallic plate *a*.

d d represent two spring agitators or knives, which are attached to the bottom of the shaft B.

F represents the valve-box, which is made in the form of a bucket inverted, and made larger at the top than the bottom. The top of this valve-box is concave, and has three or four small bent arms extending from the top of the box upward. Incased within the receptacle formed by these arms is a valve, which is a metallic plate attached to a piece of leather and fitting over the opening made in the top of the valve-box. This valve is made convex, to more closely cover the concave top of the valve-box.

The indentation E, heretofore described, is for the purpose of keeping the valve-box and valve above the point desired, which is about one-half way between the disks S and S'.

The screws formed on the shaft B, as seen at H and K, are for the purpose of regulating the disks S and S' to the required height, or placing two or more disks upon said shaft, whereas another indentation may be made in the cylinder for a corresponding purpose.

The object of this invention will be readily seen. A well or opening is made in the earth, when the invention herein described is placed within it. By carrying the handle up and down water is drawn through the holes in the plate *b* of S', pushing the leather *a* upward, when it is thrown up in the valve-box and through the valve, thence to the bucket S, where it goes through the holes in the plate and rests upon the leather above the same, both the upper disks, S, and lower one, S', supporting the column of water when it is carried to the top of the cylinder and out the spout.

Should the well become clogged or stopped up, by unscrewing the screw *x* in the handle *c'* the handle and shaft B can be revolved, and by that means the agitators at the bottom stir and cause the earth to loosen, forming a reservoir at the bottom. From thence the muddy water and earth are pumped out by the manner heretofore set forth.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The arrangement of the cylinder A, shaft B, disks S and S', together with the agitators *d d*, when used as and for the purposes herein specified.

As evidence that we claim the foregoing we have hereunto set our hands in the presence of two witnesses.

ALONZO PALMER.
JOHN BEAN.

Witnesses:

L. R. PEIRSON,
D. L. JAKES.