W. Z. BLAKSLEE.

PUMPS FOR ARTESIAN WELLS.

No. 188,229. Patented March 13, 1877.

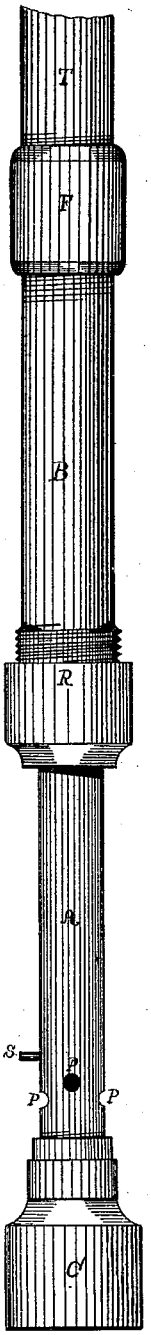

Fig. 1.

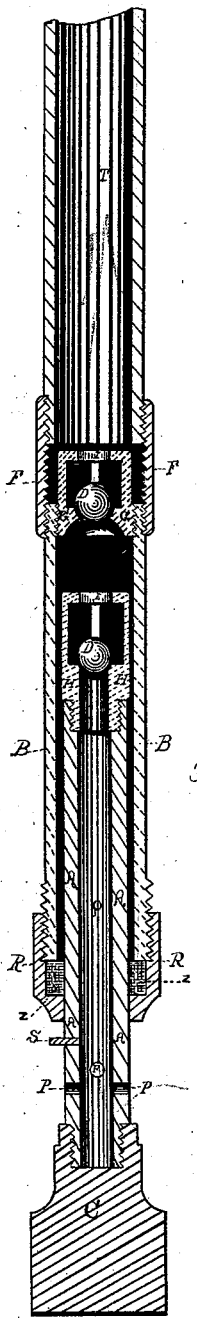

Fig. 2.

WITNESSES.

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WILLIAM Z. BLAKSLEE, OF ST. PETERSBURG, PENNSYLVANIA.

IMPROVEMENT IN PUMPS FOR ARTESIAN WELLS.

Specification forming part of Letters Patent No. **188,229**, dated March 13, 1877; application filed April 3, 1876.

To all whom it may concern:

Be it known that I, WILLIAM Z. BLAKSLEE, of St. Petersburg, county of Clarion, and State of Pennsylvania, have invented a new and useful Improvement in Pumps for Artesian Wells, which improvement is set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 shows a perspective, and Fig. 2 a sectional, view.

This pump is intended to rest on the bottom of the well, the part C being made sufficiently heavy to anchor it there; or C may be provided with grabs or holders to retain it in its place.

The part A is a hollow tube, long enough to reach from the bottom of the well to the strata, whence the desired oil, salt water, or other fluid flows into the well. It is pierced with the holes P P, to allow such fluid free access into the interior of the pump. The barrel or chamber of the pump B is connected to the string of tubing T, which extends to the top of the well, and is there connected by any suitable apparatus with the walking-beam or other power, so that a steady reciprocating vertical motion is given to the tubing T and the chamber B and its lower end R. Z in R is a suitable packing of ordinary construction, designed to slide easily on A, but at the same time to keep the same air-tight.

The mode of operation is similar to the ordinary pump: When the pump has finished its downstroke the apparatus is in the position shown at Fig. 2, the ball D in the valve-seat G closed by its own weight, and pressed upon by any fluid in T. As the tubing T and the pump B R are raised, the suction in the chamber B raises the ball-valve D of the valve-seat H, and draws in the fluid through the aperture E from Q, and through the apertures P from the well. When the downstroke commences the lower valve closes, and the fluid in the chamber B is forced through said valve, through its aperture I, into the tubing, and so, by successive strokes, the fluid is pumped into its receptacle at the mouth of the well.

The pin S limits the movement of the barrel R on the hollow rod A. It will be but rarely used, as the length of the movement of the barrel B will be generally much less than the length of the rod A.

It is obvious that the packing Z can be made, if desired, to be fastened to the rod A, instead of being fastened to and moving with the barrel B.

The advantages of this improvement are, that sucker-rods are entirely dispensed with, and a much smaller size of tubing can be used to pump wells than is now ordinarily used.

What I claim as my invention is—

The combination of the anchor C, hollow rod A, provided with apertures P P, barrel B R, packing Z, valve-seats H and G, valves D D, and tubing T, substantially as described.

WILLIAM Z. BLAKSLEE.

Witnesses:

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