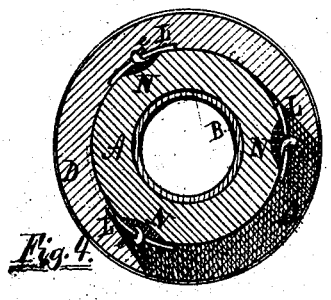
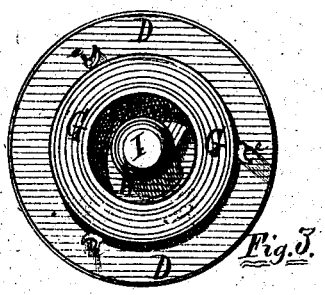
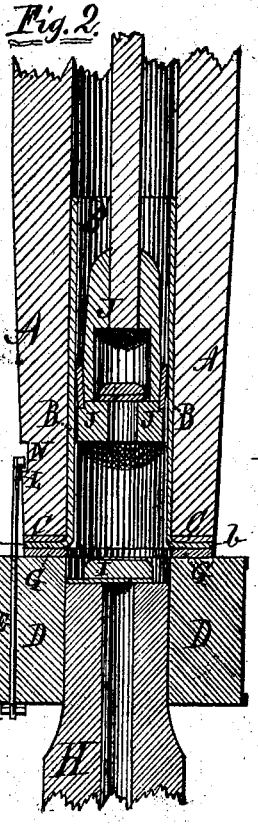
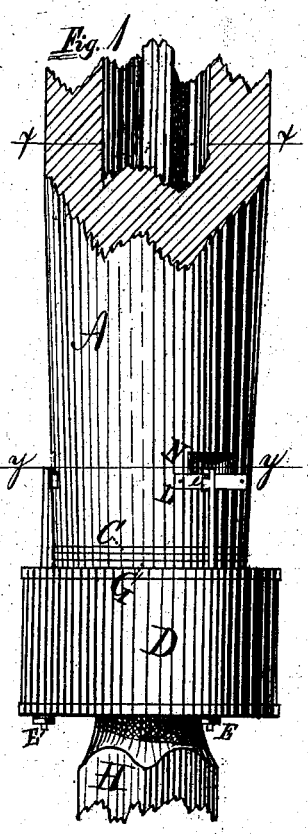
Truman O. Jones. Pump.

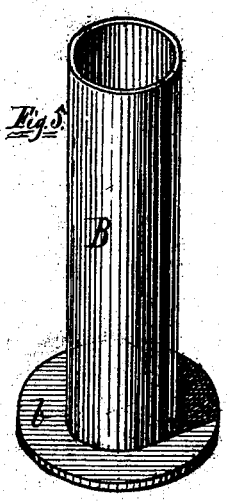
111349 PATENTED JAN 31 1871











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United States Patent Office.

TRUMAN O. JONES, OF GALESBURG, ILLINOIS.

Letters Patent No. 111,349, dated January 31, 1871.

IMPROVEMENT IN PUMPS.

The Schedule referred to in these Letters Patent and making part of the same.

I, TRUMAN O. JONES, of Galesburg, in the county of Knox and State of Illinois, have invented certain Improvements in Pumps, of which the following is a specification.

Nature and Objects of the Invention.

The nature of this invention relates—

First, to a simple and effectual arrangement of devices for securing a metallic piston-cylinder in the lower end of the upper section of an ordinary wooden lift-pump; and

Secondly, in so constructing and attaching said devices to the tubing or lower sections of a pump that they may be removed with facility and ease for access to the valve or for other purposes; and

The invention consists in constructing the piston-cylinder with an annular exterior flange at one end, which rests against the lower end of the pump-stock or upper section when the cylinder is inserted in the said stock.

A wooden cylinder or ring, with an interior circumference corresponding with the interior of the piston-cylinder, and with an exterior circumference somewhat larger than the pump, and held to the lower end of the said upper section by bolts having lugs engaging with recesses in the pump-stock, serves to hold and secure the piston-cylinder in place.

Suitable packing-rings are inserted between the flange of the piston-cylinder and the wooden surroundings.

The aforesaid wooden ring is made short, so that, when the upper end of the tubing is inserted therein, it will bring the valve on the upper end of said tubing near a level with the top of the wooden ring, and, consequently, easy of access when the ring is removed or released from the pump-stock, which may be done with facility and ease, all as hereinafter fully described

Description of the Accompanying Drawing.

Figure 1 is a side elevation of my invention.

Figure 2 is a vertical section of fig. 1 on the line *x x*.

Figure 3 is a top view of the wooden cylinder.

Figure 4 is a horizontal sectional view of fig. 1 on the line *y y*.

Figure 5 is a perspective view of the metallic piston-cylinder.

Figure 6 is a detail view.

General Description.

A represents an ordinary pump-stock or upper section of a wooden pump, with the upper end broken away in figs. 1 and 2.

B is a metallic cylinder, with an exterior annular flange at one end, and is inserted in the lower end of the pump-stock A, as shown at fig. 2, with the flange *b* resting against a suitable packing-ring, C, which is placed between the flange *b* and stock A.

D is a wooden cylinder or ring, somewhat larger in diameter than the stock A, and with a bore corresponding in diameter with the interior of the piston-cylinder B.

This ring D is held to the lower end of the stock A by screw-rods E, having lugs at their upper ends, which engage with recesses in the sides of the stock A.

G is a packing-ring seated between the wooden cylinder D and the flange *b*.

H is the ordinary tubing, extending down into the well.

I is the ordinary clack-valve, seated on the upper end of the upper section of tubing.

J is the piston or bucket, and is so hung as to reciprocate vertically in the piston-cylinder B.

L L L are metal plates, one of which is attached to the lower side of each of the recesses N in the side of the stock A, and is provided with a notch in its upper side, into which the lugs on screw-rods E drop, as shown at fig. 6.

The operation of my invention is as follows:

The packing-ring G is placed on the upper end of wooden cylinder D. The screw-rods E are then inserted through holes in the cylinder D, parallel with the axis thereof. The piston-cylinder B is now put in place, with the packing-ring C in position. The lugs on the screw-rods E being turned outward, as shown at fig. 3, the stock A is then placed on the ring D, and the lugs on the screw-rods E turned into the recesses N, as shown plainly at fig. 4. Now, by tightening the nuts on the lower end of rods E, the lugs will be brought down into the recesses in the plates L, as shown at fig. 6, and the ring D brought up close, holding the piston-cylinder B firmly and securely in place, and, with the aid of the packing-rings C and G, forming a water-tight arrangement.

Secured in this manner, the stocks or pumps may be shipped to where set up, and then driven on the tubing H, or to form the connections of the sections of tubing, without injury to the piston-cylinder, or any other part—a thing impossible where the piston-cylinder is fragile and seated with packing between the end of the tubing and shoulders in the wooden casing.

For facility of access to the clack-valve I, which frequently gets fouled or out of order, my pump is very superior.

By loosening the nuts on rods E, they may be pushed up slightly so as to raise the lugs out of the notches in plates L; then, by taking hold of the tongues *e* on the rods E, the said rods may be turned around to the position shown at fig. 3, and the pump-stock A lifted, thereby exposing the valve I.

Claim.

I claim—

The arrangement of flanged cylinder B, stock A, and cylinder D, with screw-rods E and plates L, constructed as described, and operated substantially as and for the purpose specified.

TRUMAN O. JONES.

Witnesses:

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