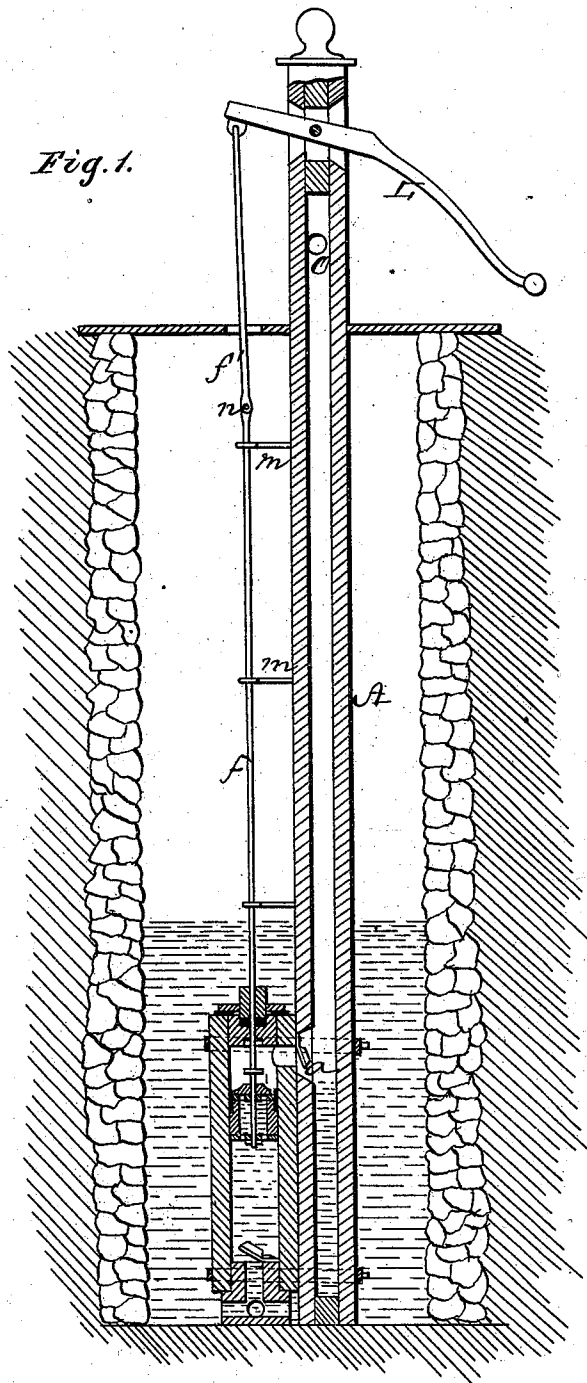


M. E. FRANKLIN.
PUMP.

No. 173,612.

Patented Feb. 15, 1876.



WITNESSES

Henry N. Miller
C. L. Ewert.

By

INVENTOR

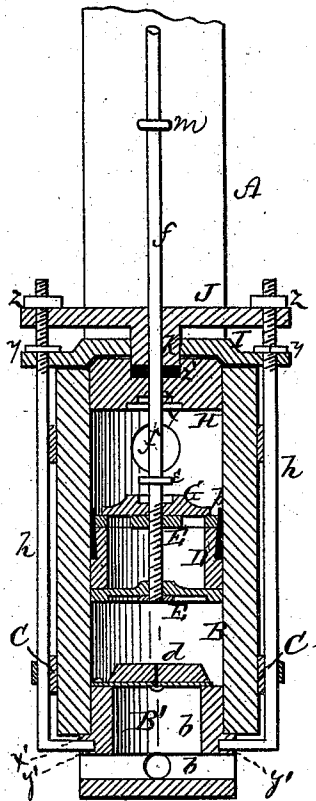
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Fig. 2.



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UNITED STATES PATENT OFFICE.

MOSES E. FRANKLIN, OF BOONSBOROUGH, IOWA.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **173,612**, dated February 15, 1876; application filed July 26, 1875.

To all whom it may concern:

Be it known that I, MOSES E. FRANKLIN, of Boonsborough, in the county of Boone and in the State of Iowa, have invented certain new and useful Improvements in Pumps; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a wooden force-pump, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a longitudinal section of my pump; and Fig. 2 is an enlarged section of the pump-cylinder.

A represents the hollow pump-stock, of any suitable dimensions, closed at its lower end and inserted in the well. To the side of the pump-stock A, near the lower end, is fastened the pump-cylinder B, by means of metal straps or bands C C. The pump-cylinder B is near its upper end connected with the pump-stock A by a suitable passage, which is provided with a check-valve, *a*. The bottom B' of the cylinder B is provided with suitable passages *b* for the ingress of water into the cylinder, and on said bottom is a check-valve, *d*. The bottom is provided with a flange, *x'*, to allow of its insertion to the proper depth within the cylinder. It is also provided with recesses *y'*, into which the hooked ends of the rods *h* are inserted. The pump-plunger is composed of a cylindrical body, D', with perforated heads E E, through the center of which latter passes the screw-rod *f*. On this rod above or on top of the upper head is placed a valve, G, which moves vertically up and down on the rod, its movement being limited by a pin or collar, *e*, on the rod *f*. In the upper end of the cylinder B is inserted a head, H, in the under side of which are made recesses *x x*, to receive the stop *e*, and top of the valve, when the plunger is raised. The rod *f* passes through the center of the head H, and around the rod in the top

of the head is a recess for the reception of packing *i*. Over the head H is placed a metal plate, I, fastened thereto by screws or other suitable means, and provided with projecting ears, through which pass rods *h h*, as shown in Fig. 2. The lower ends of the rods *h* are bent in hook form and inserted in the bottom of the cylinder. Nuts *y y* are then screwed on the rods *h*, against the projections on the plate I, thereby making all the parts tight and uniting them firmly together. Above the plate I, on the rods *h h* and plunger-rod *f*, is placed a cross-bar, J, which is provided with a downward-projecting hub, *k*, extending down through the plate I into the recess in the head H on top of the packing *i*. The cross-bar J is pressed down and held by means of nuts *z z*, screwed upon the upper ends of the rods *h h*. The plunger-rod *f* extends upward through suitable guides *m* attached to the pump-stock A, and is jointed at *n* to the lower end of a rod, *f'*, the upper end of which is connected to one end of the lever L. The lever passes through and is pivoted in the pump-stock A. Around the upper end of the pump-plunger is a packing, *p*, of leather or other suitable material.

In operation the pump-cylinder B is always submerged in the water, and it will be seen that by raising the handle end of the lever L the plunger is forced downward, opening the valve G, and causing the water to pass through above the valve. By depressing the lever the plunger is raised, forcing the water into the pump-stock and out of the spout O.

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

The combination of the pump-cylinder B, head H having recesses in top and bottom, plate I, cross-bar J, with hub *k*, packing *i*, and hooked rods *h h*, with nuts *y z*, and the removable bottom B', provided with valve *d*, flange *x'*, and recesses *y'*, all substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 29th day of April, 1875.

MOSES E. FRANKLIN.

Witnesses:

JAMES M. RITCHEY,
S. M. IVES.