W. J. PIRKLE.

Pump.

No. 218,569. Patented Aug. 12, 1879.

Fig. 1.

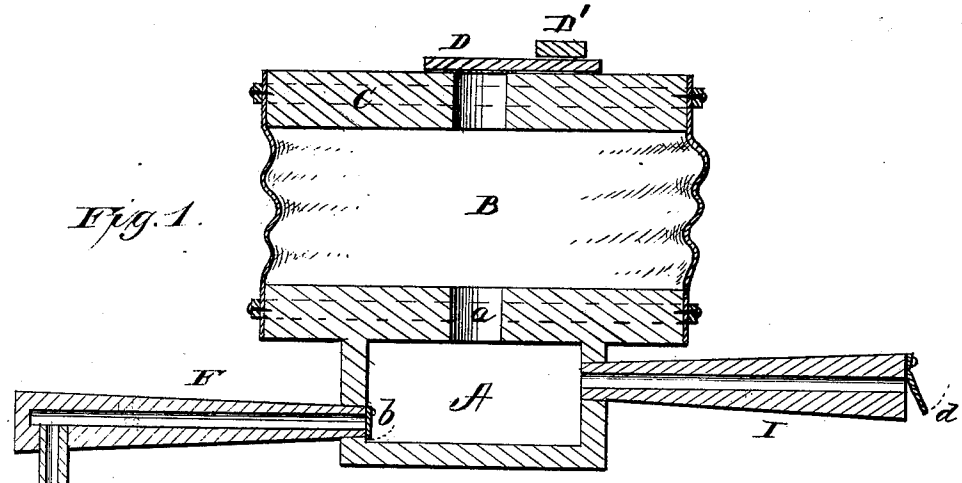
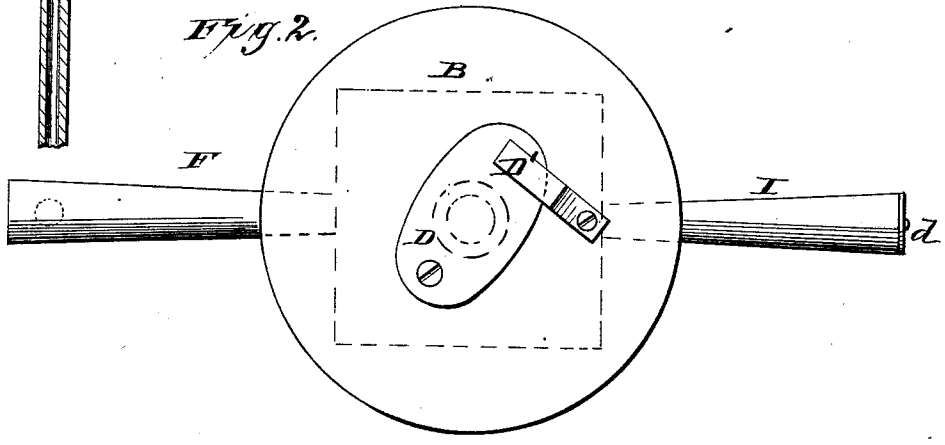


Fig. 2.



WITNESSES

F. L. Durand

H. Aubrey Toulmin.

By

INVENTOR

W. J. Pirkle

Alexander Peabody

ATTORNEYS

N. PETERS. PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM J. PIRKLE, OF CUMMING, GEORGIA.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **218,569**, dated August 12, 1879; application filed January 14, 1879.

To all whom it may concern:

Be it known that I, WILLIAM J. PIRKLE, of Cumming, in the county of Forsyth, and in the State of Georgia, 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 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 drawings, in which—

Figure 1 is a central vertical section of my pump. Fig. 2 is a plan view of the same.

A represents a chest or reservoir, on top of which the bellows B is secured, with a passage, *a*, leading from the chest into the bellows. C is the top plate or disk of the bellows, provided with a slide or other valve, D, in the center, which may be held closed by means of a latch, D′. F is the receiving-tube, provided with a valve, *b*, at the inner end in the chest A. I is the discharge-tube, provided with a valve, *d*, at its outer end.

The pump may be made of any suitable material, so as to be air-tight, and is intended for the purpose of raising and purifying water, by the contact of air, from wells or cisterns or reservoirs, or for extracting any kind of liquid from any vessel or reservoir, and for extinguishing fire.

The pump is to be operated by hand or by machinery, by means of a lever attached to the top disk, C, of the bellows, to force the water from the discharging-tube.

By attaching an extra tube, of hose or other material, with a valve acting in the same manner as the one on the discharging-tube, the air may be forced to the bottom of the well or reservoir continually as the water is extracted. The valve D on top of the bellows is for the escape of air.

By turning the latch D′ to one side, a piece of hose, of rubber or other suitable material, may be attached to inclose the valve and reach to the bottom of the well, through which the air is then forced as the bellows close, thus supplying the water with fresh air, which purifies it from the poisonous gases that infest water excluded from the air. The valve D is also used to secure the filling of the reservoir when the valve on the escape-tube is closed. The latch D′ is used to give power to force water from the escape-tube through hose for the extinguishing of fire, &c.

For drawing water ordinarily, the valve D on top, and the one on the end of the escape-tube, may both be allowed to work, or either of them, as circumstances require.

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

The within-described pump, consisting of the chest A, bellows B, with valve D in its top plate, the receiving-tube F, with valve *b*, and discharge-tube I, with valve *d*, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of December, 1878.

WILLIAM J. PIRKLE.

Witnesses:
J. R. THOMPSON,
HENRY PHILLIPS.