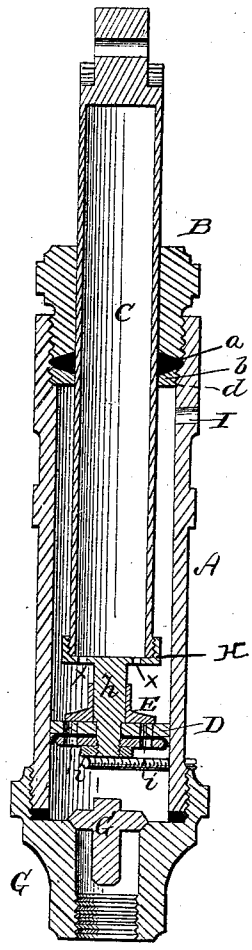
E. JONES.

PUMP.

No. 192,264. Patented June 19, 1877.



WITNESSES

Franck L. Durand

John Schroeder

INVENTOR

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UNITED STATES PATENT OFFICE.

EVAN JONES, OF OTTUMWA, IOWA.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **192,264**, dated June 19, 1877; application filed May 17, 1877.

To all whom it may concern:

Be it known that I, EVAN JONES, of Ottumwa, in the county of Wapello and 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 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, which represents a longitudinal section of my improved pump.

A represents a straight tube of any suitable dimensions, enlarged at the upper end to receive a packing-box, B, through which works a hollow plunger, C.

a is the packing, and *b* the washer, resting on a shoulder, *d*, in the tube A, and against which the box B screws tightly, to pack the hollow plunger C.

The plunger C is of smaller diameter than the inside of the tube A, and is closed at its upper end. The lower end of said plunger is provided with exterior screw-threads, on which is screwed a cup, H, forming the bottom of the plunger, and from which projects a rod, *h*, having a piston, D, secured to its lower extremity. This piston fits tightly in the tube A, and has openings *i* through it, which are covered by a valve, E, sliding on the rod *h*. In the bottom H of the plunger C are also openings *x*, as shown.

If necessary, the hollow plunger C can be easily detached from the cup and piston, and removed without taking the piston from the tube.

On the lower end of the tube A is fastened a valve-seat, G, with valve G′, to connect with the supply in the usual manner.

By the joint action of the hollow plunger C, which forms an air-chamber, and the valve-piston D E, of different areas, connected together and working simultaneously in a straight tube, a continuous stream of water is made to flow from the pump in a steady and regular manner. I is the outlet.

The pump is cheap, compact, durable, and effective in operation.

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

The combination of the tube A with packing-box B and valve G′, the hollow removable plunger C, the cup H, with openings *x* and projecting rod *h*, the piston D, with openings *i*, and sliding valve E, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

EVAN JONES.

Witnesses:

HENRY FULAUP, Jr.,

JOHN W. MILLER.