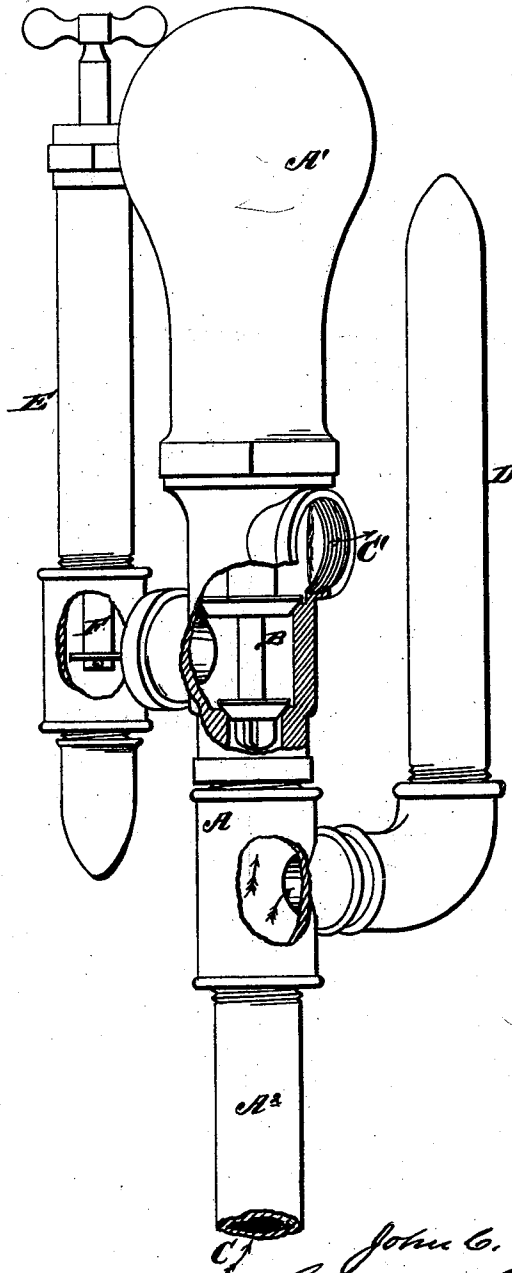


J. C. TITUS.
Pump.

No. 210,169.

Patented Nov. 19, 1878.



WITNESSES

Robert Smith
H. Clay Smith

INVENTOR.

John C. Titus.

By

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ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN C. TITUS, OF MARION, OHIO.

IMPROVEMENT IN PUMPS.

Specification forming part of Letters Patent No. **210,169**, dated November 19, 1878; application filed October 19, 1878.

To all whom it may concern:

Be it known that I, JOHN C. TITUS, of Marion, in the county of Marion and State of Ohio, have invented a new and valuable Improvement in Pumps; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing, making a part of this specification, and to the letters and figures of reference marked thereon.

The figure of the drawing is a representation of a face part section of my pump.

My invention relates to suction-pumps and the like; and the novelty consists in the construction and arrangement of parts, as will be more fully hereinafter set forth, and pointed out in the claim.

I attach a vacuum-chamber to the suction portion of a pump, below the valves, and arrange the same so that it will run perpendicularly with the plane of the valve-body as high as or higher than the valves.

Referring to the drawing, A represents the pump-body; A¹, the dome, and A² the suc-

tion-pipe below the valves. Leading from the suction is a vacuum-chamber, D, which extends perpendicularly upward to a point as high as or higher than the valves B in the body A. C represents the inlet, and C' the outlet. E represents the plunger-cylinder, and F the plunger. These portions are of any ordinary shape and construction.

The important feature of my invention is the construction and arrangement of the vacuum-chamber D and its relation to the pump.

What I claim as new, and desire to secure by Letters Patent, is—

The suction-pipe of a pump having the thimble or section A provided with the concussion-chamber D, operating substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN C. TITUS.

Witnesses:

JOHN F. MCNEAL,
JOHN A. WOLFORD.