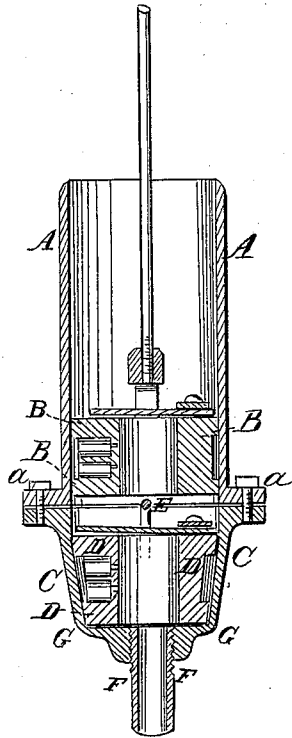


*J. W. Williams,
Pump.*

No. 93029.

Patented July 27, 1869.



*Witnesses.
Theo Ensche
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*Inventor:
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Per [Signature]
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United States Patent Office.

JOHN W. WILLIAMS, OF SYRACUSE, NEW YORK.

Letters Patent No. 93,029, dated July 27, 1869.

IMPROVEMENT IN DETACHABLE FOOT-VALVES AND SEATS FOR PUMPS.

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

To all whom it may concern:

Be it known that I, JOHN W. WILLIAMS, of Syracuse, in the county of Onondaga, and State of New York, have invented a new and improved Attachment to Pumps; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, forming part of this specification.

This invention relates to a new and improved attachment, by means of which the lower or stop-valve box and valve may easily be removed from any pump, when, from its being clogged or out of repair, it becomes necessary to do so.

It consists of a conical attachment secured by a flange with screw-bolts to the bottom of any pump provided with a suitable flange, into which the lower or stop-valve box is fitted, in such way that the entire box, with its valve, may be removed at pleasure by means of a bail or handle attached to the same.

The drawing represents a central vertical view of a common pump with the attachment and valve-box.

A is the pump-barrel.

B is the upper or movable valve-box, with valve and pump-rod.

C is the conical attachment.

D is the lower or stop-valve box with valve.

E is the bail or handle.

F is the supply-pipe.

G, are shoulders inside the attachment C, on which the valve-box D rests.

a', are screw-bolts which secure the attachment to the pump-barrel.

The conical attachment C is so constructed that its

upper, or larger diameter is not greater than the diameter of the pump-barrel A, and is sufficiently tapering so that the valve-box D, when properly packed and pushed down into its place, will fit perfectly into the attachment C, and, at the same time, admit of its being easily withdrawn from the attachment and from the pump by means of the bail or handle E.

It is secured to the pump-barrel by means of the screw-bolts a' passing through flanges on the pump-barrel and on the attachment.

The supply-pipe F is fastened to the bottom of the attachment C in the usual way of fastening supply-pipes to the bottom of a pump-barrel.

The valve-box D is made of a conical shape to fit in the inside of the attachment C, and is provided with a groove to receive the packing in the ordinary way, and is also provided with a bail or handle, E, by means of which it may easily be withdrawn. When in position, it rests upon the shoulders on the inside of the attachment C.

The advantages of the improvement are, the facility with which the lower or stop-valve box of a pump may be removed, and the ease with which the attachment may be applied to pumps now in use.

Having thus described my invention,

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

The conical attachment C, containing the conical valve D, such attachment being secured to any ordinary pump, all substantially as herein shown and described.

JOHN W. WILLIAMS.

Witnesses:

THOMAS BYRNE,
J. J. LINTS.