

G. M. Weinman,

Pump Valve.

No. 106,974.

Patented Aug 30. 1870.

Fig: 1

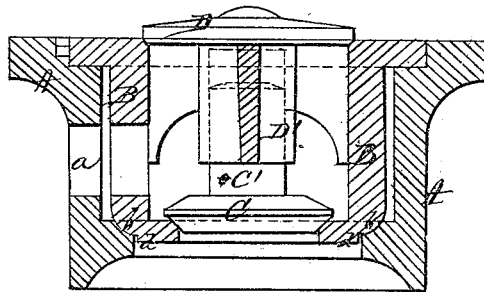
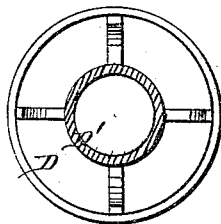


Fig: 2



Witnesses

A. W. Yeatman,
C. L. Ewert.

Inventor

Geo. M. Weinman
per
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attys.

United States Patent Office.

GEORGE M. WEINMAN, OF COLUMBUS, OHIO.

Letters Patent No. 106,974, dated August 30, 1870.

IMPROVEMENT IN PUMP-VALVES.

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, GEORGE M. WEINMAN, of Columbus, in the county of Franklin and in the State of Ohio, have invented certain new and useful Improvements in Pump-Valve; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing 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 valve for steam-pumps, as will be hereinafter 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 vertical section of the entire valve, and

Figure 2 is a bottom view of the upper or outlet valve.

A represents one-half of the pump, provided, on one side, with a port, *a*, leading into the cylinder where the plunger works.

Inside of the casing A is placed the valve-seat B, which is provided with a port corresponding with the port *a* of the casing.

This valve-seat is ground into the casing so as to form a perfect ground-joint at *b*, obviating the necessity of screwing or otherwise fastening the seat.

Below the ground-joint *b*, at the bottom of the valve-seat, is a downward-projecting ring or flange, *d*, which forms a guide for the valve-seat, to prevent its moving from side to side.

In the bottom of the valve-seat B is placed the

suction-valve C, provided with an upward-projecting stem, *C'*, which extends into a socket, *D'*, formed on the under side of the upper or outlet-valve D.

The usual rubber gasket, on top of the casing A, forms the necessary joint there, and, in place of the ground-joint *b*, I may use rubber packing, which would answer the same purpose. Only two of these valves are necessary with a steam-pump, one at each end of the cylinder.

As the plunger moves away from the valve the suction raises the valve C and draws the water through the port into the cylinder, and, when the plunger moves toward the valve, the suction-valve C is closed, and the water forces the valve D up and escapes through the same into the air-chamber.

Having thus fully described my invention,

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

1. The valve-seat B, joined to the casing A by the ground-joint *b* or packing, and provided with the guide *d* and a port corresponding with the port *a* of the casing, substantially as and for the purposes herein set forth.

2. The combination of the casing A with port *a*, valve-seat B, with joint *b* and guide *d*, and the valves C D, constructed and arranged to operate substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand this 27th day of July, 1870.

GEORGE M. WEINMAN.

Witnesses:

A. N. MARR,

A. A. YEATMAN.