

G. M. Weinman,

Pump Valve.

No. 106,974.

Patented Aug 30. 1870.

Fig: 1

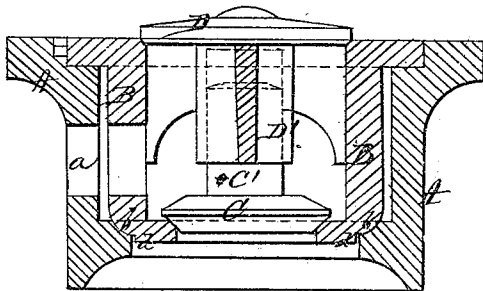
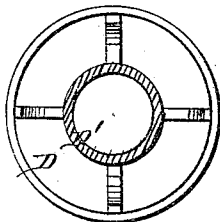


Fig: 2



Witnesses

A. A. Yeatman,
Chas. L. Ewert.

Inventor

Geo. M. Weinman
per
Alexander Murray
Atty.

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.