

David Metz Pump Valve

117661

PATENTED AUG 1 1871

Fig. 1

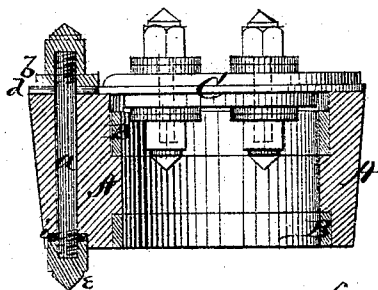


Fig. 2

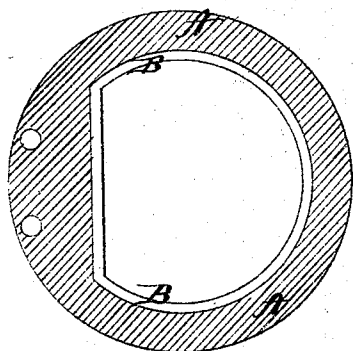
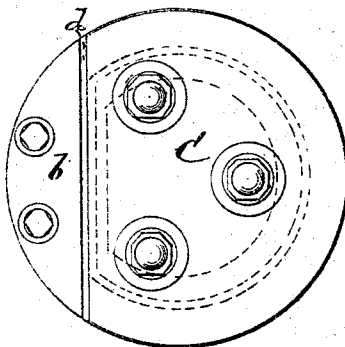


Fig. 3



Witnesses.

C. L. Evert.
Jas. E. Hutchinson

Inventor.

David Metz.
per Alexander Mason
Atty.

UNITED STATES PATENT OFFICE.

DAVID METZ, OF MAHANAY, PENNSYLVANIA.

IMPROVEMENT IN PUMP-VALVES.

Specification forming part of Letters Patent No. 117,661, dated August 1, 1871.

To all whom it may concern:

Be it known that I, DAVID METZ, of Mahanoy, in the county of Schuylkill and in the State of Pennsylvania, have invented certain new and useful Improvements in Pump-Valves; 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 pump-valve for large or mine-pumps, whereby the action of waters impregnated with acids is overcome to a very great degree.

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 my pump-valve. Fig. 3 is a plan view of the same, and Fig. 2 is a horizontal section of the shell.

A represents a tapering wooden shell, having one side made thicker than the rest so as to give the inner surface of the shell one square or straight side, as shown in Fig. 2. Around the inside surface of the wooden shell A are formed two grooves

for the insertion of two metal rings, B B, which support the wooden shell and prevent the contraction of the same; they also prevent it from slipping or driving through the shell-seat on the inside or chamber of the pump. C represents the valve, which is held to the shell A by studs *a a* passing through the enlarged or thicker portion of the same, or the back part of the shell, the leather or other washer *d* of the valve passing under the upper collar *b* of said studs. Under the nuts *e e*, at the lower ends of the studs *a a*, are placed leather or other washers *i*, as shown. By these washers the destruction of the studs by the action of water impregnated with acids is in a very great degree prevented.

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

The combination of the tapering wooden shell A, internal metallic rings B B, valve C, studs *a a*, washers *d* and *i i*, collar *b*, and nuts *e e*, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 6th day of June, 1871.

DAVID METZ.

Witnesses:

CHAS. FRAILEY,
J. F. SETERY.