H. H. MEYER.

Improvement in Slide-Valves.

No. 128,161. Patented June 18, 1872.

Fig. 1.

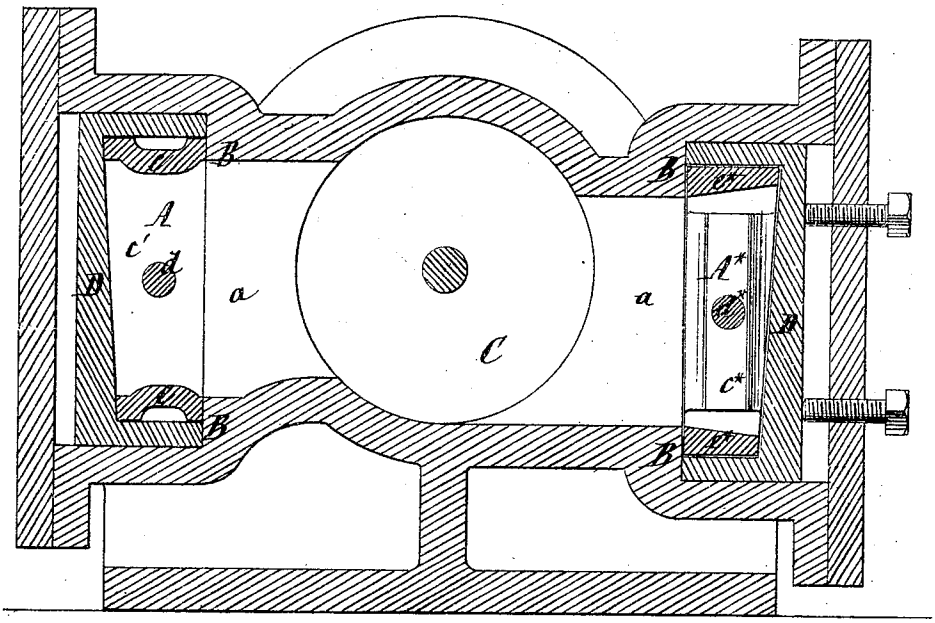


Fig. 2.

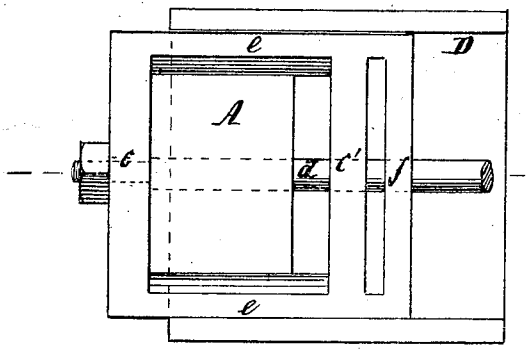


Fig. 3.

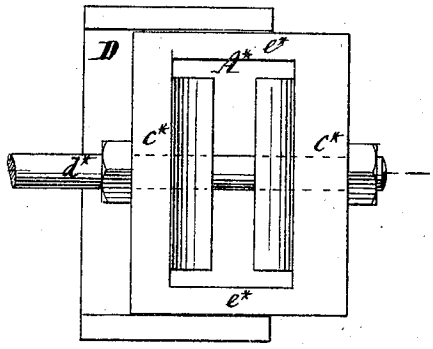


Fig. 4.

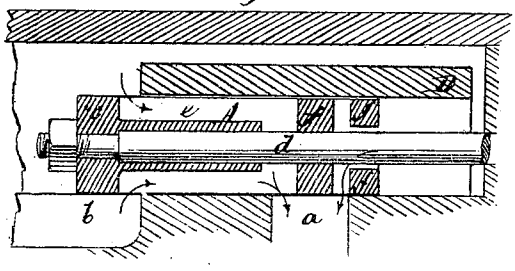
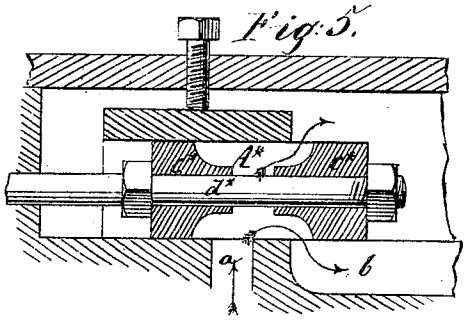


Fig. 5.



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UNITED STATES PATENT OFFICE.

HERMAN H. MEYER, OF DENVER, COLORADO.

IMPROVEMENT IN SLIDE-VALVES.

Specification forming part of Letters Patent No. 128,161, dated June 18, 1872.

To all whom it may concern:

Be it known that I, HERMAN H. MEYER, of Denver, in the county of Arapahoe and Territory of Colorado, have invented a new and useful Improvement in Steam-Valves; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a transverse section of a steam-cylinder, showing two modifications of my valve, one being used as the steam-valve, and the other as the exhaust-valve. Figs. 2 and 3 are inverted plan views of said two modifications of my valve. Figs. 4 and 5 are longitudinal sections of the same.

Similar letters indicate corresponding parts.

This invention relates to a steam-valve which opens two or more passages to one port, and which is wedge-shaped, and provided with a correspondingly wedge-shaped cover, fitting closely to the valve on three sides in such a manner that by my valve the freedom of the passage of the steam to or from the cylinder is insured; and, furthermore, by the wedge-shaped cover the valve is relieved from the pressure of the steam on its back, and if the valve wears it wears tight, the wedge-shaped cover having a tendency to keep the same close up to its seat.

In the drawing, the letter A designates a valve, which is set edgewise, as shown in Fig. 1, and which moves on the vertical seat B. In this seat is a port, *a*, which leads into the cylinder C; and said seat is also provided with a depression, *b*, (see Figs. 4 and 5,) so that when the valve is brought to the position shown in these figures steam passes through the body of the valve to or from the port *a* in the manner indicated by the arrows. The body of the valve A consists of two heads, *c c'*, through which extends the valve-rod *d*, and which are connected by the sides *e*, (see Fig. 2.(These sides extend somewhat beyond the head *c'*, and between them are secured two cross-bars *f*, *f*, Fig. 4, whereby the bearing-surface of the valve is increased without reducing the area of its steam-passages.

My valve may, however, be also constructed as shown at A* in Figs. 1, 3, and 5. By referring to Figs 3 and 5 it will be seen that this valve A* is composed of two heads, *c** *c**, in which is secured the valve-rod *d**, and if this valve is brought in the position shown in Fig. 5 the steam passes through the same, as indicated by the arrows.

The valve A or A* is made wedge-shaped, (see Fig. 1,) and over it is fitted a cover, D, fitting the same closely on three sides, the top of said cover being inclined to fit the back of the valve. By these means the valve is relieved from back pressure, and as it wears downward the inclined top of the cover will keep it at all times close up to its seat, so that it will work steam-tight for a long time.

In constructing my valve I first plane and scrape its back and both edges; then I plane the three inner sides of the cover, and fit it over the valve; and, finally, the cover and valve are planed and scraped together on the face to fit on the seat. The cover is held in position by set-screws or in any other desirable manner.

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

The wedge-shaped valve A, composed of two heads with cross-bars or strips, *f f'*, in combination with an adjustable cover, D, fitting the same closely on three sides, constructed and arranged substantially as shown and described.

HERMAN H. MEYER.

Witnesses:

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JOHN W. WEBSTER.