Hyde & Stearns,

Check Valve.

No. 17,503. Patented June 9, 1857.

Fig. 2.

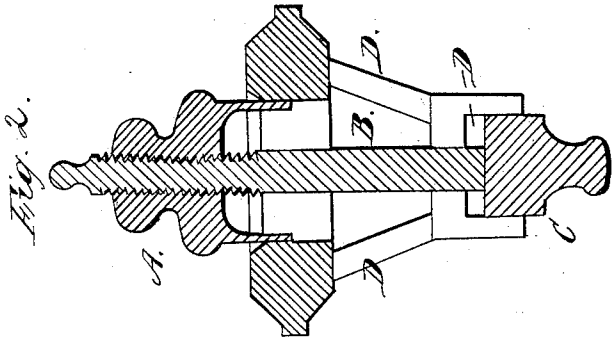
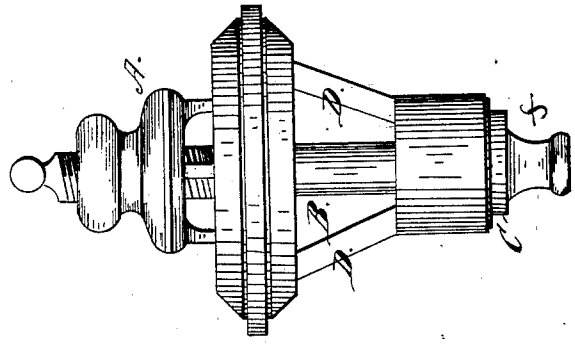


Fig. 1.



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOSEPH HYDE AND WM. STEARNS, OF WILMINGTON, DELAWARE.

METHOD OF GUIDING AND CUSHIONING PUPPET-VALVES.

Specification of Letters Patent No. 17,503, dated June 9, 1857.

To all whom it may concern:

Be it known that we, JOSEPH HYDE and WILLIAM STEARNS, of the city of Wilmington, in the State of Delaware, have invented a new and Improved Piston and Cushion Valve for Steam-Engine Pumps; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of our invention consists in providing the lower part of the valve with a V brace holding a chamber or cushion for the piston which prevents the mashing of the stems or valves, and the piston working with its head into the cushion or chamber.

To enable others skilled in the art to make and use our invention we will proceed fully to describe the construction and operation of the same.

Figure 1 is the valve showing a vertical elevation. Fig. 2 is a vertical section of the same.

In making our valve we cast in addition to the valve and comb joint the brace D D with piston B having a head C working into chamber or cushion O, O. When the water is introduced, the valve A in rising or falling is regulated by the piston B working into the cushion or chamber *o*, *o*, which prevents the mashing and bruising of the stems or valves.

We have tried this valve and find it to work admirably.

What we claim as our invention and desire to secure by Letters Patent is—

The application to steam engine pump valves the V brace with the piston working into the chamber or cushion in the precise manner set forth and described in this specification to prevent mashing or bruising of the valves.

JOSEPH HYDE.
WM. STEARNS.

Witnesses:
GEO. H. P. SIMMONS,
WM. B. WIGGINS.