H. F. FRISBIE.
Puppet-Valve.

No. 198,098. Patented Dec. 11, 1877.

Fig. 2.

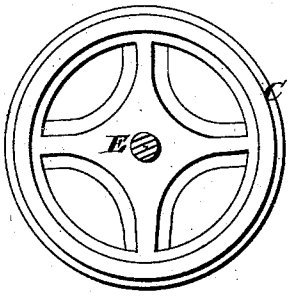
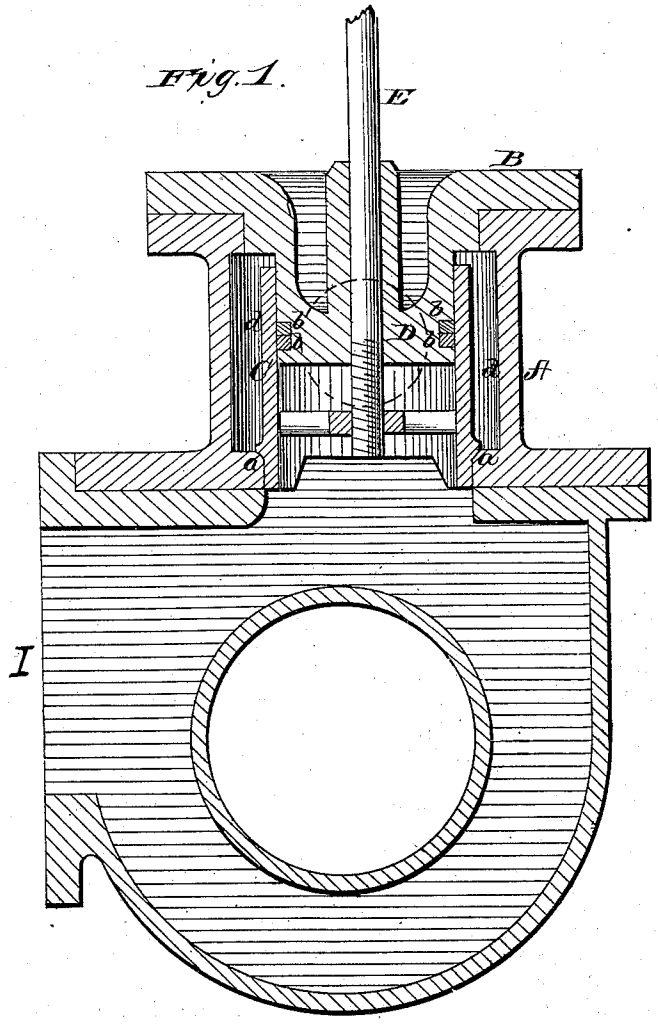


Fig. 1.



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HAMLIN F. FRISBIE, OF DANVILLE, ILLINOIS.

IMPROVEMENT IN PUPPET-VALVES.

Specification forming part of Letters Patent No. **198,098**, dated December 11, 1877; application filed December 4, 1877.

To all whom it may concern:

Be it known that I, HAMLIN F. FRISBIE, of Danville, in the county of Vermillion, and in the State of Illinois, have invented certain new and useful Improvements in Puppet-Valves; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, 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 puppet-valve and chest for the same, to be used with steam, liquids, air, &c., as will be hereinafter more 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 section of my valve, showing the same applied to a steam-cylinder; and Fig. 2 is a plan view of the valve.

A represents the valve-chest, provided with a cover, B, at one end, the other end being open, to lead into the cylinder or other machinery with which the chest is connected.

In this open end of the chest A is formed an annular valve-seat, *a*, upon which the valve C is seated. This valve is constructed in cylindrical form, with an interior spider or similar device for attaching the stem E.

The exterior surface of the valve C, at the lower end, is constructed in such a manner as to fit on the valve-seat *a*, while the upper end or body of the valve fits around a cylindrical head, D, formed on and projecting inward from the center of the chest-cover B, the valve-stem E passing through the center of said head.

The head D is formed with a circumferential groove, in which are placed packing-rings *b b*, to form a tight joint.

It will be noticed that a chamber, *d*, is formed entirely around the valve, between its outer surface and the inner surface of the chest, which chamber stands full of steam, water, or air, as the case may be, and thus balances the valve at all times.

I is the inlet for the steam, water, or air.

This valve is applicable both for inlet and exhaust chests; and it may be used for engines or any kind of machinery operated by steam, water, air, or gas, or for such machinery as may be intended to operate upon liquids of any kind.

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

The cylindrical valve C, chest A, with seat *a*, cover B, with head D, having packing-rings *b*, and the chamber *d*, surrounding the valve, all constructed and combined together substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 4th day of December, 1877.

H. F. FRISBIE.

Witnesses:
FRANK GALT,
H. A. TOULMIN.