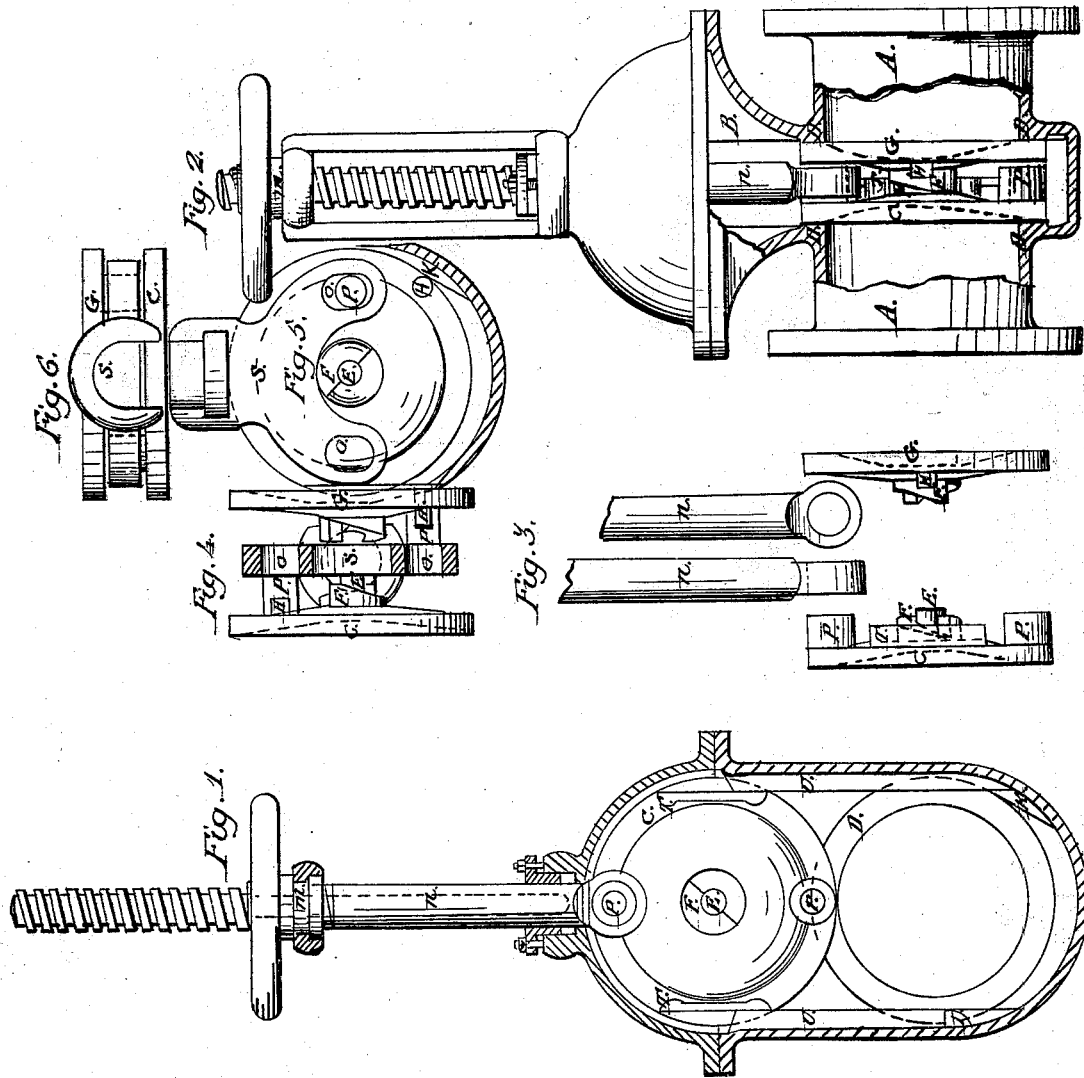


J. Paterson,

Stop Valve.

No. 111,242.

Patented Jan. 24, 1871.



Witnesses:
W. H. Poon
G. W. Richardson

Inventor:
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JOHN PATERSON, OF TROY, NEW YORK.

Letters Patent No. 111,242, dated January 24, 1871.

IMPROVEMENT IN STOP-VALVES.

The Schedule referred to in these Letters Patent and making part of the same.

I, JOHN PATERSON, of Troy, in the county of Rensselaer and State of New York, have invented certain Improvements in Stop-Valves for Water, Steam, Gas, and other pipes, of which the following is a specification.

Nature and Object of the Invention.

My invention relates to the construction of the valve-gates, with screw-faces, or circular-inclines on their inner sides, so that, when made to rotate one against the other, or both reversely against each other, as they are pressed downward, they are thereby forced apart and against their seats.

Description of the Accompanying Drawing.

Figure 1 represents a sectional elevation of my improved stop-valve.

Figure 2 represents a longitudinal elevation of the same, partly sectioned.

Figure 3 represents a view of the gates and sliding stem detached, with the gates so constructed that only one of them shall rotate.

Figure 4 represents the gates constructed with a yoke, so that both shall rotate at the same time reversely.

Figure 5 represents the inner side of one of the gates of fig. 4, with the yoke for raising and lowering them; at the bottom of this gate is shown a section of the lower part of the valve-case.

Figure 6 represents a plan of the yoke with the gates connected.

A A represent pipe-connections, made in the usual manner.

B is valve-chamber, into which the gates pass when the valve is opened.

The gates C and G have on their inner sides concentric screw-faces, or circular inclines, F F.

On gate C is a center-pin or trunnion, E, on which the gate G is supported and held in its place.

The stop H on the inner side of the gate G and at or near its outer circumference, comes in contact

with a stop, I, on the side of the valve-case, as the valve is being closed, thus rotating the gate G and forcing it, by means of the screw-faces F F, from the gate C, and so forcing both gates against their respective seats D D.

By placing the stop H near the lower part of the gate G, the incline K may be used in the place of stop I.

The ribs T T, on the inner side of the gate C, slide on corresponding ribs, U U, in the valve-case.

The gate C is suspended to the screw-stem N by either of the projecting arms or hubs P P, opposite each other on its inner side, enabling the gates to be reversed. The gates C and G, in fig. 4, have each a projecting arm, P, and stop H, at opposite points on their inner sides.

The projecting arms P P, passing through slots O O in the yoke S, to which the valve-stem is attached, enable the gates to be raised and lowered in the valve-case.

In this instance, when the gates C and G are pressed down, the stops H H come in contact with corresponding inclines, K, on opposite sides in the valve-case, and both gates are rotated reversely and at the same time are forced apart and against their seats D D.

By this arrangement, too, the gates C and G are instantly rotated as they begin to open, and the friction against their working faces is thereby relieved.

M is the nut by which the stem and gates are raised and lowered.

Claim.

The combination of the gates C G, screw-faces F F, center-pin E, ribs T T, stop H, and incline K, arms P P, and stem N, constructed substantially as and for the purpose hereinbefore set forth.

JOHN PATERSON.

Witnesses:

W. H. POOR,

G. W. RICHARDSON.