J. PATTERSON.
Valve.

No. 208,986. Patented Oct. 15, 1878.

Fig. 1.

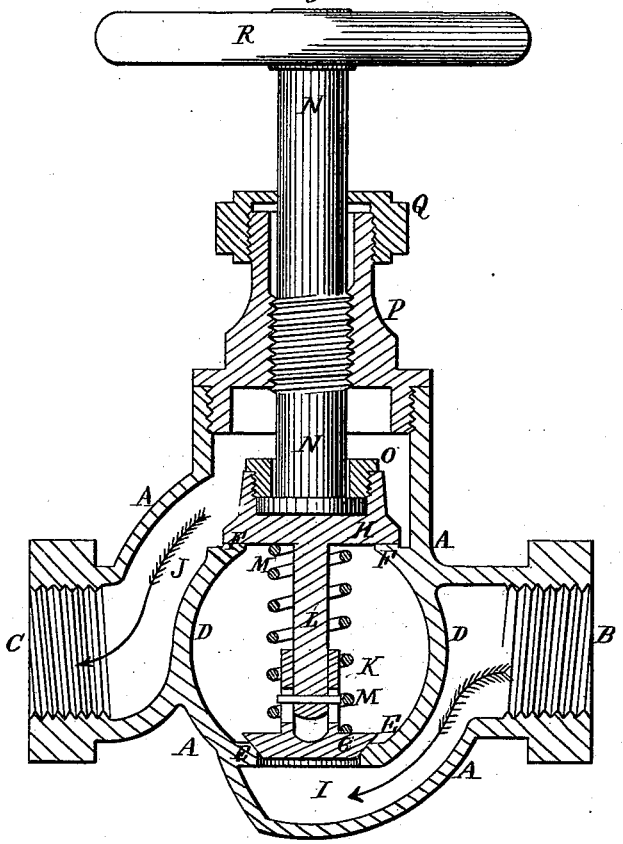
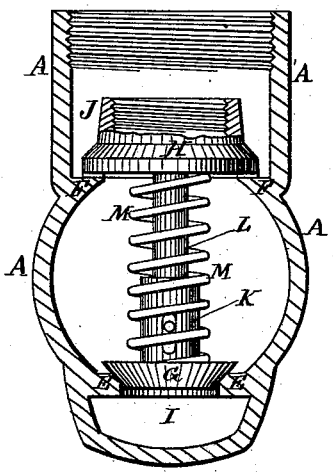


Fig. 2.



WITNESSES:

Henry N. Miller

C. Sedgwick

INVENTOR:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN PATTERSON, OF SALEM, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND GEORGE F. MARTIN, OF SAME PLACE.

IMPROVEMENT IN VALVES.

Specification forming part of Letters Patent No. **208,986**, dated October 15, 1878; application filed April 5, 1878.

To all whom it may concern:

Be it known that I, JOHN PATTERSON, of Salem, in the county of Essex and State of Massachusetts, have invented a new and useful Improvement in Valves, of which the following is a specification:

Figure 1 is a vertical longitudinal section of my improved valve. Fig. 2 is a vertical cross-section of the same.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved valve for attachment to water and steam pipes, which shall be so constructed as to prevent leakage through them.

The invention consists in two or more valves and valve-seats and a spring, in combination with the stem, globe, and shell, as hereinafter fully described.

A represents the valve-shell, with one end of which is connected the inlet-pipe B, and with its other end the outlet-pipe C.

In the middle part of the shell A is formed a globe or double partition, D, having an opening in its lower and also in its upper side, the sides of said openings being so formed as to serve as seats E F for the valves G H.

From the inlet-pipe B a port, I, leads to the lower valve, G, and from the upper valve, H, a port, J, leads to the outlet-pipe C.

The valve G is made with a short hollow stem, K, to receive the lower end of the guide-pin L, and has a short longitudinal slot formed in it to receive the pin by which it is secured to the said guide-pin L in such a way as to give it a little play.

Between the valves G H is placed a spiral or other spring, M, to hold the said valves apart.

N is the valve-stem, which has a ring-flange formed around its inner end, by means of which it is secured in a cavity in the outer side of the valve H by a screw-collar, O, as shown in Fig. 1.

The valve-stem N has a screw-thread formed upon it to fit into the screw-thread of the nut P, which is screwed into an opening in the upper part of the valve-shell A.

In the upper part of the nut P is formed a stuffing-box, in which the packing is secured by a screw-cap, Q, in the ordinary way.

To the upper end of the valve-stem N is attached a hand wheel or lever, R, for convenience in operating it.

By this construction, when the valve-stem N is turned outward, the valve H first rises from its seat and then the valve G, and when the valve-stem N is turned inward the valve G first seats itself, afterward the valve H, the valve G being thus the last to open and the first to close.

By this construction the most of the wear will come upon the valve G, and should any leakage occur through said valve the water or steam cannot pass beyond the interior of the globe D, the valve H preventing all leakage.

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

Two or more valves, G H, and valve-seats E F, and a spring, M, in combination with the stem N, globe D, and shell A, substantially as herein shown and described.

JOHN PATTERSON.

Witnesses:
J. MAHONEY,
H. P. MOULTON.