J. H. QUINN.

Water-Closet Valves.

No. 197,662. Patented Nov. 27, 1877.

Fig. 1.

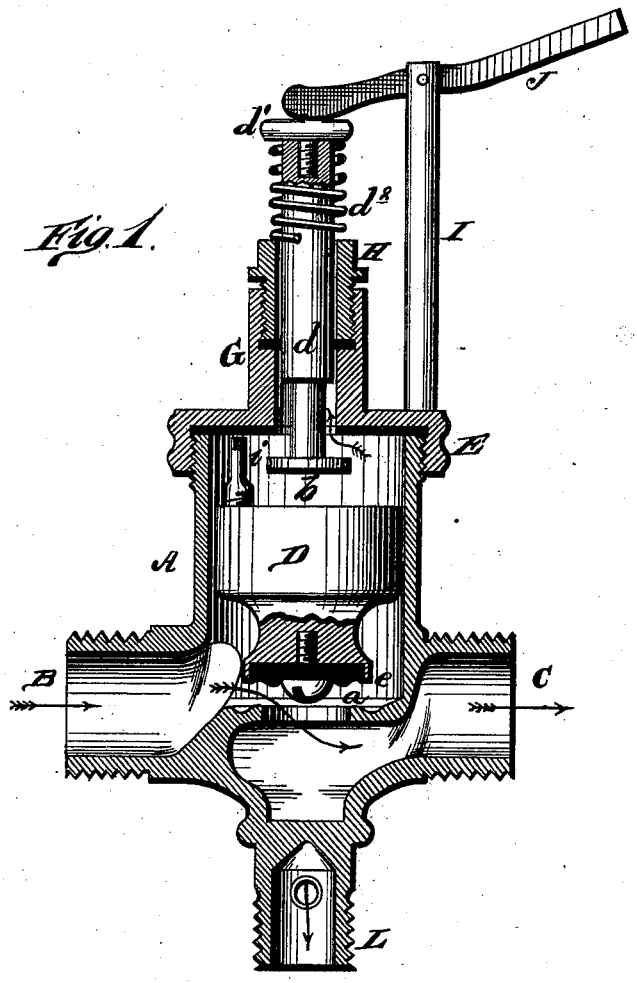
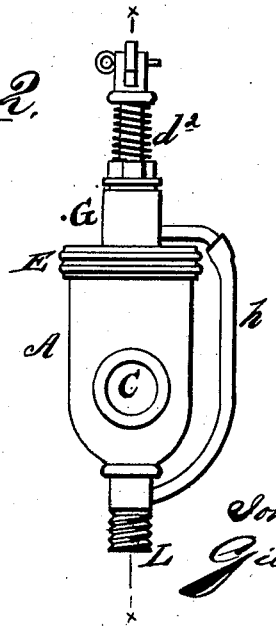


Fig. 2.



WITNESSES

Robert Everett

George E. Graham.

INVENTOR,

John H. Quinn.

Gilmore & Smith & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN H. QUINN, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN WATER-CLOSET VALVES.

Specification forming part of Letters Patent No. **197,662**, dated November 27, 1877; application filed August 25, 1877.

To all whom it may concern:

Be it known that I, JOHN H. QUINN, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and valuable Improvement in Valves; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a longitudinal vertical section of my valve, and Fig. 2 is a rear view thereof.

The nature of my invention consists in the construction and arrangement of a valve for a water-closet, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents the ordinary valve-chamber, with inlet B, outlet C, and an interior gravitating valve, D, which latter closes upon the seat *a*, substantially as shown.

The top of the chamber A is closed by a cap, E, having a central upwardly-projecting chamber, G, the bottom inlet to which is closed by means of a valve, *b*. This valve *b* is provided with a valve-stem, *d*, projecting upward through the chamber G and through a stuffing-box, H, screwed into the upper end of the chamber G.

The upper end of the valve-stem *d* is provided with a knob or head, d^1, and between said head and the stuffing-box surrounding the stem is a spiral spring, d^2, the action of which is to keep the valve *b* closed to its seat at *e*.

I is a standard projecting upward from the cap E, and in the top thereof is pivoted a lever, J, one end of which is to bear on top of the head d^1 of the stem *d*. The other end of the lever J is to be raised by lifting the front lever of a water-closet that tips the pan.

The chamber G is, by a tube, *h*, connected with an outlet, L, at the bottom of the chamber A, and leading into the water-closet.

The valve *b*, chamber G, tube *h*, and outlet L form together a vent for the valve, which vent, when closed, causes the gravitating valve D to remain on its seat. When, however, the valve *b* is opened, by lifting the front lever of the water-closet the pressure of the water forces the valve D upward and the water flows freely. The water through the vent above the plunger escapes through the tube *h* and outlet L into the water-closet. When the vent then is closed the plunger will fall to its seat slowly.

The valve D is provided on top with a screw, *i*, which, by being run up and down, regulates the up-and-down movement of the valve, and thus regulates or measures the supply of water.

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

1. The combination of the valve-chamber A, inlet B, outlet C, and plunger-valve D with the valve *b*, chamber G, tube *h*, and outlet L, substantially as described, and for the purpose set forth.

2. The cap E, with chamber G, spring-valve *b*, operating-lever J, and connecting-tube *h*, in combination with the valve-chamber A, plunger D, and bottom outlet L, substantially as and for the purposes herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN HENRY QUINN.

Witnesses:
HAYES LOUGEE,
JOHN E. QUINN.