J. DEMAREST.

Valve for Water-Closet Cisterns.

No. 212,133. Patented Feb. 11, 1879.

Fig. 1.

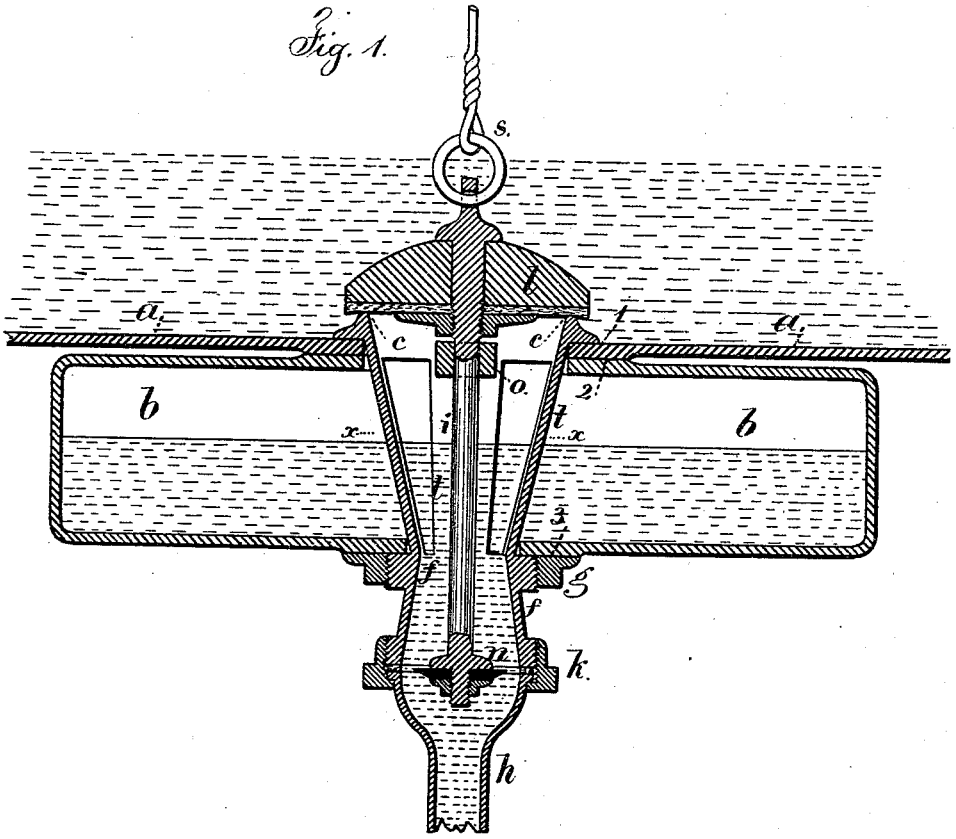
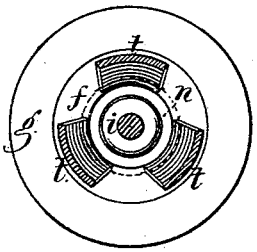


Fig. 2.



Witnesses

Chas H. Smith

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UNITED STATES PATENT OFFICE.

JOHN DEMAREST, OF NEW YORK, N. Y.

IMPROVEMENT IN VALVES FOR WATER-CLOSET CISTERNS.

Specification forming part of Letters Patent No. **212,133**, dated February 11, 1879; application filed December 30, 1878.

To all whom it may concern:

Be it known that I, JOHN DEMAREST, of the city and State of New York, have invented an Improvement in Valves for Water-Closet Cisterns, of which the following is a specification:

Water-closets have been made with a pull leading to a valve in the cistern, so that the valve is raised and the water runs into a waste-box, and from that to the closet, the waste-box becomes rapidly filled, and supplies the required amount of water after the pull is released and the valve drops.

My improvement is made with reference to this character of closet; and consists in a valve and flexible check combined upon the same stem with the seat and water-way in such a manner that water will not be allowed to waste from the cistern when the pull is raised, and the flow of water only takes place when the pull is released.

In the drawings, Figure 1 is a vertical section of the valve and waste-box, and Fig. 2 is a detached plan at the line *x x*.

The bottom of the tank or cistern is shown at *a* and the waste-box at *b*. The latter is, by preference, made of cast-iron, with an opening entirely through the top and bottom.

The valve-seat *c* is in the form of a flanged ring resting upon the upper surface of the bottom *a* of the cistern, and from this ring there is a conical frame, *t*, extending down through the waste-box *b*, and terminating with water-way or case *f*, around which is a screw-thread, receiving the nut *g*, that is screwed firmly against the under surface of the waste-box.

White lead or other cement or washers are to be placed between the parts at 1, 2, and 3, so as to make water-tight joints; and to the bottom of the case *f* the water-pipe *h* is connected by a coupling, *k*.

The valve *l* is upon the stem *i*, sliding in a bridge or guide, *o*, and upon the stem *i* there is also a flexible check, *n*, within the case *f*.

The pull of the water-closet is connected with the valve-stem *i* by a wire and ring or or eye, *s*.

When not in use the flexible face of the valve *l* closes tightly upon the seat *c*, and the flexible check *n* is within the case *f*. Upon raising the valve *l* the flexible check *n* will close the water-way through the case *f* and prevent the waste of water while the pull of the closet is held up. The waste-box, however, fills, and upon the valve *l* falling again upon its seat the flexible check descends and allows the contents of the waste-box to flow into the closet and wash the same.

In some cases the waste-box is connected to the cistern by bolts or by lock-nuts on the overflow and supply pipes. In such cases it may not be necessary to employ the frame *t* between the valve-seat and the water-way case *f*.

I am aware that sliding and cylindrical valves have been employed in connection with a tube passing from the cistern through the waste-box. In my improvement the flexible check is operative in the upper contracted portion of the water-way *f*, and it is neither a sliding valve nor a piston, and it only checks the rush of water that would pass to the closet when the valve *l* is raised.

I claim as my invention—

The combination, with the cistern, valve *l*, and stem *i*, of the flexible check *n* and water-way *f*, that is contracted at the upper end, and within which the check *n* operates, substantially as set forth.

Signed by me this 24th day of December, A. D. 1878.

JOHN DEMAREST.

Witnesses:
GEO. T. PINCKNEY,
CHAS. H. SMITH.