L. P. CLARK.
Water-Closet.

No. 199,029. Patented Jan. 8, 1878.

FIG. I

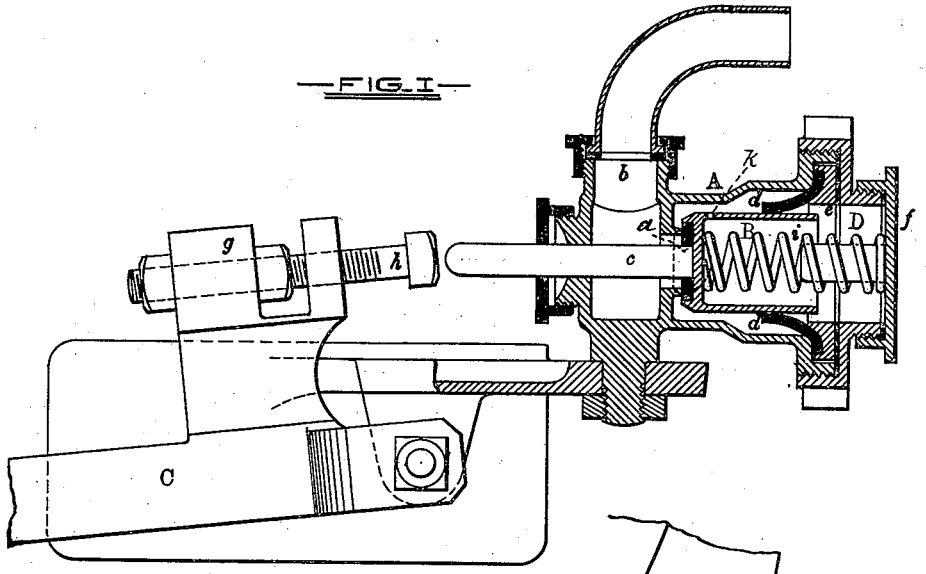
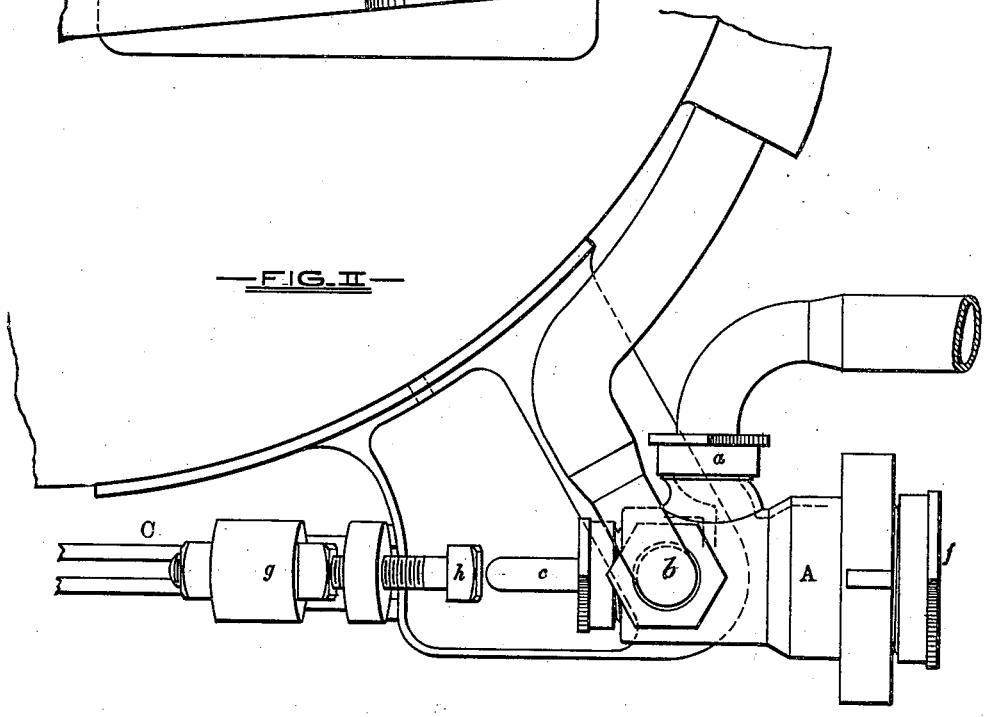


FIG. II



WITNESSES.

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UNITED STATES PATENT OFFICE.

LEVIN P. CLARK, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN WATER-CLOSETS.

Specification forming part of Letters Patent No. **199,029**, dated January 8, 1878; application filed October 30, 1877.

To all whom it may concern:

Be it known that I, LEVIN P. CLARK, of the city of Baltimore and State of Maryland, have invented certain Improvements in Water-Closets, of which the following is a specification; and I do hereby declare that in the same is contained a full, clear, and exact description of my said invention, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

This invention relates specifically to certain improvements in the valve mechanism adapted to admit water to the interior of the bowl to flush and cleanse the same, as will hereinafter fully appear.

In the description of the invention which follows reference is made to the accompanying drawing, forming a part of this specification, and in which—

Figure 1 is a longitudinal section of the valve mechanism, and Fig. 2 a plan of the same.

Similar letters of reference indicate similar parts in both figures.

A is the valve-chamber, provided with the inlet and outlet water-nozzles, respectively represented by *a* and *b*. The inlet-nozzle connects with the water-supply, and the outlet one with the interior of the bowl through the medium of a pipe in the usual manner.

The valve B consists of a perforated hollow cylinder, having at one end a head, and a stem, *c*, extending from the same through the cap on the inner end of the chamber A. The face of the valve B is provided with an india-rubber ring or gasket, which, when the valve is closed, is in contact with an annular projection around the opening in the valve-seat, which serves as the communicating aperture between the nozzles *a* and *b*, and effects a close joint.

The valve is mainly supported in a central position within the chamber A by means of an india-ruber ring, *d*, of such size and construction as to cause it to assume the position with reference to the valve shown in the drawing.

The ring *d* is secured between the outer end of the chamber A and a washer, *e*, held in place by means of a screw-cap, *f*, and the said washer is of such shape as to assist the ring *d* in maintaining its form, and prevent the same from being introverted by water-pressure.

The valve is opened by means of a handle attached to a lever, C, the said lever being provided with a lug, *g*, carrying an adjustable bolt, *h*, adapted to be brought into contact with the end of the valve-stem in the elevation of the outer end of the lever.

The closing of the valve is effected by the resilient action of a spring, *i*, confined between the valve-head and the screw-cap, and which spring is compressed in the operation of opening the valve, as before described.

Upon opening the valve by the means above referred to, communication is established between the inlet and outlet passages in the valve-chamber, and water from the supply or service pipe is thereby allowed to flow to the interior of the bowl.

In the opening of the valve B the water displaced by contracting the space D between the valve and the cap *f* finds an outlet between the gum ring *d* and the outer cylindrical surface of the valve; but after the valve-stem is relieved from contact with the adjustable bolt, and the spring operates to close the valve, the gum ring *d* is forced closely around the same by its inherent elasticity and the pressure of water in the chamber, and the only means of communication between the space D and the inlet-passage is the perforation *k*, before alluded to as existing in the valve.

By means of this construction the closing of the valve is retarded, the water to fill the expanding or enlarging space D having to pass through a limited aperture, and, in consequence, all jar of the mechanism is avoided.

Having thus described my invention, what I claim as new, and wish to secure by Letters Patent of the United States, is—

1. As an improvement in water-closet valve mechanism, the combination of the valve-chamber A, hollow cylindrical valve B, having

the perforation *k* in the side thereof, india-rubber ring *d*, and washer *e*, substantially as and for the purpose herein set forth.

2. In combination with the valve B, having the stem *c* projecting therefrom and supported within the chamber A, the lever C, the said lever being provided with the lug *g*, carrying the adjustable bolt *h*, substantially as herein specified.

In testimony whereof I have hereunto subscribed my name this 28th day of August, in the year of our Lord 1877.

LEVIN P. CLARK.

Witnesses:
WM. T. HOWARD,
JNO. T. MADDOX.