

(No Model.)

J. HOLDEN.

SUPPLY TANK FOR WATER CLOSETS.

No. 379,699.

Patented Mar. 20, 1888.

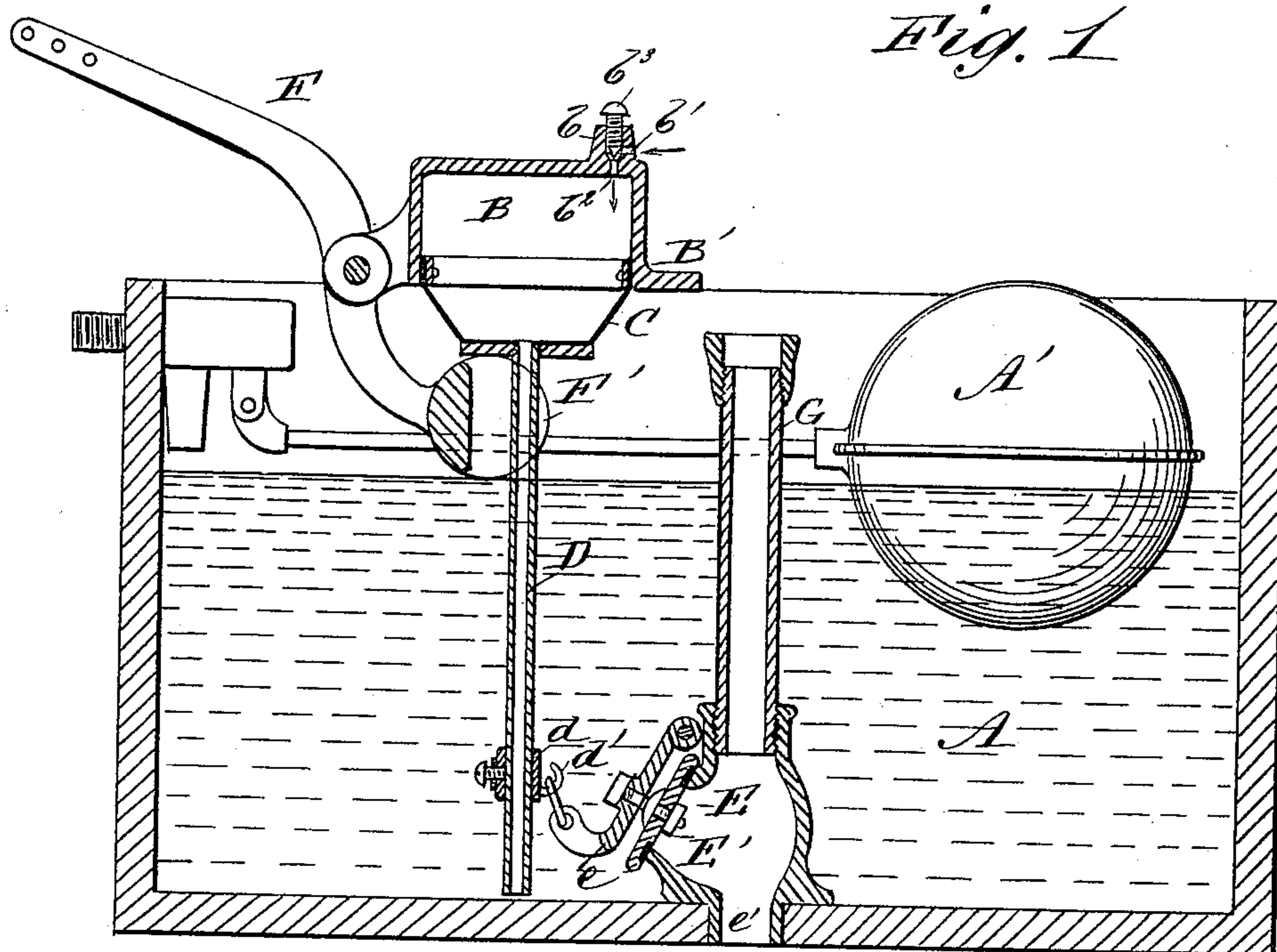
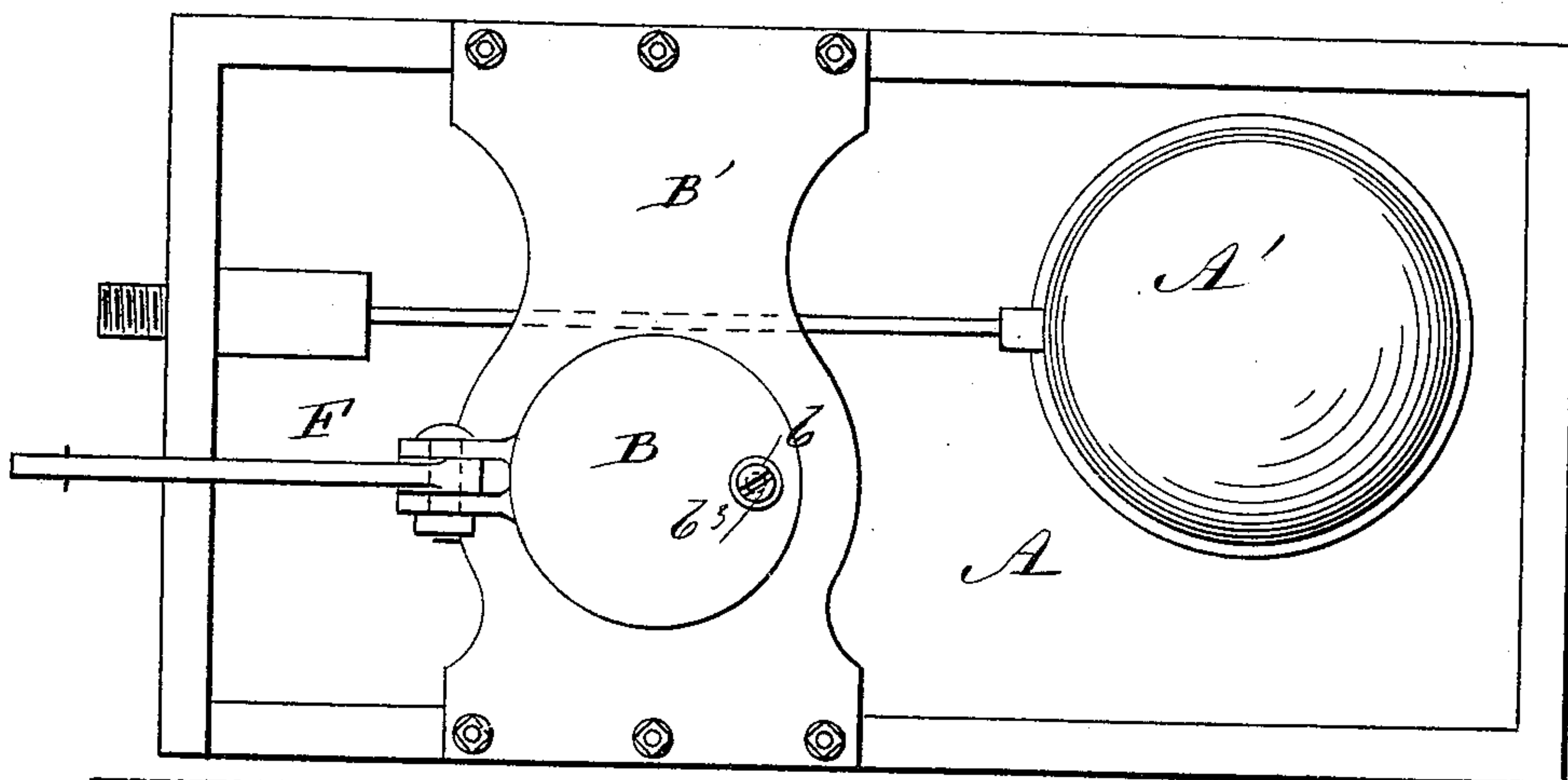


Fig. 2



WITNESSES:

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JOHN HOLDEN, OF TAUNTON, MASSACHUSETTS.

SUPPLY-TANK FOR WATER-CLOSETS.

SPECIFICATION forming part of Letters Patent No. 379,699, dated March 20, 1888.

Application filed August 4, 1887. Serial No. 246,125. (No model.)

To all whom it may concern:

Be it known that I, JOHN HOLDEN, of Taunton, in the county of Bristol and State of Massachusetts, have invented a new and Improved
5 Supply-Tank for Water-Closets, of which the following is a full, clear, and exact description.

My invention relates to a supply-tank for water-closets, and has for its object to provide
10 a device of simple and durable construction which may be quickly regulated to supply a large or small amount of water, as desired.

The invention consists in the construction and combination of the several parts, as will
15 be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate
20 corresponding parts in both the figures.

Figure 1 is a central vertical section through a tank having my improvements attached, and Fig. 2 is a plan view of the same.

In carrying out the invention, A represents
25 a tank provided with the usual float, A'.

Above the tank, at one end, a box, B, is held in suspension by a suitable bracket-plate, B', as shown in Fig. 2, which box has a substantially-conical bottom, C, of rubber, leather,
30 or other flexible material, adapted to extend downward in the tank above the water-level, as shown in Fig. 1.

At the top of the box B a nipple, b, is conveniently located, having a threaded recess
35 extending vertically and partially through it, and a small horizontal aperture, b', extending from the outside into said threaded aperture, and a second small aperture, b², connecting the said threaded aperture with the interior of the
40 box. The purpose of the small apertures b' and b² is to admit air to the box B, the supply being regulated by a set-screw, b³, having a tapering point fitted in the aperture of the nipple.

The flexible bottom C is centrally apertured, and a tube, D, is attached thereto adapted to encompass the aperture and project downward within the tank to a point near the bottom. A collar, d, is adjustably attached to the tube
45 D near the bottom, provided with a hook, d'.

At one side of the tube D a valve, E, is secured in the bottom of the tank, the neck e'

thereof projecting through said bottom to receive the section of pipe leading to the closet. The valve-gate E' is centrally attached to and
55 operated from a lever, e, hinged to the upper outer portion of the shell, as illustrated in Fig. 1, which lever is fastened by a link or otherwise to the aforesaid hook d'. A stand-pipe, G, is screwed in the upper end of the valve E,
60 adapted to extend upward near the top of the tank to act as an overflow should the float A' at any time not act.

Upon one outer side of the box A a curved lever, F, is fulcrumed, the upper end of which
65 is adapted to project over the edge of the tank, the inner or lower end being provided with a split ball, F', adapted to straddle the tube D and normally bear against the flexible bottom of the box.

In operation, when the lever F is pulled
70 down, the ball F' compresses the flexible bottom C, thereby lifting the tube D and forcing the air down through the same, which upward movement of the said tube lifts the lever e, and
75 thereby also opens the gate E', permitting the water to enter the valve and flow to the closet. As on account of the water seal upon the tube D the expelled air cannot again enter the same, the air entering through the apertures
80 b' b² is alone utilized to again expand the bottom and close the valve-gate.

It will thus be seen that according to the amount of air admitted through the nipple b the flow of water will be prolonged or short-
85 ened.

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

1. A water-supply tank provided with an air-reservoir having an apertured flexible bottom, a tube attached to said bottom and an air-inlet at the top, a lever adapted to compress said flexible bottom, and a discharge-valve having its gate attached to and operated
95 from said tube, substantially as shown and described, and for the purpose herein set forth.

2. The combination, with a water-tank, of an air-reservoir provided with a flexible apertured bottom, a tube attached to said bottom
100 and an air-inlet at the top, a lever fulcrumed upon said reservoir, carrying a ball adapted to engage said flexible bottom, and a discharge-valve having the gate thereof attached to and

operated from said tube, substantially as herein shown and described.

3. The combination, with a water-tank, of an air-reservoir, B, provided with a flexible
5 apertured bottom, C, a tube, D, attached to said bottom, and air-inlets $b'b^2$ at the top controlled by a needle-valve, b^3 , a lever, F, fulcrumed upon said reservoir, provided with a split ball, F', adapted to engage said bottom C
10 and partially surround said tube D, a dis-

charge-valve, E, provided with a gate, E', a lever, e, attached to said gate and to the tube D, and a stand-pipe secured in the upper end of said valve E and arranged to operate substantially in the manner and for the purpose 15 herein set forth.

JOHN HOLDEN.

Witnesses:

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