(No Model.)

J. CAVANAGH.

TANK VALVE.

No. 393,884. Patented Dec. 4, 1888.

Fig. 1.

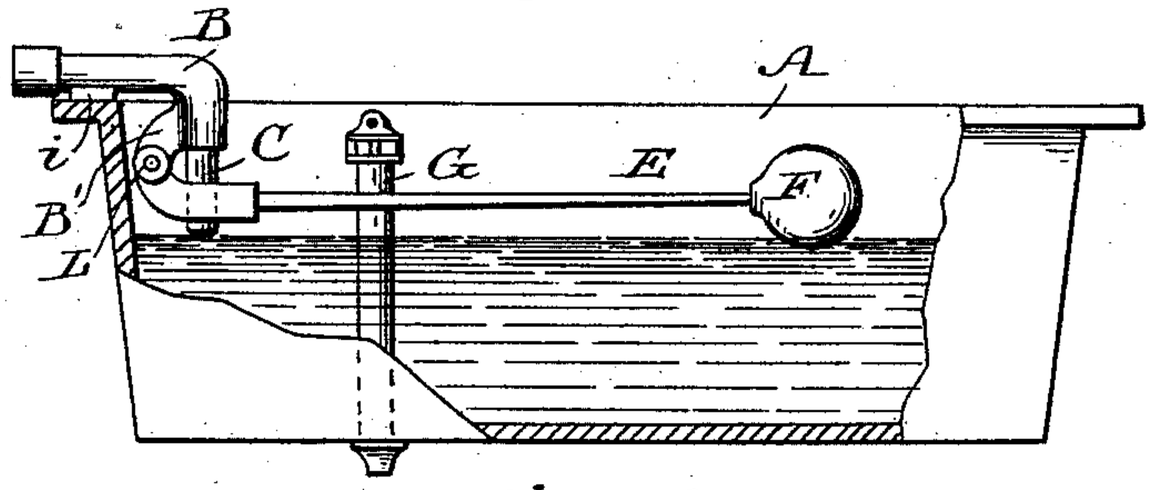


Fig. 2.

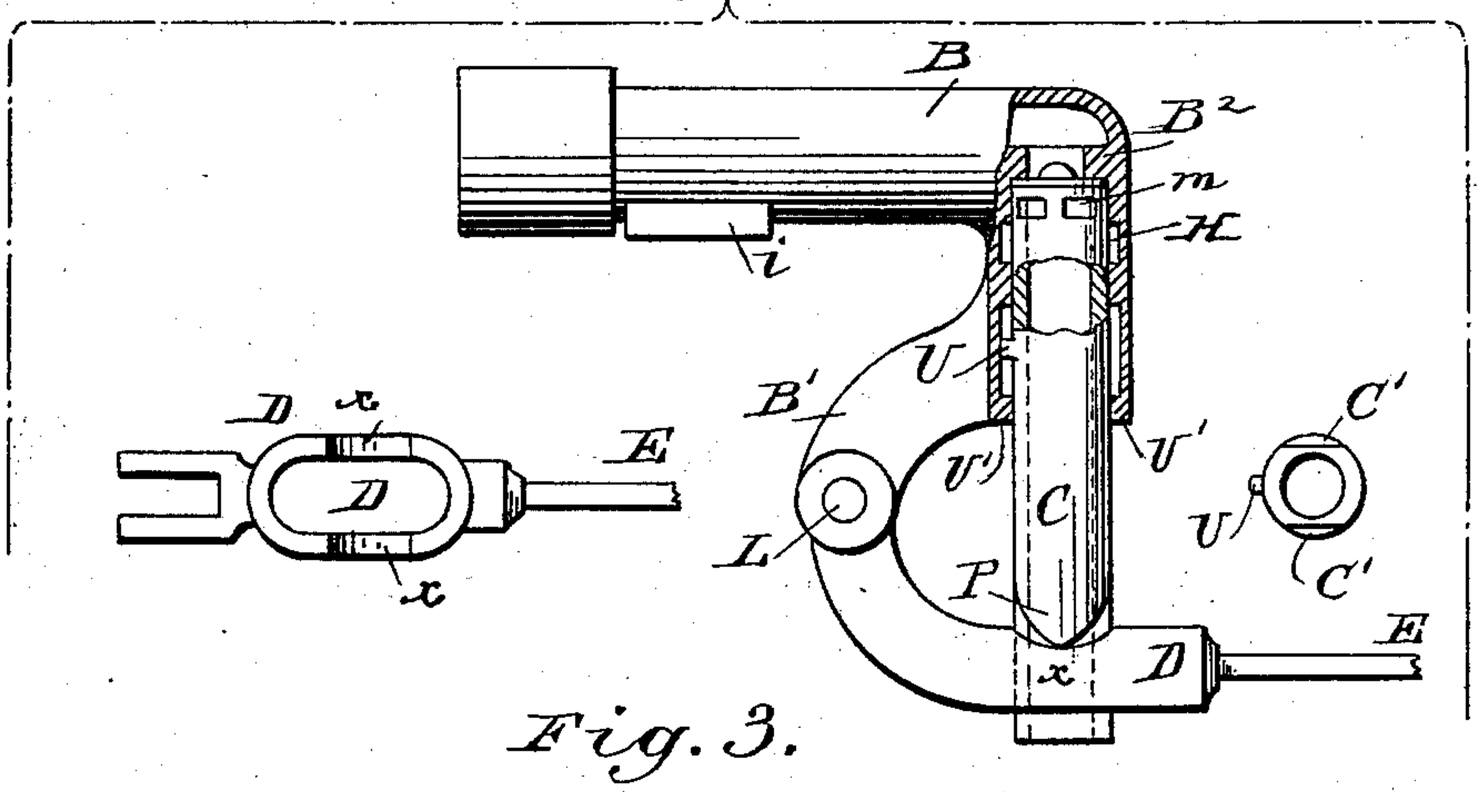
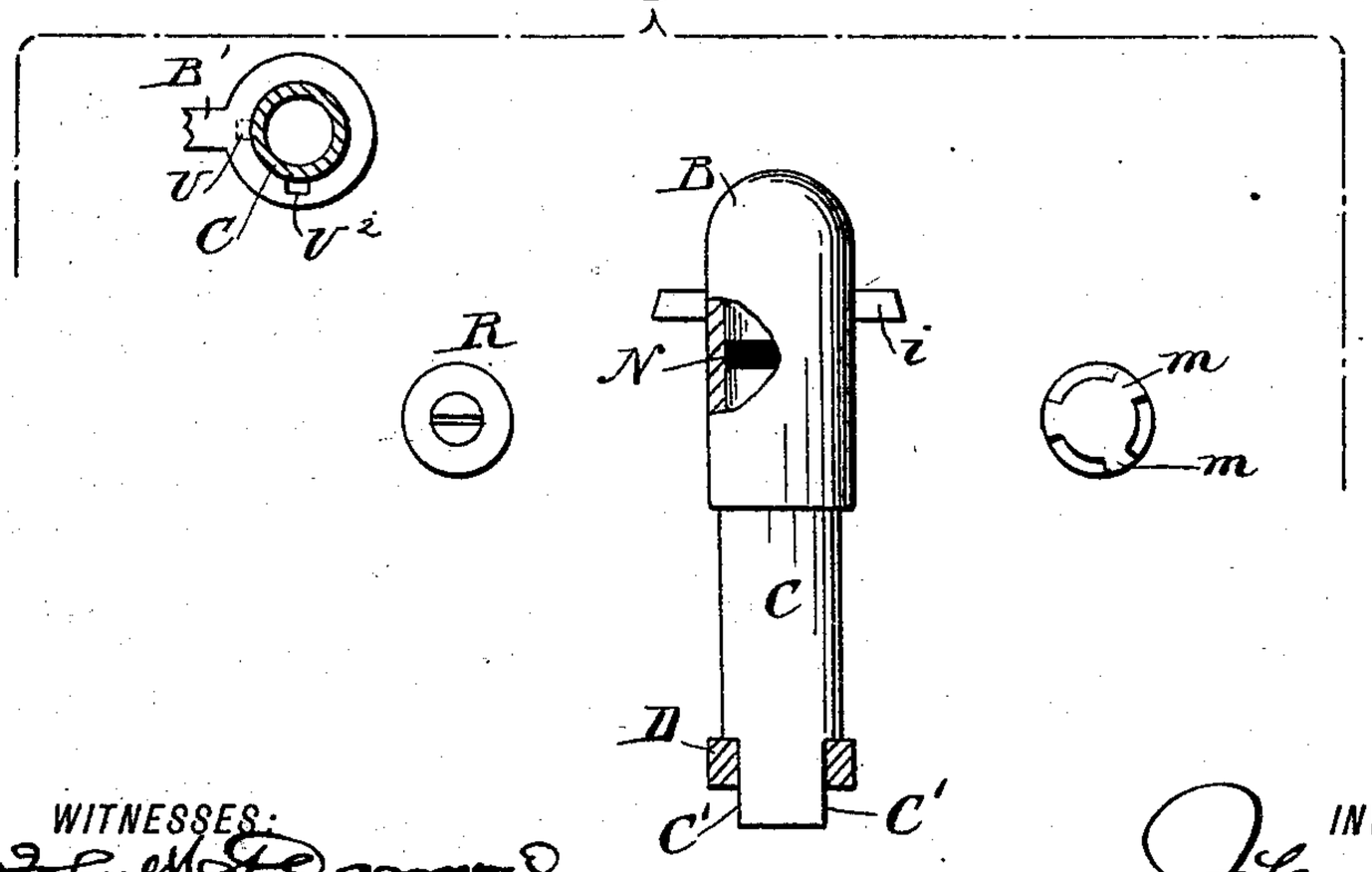


Fig. 3.



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JAMES CAVANAGH, OF NEW YORK, N. Y.

TANK-VALVE.

SPECIFICATION forming part of Letters Patent No. 393,884, dated December 4, 1888.

Application filed June 9, 1888. Serial No. 276,646. (No model.)

To all whom it may concern:

Be it known that I, JAMES CAVANAGH, a citizen of the United States, and a resident of the city, county, and State of New York, have invented a new and useful Improvement in Tank-Valves, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

The object of this invention is to produce a cheap and effective inlet-cock for closet-tanks; and the invention consists of the construction, arrangement, and combination of parts, all as hereinafter described and claimed.

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

Figure 1 represents a closet-tank having one of my improved cocks applied. Fig. 2 represents the cock removed from the tank and enlarged to fully explain its operation and details, and Fig. 3 is a front view of Fig. 2 and sections on lines R and S.

A represents a tank of ordinary construction arranged to support the necessary appliances for an automatic inlet-cock for closet-tanks, and B represents a pipe bent at right angles, which forms the main part of my improved cock for replenishing the tank A with water after it has been drawn off through the wash-valve G. The cock is composed of this main part B, secured to the tank at *i*, the arm B′, Fig. 2, and the vertical valve-piston C, operated by the pivoted lever D, which is provided with stem E and float F. The pivoted lever D is secured to the lug B′ of the cock-frame B by aid of the rivet L, and is operated vertically by aid of the float F.

The lever D is provided with a recess, D′, through which the lower end of the piston-valve C passes, as shown at D, Fig. 3. This permits the water to flow uninterruptedly into the tank through the hollow piston-valve C (shown at K, Fig. 2) or C′. By this plan I avoid any liability of the water splattering.

The piston-valve C is provided with lugs, as shown at P, Figs. 2 and 3, which rest upon the side of the lever D at *x x*, Fig. 2. These lugs permit the raising and lowering of the valve C, while the flattened sides at C′ prevent its turning.

The valve C has a seat, R, held to it by a screw or rivet, and has recesses *m* cut through it to admit the water into the interior, and this seat, when the valve C is lifted, comes in contact with the inwardly-projecting flange B^2 at the angle of the bent pipe B.

The valve C is provided with packing, N, Fig. 3, which prevents any flow of water around the lower part of the valve, causing all of it to pass through the openings *m*.

The valve C is provided with a lug, U, in line with the stem E, and the interior of the vertical portion of the bent pipe E is recessed to form the flange U′, which is notched at one side, as shown at U^2, at a diameter of the pipe at right angles to the direction of the stem E. When the valve C is inserted in tube B, it must be turned to bring the flat surfaces C′ at right angles to the line of the stem E. This will bring lug U in position to enter notch U^2. Then the valve must be turned one-quarter around to insert the lower end of the tube between the sides of the lever D. In this manner the flat surfaces C′ hold the valve from turning and hold the lug U out of line with the recess U^2, so that when the water is low the lug will rest upon the flange U′ and prevent the valve from dropping out. When the valve is closed, the recesses *m* are shut by the wall of the cock, but when opened come down opposite to the groove H, which, being larger than the diameter of the valve, permits the water to flow freely over the valve-top and through the holes *m* into the interior of the valve C.

I have not shown the wash-valve lever G, as I have made no improvements in this part, and consider it too well known to need description.

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

The bent pipe B, formed with the flange B^2, enlargement H, and recessed to form the flange U′, having notch U^2, in combination with the hinged lever D, having recess D′, and the valve C, flattened at C′ and formed with lug U, substantially as described.

In testimony whereof I have signed my name in the presence of two subscribing witnesses.

JAMES CAVANAGH.

Witnesses:
E. T. THOMAS,
JOSEPH STEINER.