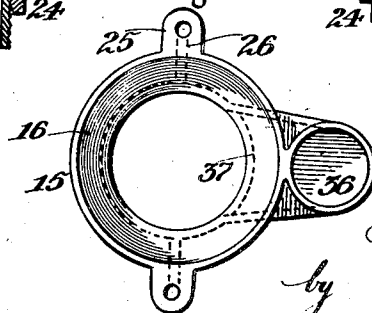
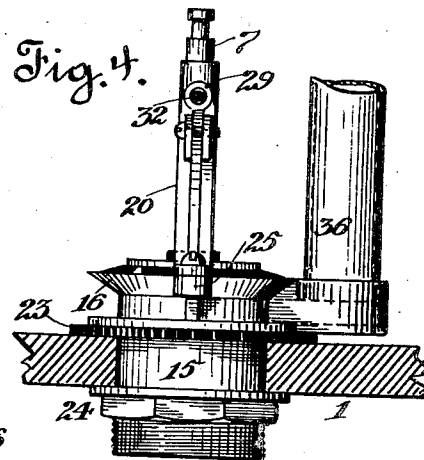
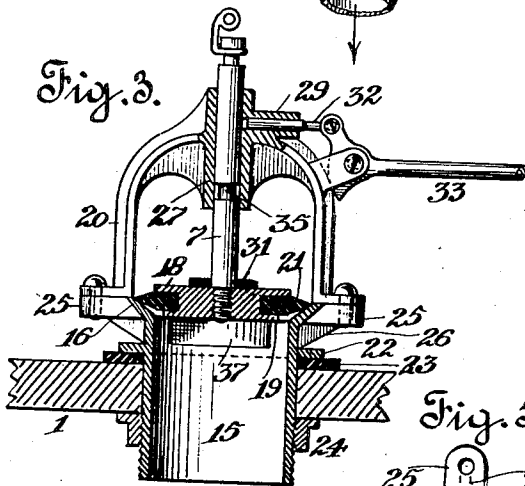
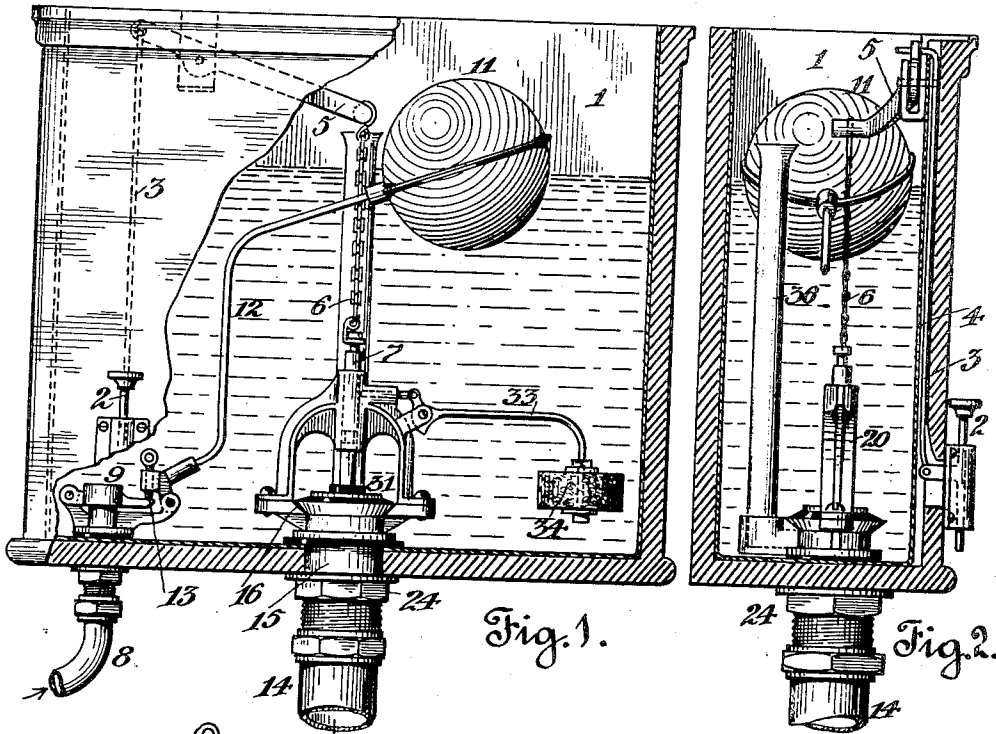


No. 827,716.

PATENTED AUG. 7, 1906.

B. EASTWOOD.
FLUSHING TANK.
APPLICATION FILED JAN. 19, 1905.



Witnesses.
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UNITED STATES PATENT OFFICE.

BURR EASTWOOD, OF SAN FRANCISCO, CALIFORNIA.

FLUSHING-TANK.

No. 827,716.

Specification of Letters Patent.

Patented Aug. 7, 1906.

Application filed January 19, 1905. Serial No. 241,829.

To all whom it may concern:

Be it known that I, BURR EASTWOOD, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Flushing-Tanks, of which the following is a specification.

My invention relates to tanks for flushing bowls and basins, and has more particular reference to the construction, supporting, and operation of the valve which permits the water to escape from the tank into the bowl.

An embodiment of my invention is shown in the accompanying drawings, in which—

Figure 1 is a sectional elevation of a tank containing my improvements. Fig. 2 is a cross-section of the same. Fig. 3 is an enlarged sectional elevation of the valve and associated parts. Fig. 4 is a side elevation of the same. Fig. 5 is a plan view of the valve-seat.

The tank 1 may be either an elevated tank or of the low and accessible kind. It is shown as of the latter character, and the flushing is controlled by the push-rod 2. This rod is guided on the outside of the tank and is connected through a slot in the wall with a rod 3, working between the tank-wall and its inner lining 4, as shown in Fig. 2. The rod 3 is connected to the pivoted lever 5, having the chain 6 attached to the valve-rod 7. The inlet-pipe for water is shown at 8, with the usual lift-valve 9, controlled by the ball-float 11. In the position of Fig. 1 the tank is full and the float 11 through its hinged rod 12 and stop 13 is keeping the water-inlet closed. When the button is depressed, the main outlet-valve is raised, permitting the water in the tank to escape through the flushing-pipe 14, which, of course, is connected into the bowl.

The construction of the valve is shown throughout the drawings, but the details thereof are best illustrated in Figs. 3 and 4. The exit-pipe 14 is coupled to the tube 15, which is formed with the inclined valve-seat 16 and which projects through the bottom of the tank. The valve-plate has a deep groove forming two flanges 18 19, between which is set the rubber packing 21, which makes the actual closure. Preferably the upper flange 18 is made wider than the inner diameter of the tube, so that a valve accidentally disconnected or which has lost its packing cannot fall into the exit-pipe. The

tube 15 has a flange 22, which rests upon a rubber ring 23 on the bottom of the tank. A nut 24, threaded on the tube outside the tank, keeps this ring compressed and makes a tight joint. The upper end of the tube is formed with projecting lugs 25 and with strengthening-ribs 26. Secured to the valve-seat and resting directly upon the lugs 25 is a bracket 20, which is preferably formed in the shape of an arch, as shown. This bracket has a central vertical guide 27 for the valve-stem 7 and is provided with a horizontal intersecting passage 29. The valve-rod is threaded into the valve-plate and is preferably provided with a rubber cushion 31 to prevent wear and concussion between the valve and the guide 27. In the passage 29 works a bolt 32, which is jointed to a rod 33, pivoted on the bracket. The free end of this rod carries a float 34. I prefer to use a disk of cork slipped upon the rod and held between clamping-plates, and in order to give the cork disk greater wearing quality I boil such disks thoroughly in paraffin, which fills the pores without affecting the buoyancy. The usual hollow floats of copper or zinc seamed and soldered are liable to be affected by the water and to leak. Hence I prefer the cork float shown, although any other float can be used instead.

With water in the tank the buoyancy of float 34 keeps the bolt 32 up against the valve-stem. This stem has a groove 35 with which said bolt is adapted to engage when the valve is lifted, the operation being as follows: Taking the apparatus in the position of Fig. 1, with the tank full, the chain connected to the valve-rod is pulled by depressing the push-button, or, in elevated tanks, by pulling the ordinary outside chain. This lifts the valve and permits the water to escape and flush the bowl. When the valve lifts, the bolt 32 enters the groove 35 in the valve-rod, locking said rod and holding the valve up until all the water has run out. When this has taken place, the float 34 drops by its own gravity and withdraws the bolt from the groove, permitting the valve to close again. The water-inlet has been opened by the descent of the ball 11, permitting the tank to refill.

It will be noticed that the valve-rod is guided in a long bearing, which is always in perfect alinement, because it is rigidly secured to the structure of the valve-seat itself. Hence the action of the valve is always posi-

tive and it cannot be diverted from its proper line of motion relatively to its seat.

I have shown at 36 the usual overflow-pipe communicating with the water below
5 the valve through a port 37.

I do not limit myself to the specific details of construction and arrangement herein described, and shown in the drawings, as I desire to avail myself of such modifications and
10 equivalents as fall properly within the spirit of my invention.

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

15 In a flushing-tank, a discharge-pipe having an inclined valve-seat, a bracket secured to the seat and having a long guide-sleeve above said seat, a stem passing through said

guide and having a groove therein, a valve-disk secured to the lower end of said stem, 20 said disk having an upper and a lower circumferential flange, the upper flange being of greater diameter than the diameter of the discharge-pipe, an annular disk of rubber held between the flanges, a passage inter- 25 secting the bore of the guide-sleeve, a bolt sliding in said passage, an arm jointed to said bolt and a float secured to said arm.

In testimony whereof I have affixed my signature, in presence of two witnesses, this 30 13th day of October, 1904.

BURR EASTWOOD.

Witnesses:

L. W. SEELY.
M. R. SEELY