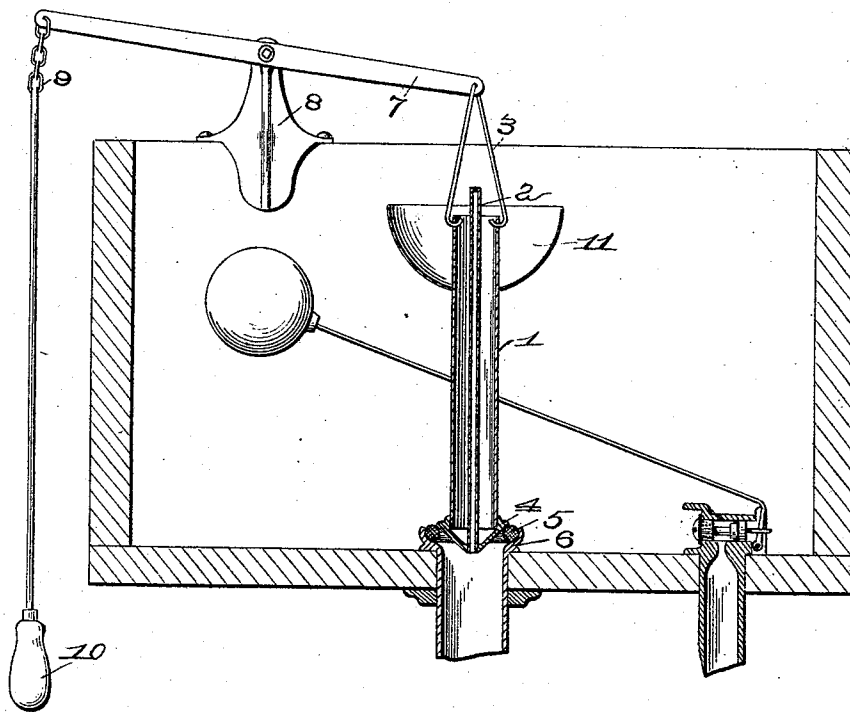


(No Model.)

W. M. GILMORE.
FLUSHING TANK VALVE.

No. 531,629.

Patented Jan. 1, 1895.



Attest
Wm. F. Hall
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Inventor
Wm. M. Gilmore
by Ellis Spear

Attest

UNITED STATES PATENT OFFICE.

WILLIAM M. GILMORE, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-THIRD TO
ALBERT D. HOPKINS, OF SAME PLACE.

FLUSHING-TANK VALVE.

SPECIFICATION forming part of Letters Patent No. 531,629, dated January 1, 1895.

Application filed July 21, 1894. Serial No. 518,259. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM M. GILMORE, a citizen of the United States of America, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Flushing-Tank Valves, of which the following is a specification.

My invention relates to valves used in tanks for flushing water closets, urinals, &c.

I am aware that numerous inventions have been made relating to tank valves, but it has been my aim to produce a valve which would be cheap to manufacture and still retain all the essential points in flushing ordinary water closets, urinals, &c.

In the drawing, the figure represents a tank in section with parts of the mechanism in section and parts in side view.

1 is a tube open at the upper end and connecting to casting 4 at the lower end making a complete water tight joint.

2 is an inner tube also connecting with the casting 4 at the lower end and having only a small opening at the upper end.

3 is the link connection between the valve and chain lever 7.

8 is the fulcrum bracket to which the lever is pivoted.

9 and 10 are the chain and pull handle; also weights nearly balancing the valve proper.

11 is a float fastened air tight around the tube 1 used to lift the valve in case the tank became too full of water.

The elastic ring 5 and the casting 6 form the valve seat and connection to the vessel below.

The action of the valve is as follows: A slight pull being given to the handle 10 lifts the valve from its seat 5, when the valve will tend to rise to the surface and float, its specific gravity having been practically overcome by the weights at the other end of the lever. As the water empties through the opening the valve will near its seat by means of its excess of weight over that at the other end of lever until within a small distance of the seat when it is sucked down by the water. Now

when the valve strikes its seat the pipe from the tank to the vessel below is full of water. Now this water cannot get out of the pipe unless some other fluid takes its place, so the water in the pipe is allowed to flow out slowly by admitting air slowly through the small hole in tube 2. This water that flows out slowly answers as a refill to the vessel below. The valve retains its seat by means of its excess of weight and by the pressure of water on casting 4 around tube 1.

The valve may be used without the float 11 and the inner tube 2 by making some holes in casting 4 within the tube 1 to provide against an overflow of the tank. This of course would do away with the after fill of the vessel.

I claim—

1. A tank valve comprising a seat, the valve adapted to bear thereon, the tube 1 extending up from said valve and the small inner tube 2 extending through the outer tube and through the valve to communicate with the discharge pipe, substantially as described.

2. A tank valve comprising a seat, the valve adapted to bear thereon and consisting of the conical plate 4 having a central opening, the tube secured to said valve and extending upwardly therefrom, and the inner tube also secured to said valve and communicating with the central opening, substantially as described.

3. A tank valve comprising the valve seat, the cone shaped casting forming the valve bearing thereon, the tube 1 extending up from said casting, the float 11 about the upper end of the tube, the means for operating the valve and the passage leading through the valve to the discharge pipe within the tube, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM M. GILMORE.

Witnesses:

J. D. WESTON,
W. B. HOMER.