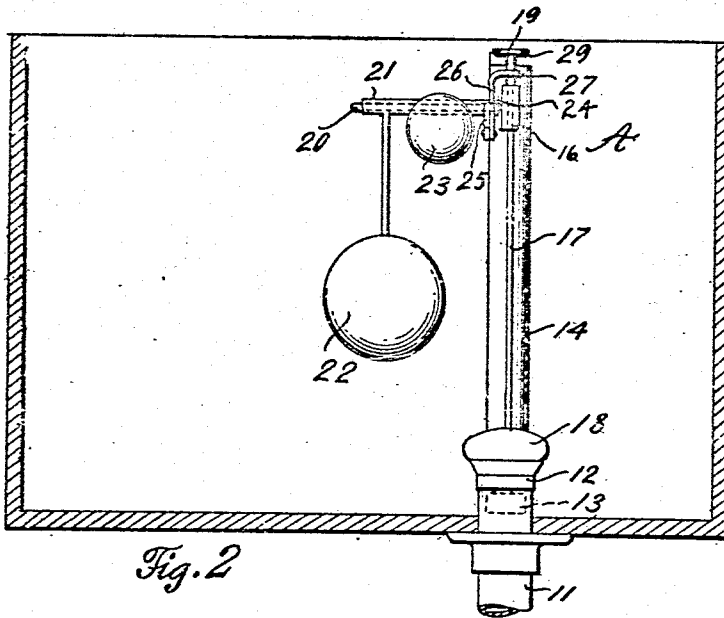
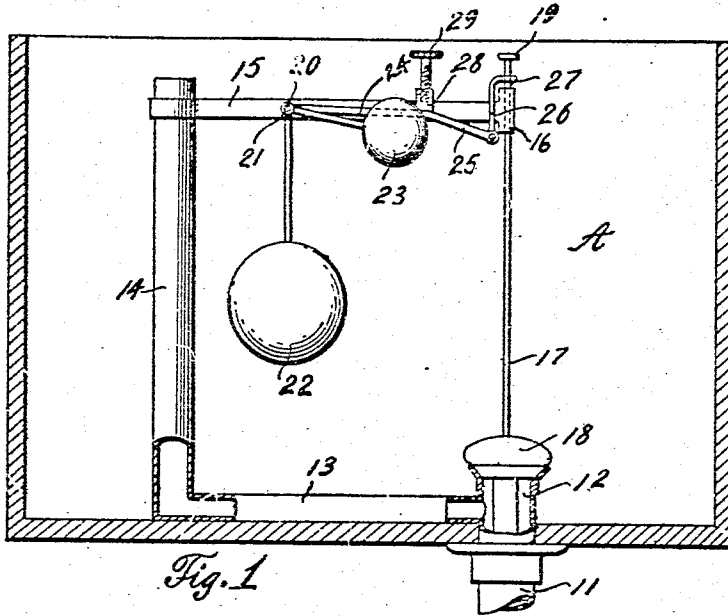


S. A. EYMAN.
 FLUSH TANK.
 APPLICATION FILED APR. 28, 1910.

980,766.

Patented Jan. 3, 1911.



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384

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UNITED STATES PATENT OFFICE.

SAMUEL A. EYMAN, OF PORTLAND, OREGON.

FLUSH-TANK.

980,766.

Specification of Letters Patent.

Patented Jan. 3, 1911.

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To all whom it may concern:

Be it known that I, SAMUEL A. EYMAN, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Flush-Tanks, of which the following is a specification.

This invention relates to flush tanks and particularly to an automatic mechanism whereby a flush may be operated at regular intervals.

It contemplates the construction of a device of this nature wherein a means is provided for regulating the position of the floats which operate the same.

With the above and other objects in view, this invention consists of the construction, combination, and arrangement of parts all as hereinafter more fully described, claimed, and illustrated in the accompanying drawings, wherein—

Figure 1 is a transverse section of a flush box illustrating the locality of the various mechanisms thereof; Fig. 2 is a front elevation of the tank with the front thereof removed, parts thereof being in section.

The present invention resides in the provision of an over-flow pipe seated vertically in a flush tank having a transverse arm adjacent to its upper extremity, said transverse arm being provided with a stud about which loosely operates the sleeve. A pair of floats are carried by the sleeve, one of which is adapted to rest normally vertical while the other rests approximately horizontal, said horizontal float adapted to move said vertical float from its normal position thereby operating a series of levers and opening the outlet pipe. A means is provided whereby the position of the floats may be regulated so as to always retain the vertical float in its position.

Referring more particularly to the drawings A indicates a flush tank of the usual construction having the outlet pipe 11 in the base thereof, said outlet pipe being provided adjacent thereto with the valve seat 12 carried by a pipe 13 which is connected to and forms a seat for the vertical over-flow pipe 14. Adjacent to the upper extremity of the over-flow pipe is a horizontal bracket 15 rigidly secured to said over-flow pipe and extending parallel to the pipe 13 so that the outer terminal thereof is superposed directly over the outlet pipe 11, said outer terminal being provided with a vertical sleeve 16. A

rod 17 reciprocates in the sleeve 16 and carries at its lower extremity the rubber float 18 and is provided at its upper extremity with the head or similar member 19.

Adjacent to the over-flow pipe 14 is provided a stud or shank 20 about which loosely operates a sleeve 21, said sleeve carrying at its outer extremity a large float 22 which is rigidly connected to said sleeve and is adapted to rest normally vertical thereto. A secondary small float 23 is likewise rigidly secured to the sleeve 21 and is substantially horizontal thereto. Thus it will be seen that as the water rises, due to the fact that the large float 22 is vertical, the same will remain stationary until the water reaches the small float 23 and raises the same slightly, thereby moving the float 22 from its vertical position, causing the same to rise and rotate the sleeve 21.

A lever 24 is rigidly and horizontally secured to the sleeve 21 adjacent to the arm 15 and is provided at its outer terminal with the downwardly off-set portion 25 to which is pivotally connected a link 26 which loosely operates on the rod 17 between the head 19 and the sleeve 26, through the instrumentality of the eye 27 at the outer terminal thereof. Thus it will be seen that upon the rotation of the sleeve 21 the lever 24 will be swung upwardly, thereby causing the eye 27 of the link 26 to come into contact with the head 19 of the rod 17, thereby lifting the valve 18 and permitting the water to flow through the outlet pipe 11.

In order to provide a means whereby the float 22 may normally be retained in a vertical position, a transverse bar 28 is carried adjacent to the off-set portion 25 by the bar 24 and projects over the bracket 15. At its outer terminal the bar 28 is provided with a set screw 29 which is threaded in said bar and which is adapted to bear against the upper edge of the bracket 15. Thus as the screw is rotated the lever 24 will be raised or lowered as desired and consequently the position of the floats will be adjusted.

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

1. The combination with a flush tank having an outlet opening therein, of a vertical support in said flush tank, a bracket carried by said vertical support adapted to extend over said outlet opening, a valve operating in said outlet opening, a rod extending from

said valve to said bracket, a lever coöperating with said valve, a vertical and a horizontal float adapted to operate said lever, and means whereby said floats may be adjusted.

2. The combination with a flush tank having an outlet opening, a valve operating in said outlet opening, a vertical support carried by the base of said flush tank, a bracket carried by said support and extending over the outlet valve, a rod reciprocatingly mounted in said bracket, and connected to said valve, a series of pivotally connected levers adapted to operate said valve, a vertical and a horizontal float adapted to operate said levers, and means carried by one of said levers adapted to coöperate with said bracket and adjust the position of the floats.

3. The combination with a flush tank, having an outlet opening therein, of a vertical support in said flush tank, a bracket carried by said support adapted to extend over said outlet opening, a transverse rod mounted on said bracket, a sleeve rotatably mounted on said transverse rod, a vertical and a horizontal float secured to said sleeve and adapted to rotate the same, a valve operating in said outlet opening, a rod extending from said valve to said bracket, and means whereby the rotation of said sleeve will reciprocate said rod.

4. The combination with a flush tank, having an outlet opening, of a valve operating in said outlet opening, a vertical support carried by the base of said flush tank, a bracket carried by the said support and extending over said outlet opening having a vertical sleeve at the terminal thereof, a rod extending from said valve through said

sleeve, having a head at its upper terminal, a transverse rod mounted on said bracket, a sleeve rotatably mounted on said transverse rod, a vertical and a horizontal float rigidly carried by said sleeve and adapted to rotate the same, means whereby the rotation of said sleeve will reciprocate said valve rod, and receive said valve, and means carried by said last named means adapted to coöperate with said bracket and adjust the position of said floats.

5. The combination with a flush tank, having an outlet opening, of a valve operating in said outlet opening, a vertical support carried by the base of said flush tank, a bracket carried by the said support and extending over said outlet opening having a vertical sleeve at the terminal thereof, a rod extending from said valve through said sleeve, having a head at its upper terminal, a transverse rod mounted on said bracket, a sleeve rotatably mounted on said transverse rod, a vertical and a horizontal float rigidly carried by said sleeve and adapted to rotate the same, a horizontal lever carried by said sleeve, a link connection between the free terminal of said lever and the upper extremity of the valve rod located above said sleeve, a transverse bar carried by said lever adapted to project over said bracket, and a set screw operating in said bar adapted to bear against said bracket, thereby adjusting the position of the floats.

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

SAMUEL A. EYMAN.

Witnesses:

RUTH EYMAN,

REUBEN EYMAN.