(No Model.)

W. DUNNETT.

FLUSHING CISTERN.

No. 381,224. Patented Apr. 17, 1888.

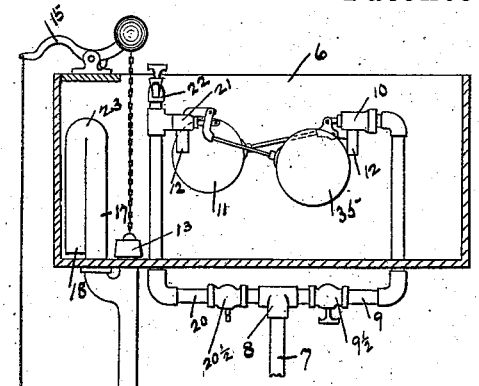


Fig. 1.

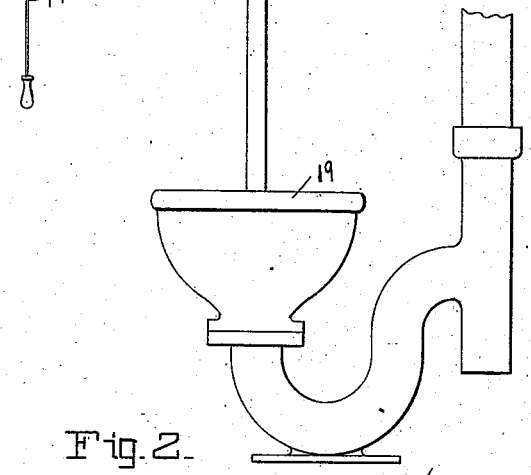
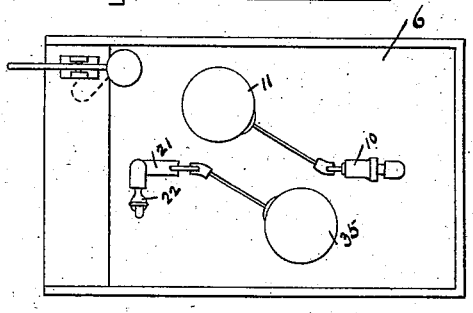


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

WILLIAM DUNNETT, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO J. REGESTER & SONS, OF SAME PLACE.

FLUSHING-CISTERN.

SPECIFICATION forming part of Letters Patent No. 381,224, dated April 17, 1888.

Application filed May 4, 1887. Serial No. 237,132. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM DUNNETT, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Flushing-Cisterns; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in cisterns for water-closets, wherein is provided mechanism by which the flushing of the hopper may be performed either automatically at regular intervals or it may be instantly changed to be operated by hand, to be operated at such times as may be desired, provision being made for readily changing from one operation to the other, the automatic device being so constructed that it may be set to flush at any desired intervals, and it may be employed either in combination with the hand device or be used independently, the object of my invention being to provide a system of flushing for water-closets, whereby the advantage of flushing when desired may be employed, or in case the premises should be vacated the automatic device may be instantly put in operation, and the danger of the traps being emptied from vaporization of the water therein avoided.

In the further description of my invention reference is had to the accompanying drawings, in which—

Figure 1 is a front elevation of the device complete, partly in section. Fig. 2 is a plan of the cistern shown in Fig. 1.

The same figures refer to the same or similar parts throughout the several views.

The figure 6 denotes the cistern-box, which receives its water through the supply-pipe 7, this pipe branching at 8, one pipe, 9, being provided with the cock 9½ and terminating in the float-valve 10, which gives the supply of water for flushing by hand, this valve being operated in the manner usual in this method. When the float 11 is down, the valve 10 is open and the water passes therethrough and out the nozzle 12. As the water in the cistern 6 rises, the float 11 rises in unison therewith, and at a fixed point in its elevation closes the valve 10, when the height of the water in the cistern will remain stationary until the flushing-valve 13 is opened by means of the cord 14 and the weighted lever 15, when the flushing-pipe 16 will be charged, a vacuum formed in the siphon 17, and the water in the cistern will be drawn out, flushing the hopper 19, and lowered until it passes below the open end 18 of the siphon 17, when the vacuum therein will be broken and the operation of refilling the cistern with water will be repeated by the float 11 and float-valve 10, as heretofore described. The branch 20, with its shut-off cock 20½, is provided for supplying the water in the automatic system and is furnished with the small petcock 22, which constantly admits any desired quantity of water, and the float-valve 21, which operates in a manner the opposite of the valve 10, heretofore described—that is, when the water in the cistern has reached a certain height the valve 21 will open and admit a large volume of water into the cistern 6, whereby the water will be carried suddenly over the bend 23 in the siphon 17, the said siphon charged, and the water in the tank will be lowered, flushing the hopper until it passes the open end 18 of the siphon, when an interval of flushing will elapse until sufficient water has run from the petcock 22 to again put in automatic operation the float-valve 21, when the operation described will be repeated. The flushing-valve 13 is herewith attached that the hopper 19 may be flushed at any time, without waiting for the proper interval, when the operation will be performed by the automatic device.

The manner of operating is as follows: The cistern 6 is provided with both systems of flushing, the water-supply pipe 7 being divided into the two branches 9 and 20, each branch being fitted with a cock for supplying either one or the other of the said systems, the cock 9½ supplying that operated by hand and the cock 20½ supplying the direct system. If it is desired that the system for operating by hand shall alone be employed, the cock 9½ is open and the cock 20½ closed, and the method of operating is that commonly employed, in

the manner following, wherein the water is supplied to the cistern 6 through the supply-pipe 9. When the water in said cistern is down, the lower position of the float 11 opens the valve 10 and admits the water to the cistern 6, which when it has reached a certain height by the rising of the float 11 closes the valve 10, and the supply is shut off, the water in the cistern 6 remaining at this height until the flushing-valve 13 is open, in the manner heretofore described, when the siphon 17 will be charged and the water drawn from the cistern thereby and the hopper 19 flushed, the lowering of the water in the cistern 6 causing the float-valve 10 to be opened and the cistern again charged. When it is desired to operate the automatic system, the cock 9½ is closed and the cock 20½ opened, whereby the supply will be admitted to the cistern 6 through the pet-cock 22, which may be set to admit that quantity of water which is to control the intervals of flushing, whereby the float-valve 21 will be opened when the water has reached a certain height, the siphon 17 automatically charged and the hopper 19 flushed.

The combination of the two systems in the one cistern possesses the advantage of rendering the device automatic, and being set to flush at any interval of time, and thus insure a cleansing and proper sealing of the traps when the premises shall be vacant.

Having described my invention and the manner of operating, what I claim, and desire to secure by United States Letters Patent, is—

In a flushing-cistern for water closets, the combination of a system for flushing by hand, consisting of a float-valve to automatically admit or shut off the water to the said cistern by the rise or fall of water therein, and a flushing-valve operated by hand, and a system for automatically flushing, consisting of a float-valve which is automatically opened for flushing by the rise of water in the said cistern, and a water-supply pipe, 20, provided with a cock or valve for admitting water to the said cistern and to regulate the intervals of flushing, and the cut-off cocks 9½ and 20½, whereby the systems may be changed from one to the other, for the purpose set forth.

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

WILLIAM DUNNETT.

Witnesses:
WM. L. BAILIE,
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