

P. F. SNYDER.
FLUSHING APPARATUS.
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1,037,679.

Patented Sept. 3, 1912.

Fig. 1.

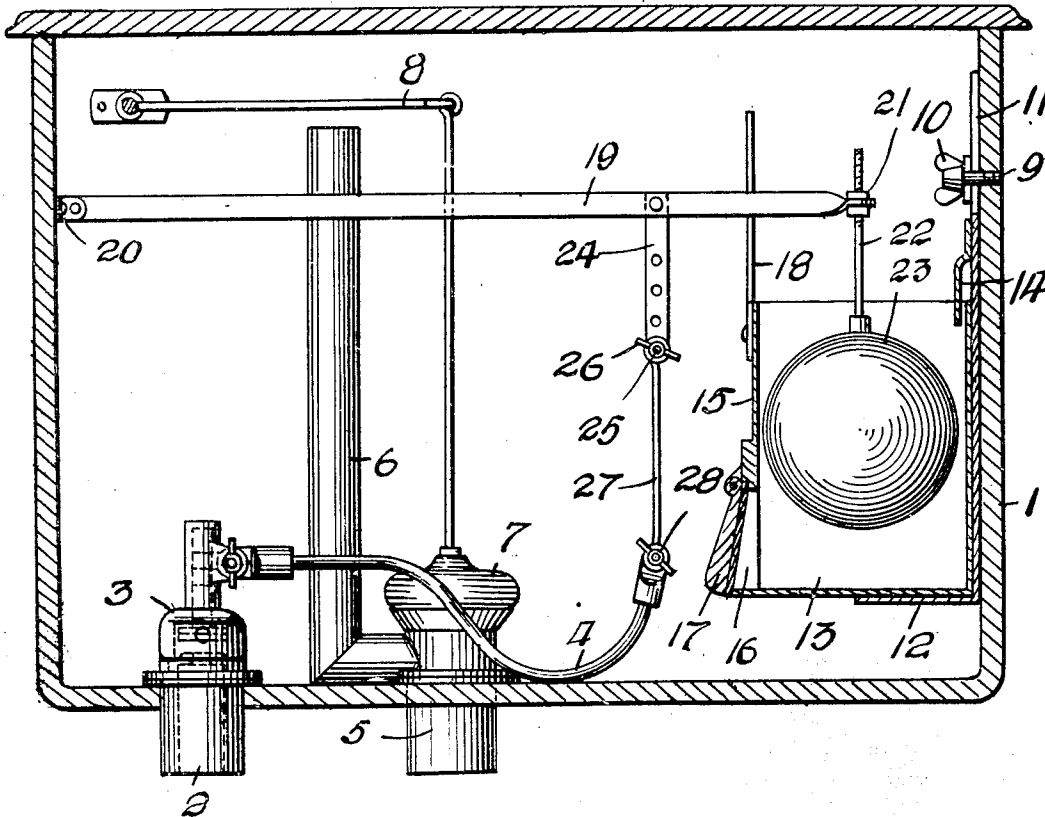
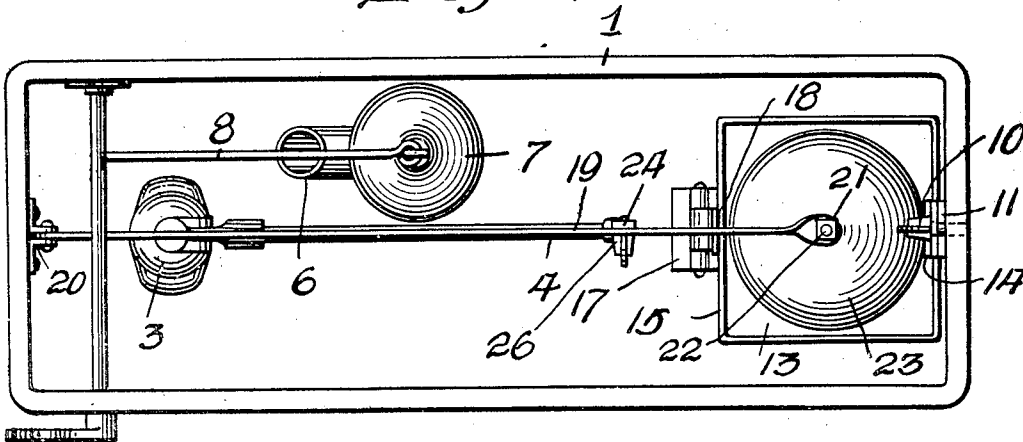


Fig. 2.



WITNESSES

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FLUSHING APPARATUS.

1,037,679.

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To all whom it may concern:

Be it known that I, PETER F. SNYDER, a citizen of the United States of America, residing at Duquesne, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Flushing Apparatus, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to a flushing apparatus, and the primary object of my invention is the provision of positive and reliable means in connection with a flushing tank, as hereinafter set forth, for obtaining a rapid
15 operation of a float actuated valve, thereby relieving the valve of the wear and tear incurred by a slow operation of the valve.

Another object of this invention is to provide a flushing apparatus embodying an
20 auxiliary float that incloses a main float, the auxiliary float being operated in advance of the main float, whereby the two floats can cooperate at the last filling stage of the flushing tank to quickly shut off the water
25 inlet valve.

A further object of this invention is to provide a flushing apparatus that can be adjusted whereby a desired quantity of water can be admitted to a flushing tank
30 for flushing purposes.

A still further object of this invention is to accomplish the above results by a mechanical construction that is simple, durable, inexpensive to manufacture, not liable to
35 injury by ordinary use, and applicable to various types of flushing tanks.

With the above and other objects in view, the invention resides in the novel construction, combination and arrangement of parts
40 to be hereinafter specifically described and then claimed.

Reference will now be had to the drawing, wherein:—

Figure 1 is a longitudinal sectional view
45 of a flushing apparatus in accordance with this invention, and Fig. 2 is a plan of the same.

The reference numeral 1 denotes a flushing tank of the ordinary and well known
50 type that has a water inlet pipe 2 provided with a valve 3 within the tank, said valve having a curved operating stem 4. The bottom of the tank also has a down pipe 5, an overflow pipe 6 within the tank, a valve 7
55 controlling the outlet of water to the down

pipe 5, and a conventional form of mechanism 8 that is operable from the front side of the tank for raising the valve 7.

Adjustably connected to the inner side of an end wall of the tank by a screw 9 and a
60 knurled nut 10 is the upper slotted end 11 of an angle bracket 12. Movably mounted upon the angle bracket 12 is an auxiliary float 13 in the form of a rectangular receptacle and the movement of said auxiliary
65 float relatively to the bracket 12 is controlled by a retaining member 14 secured to said bracket, adjacent to the upper slotted end 11. The rectangular receptacle forming the
70 auxiliary float 13 has the wall 15 thereof provided with an opening 16 that is normally closed by a check or flap valve 17. The upper edge of the wall 15 has a vertical
75 guide 18 for the end of a pivoted arm 19 that is pivotally connected to a bracket 20, carried by the inner side of the opposite end wall of the tank 1 from that supporting
80 the auxiliary float. The end of the arm 19 extends above the auxiliary float and adjustably connected to the end of said arm, as at
85 21 is a rod 22 having a main spherical float 23 within the auxiliary float 13. The arm 19 has a hanger 24 and adjustably connected to said hanger by a screw 25 and a winged
thumb nut 26 is a rod 27 which is connected,
as at 28 to the curved operating stem 4 of the valve 3.

Assuming that the mechanism 8 has been operated to elevate the valve 7 and release the water from the flushing tank 1, the
90 auxiliary float 13 is lowered on to the bracket 12 and the water within said float drains therefrom through the medium of the flap valve 17. As the water drains from the auxiliary float 13, the main float 23 is
95 lowered and opens the valve 3 to admit water to the flushing tank. It will of course be understood that by this time the valve 7 is closed and the water is gradually rising in the tank 1. The flap valve 17 is retained
100 closed by the pressure of the water and the auxiliary float 13 is elevated until it engages the retaining member 14, where it is held. The water continues to rise in the tank 1 and overflows the upper edges of the
105 auxiliary float and as the water rises within the float 13, the main float 23 is elevated to shut off the supply of water to the tank 1 through the medium of the valve 3. The auxiliary float 13 is held in an elevated posi-
110

tion until the valve 7 is again opened, and then the operation as above described is repeated.

By reason of the small quantity of water required in the auxiliary float, the main float 23 is quickly operated to open and close the water inlet valve 3.

It is thought that the operation and utility of the flushing apparatus will be apparent without further description, and while in the drawing there is illustrated a preferred embodiment of the invention, it is to be understood that the structural elements thereof are susceptible to such variations as fall within the scope of the appended claims.

What I claim is:—

1. In a flushing apparatus, the combination with a tank, a water inlet valve located within said tank, and a pivoted arm located within said tank for operating said water inlet valve, of a bracket adjustably mounted within said tank, a hollow float having an opening therein and movably supported by said bracket and having a flap valve at the bottom thereof, and a float inclosed by said hollow float and connected to said arm and adapted to move said arm after a movement of said hollow float.

2. In a flushing apparatus, the combination with a tank, a water inlet valve located

within said tank, and a pivoted arm located within said tank for operating said water inlet valve, of a bracket adjustably mounted within said tank, a hollow float having an opening therein and movably supported by said bracket and having a flap valve at the bottom thereof, a float inclosed by said hollow float and connected to said arm and adapted to move said arm after a movement of said hollow float, and a retaining member carried by said bracket for limiting the movement of said hollow float.

3. In a flushing apparatus, the combination with a tank having a water inlet valve, a pivoted arm arranged within said tank, and a float connected to said arm, and adapted to move said arm to open and close said water inlet valve, of a rectangular receptacle movably supported in said tank and inclosing said float and adapted to move in advance thereof, a flap valve carried by said receptacle adjacent to the bottom thereof, and means for limiting the movement of said receptacle within said tank.

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

PETER F. SNYDER.

Witnesses:

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