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1,461,673

O. C. PAPIN

FLUSH TANK

Filed Oct. 24, 1921

Fig. 1.

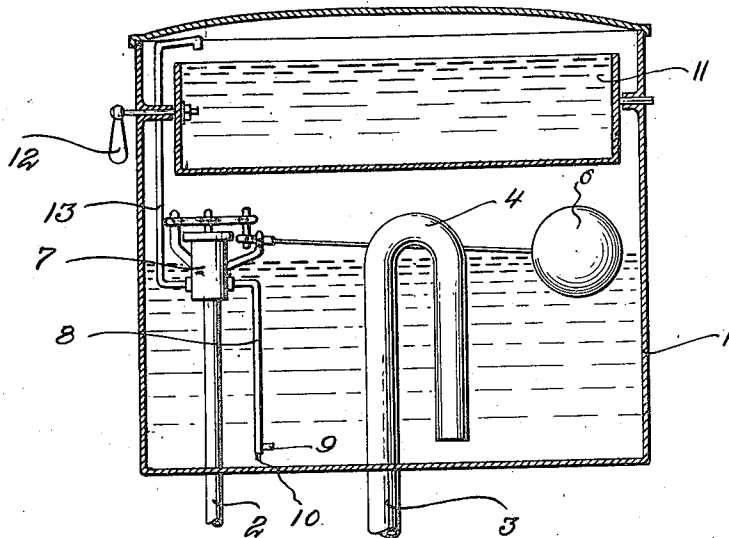


Fig. 2.

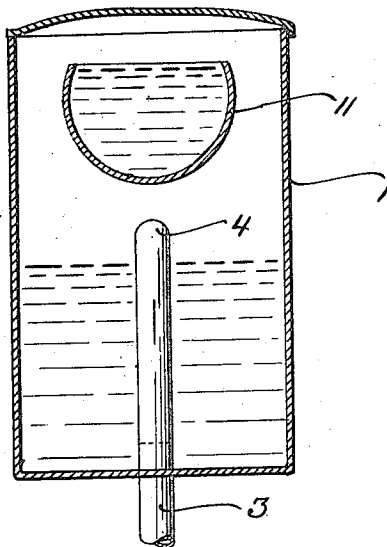
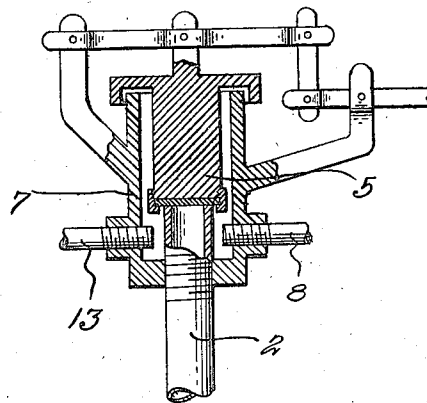


Fig. 3.



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WITNESS:

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OSCAR C. PAPIN, OF DUBUQUE, IOWA.

FLUSH TANK.

Application filed October 24, 1921. Serial No. 509,889.

To all whom it may concern:

Be it known that I, OSCAR C. PAPIN, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented new and useful Improvements in Flush Tanks, of which the following is a specification.

The object of this invention is to eliminate all but one valve in the tank so as to render the same more effective and less liable to get out of order.

Another object of the invention is to provide siphon means which will automatically empty the tank when the water level therein has reached a certain level.

A further object of the invention is to provide manually operated means for raising the water level in the tank quickly in order to start the siphon action.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing my invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a sectional view through a tank constructed in accordance with my invention.

Figure 2 is a section on line 2—2 of Figure 1.

Figure 3 is a detail view in section of the inlet valve.

In these views 1 indicates the tank to which water is supplied from any suitable source by the pipe 2. 3 indicates the outlet pipe which is provided with a goose neck 4 within the tank, the bend in this pipe being arranged above the normal water level which is controlled by the usual float actuated valve 5, connected with the pipe 2, and the float of which is shown at 6. The casing 7 of this valve is located at the upper end of pipe 2 and a pipe 8 leads from this valve casing to a point adjacent the lower end of the tank where it is provided with an outlet 9 which is controlled by a screw plug 10. These parts are so arranged that

the float 6 will close the valve so as to keep the water level below the bend in the pipe 3.

In order to increase the water level above the bend so as to set up a siphon action I provide a small tank 11 which is rotatably mounted in the tank 1 and has one of its trunnions projecting through the tank where it is provided with a handle 12 so that the tank can be rotated by hand. Water is supplied to this tank 11 through pipe 13 which has its lower end connected with the valve casing and its upper end arranged to discharge into the open upper end of tank 11.

The outlet 9 of pipe 8 is choked sufficiently by plug 10 to cause the water to fill tank 11 before being shut off by the float operated valve 5 so that said tank 11 is filled before the normal water level in tank 1 is reached. When it is desired to empty the tank it is simply necessary to rotate tank 11 by means of the handle 12 so as to empty the water therein into tank 1 and thus raise the water level above the bend in goose neck 4. This will set up a siphonic action and the tank will be emptied. The dropping of float 6 will open valve 5 so that both tanks will be filled again ready for the next emptying.

It is thought from the foregoing description that the advantages and novel features of my invention will be readily apparent.

I desire it to be understood that I may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What I claim is:—

1. A flush tank of the class described comprising a goose neck outlet pipe, an inlet pipe, a valve connected with the inlet pipe, a float controlling the same, a tank rotatably mounted in the flush tank, manually operated means for rotating the same, a feed pipe leading from the valve of the inlet pipe to the rotary tank, and adjustable means for checking the flow of water from the inlet pipe into the flush tank to cause the rotary tank to be filled first.

2. A flush tank having an inlet pipe, a discharge siphon, a valve casing arranged over the pipe to receive the discharge therefrom, a feed pipe, connected with said casing and discharging into the tank, an auxiliary tank rotatably supported within the

flush tank, a feed pipe leading from the said valve casing and discharging into the said auxiliary tank, a valve within the casing and movable to seat over the outlet of the said pipe, a float within the flush tank and connected with the said valve, said float being arranged to close the valve to keep the water level below the bend in the siphon, and means for manually tipping the said auxiliary tank to empty the latter for raising the level above the bend of the siphon. 10

In testimony whereof I affix my signature.

OSCAR C. PAPIN.