

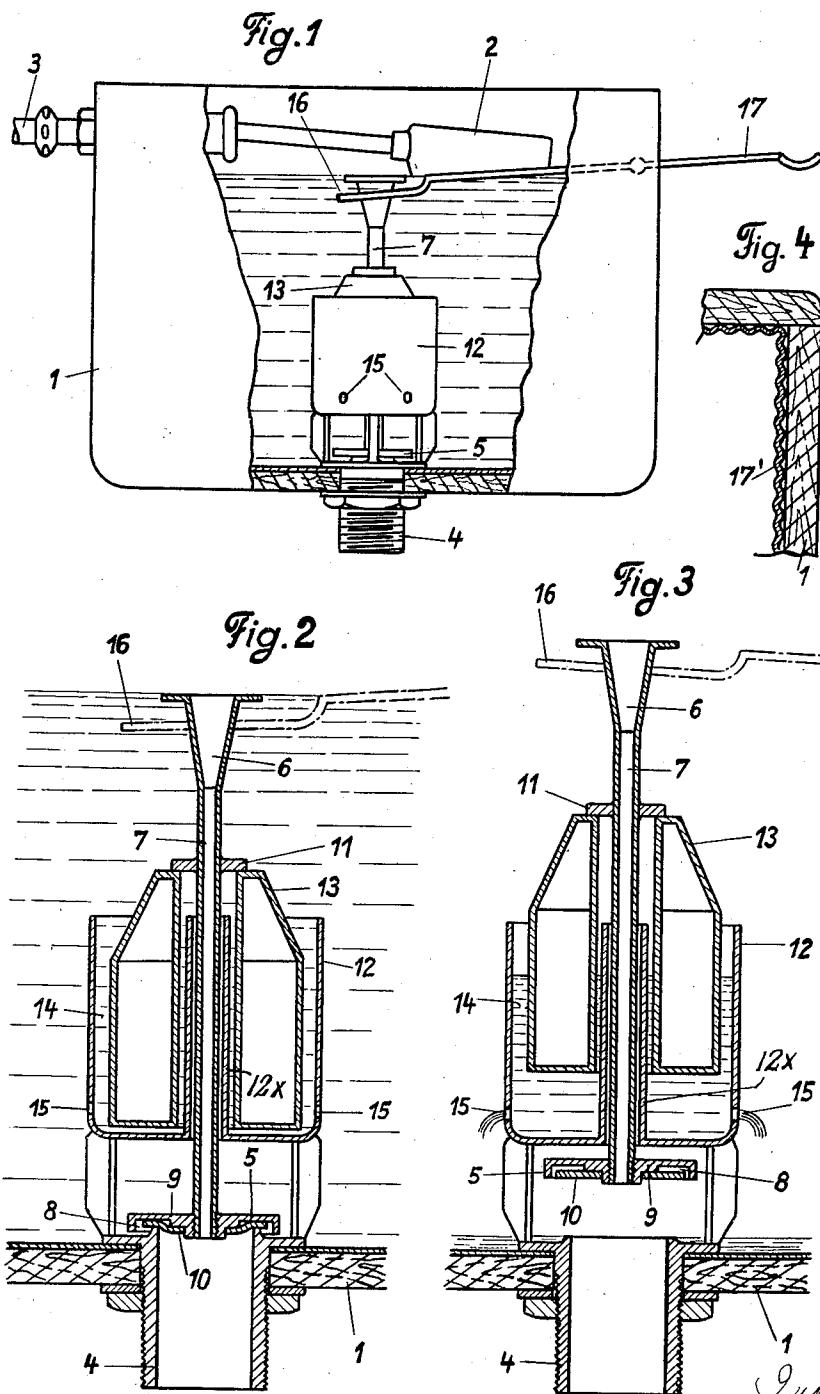
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FLUSHING CISTERN

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FLUSHING CISTERNS

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1 Claim. (Cl. 4—58)

The present invention relates to a flushing cistern and particularly to the internal arrangement for such flushing cisterns.

According to the invention the flushing cistern is provided with a discharge opening which lies on a level with the bottom thereof and is closed by a valve which is mounted on a hollow spindle serving as overflow valve. On the hollow spindle is provided a locking member for a float which is located in a second tank provided with at least one discharge opening. The arrangement is such that after all the water contained in the main tank has flowed out there also flows out the water contained in the additional container. This water no longer serves for the actual flushing of the closet pan but serves as an odor seal.

As the valve is located on a plane with the bottom of the flushing cistern, the flushing cistern is emptied completely every time so that it may be made of small dimensions.

In the drawing is shown an example of construction of the invention wherein:

Fig. 1 shows the flushing cistern in elevation with a wall partly broken away.

Figs. 2 and 3 are sections of the internal arrangement with the valves in different positions, and

Fig. 4 is a section of a part of the flushing cistern.

The flushing cistern shown is provided in the usual manner with a tank 1, a float 2, and a supply pipe 3. The internal arrangement consists of a discharge valve which is located on a plane with the bottom of the tank 1. The closing of the valve 4 is effected by a valve plate 5 which is mounted on a hollow pipe 7 terminating at the top in an overflow funnel 6. As particularly shown in Fig. 2 the valve plate consists of a metal carrier plate screwed or otherwise secured to the pipe 7 and provided at the edge with an annular recess 8. On the carrier plate 9 is seated a resiliently mounted leather disc 10 which effects the actual closing. When the valve is closed the disc 10 rests on the narrow valve seat. The part of the leather disc 10 located above the discharge pipe 4 then bends easily and effects a tight closure. On the pipe 7 is fixedly mounted, for example by soldering, welding, screwing or the like, a stop 11. Around the pipe 7 is mounted a tank 12, carried by columns, in which a float 13 is movable. The float 13 can move up and down along the pipe 7. It is so dimensioned that between it and the wall 12 of the tank there remains an intermediate space 14. The tank 12 is provided with an upstanding tube 12x through which the pipe 7

passes and which serves as a guide for said pipe. The tanks 12 and 1 communicate with one another through one or more openings 15. The upper part of the pipe 7 formed as an overflow funnel 6 is embraced by a strap 16 which is rotatably mounted in the wall of the tank 1 in the known manner. The free end 17 of the strap can be actuated by a pull device or in the case of flushing cisterns located at a low level by a pressure knob.

The operation of the device is as follows:

In the normal position the tank is filled as shown in Figs. 1 and 2. When flushing water is to be withdrawn the pipe 7 and thus the valve plate 5 is raised by actuating the strap 16. The water contained in the tank 1 will therefore flow out and effect the flushing of the closet. For lifting the valve plate 5 the co-operation of the strap 16 is necessary as the float 13, which itself applies an upwardly directed force to the stop 11 of the pipe 7, is not large enough to overcome the water pressure by which the valve plate is loaded. When the strap 16 is actuated and after the tank 1 has been emptied the device is in the position shown in Fig. 3. When the strap 16 has been raised at its inner end the float 13 has also been raised. After all the water has flowed out of the tank 1 there also flows out the water contained in the space 14. This water can no longer serve for the actual flushing; it however forms an odor seal in the pan of the closet. Simultaneously with the gradual outflow of the water from the tank 12 the float 13 and thus simultaneously therewith, the valve plate 5, is lowered and as soon as all the water has been discharged the outflow valve is closed. The flushing cistern is then again filled in the known manner, whilst the openings 15 effect distribution between the tanks 1 and 12 so that the same level of water obtains therein.

The opening or openings are so dimensioned that the tank 1 can be emptied completely before any substantial portion of the water contained in the tank 14 can escape.

As shown in Fig. 4 the tank 1, constructed for example of wood, is lined with corrugated sheet lead 17'. In this manner numerous passages extending in a vertical direction are formed between the wood tank 1 and the lead lining which promote a supply of air to the wood walls. This prevents rotting of the latter.

What I claim is:

In a flushing cistern, a main water tank having an outflow opening on a level with the bottom thereof, a valve for closing said opening, an auxiliary tank, having at least one outflow opening,

located above said valve, an upstanding tube in said auxiliary tank arranged with its axis coincident with that of said outflow opening, a pipe at the lower end of which said valve is carried, said 5 pipe passing through said upstanding tube as a guide and serving as an overflow valve, a float

located in said auxiliary tank and having a central passage to fit over and be guided by said tube, a stop on said pipe to limit the upward movement of said float, and means to raise said pipe to open said valve.

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