July 7, 1953 H. L. GORDON 2,644,167

DISINFECTANT DISPENSER

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FIG. 1.

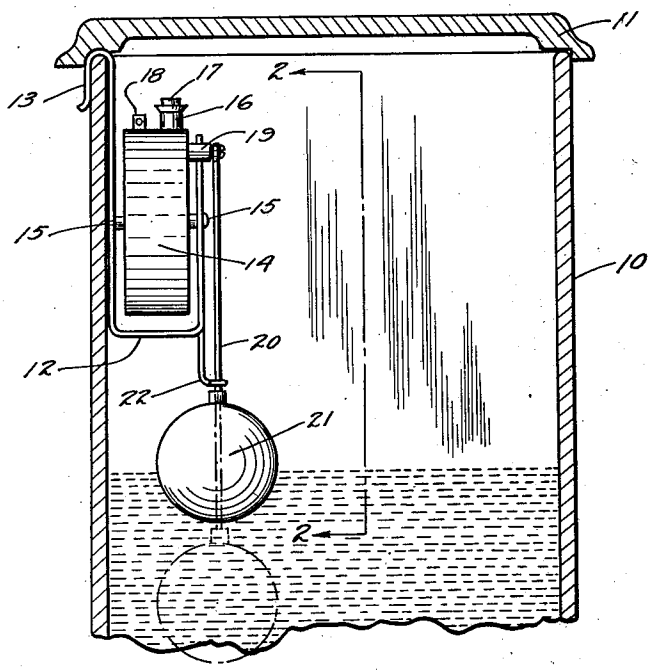


FIG. 2.

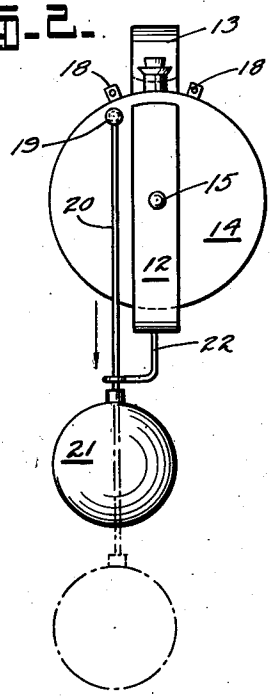
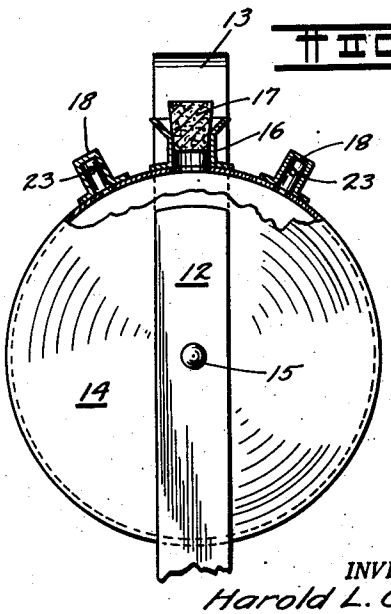


FIG. 3.



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DISINFECTANT DISPENSER

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2 Claims. (Cl. 4—227)

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This invention relates to a disinfectant dispenser and more particularly to a disinfectant dispenser for automatic operation in the water tank of a water closet.

The principal object of the invention is the provision of a disinfectant dispenser for a water closet.

A further object of the invention is the provision of a simple and inexpensive disinfectant dispenser for location in a water tank and dependent in operation upon the fluid level of the tank.

A still further object of the invention is the provision of a disinfectant dispenser for a water closet and operative only upon the flushing action of the said water closet.

The disinfectant dispenser disclosed herein comprises a simple device which may be inexpensively manufactured and mounted in a water supply tank of a water closet where it is operated by the fluid level therein to dispense a small amount of disinfectant liquid each time the fluid level in the said tank changes.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a side elevation of a water tank such as used on a water closet and showing the disinfectant dispenser therein.

Figure 2 is a front view of the disinfectant dispenser.

Figure 3 is an enlarged detailed view of a portion of the disinfectant dispenser with parts broken away and parts in cross section.

By referring to the drawings and Figure 1 in particular it will be seen that a water tank 10 of a water closet is disclosed and provided with a lid 11. Means (not shown) is located in the bottom portion of the tank 10 for draining the fluid contents therefrom and for refilling the same as in connection with a water closet. A disinfectant dispenser is ilustrated as positioned within the tank 10 and comprises a U-shaped body member 12 one arm of which is extended and formed with a downturned hook 13 on its upper end so that it may be hooked over the side wall of the tank 10. A cylindrical tank 14

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is pivoted as by means of pivots 15—15. The cylindrical tank 10 is provided with a filler pipe 16 and a closure 17 therefor and at least one restricted outlet 18.

The cylindrical tank 14 is provided with an arm 19 on one side thereof and a vertical rod 20 is pivotally affixed to the arm 19 and has a float 21 secured to its opposite lowermost end. A guide member 22 is secured to the U-shaped body member 12 and depends therefrom to slidably engage the rod 20 and thereby hold the same in substantial vertical alignment with the arm 19.

By referring to Figures 2 and 3 of the drawings it will be observed that the restricted outlets 18 comprise tubular extensions closed at their outermost ends and communicating with the cylindrical tank 14 and each of which is provided with a relatively small opening 23. It will also be observed that at such time as the liquid level in the tank 10 is in the position illustrated in Figure 1 of the drawings the float 21 will move the rod 20 upwardly and thereby maintain the cylindrical tank 14 with the filler pipe 16 and the restricted outlets 18 in upright position at the top of the device.

At such time as the liquid level in the tank 10 falls as upon the flushing of the water closet with which the tank is associated, the float 21 will move downwardly to the position illustrated in dotted lines in Figures 1 and 2 of the drawings and thereby move the rod 20 downwardly and hence cause the cylindrical tank 14 to revolve on its pivots 15 to a point where a disinfecting liquid therein will be dispensed through one of the restricted outlets 18, the other of the outlets 18 forming an air vent for the cylindrical tank 14. The disinfectant dispensed is thus mixed with the fluid in the tank 10 from whence it is directed into the water closet in the usual manner.

Immediately upon the fluid level in the tank 10 rising, the float 21 will move the rod 20 upwardly and hence revolve the cylindrical tank 14 back to upright position as shown in the several figures of the drawings. The device is therefore operative only at such time as the liquid level in the tank changes. The disinfectant liquid normally held by the cylindrical tank 14 may be any liquid known in the art and suitable for the indicated purpose. The supply of the disinfecting liquid in the tank 14 may be replenished from time to time as needed by removing the closure 17.

It will thus be seen that a simple and efficient disinfectant dispenser has been disclosed which meets the several objects of the invention and

which may be easily installed in any water closet tank for automatic operation therein.

Having thus described my invention, what I claim is:

1. A disinfectant dispenser for water closet reservoirs comprising a U-shaped body member, one portion of which is longer than the other and has an outturned hook formed thereon for engagement over the side wall of the said reservoir, a tank revolvably mounted in said U-shaped body member, a restricted outlet on said tank and a filler pipe on said tank and a closure therefor, said filler pipe and restricted outlet located on the uppermost portion of the said tank, a depending guide member on said U-shaped body member, means for maintaining and for rotating said tank, said means comprising a rod pivotally connected to said tank and slidably engaging said guide member, a float on the said rod and responsive in vertical movement to the fluid level in said reservoir.

2. A disinfectant dispenser for water closet reservoirs and comprising a U-shaped body member one portion of which is longer than the other and has an outturned hook formed thereon for engagement over the side wall of the said reservoir, said U-shaped body member having oppositely disposed inturned pivots and a cylindrical tank with vertical flat side walls rotatably

mounted in the said U-shaped body member on the said pivots, a downwardly extending guide member on said body member having a horizontal loop on its lowermost end and a sidewardly extending arm on said tank, a rod pivoted to said arm and engaging the said loop on the guide member and a float secured to said rod beneath said loop on the guide member, means on said tank for filling the same with a disinfecting liquid and a restricted outlet in said tank for discharging liquid when the said tank is revolved by the said float responsive to a fall in the water level in the said reservoir.

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