Nov. 12, 1935. E. A. STRATTMAN 2,021,110

STERILIZING MEANS

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Fig. 1.

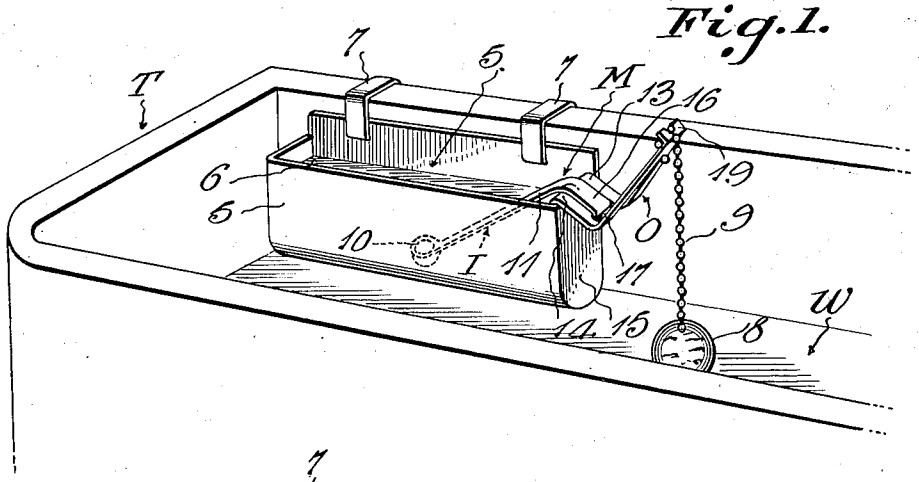


Fig. 2.

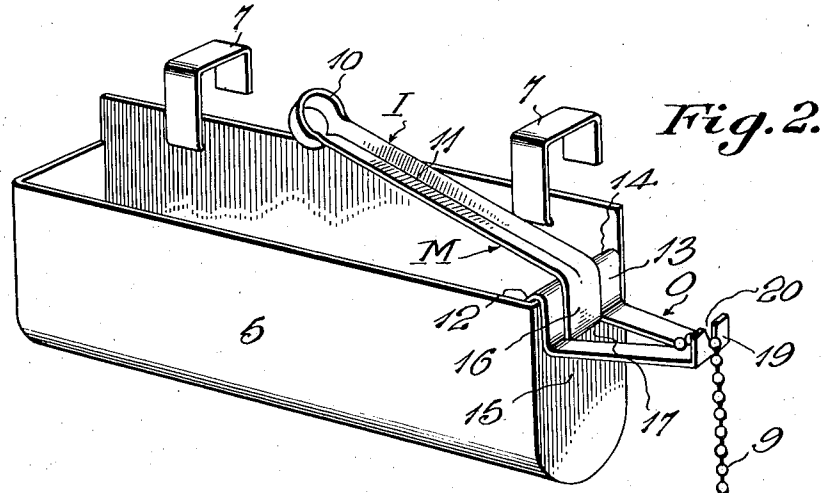
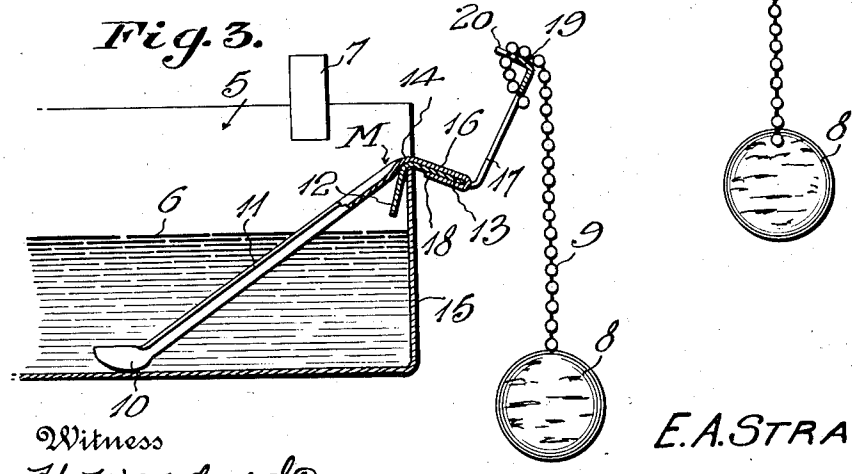


Fig. 3.



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STERILIZING MEANS

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4 Claims. (Cl. 4—227)

The invention aims to provide unique and inexpensive means intended primarily for use with toilet flush tanks to supply a quantity of sterilizing liquid to the bowl flushing water each time the toilet is flushed, thereby keeping the fixture sanitary and free from objectionable odors. While the invention finds its principal use with flush tanks, it is of course usable with any tank from which liquid is periodically discharged, regardless of the destination of the liquid.

With the above objects in view, the invention resides in the novel subject matter hereinafter described and claimed, description being accomplished by reference to the accompanying drawing.

Fig. 1 is a perspective view showing the dispensing means for the sterilizing liquid in its normal position, which position it occupies as long as the flush tank or other tank is filled with water.

Fig. 2 is a perspective view illustrating the dispensing means in the position which it occupies to discharge sterilizing liquid into the outgoing water in the tank.

Fig. 3 is a vertical sectional view partly in elevation, the dispensing means being positioned as shown in Fig. 1.

The sterilizing device is shown in the form of an attachment for a tank T from which water W is periodically discharged, and said tank may be considered as the flush tank for a toilet bowl. However, it is of course possible to provide a construction in which the auxiliary tank 5 which contains the sterilizing liquid 6 is constructed at the factory as a part of the main tank. In the construction shown, the auxiliary tank 5 is of open topped construction and is provided with suspending hooks 7 to engage the wall of the tank T, the tank 5 being supported above the normal liquid level of said tank T.

Mounted on the tank 5, is a dispensing means M for the sterilizing liquid 6, said dispensing means being connected with a float 8 in the main tank T and being operable to discharge a quantity of said sterilizing liquid into the outgoing water of said tank T whenever this water is being discharged.

In the form of construction herein disclosed, the dispensing means M is in the form of a lever fulcrumed between its ends and connected at its outer end with the float 8 by a chain or the like 9, the inner end of said lever being sufficiently heavy so that whenever the float 8 rises, said inner end of said lever lowers into the sterilizing liquid 6 as seen in Figs. 1 and 2. This inner end of the lever is provided with means 10, preferably in the form of a cup, to receive a quantity of the liquid 6 each time said inner end of the lever lowers, and said lever is provided also with means 11, preferably in the form of a trough or channel, to conduct the sterilizing liquid from the receiving means 10 into the tank T when the float 8 lowers upon discharge of the water W (see Fig. 2). Thus, each time the tank T is filled, the receiving means 10 fills with the sterilizing liquid 6 in readiness for operation, and each time the water W is discharged from the tank T, the sterilizing liquid flows by gravity from said receiving means 10 through the conducting means 11 into the outgoing water.

In the preferred construction herein disclosed, the lever or dispensing means M is constructed from inner and outer sections I and O respectively, both formed from sheet metal, copper being preferred. The outer section O is provided with an inverted V-shaped inner end portion providing inner and outer legs 12 and 13 and a ridge 14 connecting them. The legs 12 and 13 straddle the upper edge of one end 15 of tank 5 and the ridge 14 rests upon said edge to provide a fulcrum for the lever. The outer end portion of the lever section I rests upon the ridge 14, extends downwardly at 16 in contact with the outer side of the leg 13, passes through an opening 17 in the outer section O, and is clinched upwardly at 18 against the inner side of said leg 13, providing a simple, yet tenacious connection between the inner and outer lever sections. The cup 10 and channel 11 for the lever section I may well be formed by stamping the sheet metal as shown.

The outer end of the lever section O is bent upwardly to provide a lug 19 which is formed with a V-shaped notch 20. The opening 17 is preferably pointed, the pointed end thereof being disposed near the lug 19. The chain 9 is hooked into this pointed end of the opening 17, passes upwardly through the notch 20 and depends from the latter to the float 8. A simple, yet effective connecting means is thus provided between the lever and the float chain, permitting adjustment of the latter as may be necessary in adapting the sterilizer to one tank or another.

It will be seen from the foregoing that novel and advantageous provision has been made for carrying out the object of the invention and while the details disclosed may be considered as preferred, variations may, of course, be made within the scope of the invention as claimed.

I claim:

1. In a device of the class described, an outer lever section having an inverted V-shaped inner

end portion providing two diverging legs to straddle the upper edge of a tank and form a fulcrum, said outer lever section having an opening at the lower end of the outermost of said legs; and an inner lever section whose outer end portion rests on the ridge of said inverted V-shaped portion of said outer section, said outer end portion of said inner lever section being bent downwardly against the outer side of said outermost leg, passed through said opening and clinched upwardly against the inner side of said outermost leg; said inner lever section being provided with liquid receiving and conducting means; said outer lever section being provided with a float.

2. In a device of the class described, a dispensing lever having means between its ends for fulcruming it upon a tank wall, the outer end of said lever being provided with an upwardly bent lug having a notch, said lever having a pointed opening whose point is disposed toward said lug, and a float-carrying chain hooked in said pointed end of said opening, said chain extending upwardly from said opening through said notch and depending from the latter.

3. In a device of the class described, an outer lever section having an inverted V-shaped inner nd portion providing two diverging legs to straddle the upper edge of a tank and form a fulcrum, and an inner lever section secured to said outer section; said inner lever section being provided with liquid receiving and conducting means; said outer lever section being provided with a float.

4. In a device of the class described, a tank to contain a sterilizing liquid, means for supporting said tank in a flush tank, a dispensing lever having a V-shaped portion between its ends straddling the tank wall and resting thereon to constitute a fulcrum for the lever, and a float connected with the outer end of said lever to ride the water in the flush tank, the inner end of said lever being normally lowered and being provided with means to receive the sterilizing liquid and conduct it to the exterior of the tank when the lever is tilted by descent of the water in the flush tank.

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