Sept. 17, 1929. L. D. STONER 1,728,737

AUTOMATIC FLUID FEEDER

Original Filed July 27, 1927

Fig. 1.

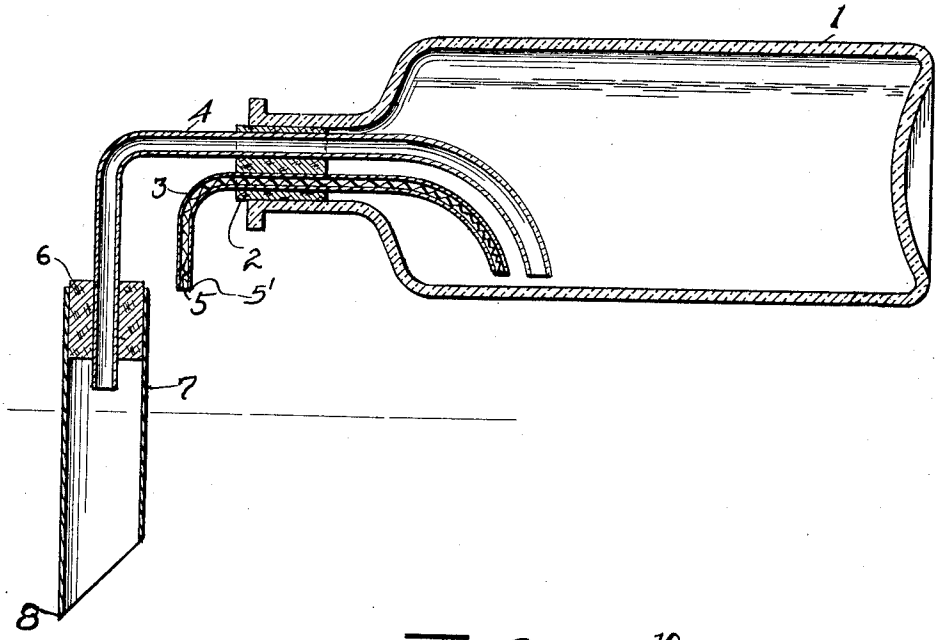
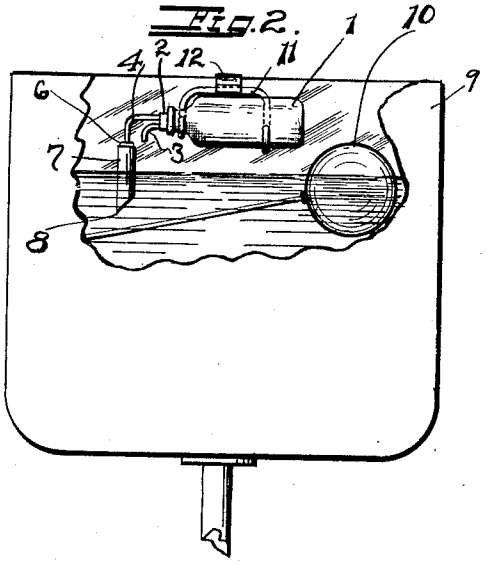


Fig. 2.



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UNITED STATES PATENT OFFICE

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AUTOMATIC FLUID FEEDER

Application filed July 27, 1927, Serial No. 208,798. Renewed August 6, 1929.

The object of this invention is to provide a means for automatically adding a small amount of disinfectant or detergent fluid, or a combination of both, to the water in the flushing tank of a toilet bowl at each flushing thereof, the automatic device being so cheap it may be universally used.

Another object of the invention is to provide a device of the character described that will be so simple that it is not likely to get out of order no matter how long it is in use, whereby its use will be thereby increased, because if any expensive or complicated automatic apparatus is used to supply the liquid it is very likely to get out of order and after two or three bottles of the fluid have been used the fluid is discontinued and no more of it used.

Another object of the invention is to provide means whereby it will be made certain that a given amount of fluid will be discharged on each operation of the toilet, and that no other amount of fluid will be discharged at that time.

An embodiment of the invention is shown in the accompanying drawings in which the same reference numeral is applied to the same portion throughout the several figures of the drawings, and of which there may be modifications.

Figure 1 is a vertical sectional view through the bottle and the feeding device.

Figure 2 is a sectional view of a toilet tank showing the position of the bottle as it is placed therein for use.

The receptacle, which is indicated at 1 is of the ordinary size of commercial bottle for the sale of the disinfectant used, and of course ordinarily sent to the user through safe channels with a solid cork therein. The feeding device comprises a cork or plug 2 which has two glass tubes 3 and 4 placed therein and bent downwardly at each end. On the outer depending leg of the tube 4 there is a plug 6 which plug carries the small glass tube 7 with an end tapered as indicated at 8 said glass tube being slidable up and down the depending leg of the tube 4 to regulate the quantity of fluid forced out of the bottle with each operation of the tank. The toilet tank 9 has the usual float valve 10 and the bottle with the feeding device attached is secured to a small wire rack 11 which is held in the position shown in the tank by means of a metal hook. The operation of the apparatus is as follows: Emptying the toilet tank the pressure of the water will be removed from the tube 7. When the tank is refilled a certain small amount of air will be entrapped in the tube 7 and will be forced up under a low pressure into the bottle 1. This pressure, however, will be sufficient to force out a few drops of the fluid through the tube 3 into the water in the tank and the disinfectant will remain in the toilet tank until it is next discharged. The tube 3 is provided with a fine non-corrodible wire or with a cord, 5, serving to keep the tube 3 full of fluid at all times, by reason of capillary attraction, or, the tube 3 may be capillary bore, to the same end.

Having thus described my invention, what I desire to secure by Letters Patent of the United States is as follows, but modifications may be made in carrying out the invention as shown in the drawing and in the above particularly described form thereof, within the purview of the annexed claim.

I claim:

A device of the class described comprising a bottle adapted to lie on its side above the water level of a flushing tank, a stopper for said bottle, a large tube suspended in said water, a small tube leading from said large tube through said stopper to the lower side of said bottle, a smaller tube extending through said stopper and having its end terminating adjacent said small tube.

In testimony whereof I have hereunto set my hand this 15th day of July, A. D. 1927.

LEWIS D. STONER.