Jan. 13, 1925. 1,522,517

F. A. HASLAR

CONTAINER FOR LIQUID DISINFECTANT OR OTHER LIQUID

Filed Nov. 4, 1922

Fig. 1

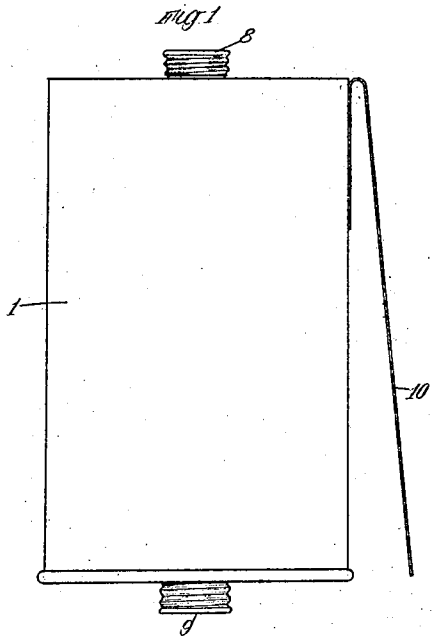


Fig. 2

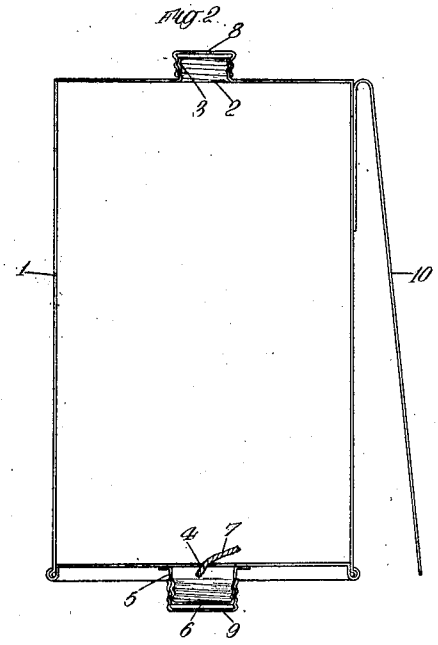
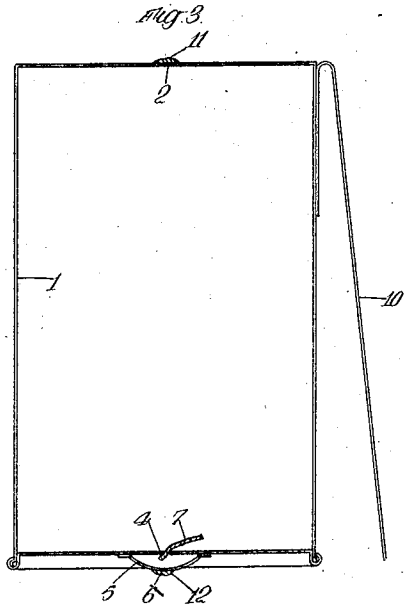


Fig. 3



INVENTOR

F. A. Haslar

by Chas. J. O'Neill

Atty.

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UNITED STATES PATENT OFFICE.

FREDERICK ARCHIBALD HASLAR, OF MAIDA VALE, LONDON, ENGLAND.

CONTAINER FOR LIQUID DISINFECTANT OR OTHER LIQUID.

Application filed November 4, 1922. Serial No. 599,109.

To all whom it may concern:

Be it known that I, FREDERICK ARCHIBALD HASLAR, a subject of the King of Great Britain, residing at 221 Maida Vale, W. 9, in the county of London, England, have invented certain new and useful Improvements in Containers for Liquid Disinfectant or Other Liquid, of which the following is a specification.

This invention relates to liquid disinfectant containers adapted to feed the liquid automatically to flushing cisterns.

A device according to the present invention comprises a containing vessel of any convenient shape, such for example as cylindrical, of any suitable material, such for example as tinplate and of a size so related to the size of the cistern that it may be mounted therein as hereinafter described. The vessel is provided with an opening at its upper end for admission of air which opening may also be used for filling and with another opening at or near its lower end, through which a short length of wick composed or two or three strands of worsted or the like is threaded so that it lies partly within the vessel and partly outside it. The second opening communicates with a chamber formed on the bottom of the containing vessel which chamber encloses the protruding end of the wick and is provided with an external opening at the bottom to allow of the eventual escape of the liquid which percolates slowly through the wick into the chamber. The opening at the top of the containing vessel and the external opening in the chamber are adapted to be closed by removable closing means. Thus in the case of a device formed from tinplate the openings may be small in size so that after filling they may be closed by application of a small quantity of soft solder which can be easily pierced or removed in order to put the device in action. Or, the filling opening may take the form of an externally screw-threaded nozzle and the closure therefor may consist of an internally screw-threaded cap. Similarly the chamber with which the second opening communicates may be externally screw-threaded and the closure of the external opening may be effected by an internally screw-threaded cap adapted to be screwed on to the said chamber. Or, in the case of a more substantially constructed device the first opening and the external opening may be internally screw-threaded to receive screw-threaded plugs, or screw-threaded bushes may be provided to receive such plugs. A short tube acting as a wick holder may if desired be provided at the second orifice.

The device is provided with any suitable means such as hooks or clips for mounting it inside the upper part of a flushing cistern. In use it is mounted in such position that when the cistern is full the level of the water is some distance above the bottom of the device and seals the opening in the chamber, whilst after flushing the level of the water falls below the bottom of the device and uncovers said opening. It has been found in practice that a device as described and mounted in the manner indicated above, feeds a charge of disinfectant to the cistern at each flushing operation and does not, or to any appreciable extent, discharge any of its contents while the cistern is full of water. Apparently the prevention of the discharge of the disinfectant while the cistern is standing full of water is due to the sealing effect of the head of water in which the bottom of the receptacle, including the chamber on said bottom, is submerged and the subsequent discharge of the disinfectant is effected by the sudden decrease in the head of the water in the cistern when the cistern is flushed. That the effect referred to is in fact obtained has been proved indirectly, however, by the fact that the time which elapses before the device is exhausted of its contents is roughly proportional to the frequency of the flushing operations. The provision of the wick threaded through the orifice between the vessel and the chamber on the bottom thereof and lying loosely within said chamber has been found essential to secure the action referred to.

In order that the invention may be clearly understood and readily carried into effect it will now be described more fully with reference to the accompanying drawings which illustrate two constructional forms thereof. In these drawings:—

Figure 1 is an outside elevation and Figure 2 a section of a form wherein the closures consist of internally screw-threaded caps.

Figure 3 is a section of a form wherein the closures each consist of a small quantity of soft solder.

Referring first to Figures 1 and 2, 1 is the containing vessel of cylindrical form

having an air admission and filling opening 2 consisting of an externally screw-threaded nozzle 3. 4 is the second opening in the bottom of the containing vessel this opening communicating with the chamber 5 formed on the bottom of the vessel. 6 is the external opening in the chamber 5 and 7 the wick threaded through the opening 4 so that it lies partly in the containing vessel 1 and partly in the chamber 5. 8 and 9 are internally screw-threaded caps adapted to close the openings 2 and 6 respectively. 10 is a clip by means of which the device may be supported inside a flushing cistern on the upper part of the wall thereof.

In the form shown in Figure 3 the opening 2 for filling and admission of air is made of small size so that it may be readily closed by application of a small quantity 11 of soft solder. Similarly the opening 6 which is preferably of small size in any case is in this form closed by a small quantity 12 of soft solder. These soft solder closures may be readily removed with a knife or pierced with any suitable implement in order to put the device into action. It will be seen that the device described when filled and closed forms a safely marketable article, while at the same time it may be readily put into action by simple removal of the closures.

What I claim and desire to secure by Letters Patent of the United States is:—

A liquid disinfectant container for automatically feeding liquid disinfectant to flushing cisterns, comprising a containing vessel provided with an opening for air admission at its upper end with a second opening at its lower part, and a chamber formed on the outside of the lower part of the vessel provided with an external opening for the escape of the liquid, the second mentioned opening affording communication between the vessel and a wick threaded through the second mentioned opening lying partly in the vessel and partly in the chamber in which latter it lies freely without any constriction by the walls thereof, and removable closing means for sealing the first mentioned opening and the external opening.

FREDERICK ARCHIBALD HASLAR.