R. G. MASON.

LIQUID CONTAINER.

APPLICATION FILED MAR. 11, 1916.

1,230,916. Patented June 26, 1917.

Fig. 1.

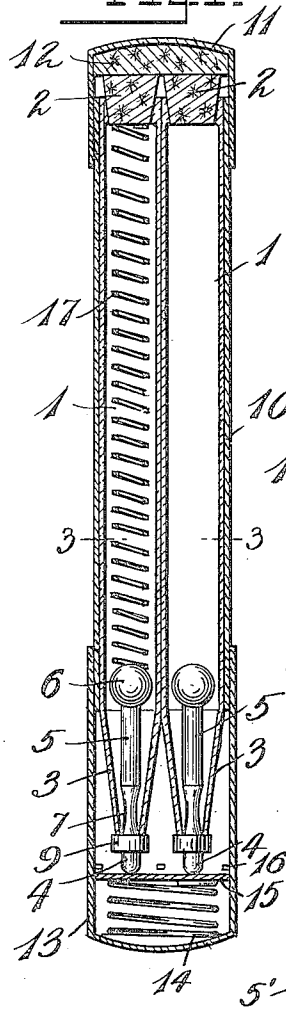


Fig. 2.

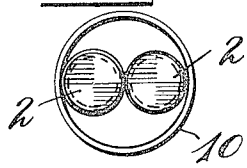


Fig. 3.

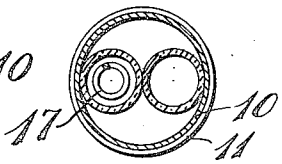


Fig. 4.

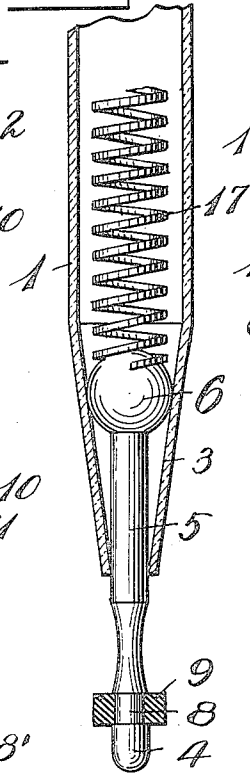


Fig. 5.

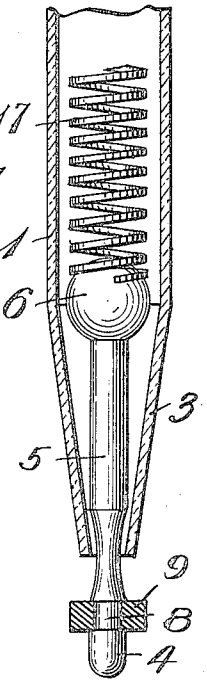


Fig. 6.

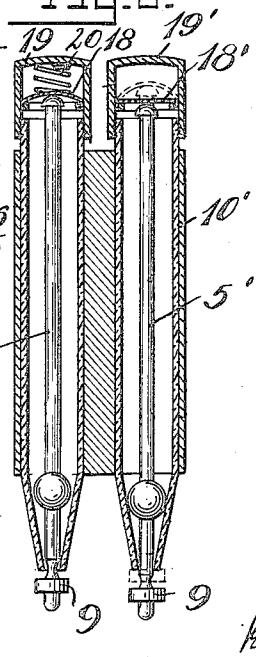
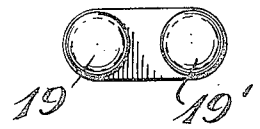


Fig. 7.



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UNITED STATES PATENT OFFICE.

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LIQUID-CONTAINER.

1,230,916. Specification of Letters Patent. Patented June 26, 1917.

Application filed March 11, 1916. Serial No. 83,483.

To all whom it may concern:

Be it known that I, ROBERT G. MASON, a citizen of the United States, residing at Brooklyn, New York, have invented certain new and useful Improvements in Liquid-Containers, of which the following is a full, clear, and exact description.

My invention relates to a valved ink eradicator dispenser and has for its object to provide a container suitable for an ink eradicator liquid or liquids. It further has for its object to provide a container from which the liquid can be conveniently discharged upon the spot to be treated, and will be safe to carry in the pocket. The following is a description of an embodiment of my invention, reference being had to the accompanying drawings in which—

Figure 1 is a longitudinal section of a dispenser embodying my invention.

Fig. 2 is an end elevation of the same with the rear end cap removed.

Fig. 3 is a transverse section on the line 3—3 Fig. 1.

Fig. 4 is a detail showing the position of certain parts when the forward end cap is removed.

Fig. 5 shows the position of the same parts when liquid is being discharged upon a spot to be treated.

Fig. 6 is a longitudinal section of a modification.

Fig. 7 is a plan view of the same.

Referring more particularly to the drawings, 1, 1 are tubular containers of glass or hard rubber having at their rear ends corks 2, 2. These containers have open ended tapered portions 3, 3 in which are valves. These valves consist of glass stems 5, having heads 6 constituting internal ball valves, reduced portions 7 and grooves 8, the valves being always spaced away from the interior of the container at a point between the mouth of said container and said head 6. Within the grooves 8 are soft rubber washers 9 constituting external valves upon the same stems as the ball valves surrounding the tubular containers is a casing 10 of suitable material, such as hard rubber. On the rear end of this casing is a cap 11 having a suitable filling 12, such as cork, resting against the corks 2, 2 when in place. On the forward end of the casing is a cap 13 having a spring 14 and disk 15 whose movement is limited by stops 16. This disk is thus spring pressed against the forward ends of the valve stems when the cap is in place so as to hold the rubber washers 9 against the mouths of the tubular members, preventing access of air to the liquid within and affording a seal against free escape of the liquid.

When the device is to be used the cap 13 is removed and the desired valve is brought into contact with the paper to be treated until the valve stem is moved from the position shown in Fig. 4, in which the reduced portion is outside the tubular container, to the postition shown in Fig. 5 so that the reduced portion will be partially within the tubular container when the liquid will slowly discharge to the paper, the valve stem being then so positioned that the ball valve is unseated and a free passage by it and the reduced portion of the stem is provided. A slight reciprocating motion assists the discharge. The valve stems when pointing downward fall by gravity from the position shown in Fig. 1 to those shown in Figs. 4 and 5. It is desirable, however, to assist the action of gravity by a spring, and in one member of Fig. 1 I have shown a spring 17 for that purpose. One end of this spring bears against the ball 6 and the other against the cork 2. The spring should be made of non-corroding metal or hard rubber. In cleansing the tubular containers the valves can be removed by removing the corks 2, 2′ and the washers 9. The tubular containers are relatively movable within the casing 10 so that one may be extended farther than the other if desired so as to make its valve more accessible.

In the modification shown in Figs. 6 and 7, the valves are provided with long stems 5′ which extend through the containers and bear on flexible diaphragms 18, 18′ in caps 19, 19′. In one of these caps 19 is a spring 20 which acts through the diaphragm upon the valve stem to produce the same effect as the spring in Fig. 1. In the other cap of Fig. 6 the diaphragm in 18′ is made of elastic material which permits the spring to be dispensed with. The caps in Fig. 6 are preferably screwed on to the tubular containers. Upon removing the caps 19, 19′ and the washers 9, the valves can be removed for cleaning. 10′ is a casing of modified form.

I consider the parts to be in normal condition when the cap 13 is removed and the device is ready to be used. The valve heads 6 therefore normally engage the tapering

portions of the containers and the reduced portions 7 are normally outside of the containers, and an unreduced portion of the valve stem is normally within the discharge opening, filling the same.

As will be evident to those skilled in the art, my invention permits of various modifications without departing from the spirit thereof or the scope of the appended claims.

What I claim is,

1. In an ink eradicator dispenser the combination of a tubular container having at its forward end a tapering portion provided with a discharge opening, a reciprocating valve provided with a head normally engaging the upper part of the inner surface of said tapering portion, and also with a stem provided with a portion normally within said opening and filling the same and a reduced portion normally outside of said container, the intermediate part of said tapering portion being spaced apart from said valve at all times so as to provide a chamber within said tapering portion between said head and said opening.

2. In an ink eradicator dispenser, the combination of a tubular container having at its forward end a tapering portion and a discharge opening, a reciprocating valve provided with a head adapted to engage said tapering portion and also with a stem of uniform diameter within said container and provided with a reduced portion normally outside said container and a washer outside of said container and adapted to engage the periphery of said opening, and yielding means for forcing said valve toward the open end of said tubular container.

3. In an ink eradicator dispenser, the combination of two tubular containers, each having at its forward end an opening, a reciprocating valve in each opening provided with a head, and also with a stem provided with a reduced portion normally outside of its container and a washer outside of said container and adapted to engage the periphery of said opening therein, a casing surrounding said tubular containers, and a cap on the forward end of said casing engaging said valve stems and holding said washers in engagement with said openings, said cap having a yielding inner surface engaging the outer ends of said valves.

ROBERT G. MASON.