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BOTTLE DISPENSING CLOSURE

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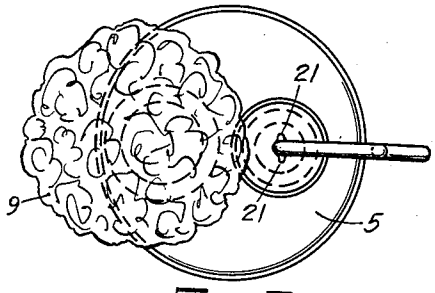


Fig. 2.

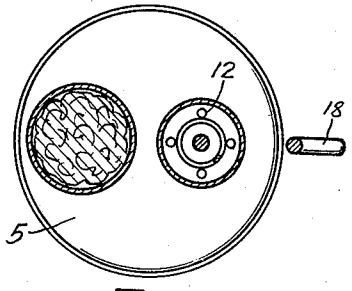


Fig. 3.

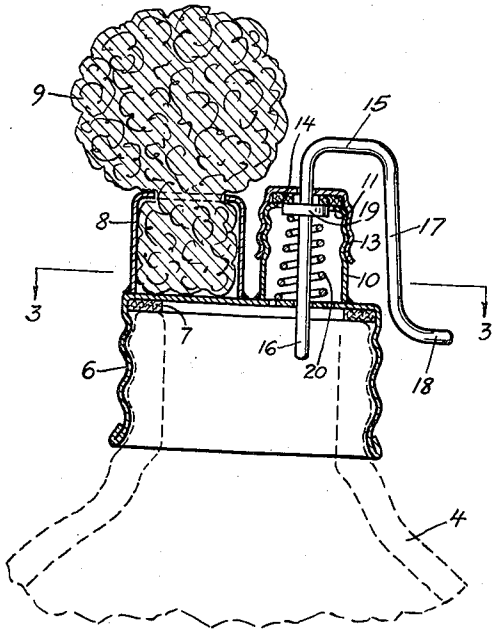


Fig. 1.

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BOTTLE DISPENSING CLOSURE

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3 Claims. (Cl. 15—138)

This invention relates to the art of fountain type closures for bottles or like containers in which there is a fluid adapted to be intermittently supplied to a dauber.

It is an object of this invention to provide a bottle cap or closure adapted to be placed on a standard thread top bottle or like container, the cap containing a dauber and providing separate means for manually controlling the application of fluid from within the bottle or container directly to the upper outside portion of the dauber.

With the above object in view and others, as will appear in the detailed description, the invention comprises the various novel features of construction and arrangement of parts as will be more fully described hereinafter and set forth with particularity in the appended claims.

In the accompanying drawing, which illustrates one embodiment of the invention and in which like reference characters refer to like parts,

Figure 1 is a view in cross section of the fountain cap applied to a container,

Figure 2 is a plan view of the cap shown in Figure 1, and

Figure 3 is a view in section taken on the line 3—3 of Figure 1 looking in the direction of the arrows.

The upper part of a standard type of glass bottle is shown in dotted lines at 4 in Figure 1, the top of the neck of the bottle having the usual outside threads. This bottle is adapted to be filled with any liquid which is to be applied with the aid of a dauber, such for example as a cleaning or a whitening fluid. The dauber and the means for intermittently supplying the liquid from the bottle to the outside of the upper portion of the dauber are a part of the improved bottle cap or closure constituting this invention.

At 5 is shown the cap having the depending threaded flange portion 6 which is threaded onto the bottle top, there being a gasket 7 of any suitable material interposed between the bottle and the cap to insure a tight fit. On the upper outside surface of the cap 5 and to one side thereof there is provided the open end circular container 8 in which a dauber 9 of any suitable material, such as sponge rubber, felt, or a brush may be secured in place. There is no opening in the upper surface of the cap 5 inside the container 8.

Adjacent the container 8 and also secured to the upper outside surface of the cap 5 is the open ended upstanding tube 10 provided with screw threads and having the overhanging lip 11 for a purpose to be described. The holes 12 of any suitable number and size are provided in the upper surface of the cap 5 inside the tube 10 through which the liquid may pass when the bottle is tilted sufficiently. A screw threaded cap 13 is provided with which to close the tube 10, there being provided a gasket 14 of any suitable material between the cap 13 and the overhanging lip 11 previously described.

There is provided a substantially U-shaped metal depressor 15 of circular cross section having the legs 16 and 17, the leg 17 being turned at right angles as at 18 so as to be readily caught by a manual finger action. Secured to the leg 16 is the metal disc 19 which acts as closing valve to shut off the liquid when it is in contact with the gasket 14 under pressure of the coil spring 20. The leg 16 of the depressor is adapted to slide in bearings formed of apertures in the upper portion of the cap 5 in the center of tube 10 and in the center of the smaller cap 13. The opening in the top of tube 10 inside the lip 11 is large enough to admit the spring 20 and the valve 19 and while the opening in the gasket 14 is large enough to permit liquid to pass therethrough when the valve 19 is depressed, it is small enough to be covered by the valve 19 to shut off the supply of the liquid. The coil spring 20 takes against the top of the cap 5 and exerts pressure on the under side of the valve 19, thus normally keeping the opening in the gasket 14 effectively closed. It is to be noted that aperture in the center of the smaller cap 13 which acts as a bearing for the leg 16 of the depressor, is enlarged on opposite sides thereof as shown at 21, 21 whereby the liquid will flow freely through the bearing aperture in the cap 13.

The parts are assembled by first inserting the gasket 14 inside the cap 13 and then inserting the leg 17 of the depressor into and through the aperture in the cap 13, thus bringing the valve 19 adjacent the gasket 14. The coil spring 20 is then placed around the leg 16 and the parts are secured in place by screwing the cap 13 on the tube 10, the leg 16 being placed through the bearing aperture in the cap 5.

It will be noted that normally the closure provides an airtight bottle and in order to supply the dauber 9 with liquid it is only necessary to manually push down the depressor 15 and tilt the bottle, the liquid then flowing through the holes 12 and 21 past the valve 19 onto the outside top part of the dauber 9. With this type of feeding the liquid is applied to the dauber directly at the point where it is needed, and it is not necessary to wastefully saturate the dauber, as in

the case of inside bottom feeding, before the liquid appears at the upper outside portion of the dauber.

We claim:

1. In a dispensing and closure device of the class described, a cup shaped rigid holder adapted to be secured to and overlie the opening of a container to normally provide a liquid tight seal, a tube secured to and projecting from the base of the holder in the direction opposite to the cup shaped portion of the holder, a cap normally closing the free open upper end of said tube, a dauber on said holder base adjacent said tube, perforations in the area of said holder base inside said tube, and manually operable means retained inside said tube by said cap and said base for applying liquid from said container through said cap to said dauber, said means being assembled from the free end of said tube.

2. In a dispensing and closure device of the class described, a cup shaped rigid holder adapted to be secured to and overlie the opening of a container to normally provide a liquid tight seal, two tubes of substantially the same length secured to and projecting from the base of the holder in the direction opposite to the cup shaped portion of the holder, perforations in the area of said holder base inside one of said tubes, a dauber in the other tube, and means inside said first tube manually operable from without for applying liquid from said container to said dauber.

3. In a dispensing and closure device of the class described, a cup shaped rigid holder adapted to be secured to and overlie the opening of a container to normally provide a liquid tight seal, a threaded tube secured to and projecting from the base of the holder in the direction opposite to the cup shaped portion of the holder, a threaded cover for said tube, perforations in the area of said holder base inside said tube, an opening in said cover, a spring controlled valve retained in said tube between and by said holder base and said cover and normally closing said cover opening and means extending from said valve through said cover opening for manually operating said valve.

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