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M. GELFAND

2,376,046

COMBINED BOTTLE CLOSURE AND WICK

Filed Aug. 12, 1944

Fig. 1

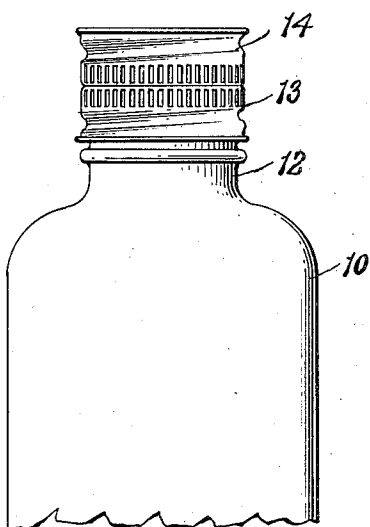


Fig. 2

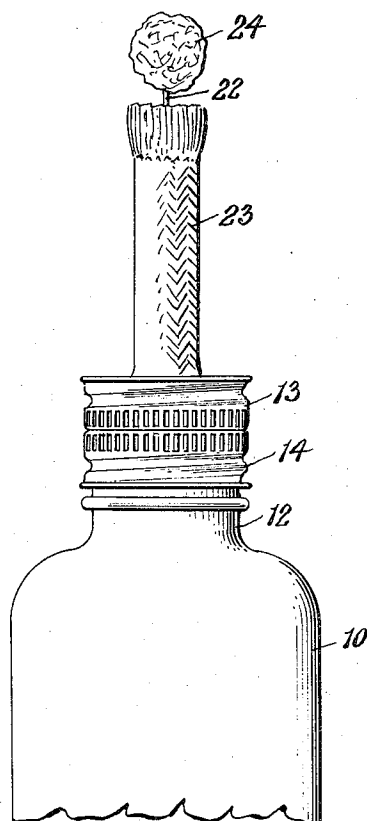


Fig. 3

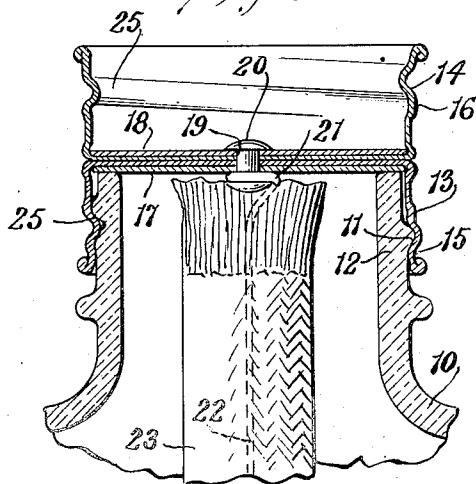
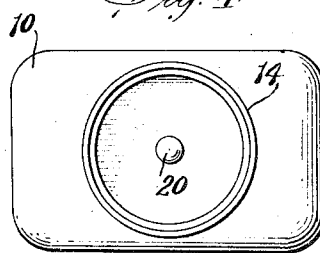


Fig. 4



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UNITED STATES PATENT OFFICE

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COMBINED BOTTLE CLOSURE AND WICK

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3 Claims. (Cl. 299—20)

This invention relates to new and useful improvements in a combined bottle closure and wick element designed primarily, though not exclusively, for treating air for the purpose of removing odors therefrom, by diffusing through the air a suitable chemical which absorbs the undesirable odors and/or disperses a pleasant odor throughout the air. Many chemicals are known having this quality of clearing up undesirable odors in a room, refrigerator, or other closed space, and it has been found expedient to utilize the chemical, perfuming agent, or other liquid, by employing a wick which is saturated with the fluid, and exposing the wick to the area.

In accordance with usual practices, a fibrous wick is placed in a bottle containing the chemical and allowed to extend therefrom. When the odor has been sufficiently removed, the wick is usually returned to the bottle, and the bottle closed by means of a stopper. This arrangement has a number of serious objections. The bottle is frequently inadvertently tipped over and the liquid spilled. Another objection resides in the fact that each time the wick is withdrawn from the bottle, the fingers of the user must be employed in the process, which is messy and inconvenient. Also, during use the stopper becomes mislaid.

One of the principal objects of the present invention is to provide a combined bottle closure and wick wherein a plurality of tight closures are mounted back to back, each one of which effectively seals the fluid within the container. On one of these closures, a wick of novel construction is mounted, such wick having stiffening means which keep the wick erect, as well as mount it securely on the closure. The wick is of sufficient length so that when in inverted position, it extends downwardly to a point at or near the lower wall of the bottle. Thus, when the chemical is not being used, the wick is being thoroughly saturated with the fluid, and the bottle is tightly capped. When, however, the chemical is to be used, the closure is simply unscrewed from the bottle, the wick inverted, and the upper closure now employed to close the bottle and to effectively mount the wick in vertical position. Thus, the danger of spilling the contents by tipping over the bottle is definitely eliminated. The closure mounting the wick has the usual annular flange which acts as a reservoir for the chemical. Accordingly, this reservoir not only acts as a drip pan to collect excess fluid, but also may be employed as a reservoir in case the chemical is to be used over a relatively long period of time,

in which case some of the fluid from the bottle may be poured into the closure before the same is mounted on the bottle.

A further object of the present invention is to provide a device of the character described which is simple and inexpensive in construction, and which is instantly ready for use.

In the drawing:

Fig. 1 is a side elevation of a bottle containing the combined closure and wick of the present invention, the view showing the wick as being concealed within the bottle.

Fig. 2 is a side elevation of the bottle showing the closure in inverted position, and the wick in upright position superimposed above the bottle.

Fig. 3 is a broken, central, vertical section showing the relation of the parts when the wick is positioned within the bottle.

Fig. 4 is a top plan view of the structure illustrated in Fig. 3.

The bottle 10 may be of any conventional construction, and forms no part of the present invention. It may be provided with the usual external threads 11 in the neck portion 12. The closure structure comprises a pair of closure caps 13 and 14, each of which is formed with annular flanges 15 and 16, respectively. The closures may further be provided with sealing discs 17 and 18, respectively. The closures are mounted back to back by forming aligned apertures 19 in the center of the closures, and securing the two closures together by means of a headed rivet 20, or other equivalent element. A wire is wrapped about the head of the rivet adjacent the inner face of closure 13, as shown at 21, before the rivet is secured in place, such wire extending vertically from the face, as indicated at 22. A wick 23, which may be made from cotton or any other absorbent material, is suitably mounted on the wire support and extends substantially the full length thereof. This wick may be generally cylindrical in shape, if desired. At its outer end, wire 22 may have mounted thereon a generally spherical mass of fibrous material 24 which will aid in removing the last contents from the bottle. Each of the flanges 15 and 16 is formed with the usual internal threads 25 which cooperate with threads 11 on the neck of the bottle.

It will be seen from the foregoing that when the wick is not in use, closure cap 13 may be secured on the bottle, with the wick enclosed within the bottle. When, however, the wick is to be used, this closure is removed, and the wick, which is fully saturated with the fluid, is turned upright, as shown in Fig. 2, and closure 14

mounted on the bottle. In view of the fact that the wick will, in all events, have been positioned within the bottle for some time, it is thoroughly saturated with the fluid, and this will normally cause a portion of such fluid to pass downwardly and collect in the tray formed by the flange 15. After a reasonable period of time, the wick will absorb this excess, and, if desired, more fluid from the bottle may be poured within the tray.

The device of the present invention may be employed for diffusing any chemical elements into the atmosphere, and, accordingly, may be used for deodorants, disinfectants, medicinals, and for perfuming agents, or combination of the foregoing.

While one form or embodiment of the invention has been shown and described herein for illustrative purposes, and the construction and arrangement incidental to a specific application thereof have been disclosed and discussed in detail, it is to be understood that the invention is limited neither to the mere details or relative arrangement of parts, nor to its specific embodiment shown herein, but that extensive deviations from the illustrated form or embodiment of the invention may be made, without departing from the principles thereof.

What I claim is:

1. An article of the class described comprising

an imperforate cup member having a main wall and a marginal wall extending therefrom, means on the main wall within the marginal wall in liquid-tight engagement therewith to secure the cup member to a support, and a wick supporting means secured in place by the first mentioned means extending from the cup means and having a wick thereon with one end extending to a point below said marginal wall and relatively close to said main wall.

2. An article of the class described comprising an imperforate cup member having a main wall and a marginal wall extending therefrom, a support, a sealing disk within the cup member, an element within the marginal wall securing the cup member, sealing disk and support together, a wick having one end relatively close to said main wall and extending to a point below said marginal wall, and a supporting means for said wick secured in place by said element.

3. An article of the class described comprising a cup member having a main wall and a marginal wall extending therefrom, a support, a sealing disk within the cup, a rivet within the marginal wall securing the cup member, sealing disk and support together, a wick having one end relatively close to said main wall, and a wire mounting said wick secured in place by said rivet.

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