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DISPENSING CAN FOR CLEANING LIQUID

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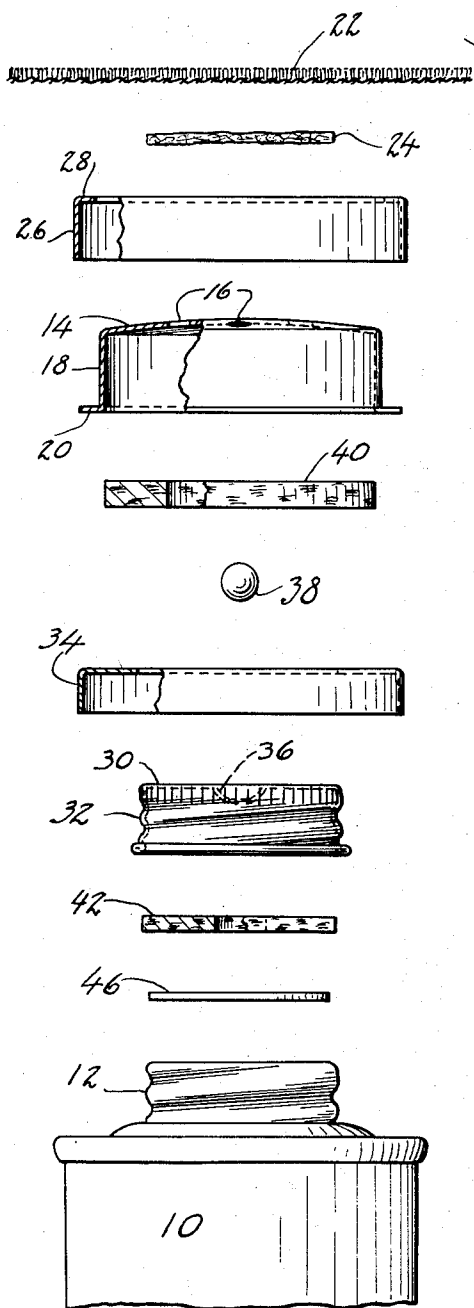
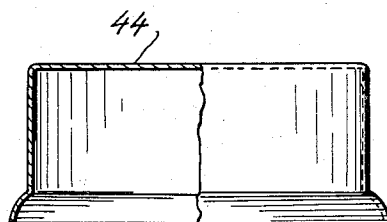


Fig. 3

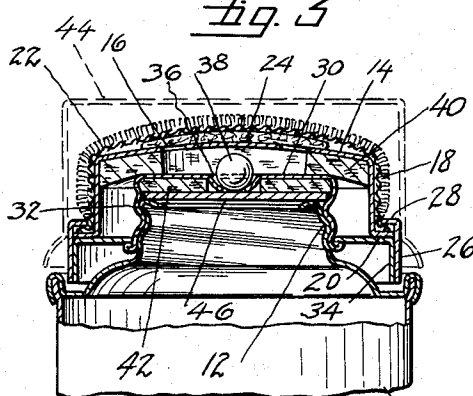


Fig. 2

Fig. 4

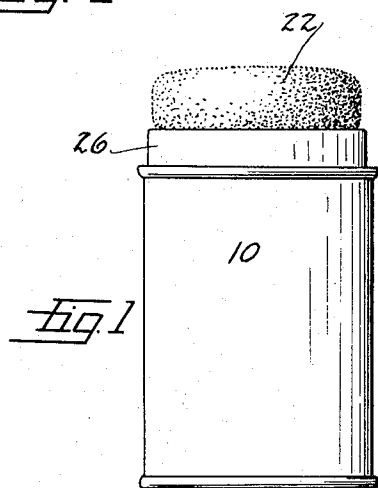


Fig. 1

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DISPENSING CAN FOR CLEANING LIQUID

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6 Claims. (Cl. 15—134)

This invention relates to an improved liquid dispensing can, one particular use for which is the dispensing of liquid cleaning material, which is provided with a wiping or cleaning pad fed with liquid from the can.

An object is to provide a can container of this type which is simple, inexpensive, and readily adaptable for use and wherein the liquid is protected from evaporation. The container structure is such that the liquid may be dispensed for use through the pad without manual adjustment or manipulation of operating parts but merely by tipping over the can to the position of use.

A further object is to provide a can of this character so constructed that the flow of liquid to the pad would be facilitated and yet such flow is so restricted that the pad will not be unduly saturated with liquid.

A meritorious characteristic is the provision of an article of the class described which possesses an attractive appearance and wherein the operating parts are all protected from exposure and which is adaptable to a can of conventional construction.

More specifically, the invention resides in an improved cap adapted for engagement with the threaded neck of a tin can of conventional construction, which cap has a cleaning pad portion of substantially greater diameter than the neck, which cap is provided with valve mechanism which controls the flow of liquid from the can to the pad and it is also provided with a portion engageable with the neck of the can to secure the cap to the can. The cap surmounts the top of the can forming an attractive enclosed dome thereover. The cap is provided with a valve controlled well or compartment of limited capacity which immediately superimposes the neck of the can and is separated from the remaining interior of the cap and which feeds the cleaning pad.

Other objects, advantages, and meritorious features of the improved structure will more fully appear from the following specification, appended claims, and accompanying drawing, wherein:

Figure 1 is an elevation of the can embodying the invention.

Fig. 2 is an enlarged cross-sectional view through the top of the can and cap.

Fig. 3 is an elevation partly broken away of a cover for the cap, and

Fig. 4 is a view showing a portion of the can and the separate elements that go to make up

the can arranged in spaced superimposition as they would be assembled together.

It has heretofore been proposed to provide containers of one type or another with a closure cap fitted with a wiping pad so that cleaning fluid might be fed to the pad and the pad might be available for use as a means for removing spots from clothing or the like. These containers were either of the bottle or can type. The purpose of this improved structure is to provide a cap which is receivable upon a can of conventional construction, which can has a threaded neck of substantially less diameter than the body of the can and which cap is fitted with a wiping pad of substantially greater diameter than the neck of the can and which cap is constructed to close completely over the top of the can and is fitted with valve control means.

In the drawing the can is indicated as 10. The side wall supports a crowned top which carries an upstanding threaded neck of reduced diameter as compared with the top and the can is provided with a marginal bead rising above the adjacent portion of the top.

The improved cap of this invention is assembled from a plurality of parts and comprises a crown portion 14 apertured as at 16 and provided with a skirt 18 having an outwardly turned flange 20. A porous cleaning pad 22 is provided. This may be formed of cloth having a pile, such as shown, so as to form a good wiping and cleaning surface. A piece of felt 24 may also be provided to rest directly over the perforations 16 in the crown 14 underneath the wiping cloth 22. This wiping cloth is secured stretched over the crown 14 by retainer skirt or ring 26 which has a flange 28 that grips the margin of the cloth on the flange 20 of the skirt 18 as shown in Fig. 2.

The cap is provided with a closure element or socket member which has a closure wall 30 that covers the opening in the neck 12 of the can. This element 30 has a skirt portion 32 that engages the threaded neck of the can to secure the cap to the can. There is an angular ring 34 that is secured to the skirt ring 26 and which also is secured to the skirt of the closure 32 as shown in Fig. 2 so as to support the socket element within the cap as shown in such figure of the drawing. This securement may be obtained by soldering, welding, or in any suitable manner.

The closure wall 30 is depressed and apertured as at 36 and a small check valve 38 seats in the depression and closes the aperture controlling the flow of liquid therethrough, all as shown in Fig. 2 of the drawing. There is a sealer ring or

gasket 40 which is arranged between the closure wall 30 within the crown and spaces the crown above the closure wall 30 providing a small compartment or well within which the ball check 38 is positioned for movement.

Received within the socket member is a second sealer ring or gasket 42 that superimposes the neck of the can and forms a tight seal between the closure element and such neck as the parts are screwed tightly together.

In the view of Fig. 2 there is shown a removable cover element 44 which is received over the cap as illustrated in dotted outline. This is to protect the wiping pad and the wall of this cover element has a flaring skirt portion which overhangs the top of the can and would seat close thereover. In this view of Fig. 2 there is also shown a sealing disc 46 which is received within the socket underneath the gasket 42 and which closes the aperture through said gasket in said closure 30 and which is in place while the can is in storage or prior to its reaching the ultimate user, so as to prevent any such evaporation of cleaning fluid. This cleaning fluid is ordinarily quite volatile and evaporation may occur even notwithstanding the valve control. This sealing disc will be removed and put aside by the user.

To use the can for cleaning, the cover 44 is removed and the cap is unscrewed and the sealing disc 46 removed. The cap is then screwed back in place and it seats snugly against the top of the can so as to form a continuous protective dome thereover. Upon inverting the can sufficient fluid will pass out through the valve controlled opening in the closure into the space between the closure and the crown and will pass through the perforations in the crown and through the porous felt 24 and wiping pad 22 to moisten the upper surface of the pad so that it may be used as a cleaning pad to remove spots in the ordinary manner.

The ball check 38 will prevent any excessive evaporation of cleaning fluid when the can is not in use and it also serves because of its permitted play between the crown and the closure cap to facilitate the outflow of liquid. The liquid flows out more readily than it does if the ball is not in place. This may be due to a slight capillary action. The liquid is prevented by the gasket 30 from flowing out from the space between the neck and the skirt of the cap and leaking down over the outer wall of the can. Any liquid that is left unused after the use of the can and which does not flow back into the can through the valve control opening is retained within the compartment between the crown and the closure cap and cannot escape outwardly over the top of the can.

What is claimed:

1. A liquid dispensing container comprising a can having a threaded neck, a cap having a perforated crown provided with a skirt terminating in an outward flange, a porous wiping pad extending over said crown and skirt, a skirt retaining ring forming an extension of the skirt of the crown and receivable thereover and having an interior flange gripping the wiping pad against the outward flange of the crown skirt, a threaded socket supported within said cap spaced inwardly from the skirt and engageable with the neck of the can to secure the cap thereto, such socket having an apertured closure for the neck of the can, an apertured sealing gasket between said socket closure and can neck, an apertured sealer gasket between said crown and socket clo-

sure spacing the crown above said closure and forming a liquid containing compartment therebetween, and a check valve controlling the aperture through said closure.

2. A liquid dispensing container comprising a can having a threaded neck, a cap having a perforated crown of greater diameter than the neck and provided with a skirt adapted to surround the neck and close against the wall of the can therebeyond with the crown surmounting the neck in spaced relationship, a porous wiping pad extending over said crown, said cap provided with an interiorly threaded socket engageable with the neck to secure the cap to the can, said socket having an apertured closure portion adapted to close over the neck spaced below the crown of the cap, and a check valve controlling said aperture, said cap having a portion sealing the space between the closure portion of the socket and the crown from the space between the neck and the skirt of the crown.

3. A liquid dispensing container comprising a can having a top provided with a neck, a cap having a perforated crown provided with a skirt, a porous wiping pad covering said crown, said cap having an apertured closure spaced below the crown and adapted to seat over the neck of the can and provided with a skirt spaced inwardly from the skirt of the crown and engageable with the neck to secure the cap to the can, said cap provided with a part sealing the space between the closure and the crown from the space between the skirt of the closure and the skirt of the crown, and a ball check valve controlling the aperture through said closure.

4. An applicator cap for a liquid dauber comprising, in combination, a part adapted to engage the discharge neck of a receptacle and provided with a restricted valve controlled opening, a second part for wetting surfaces comprising a pair of concentric circular elements of larger diameter than said neck engaging part encircling the latter in spaced relationship and arranged in slightly overlapping relationship, a porous wiping pad extending over the end of one of said elements and around the side thereof and having the marginal edge thereof engaged between the overlapping portions of said elements for securement, and a third element bridging the space between the side of the neck engaging part and the inner sides of the two elements and securing the two parts of the cap together.

5. An applicator cap for a liquid dauber comprising, in combination, a part adapted to engage the discharge neck of a receptacle and provided with a restricted valve controlled opening through which the liquid contents of the receptacle may be discharged, and a second part including a perforated member extending over the neck engaging part in spaced relationship thereto and provided with a circular skirt depending therefrom and encircling the side of the neck engaging part in spaced relationship thereto, a porous wiping pad extending over the perforated member and around the skirt thereof, a ring member partially overlapping upon the lower edge of the skirt and engaging the margin of the porous wiping pad and stretching the same tightly over the perforated member, a circular member in the annular space between said skirt and the side of the neck engaging part and permanently securing the two parts together, and means sealing the space formed between the perforated member and the top of the neck engaging

part from the annular formed space between the skirt and the side of the neck engaging part.

5 6. An applicator cap for a liquid dauber comprising, in combination, an inner part provided with a threaded portion adapted to be screwed
10 upon the outside of an externally threaded neck of a receptacle containing the daubing liquid and further provided with a portion extending over the mouth opening of the neck of the re-
15 ceptacle and closing the latter except for a restricted valve controlled opening in the portion, and an outer part composed of separate elements assembled together and comprising a perforated element extending over the neck engaging part
in spaced relationship thereto and provided with a depending skirt concentrically encircling the neck engaging part in spaced relationship thereto, the lower marginal edge of said skirt terminating in an outwardly directed circular flange,

a ring shaped element of slightly wider diameter than said first element having an inwardly directed circular flange seated on the lateral flange of said first described element, a porous wiping pad extending over the perforated element and
5 around the skirt thereof and having its marginal edge gripped between the flanges of said elements for securement, a third element of slightly less diameter than said second element and engaging the inner surface of the latter,
10 said third element having a radial portion extending inwardly and fixed to the threaded portion of said neck engaging part, said third described element connecting the two parts together and also serving to reinforce the outer
15 part for grasping and turning movements.

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