April 28, 1942. J. D. BECKER 2,281,135

DISPENSER CAP

Filed June 21, 1940

Fig. 1

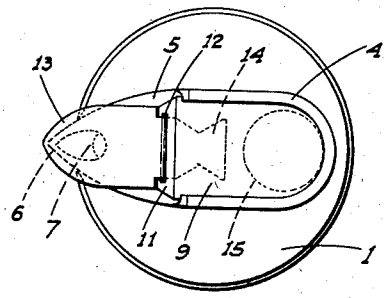


Fig. 2

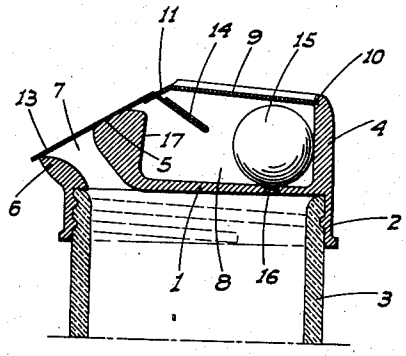


Fig. 3

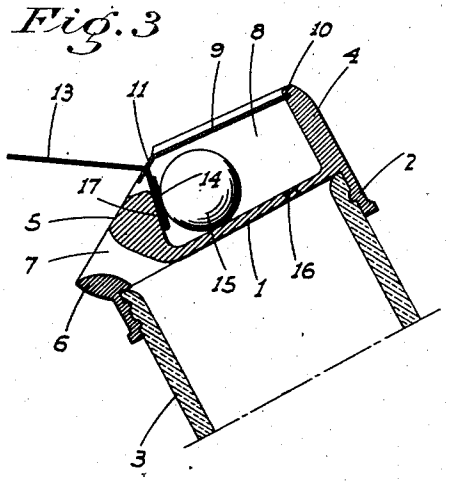


Fig. 4

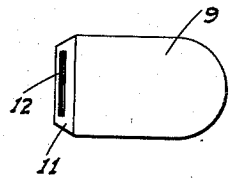
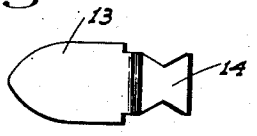


Fig. 5



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DISPENSER CAP

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Application June 21, 1940, Serial No. 341,646

2 Claims. (Cl. 221—13)

This invention relates generally to dispensers for domestic or table use, and in particular the invention is directed to an improved dispensing cap for dispensing receptacles.

The principal object of this invention is to provide a self-opening dispenser cap; such cap having a pouring spout normally closed by a movable flap, such flap having means associated therewith to automatically open the flap upon the dispenser receptacle being titled from a normally upstanding position.

A further object of the invention is to provide a sanitary dispensing cap especially designed for use with a cream server or other liquid dispenser, but which is also admirably suited for use in connection with a dispenser for granular products such as sugar.

Another object of the invention is to provide a dispenser cap which can be readily disassembled for cleansing.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawing similar characters of reference indicate corresponding parts in the several views:

Figure 1 is a top plan view of the improved dispenser cap.

Figure 2 is a sectional elevation of the cap as applied to a dispenser receptacle, illustrating the pouring spout closed.

Figure 3 is a sectional elevation illustrating the cap with the pouring spout open.

Figure 4 is a plan view of the closure plate.

Figure 5 is a plan view of the spout closing flap and actuating tongue.

Referring now more particularly to the characters of reference on the drawing, the device comprises a circular cap 1 formed with a common depending screw collar 2 adapted to removably and threadingly engage the upper end of a receptacle 3.

The cap 1 is formed with an integral, upstanding body 4 which extends diametrally across the upper surface of the cap; such body being of substantial height and elongated. Adjacent one end such body is formed with a downwardly and outwardly sloping face 5 which tapers in plan toward its outer end which forms an overhanging pouring lip 6. An upwardly and outwardly sloping opening 7 extends through the body 4 to a point adjacent lip 6 with which it forms a pouring spout; the inner end of said opening 7 being in communication with the interior of receptacle 3.

The upstanding elongated body 4 is formed with a relatively deep trough or groove 8 which extends longitudinally in said body in upwardly opening relation. A closure plate 9 is removably but frictionally engaged in a channel 10 which extends about the groove 8 adjacent the top thereof; said closure plate engaging in said channel from the end of groove 8 adjacent the pouring spout. At such end the closure plate 9 is formed with a downwardly angled flange 11 having a transverse slot 12 cut therethrough. A closure flap 13 normally rests of its own weight flush against the face 5, closing the outer end of passage 7 and overlying lip 6. The rear end of flap 13 is formed with a rearwardly projecting tongue 14 which hingingly extends through slot 12 and projects into groove 8 at a downward and rearward slope, and at an acute angle to flap 13. The tongue has a relatively loose fit in slot 12 so that the flap may swing freely up and down relative to face 5. The portion of the tongue 14 within the groove 8 is of substantial thickness to prevent escape of the tongue through said groove, this being accomplished by initially forming said tongue of substantially double length and folding the same in half, as clearly shown in Fig. 2.

A relatively heavy ball 15, such as a glass marble, is disposed in groove 8 and normally rests in the end of said groove most remote from the pouring spout, and spaced from the tongue 14 of flap 13; said ball normally being seated on a bleed hole 16 extending through cap 1 into receptacle 3. The tongue 14 is of such length that it projects into the path of movement of the ball in said groove.

When the receptacle 3 is disposed vertically, the flap 3 closes passage 7 and ball 15 closes bleed hole 16. However, upon the receptacle 3 being tilted in a direction to pour the contents thereof through passage 7 and over pouring lip 6, the ball 15 rolls toward the opposite end 17 of groove 8. With such movement of the ball it strikes tongue 14 and swings the same into abutment with said end 17 of groove 8, causing the flap 13 to swing away from the pouring lip 6 whereby to open the pouring spout. In addition air then bleeds through hole 16 into receptacle 3, preventing any tendency to vacuum. Upon the receptacle being returned to a normal vertical position, ball 15 rolls away from end 17

of groove 8, retracting from tongue 14 and permitting flap 7 to return to a normal closed position.

In order to cleanse the above described dispenser cap, the closure plate 8 is drawn out of channel 10, taking with it flap 13 and tongue 14. Thereupon the ball 15 may be removed from groove 8 and all of the parts properly cleaned and the device then reassembled.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and useful and desire to secure by Letters Patent is:

1. In a dispenser cap having a pouring opening therethrough, a flap normally closing said opening, the cap having an upwardly opening elongated groove therein extending diametrally from adjacent said opening, a closure plate on the cap and enclosing the groove adjacent the top thereof, said plate having a transverse slot therein adjacent said opening, a tongue on said flap projecting through the slot into the groove transversely of the length thereof, and a ball disposed in the groove between said tongue and the end of the groove opposite said pouring opening; the flap, tongue, and closure plate being removable from the cap as a unit.

2. In a dispenser cap having a pouring opening therethrough, a flap normally closing said opening, the cap having a groove therein adjacent said opening, a ball normally disposed in said groove adjacent one end thereof, and means mounting said flap for movement away from said opening, said means including an actuating element projecting into the groove adjacent its other end and positioned to be engaged and moved by said ball upon tilting of the cap and rolling movement of the ball toward said other end of the groove, the cap being formed with a bleed hole therethrough from the groove, and the ball when disposed in said one end of the groove being seated on and closing said bleed hole.

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