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L. R. SCHIEFER

1,998,847

CLOSURE FOR COLLAPSIBLE CONTAINERS

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Fig 1.

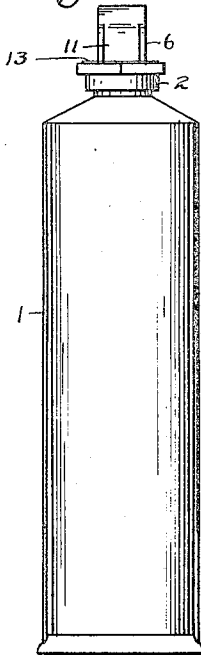


Fig 2.

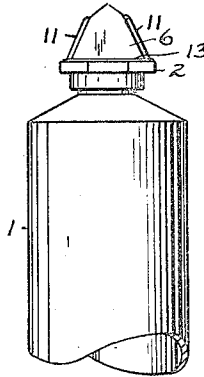


Fig 3.

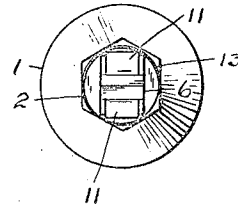


Fig 4.

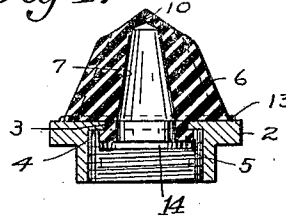


Fig 5.

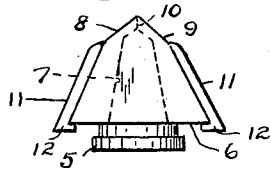
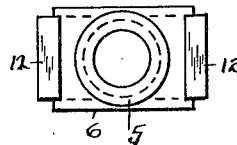


Fig 6.



INVENTOR
L. R. Schiefer
BY
Elmer M. Hulst

ATTORNEY

UNITED STATES PATENT OFFICE

1,998,847

CLOSURE FOR COLLAPSIBLE CONTAINERS

Lawrence R. Schiefer, Fort Wayne, Ind.

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5 Claims. (Cl. 221—60)

The invention relates to closures for collapsible containers and particularly to closures for collapsible tubes containing shaving cream, tooth paste and the like.

5 The object of the invention is to provide a closure for collapsible tubes which will seal the tube against the entrance of air or unauthorized discharge of the contents therefrom and which will cause the contents to discharge in the form of a ribbon or other selected form.

10 The invention consists of a flexible cap attachable or fixed on a collapsible container and having a self closing opening through which the contents may be discharged.

15 The invention is illustrated in the accompanying drawing in which

Figure 1 is an elevational view of a collapsible container having the invention applied thereto.

Fig. 2 is an elevational view of the container taken at a right angle to Figure 1.

Fig. 3 is a plan view of the container.

Fig. 4 is a cross-section of the closure.

Fig. 5 is an elevational view of the flexible cap and Fig. 6 is a bottom plan view of the cap.

25 Referring to the illustrative embodiment of the invention, the container 1 is in the form of a collapsible tube and 2 is a capholder that is, in the present embodiment, threaded on the upper end of the tube. An opening 3 is formed in the top of the holder leaving an annular shoulder 4 about the opening under which an annular flange 5 on the lower end of the cap 6 may revolvably engage.

30 The cap 6 is formed of suitable rubber or any other flexible or resilient material, and a cavity 7 is formed in the body of the cap, the portion thereof which is above the holder 2 being tapered upwardly. Preferably two opposite outer walls 8, 9 of the cap slope upwardly toward each other, and an opening 10 is formed at a selected point such as at the junction of the two walls 8, 9. A rib 11 is formed on each wall 8, 9 and its lower end is extended below the lower edge of said wall so that when the cap is mounted in the holder the extensions 12 are crowded against the holder and tend to force the upper ends of the walls 8, 9 toward each other and thereby maintain the opening in closed position. An annular bead 13 is formed on the top surface of the holder against which the extensions 12 abut so that continuous longitudinal pressure on the walls 8, 9 will occur.

45 When the container is compressed the material within it is forced into the cap causing the opening 10 to open and permit the material to discharge preferably in the form of a ribbon. This opening movement is opposed by the resilience or flexibility of the material of the cap and by the outward pressure of the contents on the walls of the cap.

50 Initially a disk 14 is placed in the holder to prevent escape of the contents during storage and

shipping. This disk is removed by the user and the capholder with the cap therein is restored on the container. The cap may be rotated so that the sides 8, 9 thereof will line up with the front and rear sides of the container and thereby add materially to the ease of discharging the contents where desired.

What I claim is:

1. A closure for collapsible containers comprising a holder engageable on the container and having an opening therein and a shoulder surrounding the opening, a resilient cap having a cavity therein, a flange on the lower end of the cap revolvably engaged under the shoulder, two opposite sides of the cap being inclined toward each other and having extensions at the lower end thereof which crowd against the holder and an opening in the upper portion of the cap.

2. A closure for collapsible containers comprising a holder having an opening therein and a shoulder about the opening at one end thereof, a resilient cap having a cavity therein, the lower end of the cap being revolvably engaged under the shoulder, two opposite sides of the cap being inclined toward each other, an opening at the juncture of said sides and ribs on said sides extending below the lower end of said sides and tending to cause said sides to maintain the opening in the upper end in closed position.

3. A closure for collapsible containers comprising a holder having an opening therein, a resilient cap engaged in said opening and having a cavity therein communicating with the opening, two opposite sides of the cap being inclined toward each other, and a rib on each of said opposite sides extending toward the top thereof and projecting below the lower end thereof, the cap having a normally closed opening in its top, and a bead on the holder engaged by projecting portions of the ribs.

4. A closure for collapsible containers comprising an apertured holder engageable on the container, a resilient cap revolvably engaged in the apertured holder and having a tapered cavity therein communicating with the apertured holder and also having a slit in its upper end forming a communication between the cavity and the exterior of the cap, two opposite side walls of the cap sloping toward the slit and longitudinal ribs on the exterior of said side walls and extending below the lower end thereof.

5. A closure for collapsible containers comprising a resilient cap having a downwardly opening cavity therein and a transverse slit in its top, two opposite side walls of the cap having portions extending below the remaining walls and the upper portions of said opposite walls being sloped toward each other to said slit, and means to support the cap on the container.

LAWRENCE R. SCHIEFER.