

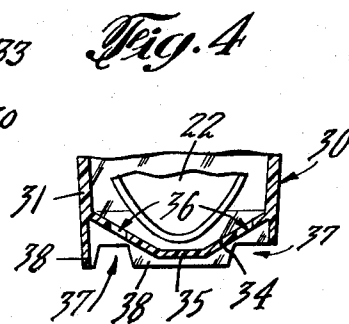
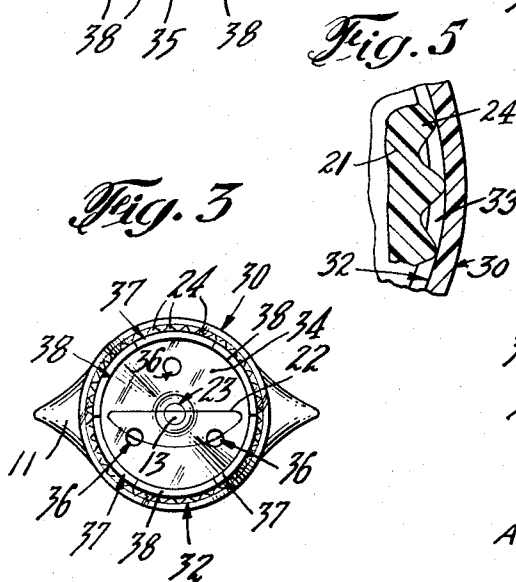
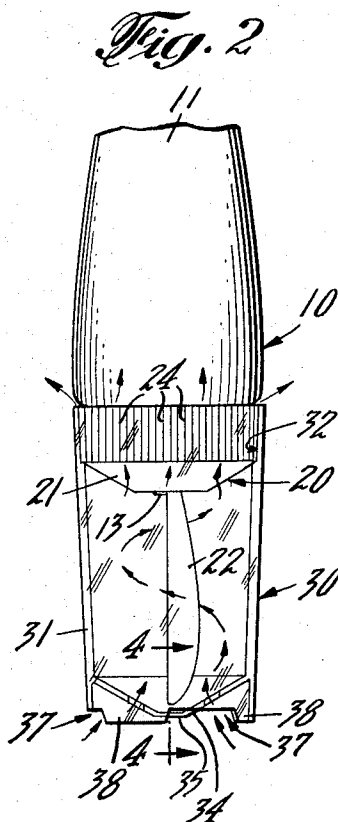
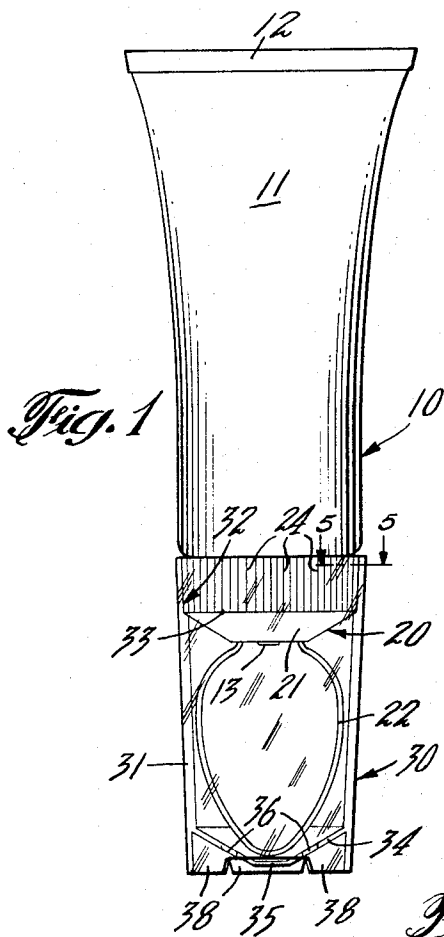
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DISPENSING CONTAINER AND OVERCAP

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3,383,018

DISPENSING CONTAINER AND OVERCAP
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ABSTRACT OF THE DISCLOSURE

A dispensing container having a dispensing element attached to a closure and a detachable overcap telescopically fitted to the closure to enclose the dispensing element. The closure is provided with spaced serrations on its peripheral surface which are frictionally received within one end of the overcap to hold the members together. The overcap adjacent its other end has a transverse perforate wall which, in cooperation with the spaces between the serrations at the telescoped connection on the closure, enables air to circulate through the interior of the overcap.

This invention relates to a squeeze container with a special dispenser, and more particularly to a dispenser unit with a snap-on overcap which enables easy use and cleansing care of the dispenser.

The concept of a squeeze container with attached dispenser is not new. For example, collapsible squeeze tubes having special closures with various forms of applicators, brushes or other dispensers affixed thereto are quite common today. One such device is disclosed in U.S. Patent No. 3,104,032 to H. M. Hansen. Such dispensers are used for such products as infant foods, oral medicaments and other products intended for oral human consumption.

This invention specifically relates to a combination of a squeeze container-dispenser unit and snap-on overcap which enables proper cleansing and drying of the dispenser element between uses.

An object of this invention is the provision of a collapsible tube-dispenser unit having a snap-on overcap which protects the dispenser between usage and enables the dispenser to be cleaned and dried.

Another object of this invention is the provision of a collapsible tube-dispenser unit in combination with a manually removable overcap wherein the overcap is constructed to facilitate drying of the dispenser after each use.

Referring to the drawings:

FIGURE 1 is a front elevational view of an illustrative embodiment of the instant invention.

FIGURE 2 is a partial side elevational view.

FIGURE 3 is a bottom end view.

FIGURE 4 is a sectional view taken substantially along line 4-4 of FIGURE 2; and

FIGURE 5 is a sectional view taken substantially along line 5-5 of FIGURE 1.

In FIGURE 1, showing a preferred or exemplary embodiment of this invention, there is illustrated a dispensing unit comprising a collapsible tube generally designated 10, a spoon dispensing closure generally designated 20, and a snap-on overcap generally designated 30.

Tube 10 is a standard collapsible tube, either of metal, plastic or plastic-foil construction, and comprises a squeezable body 11 and an end seal 12 which is formed after a product has been placed in the tube. The end of the tube opposite seal 12 is provided with a headpiece (not shown) which is usually threaded to receive a threaded closure, such as closure 20.

Closure 20 comprises an internally threaded cap member 21 which is threadably engaged on the neck of tube

10 and a dispensing member 22 integrally mounted on cap 21 and into which the contents of the tube 10 may be dispensed in desired dosage. In the device illustrated, member 22 is a spoon for mouth feeding and is provided with an aperture 23 at its base end which coacts with a plug formation 13 on the head end of tube 10 to provide open and closed positions on rotation of the closure 20.

It will be understood that closure 20 may be a form of dispenser other than the spoon-type here illustrated (e.g. applicator brush or sponge, denture brush, etc.) and that member 21 may be of different construction and attached to tube 10 by any one of several conventional types of attachment. For the purpose of this invention, the term "dispensing member" means any device by which the product of the container is dispensed or applied for its intended use, either directly into the dispensing member, such as spoon 22 for dispensing directly into the human mouth, or indirectly as, for example, an applicator brush for applying a dose of the product to some work area after its removal from the container. In either case, it will be understood that the product may be introduced to the dispensing member directly from the container through a suitable communication passage, such as aperture 23 as illustrated, or by pouring from the container into the dispenser or onto a work surface to be treated.

The outer surface of member 21 is provided with fine serrations 24 which enable slip-free twisting of the closure. These serrations perform a further important function in the instant invention in connection with the overcap 30, in a manner to be described hereinafter.

Overcap 30, illustrated in the drawings as transparent, is frictionally engaged on closure member 21 and encloses the spoon dispenser 22. As shown, overcap 30 functions as a standup pedestal whereby the dispenser unit may be disposed in an upright position. A side wall 31 of the overcap is provided with a stepped smooth interior wall 32 at its upper end which fits over and frictionally receives the serrations 24 on closure member 21. Stepped wall 32 terminates in a lower shoulder 33 against which the peaks of serrations 24 at their lower end may rest, as shown in enlarged scale in FIGURE 5, thus limiting the extent of axial engagement between serrations 24 and stepped wall 32.

The lower end of overcap 30 is provided with a generally transverse wall having an annular conical section 34 and a planar portion 35, as best illustrated in FIGURE 4. Conical section 34 is provided with spaced perforations 36 substantially intermediate its junction with planar portion 35 and upright wall 31. Wall 31 extends below transverse wall members 34-35 and is cut away adjacent its bottom end to provide alternating spaced cutouts 37 and pedestal legs 38.

It will be seen, particularly from an examination of FIGURE 4, that inwardly of perforations 36 there is provided a dish-shaped section made up of planar portion 35 and the innermost portion of conical section 34. This provides a catch basin for drainage from spoon member 22. For example, for sanitary reasons, it is desirable after each use that spoon member 22 be washed in hot water as is customary for other utensils used for oral ingestion of food, medicine and the like. Overcap 30 can be replaced immediately after water cleansing of the spoon and the entire package is then put away in upright position. Any water remaining on spoon 22 will drain into the catch basin immediately below its tip. The rather small collection of water will evaporate away by reason of air circulating through spaces 37, apertures 36 and the spaces between stepped wall 32 and serrations 24, as illustrated by the arrows in FIGURE 2. To maintain the flow of circulating air, it is important that the upper end of overcap 30 not be sealed tightly against the end wall

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of tube 19. For this reason, shoulder 33 is provided on the inside of the overcap to insure that air flow space is maintained between the upper end of the overcap and the end wall of the tube.

It goes without saying that the described invention has utility for other dispensing devices in addition to the spoon-on-tube dispenser here illustrated. For example, the dispenser may be a brush or scrubbing device attached to a container of denture powder or paste. In such an application where the brush is wetted during use, it will be seen that the instant invention will permit the collection and gradual evaporation of moisture from the brush during the period of storage between each use. The same advantages are foreseen for such applications as shaving brushes, cosmetic applicators and many other types of dispensers.

It is thought that the invention and many of its attendant advantages will be understood from the foregoing description and it will be apparent that various changes may be made in the form, construction, and arrangement of the parts without departing from the spirit and scope of the invention or sacrificing all of its material advantages, the form hereinbefore described being merely a preferred embodiment thereof.

I claim:

1. A dispensing container with means providing for the dissipating of moisture as an incident to use or cleansing, comprising a container body, a closure on said body having a dispensing member attached thereto, and an overcap detachably connected at one end to said closure and enclosing said dispensing member, said closure and over-

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cap having telescoping surfaces at their connection providing interrupted frictional engagement, said overcap having at its other end circumferentially spaced legs for supporting said container in stand-up position and a transverse perforate wall spaced from said legs.

2. The container of claim 1 wherein said transverse perforate wall is dish shaped and includes a central imperforate depression for collecting moisture drained from said dispensing member.

3. The container of claim 2 wherein one of said telescoping surfaces consists of spaced serrations which frictionally engage the other of said surfaces, said spaced serrations providing communication through said connection whereby air entering the interior of said overcap through the spaces between said support legs and said perforate wall may escape through the spaces between said serrations.

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