

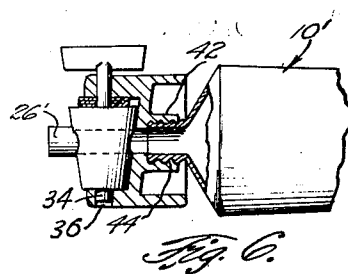
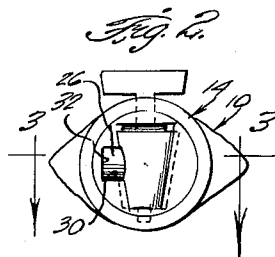
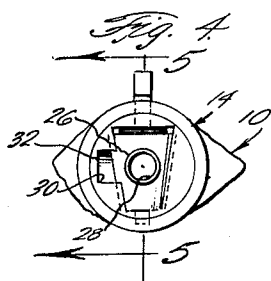
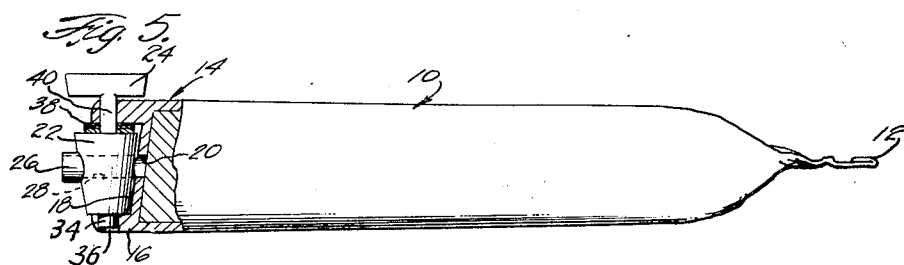
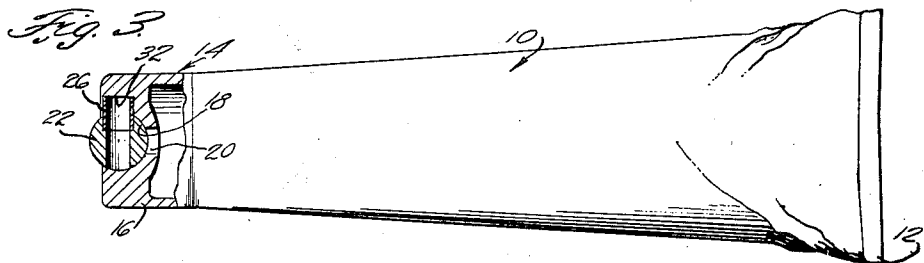
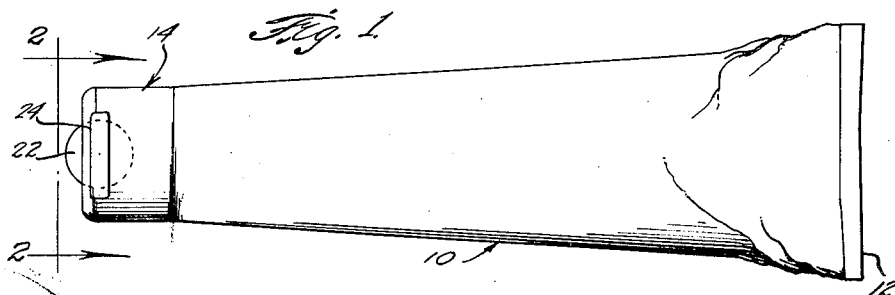
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DISPENSING CAP FOR TUBULAR CONTAINERS

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DISPENSING CAP FOR TUBULAR CONTAINERS
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The present invention relates to a dispensing cap for a tubular container such as employed for hand creams, toothpaste or the like.

Many materials such as toothpaste, glue, hand lotion, shaving cream and the like are dispensed from foldable or tubes which roll up from one end to eject the contents from the other end. The dispensing end of such tubes is normally closed by a screw cap which is frequently lost or misplaced when the tube is in use, thereby permitting the material within the tube to be exposed to the air and to be subject to drying, spoiling, and the like by such exposure.

An object of the present invention therefore is to provide a dispensing cap for such a tube which is either formed integrally with the tube or is provided with screw threads for attachment to a tube after removal of the usual cap, the dispenser having means for shutting off the flow of the material from the tube when desired.

Another object of the present invention is to provide a dispensing cap for a tubular container which by its action when moved from the open to closed position cleans itself of any material exteriorly of the dispenser thereby presenting a clean nozzle for the next use.

A further object of the present invention is to provide a dispensing cap for a tubular container which is simple in structure, one sturdy in construction, one which may be manufactured in quantity at reasonable costs, and one which is highly effective in action.

These and other objects and advantages of the present invention will be fully apparent from the following description when taken in connection with the annexed drawing, in which:

FIGURE 1 is a plan view of a tubular container with the dispenser of the present invention installed thereon,

FIGURE 2 is a view taken on the line 2—2 of FIGURE 1,

FIGURE 3 is a view taken on the line 3—3 of FIGURE 2 with a portion broken away,

FIGURE 4 is a view similar to FIGURE 2 showing the dispenser in open condition,

FIGURE 5 is a view taken on the line 5—5 of FIGURE 4 with a portion of the dispenser broken away, and

FIGURE 6 is a fragmentary view partially in section similar to FIGURE 5 showing a modified form of the invention.

With reference to the drawing in detail in FIGURES 1 to 5, the reference numeral 10 designates generally a collapsible tube of the type commonly employed to contain toothpaste or the like, the tube normally being filled from the larger end 12 which is then folded over and sealed in a conventional manner.

The dispensing cap or nozzle of the present invention is designated generally by the reference numeral 14 and it consists in a body 16 formed integrally with the tube 10 and having a recess 18 opening outwardly therefrom.

An aperture 20 in the body 16 permits communication between the interior of the tube 10 and the recess 18.

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Within the recess 18 is a tapered plug 22 having a handle 24 on one end thereof. The handle 24 is exteriorly of the body 16 as shown most clearly in FIGURES 1 and 5.

The plug 22 is formed with a nozzle 26 and the plug 22 has a bore 28 which permits communication between the aperture 20 and the nozzle 26 when the plug 22 is turned so that the handle 24 is parallel to the longitudinal axis of the tube 10, as shown in FIGURES 4 and 5.

A feature of the invention resides in the provision of a recess 30 extending transversely of the main recess 18 and being of a shape and size with an end wall or bottom 32 which receives the free edge portion of a nozzle 26 when the plug 22 is turned to the closed position shown in FIGURES 2 and 3. This recessed bottom 32 tightly receives the nozzle 26 so as to wipe on the edge of the bottom 32 any material exteriorly of and carried by the nozzle 26.

The plug 22 is formed with a projection 34 received in a suitably shaped cavity 36 in the body 16 and friction washers 38 surround the stem 40 which connects the handle 24 to the body of the plug 22.

It will be seen therefore that the plug 22 serves as a stop valve for the tube 10 and that it may be formed integrally with the tube 10 or, as in the embodiment shown in FIGURE 6, it may be provided with a threaded neck 42 for attachment to the threaded end portion 44 of the tube 10'.

The use of the dispenser of the present invention is obvious. Upon turning of the handle 24 the contents of the tube 10, 10', may be ejected through the respective nozzle 26, 26'.

It will be seen therefore that the device of the present invention provides a means for dispensing fluent material such as toothpaste, glue, paint, and the like without waste and without, when the tube is not in use, permitting the material to dry by failure to cap the end of the tube as is common with present day dispensers.

The present invention provides a combined spout and valve for the collapsible tube 10, 10', and while only preferred embodiments of the invention are shown other embodiments are contemplated and numerous changes and modifications may be made therein without departing from the spirit of the invention as set forth in the appended claims.

What is claimed is:

1. A combined spout and valve for a tubular container comprising a body adapted for attachment to one end of said container, there being a first recess in said body, an aperture in said body connecting the interior of said container with said recess when said body is on said container end, a rotatable plug in said first recess, said plug having a bore extending therethrough, there being an open sided second recess opening into said first recess, a nozzle projecting from said plug, said nozzle being connected in communication with said bore, and a handle on one end of said plug, said nozzle being conformably shaped to said second recess and being movable into and out of said second recess responsive to rotary movement of said plug and said second recess having an end wall for receiving the free edge portion of said nozzle when the nozzle has been moved into said second recess, said end wall wiping clean the free edge portion of said nozzle.

2. A combined spout and valve for a tubular container comprising a body adapted for attachment to one end of said container, there being a first recess in said body, an aperture in said body connecting the interior of said container with said first recess when said body is on said container end, a tapered rotatable plug in said first recess, said plug having a bore extending transversely there-through, there being an open sided second recess opening into said first recess, a nozzle projecting from said plug intermediate the ends thereof, said nozzle being connected in communication with said bore, and a handle on one end of said plug, said nozzle being conformably shaped to said second recess and being movable into and out of said second recess responsive to rotary movement of said plug and said second recess having an end wall for receiving the free edge portion of said nozzle when the nozzle

has been moved into said second recess, said end wall wiping clean the free edge portion of said nozzle.

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