

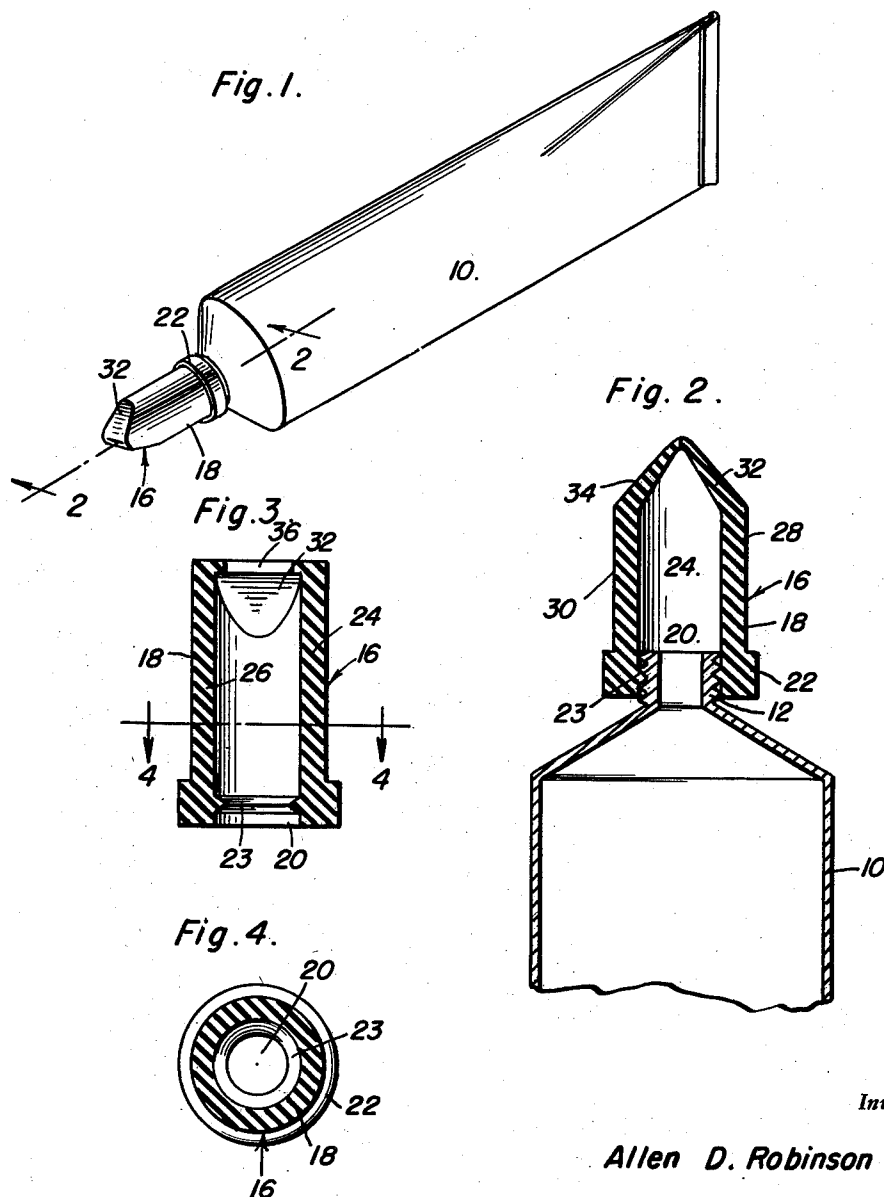
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2,569,073

PASTE APPLIER WITH SELF-CLOSING VALVE

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PASTE APPLIER WITH SELF-CLOSING VALVE

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1 Claim. (Cl. 222-490)

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This invention relates to a dispensing cap or closure for collapsible tubes and has for its primary object to avoid loss of material and to enable the material to be dispensed in a controlled manner.

Another important object of this invention is to provide a flexible dispensing cap that is inexpensively and simply constructed and is easily secured and locked on the externally threaded neck of a tube. These and ancillary objects and structural features of merit are attained by this invention, the preferred embodiment of which are set forth in the accompanying drawing, wherein:

Figure 1 is a perspective view of a conventional collapsible tube having a dispersing cap, constructed in accordance with the teaching of this invention, secured on the neck thereof;

Figure 2 is a longitudinal sectional view taken on line 2-2 of Figure 1;

Figure 3 is a longitudinal vertical sectional view of the cap, and,

Figure 4 is a transverse sectional view taken on line 4-4 of Figure 3.

Referring now to the drawing, the collapsible tube 10 is of conventional structure and includes an axially reduced externally threaded end or neck 12, upon which is conventionally threaded a closure cap. This invention, generally indicated as at 16, is constructed and designed to replace the conventional cap and preforms the additional function of enabling the material to be dispensed by collapsing the side walls of the tube without removal of the cap 16. The cap 16 is formed from rubber or similar material and includes a cylindrical sleeve or tubular member 18 having an open end 20. An external laterally projecting reinforcing shoulder 22 is circumferentially formed on the outer wall of the member 18 at the open end 20 to strengthen that end which is concentrically disposed on the neck 12 of the tube. A V-shaped annular locking rib 23 extends laterally of the inner wall of the member in alignment with the shoulder and is adapted to frictionally seat in one of the threads on the neck 12 thereby locking the cap on the tube in a secure and air-tight manner. Opposing side walls 24 and 26 of the member extend parallel the entire length of the member while walls 28 and 30 are formed with inwardly inclined flat ends 32 and 34. The ends 32 and 34 are integrally disposed between the parallel ends of the walls 24 and 26 and are spaced at their inner converging ends to form a slit 36 which is normally closed and is opened by the pressure of the material as the side walls of the tube are collapsed.

The walls constituting the member 18 are flat and parallel to each other except for the flat

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inclined extremities defining the dispensing end of the cap, the extremities being divided by the slit 36 which extends substantially the full diameter of the member.

In operation, the member is locked on the neck of a collapsible tube by the reinforced end having the locking rib. The ends 32 and 34 are normally together but are spread apart by the pressure of the material to allow the same to pass through the slit 36. The cap functions as a valve to prevent the escape of material upon release of the side walls and also as an air-tight closure member.

Having thus described the invention, what is claimed as new is:

A rubber dispensing cap for the threaded neck of a collapsible tube comprising a cylindrical sleeve of flexible material and having parallel side walls and opposing ends, one of said ends being open in alignment with the side walls, a circumferentially disposed annular reinforcing shoulder on the outer surface of the walls adjacent said end and of a length substantially equal to that portion of the threaded neck that the cap is adapted to engage whereby the cap may be gripped for positioning on said portion, an internal annular laterally projecting locking rib on the walls at said end whereby the sleeve may be locked on the threaded neck of a tube, flat, outwardly extending, inwardly inclined end portions on said parallel side walls at the other end of said sleeve, said end portions meeting at their outer extremities, so that they form a slotted opening when said extremities separate in response to the application of pressure on the walls of said collapsible tube, and permit the semi-fluid material in said tube to flow through said slotted opening.

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