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R. C. RUPP

2,232,140

COMBINED CONTAINER AND APPLICATOR

Filed Aug. 22, 1938

Fig. 1.

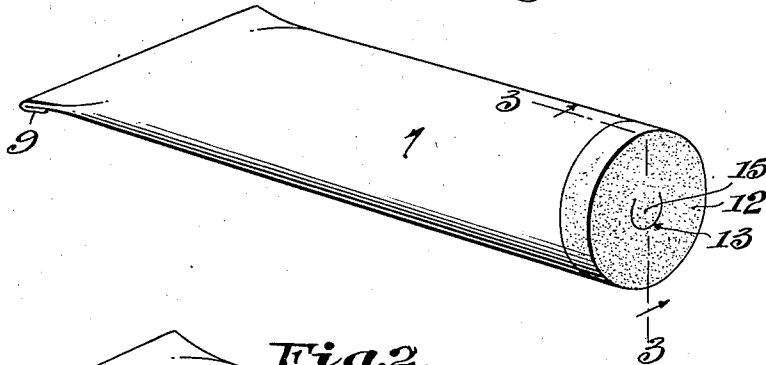


Fig. 2.

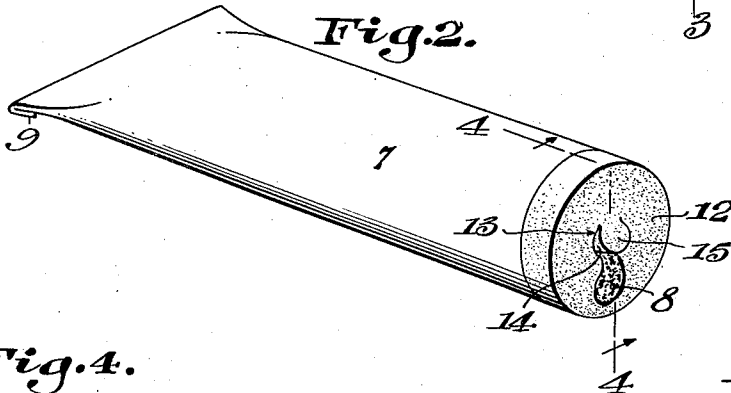


Fig. 4.

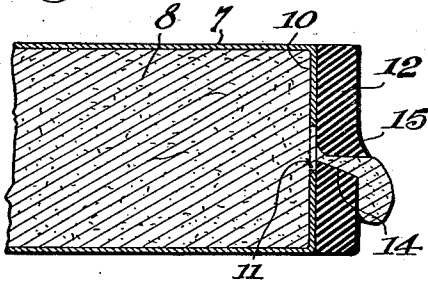


Fig. 3.

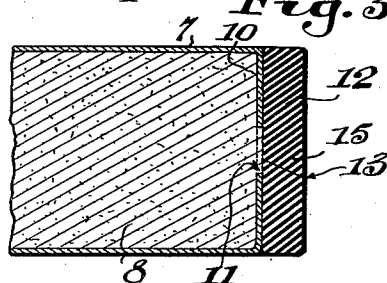


Fig. 5.

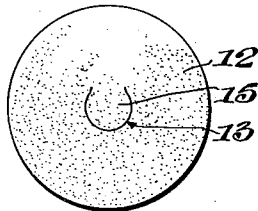
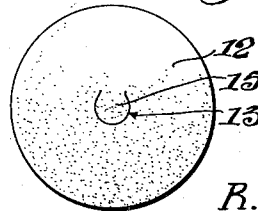


Fig. 6.



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COMBINED CONTAINER AND APPLICATOR

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6 Claims. (Cl. 91—67.4)

The invention aims to provide a new and improved construction in which one end of a collapsible tube for any pasty or fluid substance, is provided with a body of sponge rubber or other elastic material having a self-closing discharge slit through which to extrude said substance, the outer side of said body being adapted for spreading the substance on any desired surface.

In the preferred construction, the elastic body is permanently secured to the tube, the two constituting one article of manufacture, but obviously any novelty in said body is not restricted to one permanently secured to the tube and could well be incorporated in a closure separate from but applicable to the tube.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, description being accomplished by reference to the accompanying drawing.

Fig. 1 is a perspective view showing the normal sealed condition of the article.

Fig. 2 is a perspective view illustrating the action which occurs when extruding the substance from the tube.

Fig. 3 is an enlarged detail sectional view on line 3—3 of Fig. 1.

Fig. 4 is an enlarged detail section on line 4—4 of Fig. 2.

Figs. 5 and 6 are respectively outer and inner side elevations of the elastic body.

A preferred construction has been shown and will be specifically described, with the understanding, however, that variations may be made within the scope of the invention as claimed.

The collapsible tube 7 for any desired pasty or fluid substance 8, is closed at one end 9 in the customary way. At the other end of this tube, however, instead of providing the usual frusto-conical end wall and threaded discharge neck, I provide a flat end wall 10 at right angles to the length of the tube, said wall 10 having a discharge opening 11 which is preferably centrally located.

A relatively thick disk or body 12 of sponge rubber or other appropriate elastic material, is fluid-tightly secured to the outer side of the wall 10, preferably by cementing said disk or body to said wall. When sponge rubber is used for this disk or body 12, it preferably has a slight skin at both its inner and outer sides.

The disk or body 12 is formed with a self-closing discharge slit 13. This slit extends from the inner to the outer side of the disk or body and is of substantially C-shape, providing both a discharge opening 14 and a plug 15 for said open-

ing, one side of said plug being integrally joined to the disk or body 12. The opening 14 is, of course, in alinement with the opening 11 and when the tube 7 is partially collapsed, the substance 8 within said tube forces outwardly upon the plug 15 as seen in Figs. 2 and 4, allowing unhampered extrusion of said substance. The outer side of the disk or body 12 is then usable for spreading the extruded substance upon any desired surface, and the spreading action positively forces the plug 15 back into the opening 14 to airtightly seal the tube. It is preferable that the slit 13 be so formed that both the plug 15 and the opening 14 will increase in diameter toward their outer ends, giving a construction equivalent to a valve and a valve seat.

From the foregoing taken in connection with the accompanying drawing, it will be seen that novel and advantageous provision has been made for carrying out the object of the invention, the construction being of particular advantage in the marketing and use of shoe polish, shaving cream, mechanics' soap, ointments and the like, fishing line dressing, etc.

I claim:

1. A combined container and applicator comprising a collapsible tube, and an elastic body closing one end of said tube, said body having a substantially C-shaped slit from its inner to its outer side, providing a discharge opening and closing plug for said opening integrally joined at one side to said body, said plug being adapted to yield partly out of said opening and allow extrusion of the substance contained in the tube when said tube is partially collapsed, use of said outer side of said body for spreading the extruded substance on a surface serving to positively force said plug back into the discharge opening to seal same.

2. A structure as specified in claim 1; said slit being so formed that said discharge opening and plug increase in diameter from their inner to their outer ends.

3. A collapsible tube closure comprising a body of elastic material for connection with the tube, said body having a substantially C-shaped slit from its inner to its outer side, providing a discharge opening and a plug for said opening integrally joined at one side to said body.

4. A structure as specified in claim 3; said slit being so formed that said opening and said plug increase in diameter toward their outer ends.

5. A collapsible container having an end wall at substantially right angles to its length and pro-

- vided with a central opening, and an elastic disk having flat sides each of which is plane throughout its area, one of said sides being secured fluid-tightly against one side of said end wall, the
- 5 central portion of said disk which extends across said opening being provided with a self-closing discharge slit which is forced open by the pressure of the container contents when pressure is exerted on the container.
- 10 6. A collapsible container having an end wall at substantially right angles to its length and provided with a central opening, and an elastic disk having a flat inner side fluid-tightly secured against the outer side of said end wall, said disk also having an exposed outer side constituting an applicator surface, said disk being sufficiently thick and elastic to readily yield during use of
- 5 said applicator surface, the central portion of said disk which extends across said opening being provided with a self-closing discharge slit which is forced open by the pressure of the container contents when pressure is exerted on the
- 10 container.

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