May 25, 1937. G. L. OLSON 2,081,673

APPLICATOR FOR PLASTIC MATERIAL AND THE LIKE

Filed March 7, 1936

Fig. 1.

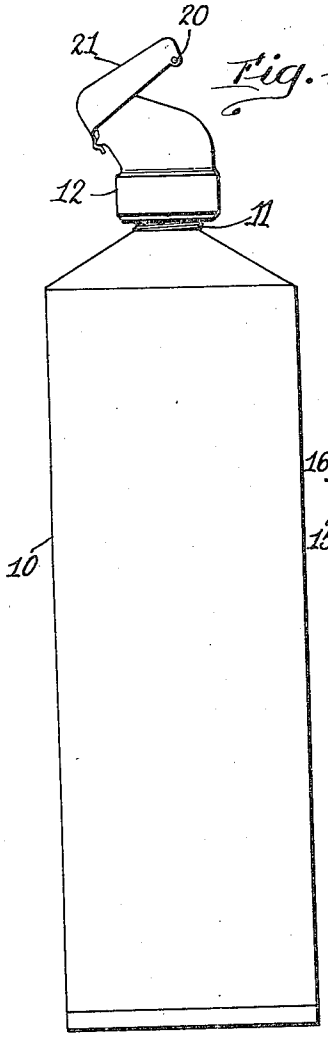


Fig. 2.

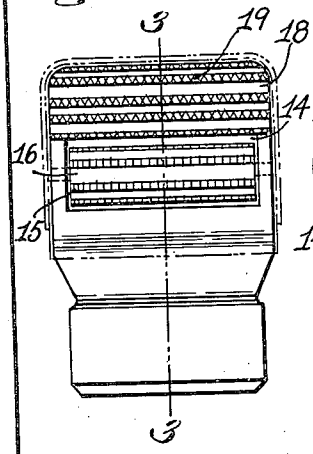
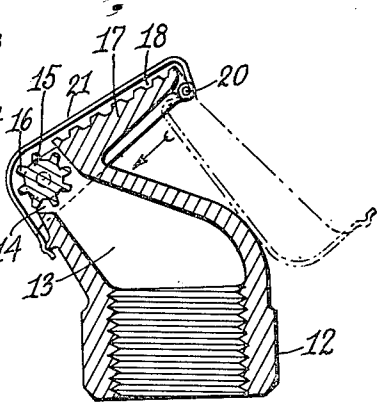


Fig. 3.



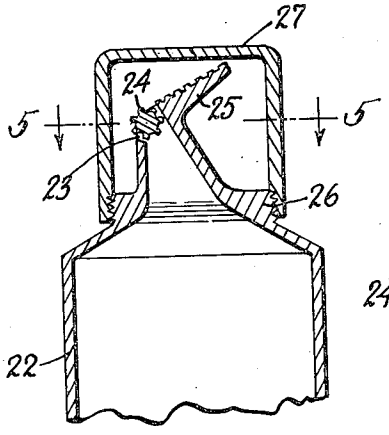


Fig. 5.

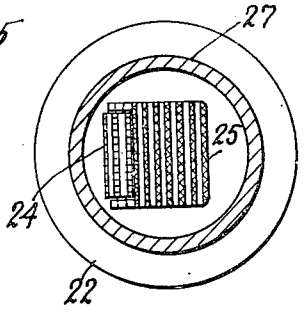


Fig. 4.

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APPLICATOR FOR PLASTIC MATERIAL AND THE LIKE

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Application March 7, 1936, Serial No. 67,666

4 Claims. (Cl. 91—67.4)

This invention relates to plastic material containers and more specifically to applicator associated with the container for the purpose of facilitating the application of the material.

It is well known that the use of some of the plastic materials, such as shaving creams, facial creams, and the like, is distasteful to many persons, due to the messy methods required for their proper application. Further, these referred to plastic materials provided with collapsible tube containers and, in the usual method of application, the user squeezes a quantity of the material on the user's fingers for application to the desired parts. Invariably the user ejects more material than is required and therefore causes needless waste together with a messy condition.

Accordingly, one of the objects of my present invention is to provide a novel applicator associated with the container in a manner whereby a limited amount of the material is withdrawn from the container as the applicator is engaged and moved over the parts requiring the material.

Another object of my invention is to provide the plastic material container with a novel spreader for diffusing the material as it is withdrawn from the container and engaged with the desired parts.

With the above and other objects in view my invention comprises a novel combination and arrangement of parts hereinafter described and more specifically pointed out in the appended claims.

In the accompanying drawing I have illustrated a preferred form of my invention sufficient to enable those skilled in the art to understand the construction and operation thereof.

Referring to the drawing:—

Fig. 1 is a side elevation of a collapsible, plastic material, container tube having one form of my improved applicator embodied therewith.

Fig. 2 is a plan view of the applicator, as shown at Fig. 1, but with the cover indicated by broken lines.

Fig. 3 is a vertical section taken along line 3—3, Fig. 2, with the cover indicated in open position by broken lines.

Fig. 4 is a vertical section of a collapsible, plastic material, container having my improved applicator formed integral therewith, and

Fig. 5 is a transverse section taken substantially along line 5—5, Fig. 4.

As illustrated in the drawing, the tube 10 is provided with a threaded discharge opening 11. The lower portion 12 of my applicator chamber 13 is internally threaded and adapted to engage with the threaded discharge opening of the tube.

The applicator chamber 13 terminates in a longitudinal discharge opening 14 which has rotatably mounted therein a roller 15 which is provided with a plurality of longitudinally extending flat serrations 16 on the peripherial face thereof.

Adjacent the applicator discharge opening 14, and integral with the housing of the chamber 13, I have provided a spreader 17. The upper face of this spreader 17 is provided with a plurality of longitudinally extending grooves 18 and a series of angular grooves 19.

Pivoted at 20 to the spreader 17 is a cover 21 which is adapted, when in its close position as indicated by full lines in the drawing, to cover the spreader face and discharge opening.

In operation the cover is positioned as shown by broken lines, Fig. 3, and the tube is squeezed causing the material to fill the chamber 13 up to the discharge opening 14. As the roller 15 is engaged with a surface and the device moved in the direction of the arrow, Fig. 3, the roller grooves, as they engage with the material in the chamber 13, will carry a supply of material outwardly to be deposited upon the surface with which the roller is contacted. As the spreader advances during the movement of the applicator, the material, deposited by the roller 16, will engage in the combined spreader grooves 18, 19 and be diffused over the desired surface. As long as sufficient material is squeezed into the chamber 13 to engage the roller 15 the grooves and projections on the peripherial face of the roller will, upon rotation of the roller, act to withdraw the material from the chamber as aforesaid.

At Figs. 4 and 5 I have shown my applicator as forming an integral part of a collapsible tube 22. In this instance the tube is provided with a longitudinal discharge opening 23 in which a roller 24, as above described, is rotatably mounted. The spreader 25 is formed as an integral part of the tube 22 and is provided with grooves as aforementioned. This tube 22 is provided with a threaded portion 26 which is adapted to receive an internally threaded cap 27 which encloses and seals the applicator and tube.

While I have illustrated my applicator as combined with the usual and well known collapsible tube, it is obvious that my applicator may be utilized with other containers or reservoirs having provisions for furnishing the applicator with its required supply of material.

Having thus described my invention, what I claim is:—

1. A plastic material applicator adapted for attachment to the discharge opening of a collapsible tube or the like, comprising a chamber for receiving material from said tube, a rotatable roller mounted in a discharge port communicating with said chamber, a substantially flat spreader plate disposed along one side of said roller and substantially tangent thereto, said spreader plate face being provided with a plurality of grooves extending substantially parallel to the axis of said roller and a second series of grooves angularly disposed relative to said first grooves.

2. A plastic material applicator adapted for attachment to the discharge opening of a collapsible tube or the like having, a discharge opening, a rotatable roller disposed in said opening, the outer peripherial surface of said roller being slightly spaced from opposed parallel edges of said discharge surface along one side of said opening and substantially tangent to said roller.

3. A plastic material applicator adapted for attachment to the discharge opening of a collapsible tube or the like having a discharge opening, a rotatable roller engaging in said opening, said roller having a plurality of depressions in the peripherial face thereof, the outer peripherial face of said roller being spaced to clear the opposed edges of said discharge surface along one side of said opening and substantially tangent to said roller.

4. A plastic material container having an elongated discharge opening integral therewith with a rotatable member mounted in said opening together with a grooved diffusing surface along one side of said opening and substantially tangent to said rotatable member.

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