July 5, 1960 S. LOWEN 2,943,338

CONTAINER CLOSURE AND APPLICATOR

Filed Dec. 5, 1957

FIG. 1

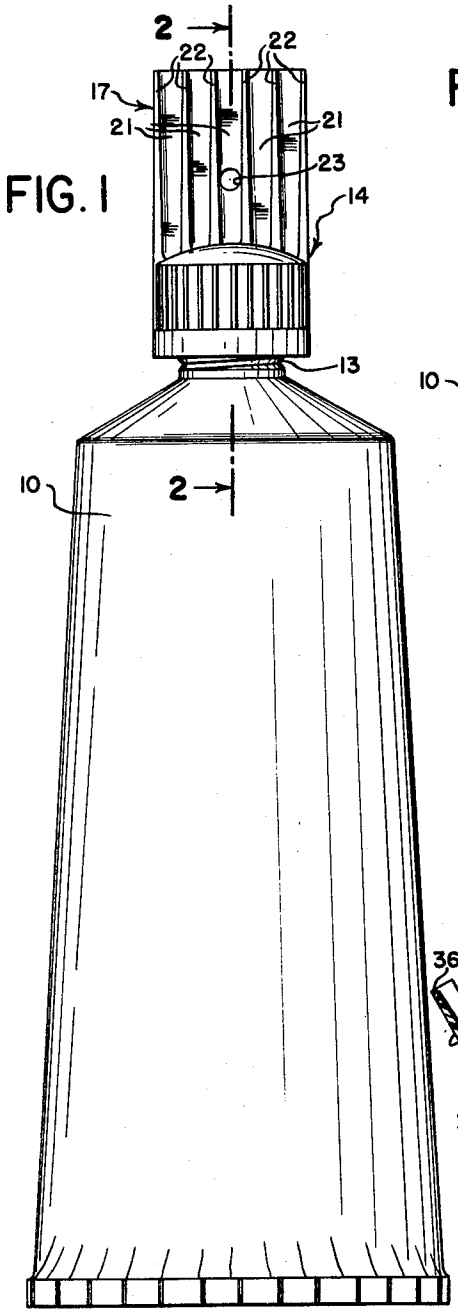


FIG. 2

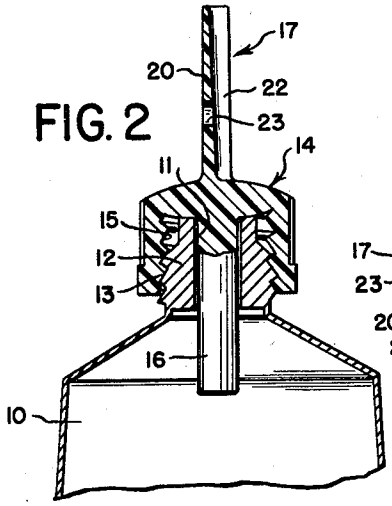


FIG. 4

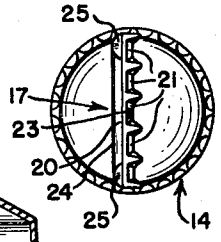


FIG. 3

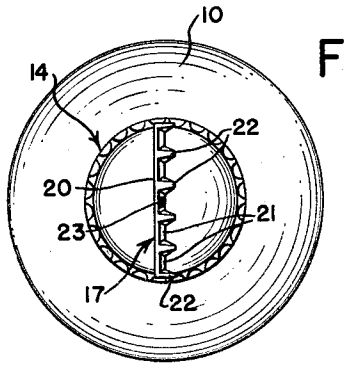


FIG. 5

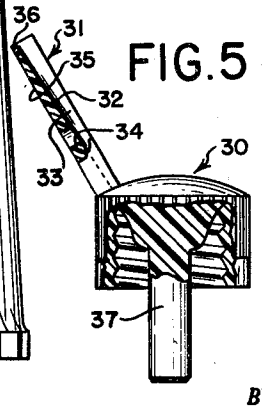
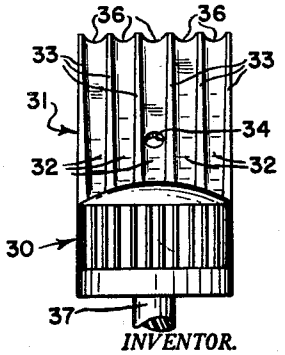


FIG. 6



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CONTAINER CLOSURE AND APPLICATOR

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2 Claims. (Cl. 15—105)

This invention relates to a commodity container having an egress opening and a closure therefor, and particularly such a container from which the commodity can be discharged through the opening and distributed over a surface by employing an applicator mounted on the closure.

The present invention is especially useful when used in conjunction with commodity containers such as tubes and bottles and the like made of metal or plastic, which containers discharge commodity therefrom when squeezed. However, it is not contemplated that use of this invention will be limited exclusively to such containers. The expectation of greater use of pliable containers arises from the fact that it is in such containers that most generally liquids, particularly viscous liquids, pastes, are packed, and it is in connection with such commodities that the present invention will find its primary use.

In general, a tube or bottle is conceived to be a repository in which a commodity is packaged. Once the commodity is transported from the supplier to the user, and the commodity is removed from the container, the function of the container is deemed to be finished. But after the discharge of the viscous liquids and pastes from such containers, it is often desired that such goods, for example, where the commodity is an adhesive such as cement, be distributed over a surface. The user may use his fingers for such distribution, but this expedient is unsatisfactory to the fastidious. Or one may use a separate brush or the like, but this expedient is often inconvenient.

Accordingly, it is the primary object of this invention to provide spreading means for use with a bottle, tube, or similar container, which increases the utility of the container in that the container serves as a handle for wielding the spreading means. It is contemplated that the container will have a removable closure and the spreading means may be most conveniently mounted on the closure.

A further object herein is to provide novel spreading means for use in conjunction with a container, which means may be used to spread commodities in more than one effective fashion. Such spreading means is contemplated to be in the nature of a blade extending from the container closures, with the blade being structurally different on its opposite sides. The employment of one side in spreading will result in a single uniform band of the commodity being distributed. The employment of the other side will result in the application of the commodity as a plurality of contiguous narrow ribbons.

Still another object is to provide a unique container closure having integral spreading means of the character to which reference has heretofore been made, having the additional feature of integral means for maintaining the egress opening of the container in unclogged condition.

How these and many other objects are to be implemented will become clear through a consideration of the accompanying drawings wherein:

Fig. 1 shows a container in the nature of a collapsible tube surmounted by a closure with novel spreading means;

Fig. 2 is a section at 2—2 of Fig. 1;

Fig. 3 is a plan view of the novel closure member of Fig. 1;

Fig. 4 is a plan view similar to Fig. 3 of a modified closure member;

Fig. 5 is a side view of another embodiment of a closure member; and

Fig. 6 is an elevational view of the embodiment shown in Fig. 5.

In the drawings is shown a tube **10** of the common variety from which the commodity packed therein may be discharged upon the application of pressure to the body of the tube. When such tube is squeezed, the commodity therein will be discharged through the opening **11**. Such opening traverses a neck portion **12** of the tube **10** upon which there appears external threads **13**. The closure member is generally designated **14** and has internal threads **15** for engaging external threads **13** whereby such closure member **14** may be removably mounted upon the tube **10**.

The closure member has an internal rod **16** which, when the closure member is mounted in place upon the tube, occupies the interior of the opening **11**. The function of such rod is to keep the passage and opening through such neck portion free from clogging by the commodity.

Extending exteriorly from the closure member **14** is a spreader **17** seen in Figs. 1, 2, and 3. Such spreader is in the nature of a blade which is flat on one side **20**. On the other side, such spreader or blade has a plurality of axially extending grooves **21**, such grooves **21** being defined by the presence of ribs **22** between such grooves. The spreader is pierced with an aperture **23** for use in hanging the tube upon a support when the closure member **14** is mounted upon such tube. By the provision of a grooved surface, it is apparent that when the spreader is employed to distribute the commodity discharged from the container, such distribution will be in the form of a plurality of narrow contiguous ribbons.

In Fig. 4 is shown a modification of the spreader of Fig. 3 in that on the side **24** of the spreader reverse to that within which the grooves **21** appear, a bead **25** is present at both sides of the surface, such beads extending axially along such surface **24**. By providing the beads **25**, it will be apparent that in addition to the manner of distribution of the commodity provided by the grooved surface **21**, the commodity may also be spread in the manner of a comparatively wide band of uniform thickness.

In Figs. 5 and 6 of the drawings is shown a closure member generally designated **30** having characteristics similar to closure member **14** of Figs. 1–4 in that it can be removably mounted on a tube or other container. Extending from closure member **30** is a spreader or blade **31**, such spreader extending from the closure member in inclining fashion as best seen in Fig. 5. The spreader **31** has grooves **32** separated by ribs **33** in one surface thereof, and an aperture **34** through the spreader. As best seen in Fig. 6, the leading or transverse edge **36** of the spreader **31** has scallops formed therein. Such scalloping increases the utility of my novel spreader when it is desired to introduce the commodity into locations which are more difficult of access. Extending downwardly from the closure member **30** within which it is mounted is a stepped rod **37** which will enter the egress opening of the container upon which the closure member may be removably mounted.

It will be understood that the closure members described above may be fabricated from plastic in a single operation to provide mounting means, spreader blade,

and rod. While my novel spreader will have utility if of rigid material, its maximum properties will be available if made of a yieldable or semi-rigid material.

While I have described specific embodiments of my invention, it is apparent that I may make changes and modifications therein, and structures so modified and changed will still fall within the ambit of my invention.

I claim:

1. In the combination of a container for a commodity having an egress opening and a plastic closure member for said opening removably mounted on said container, an elongated, flexible, applicator blade integral with and extending outwardly from said closure member, a plurality of longitudinally extending, substantially parallel grooves on one face of said blade to provide the commodity with a beaded surface upon application of said blade face to the commodity, and beads disposed at the lateral edges of the other face of said blade to provide the commodity with a flat surface upon application of said latter blade face to the commodity.

2. The combination claimed in claim 1, wherein said closure member has an internal rod depending from the inner side thereof and extending into the container.

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