

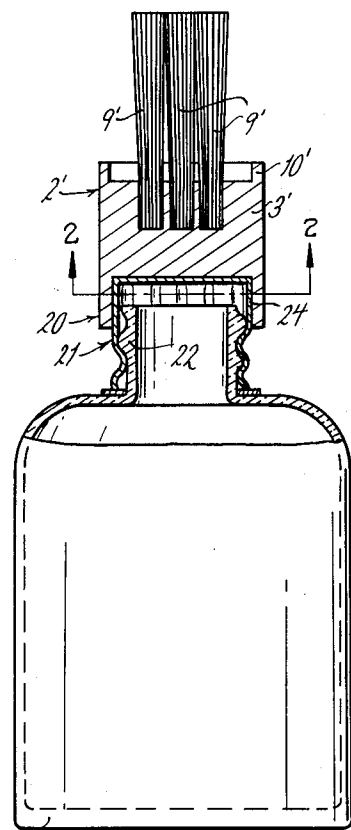
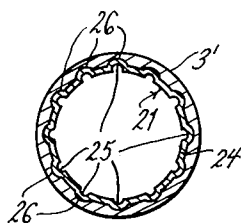
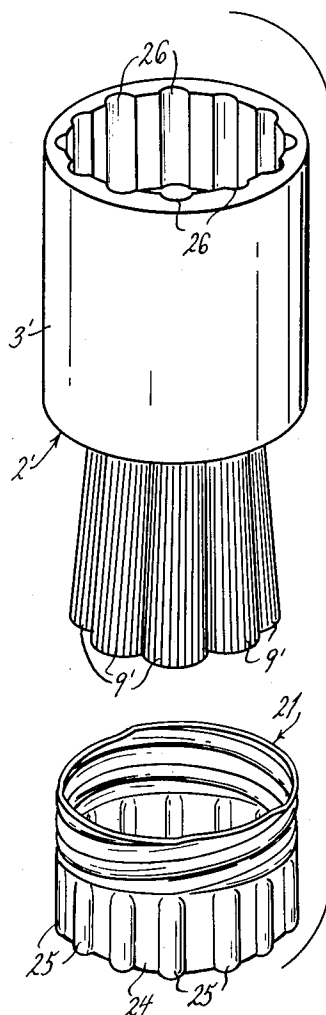
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A. Y. SCHULTZ

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CLOSURES FOR LIQUID CONTAINERS

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INVENTOR.

ABRAHAM Y. SCHULTZ
BY

Alfred H. Peters
ATTORNEY

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CLOSURES FOR LIQUID CONTAINERS

Abraham Y. Schultz, University City, Mo.

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4 Claims. (Cl. 15—123)

This invention relates in general to certain new and useful improvements in closures for liquid containers and, more particularly, to a bottle closure and liquid applicator.

Many bottled liquids in common household use should, for proper preservation, be tightly capped and yet when used must be spread evenly over the surface onto which the liquid is being poured. This problem is particularly encountered in the case of shoe polishes which ordinarily lose valuable and necessary solvent materials if allowed to remain open to atmosphere for any appreciable length of time. Such liquids create a second problem which, although seemingly unrelated, is closely associated with the physical and chemical characteristics of the material, that is to say the problem of spreading. The usual expedients, such as using bits of cloth, small daubing rags or fabric daubers are highly unsatisfactory since solvents and vehicles are selectively absorbed into the fabric, robbing the pigments and dyes of fluids necessary to carry them into the pores of the leather.

It is, hence, the primary object of the present invention to provide a bottle closure which provides a tight leak-proof seal for the bottle and also affords a brush-like element which can be handily and effectively employed as an applicator for the liquid.

It is another object of the present invention to provide a bristle-topped imperforate closure element for use on liquid containers, such as bottles and the like, which closure element is simple and economical in construction and is so formed that it may readily be gripped with the fingers.

It is another object of the present invention to provide a closure of the type stated which will present an attractive, pleasing appearance and renders it possible to provide a compact and highly useful liquid container.

With the above and other objects in view, my invention resides in the novel features of form, construction, arrangement, and combination of parts presently described and pointed out in the claims.

In the accompanying drawing—

Figure 1 is a vertical sectional view of a closure element constructed in accordance with and embodying the present invention, said closure element being shown in position on a bottle, the latter being partly broken away and in section for the purpose of showing the invention more clearly;

Figure 2 is a transverse sectional view taken along line 2—2 of Figure 1; and

Figure 3 is a perspective view of the closure element of Figure 1 showing said closure element in position for use as an applicator.

Referring now in more detail and by reference characters to the drawings, which illustrate a preferred embodiment of the present invention, 20 designates a closure element, as shown in Figures 1 to 3, comprising a screw cap 21 made of any suitable material and adapted to fit the screw neck 22 of a conventional bottle 23. The screw cap 21 is provided upwardly of its threaded por-

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tion with a top-section 24 having a peripheral series of axially extending ridges 25 for snug-fitting retentive engagement in a complementarily shaped recess 26 formed in the lower end of a cylindrical body 3', substantially similar to the previously described cylindrical body 3 and likewise having bristles 9' and an annular rim 10'. It should be noted that the diametral size of the cap is substantially greater than the outside diametral size of the brush-element formed by the bristles 9'.

When the closure-element 20 is assembled, as shown in Figure 1, the body 3' may be readily gripped to turn the cap 2' in screwing it off or onto the neck 22. When removed, the cap 21 and body 3' may be separated and used, as shown in Figure 3. The cap 21 is thus inverted and serves as a dish into which a small portion of the contents of the bottle 23 may be poured so that the bristles 9' can be dipped therein. Since the brush element formed by the bristles 9' is smaller in diametrical size than the cap 21, the brush-element can readily be dipped therein to facilitate its use as an applicator.

It should be understood that changes and modifications in the form, construction, arrangement, and combination of the several parts of the closures for liquid containers may be made and substituted for those herein shown and described without departing from the nature and principle of my invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. A closure for a liquid container comprising, in combination, a screw-cap adapted to fit removably and closurewise upon the container, and a body-member having oppositely presented end faces, one of which is provided with a recess sized for snug-fitting axially slidable engagement upon the external peripheral face of the cap and extending axially upwardly therefrom, said engagement between the cap and the body-member being sufficiently tight to permit the cap to be rotated into and out of closure-forming engagement with the container by means of the body-member but nevertheless being sufficiently free to permit the body-member to be pulled axially with respect to the cap and thus removed therefrom, said body-member being provided in its other end face with a group of bristles forming a brush element having a cross-sectional shape and size substantially smaller than the inside cross-sectional shape and size of the cap, whereby the cap and body-member can be removed from the container and separated from each other so that liquid contents can be poured into the cap and the brush element readily dipped therein in such a manner that the cap serves as a dish for the brush element.

2. A closure for a liquid container comprising, in combination, a screw-cap having internal threads adapted to fit removably and closurewise upon the container, said screw-cap further having a non-threaded externally presented peripheral face adapted to form an axial slide surface, and a body-member having oppositely presented end faces, one of which is provided with a recess sized for snug-fitting engagement externally upon the slide surface of the screw-cap, said body member extending axially upwardly from the screw-cap, the engagement between the screw-cap and the body-member being sufficiently tight to permit the screw-cap to be rotated into and out of closure-forming engagement with the container by means of the body-member but nevertheless being sufficiently free to permit the body-member to be pulled axially with respect to the screw-cap and thus removed therefrom, said body-member being provided in its other end face with a group of bristles forming a brush element having a cross-sectional shape and size substantially smaller than the inside cross-sectional shape and size of the screw-cap, whereby the

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screw-cap and body-member can be removed from the container and separated from each other so that liquid contents can be poured into the screw-cap and the brush element readily dipped therein in such a manner that the screw-cap serves as a dish for the brush element.

3. A closure for a liquid container comprising, in combination, a screw-cap having internal threads adapted to fit removably and closurewise upon the container, said cap having an external surface provided with lengthwise extending flutes, and a body-member having oppositely presented end faces, one of which is provided with an internally fluted recess sized and shaped for snug-fitting matching engagement externally upon and extending axially upwardly from the screw-cap, said engagement between the screw-cap and the body-member being sufficiently tight to permit the screw-cap to be manipulated into and out of closure-forming engagement with the container by means of the body-member but nevertheless being sufficiently free to permit the body-member to be pulled axially with respect to the screw-cap and thus removed therefrom, said body-member being provided in its other end face with a group of bristles forming a brush element having a cross-sectional shape and size substantially smaller than the inside cross-sectional shape and size of the screw-cap, whereby the screw-cap and body-member can be removed from the container and separated from each other so that liquid contents can be poured into the screw-cap and the brush element readily dipped therein in such a manner that the screw-cap serves as a dish for the brush element.

4. A closure for a liquid container comprising, in combination, a screw-cap adapted to fit removably and closurewise upon the container, and a body-member having oppositely presented end faces, one of which is provided with a recess sized for snug-fitting axially slidable engagement upon the external peripheral face of the cap and extending axially upwardly therefrom, said engagement between the cap and the body-member being sufficiently tight to permit the cap to be rotated into and out of closure-forming engagement with the container by means

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of the body-member but nevertheless being sufficiently free to permit the body-member to be pulled axially with respect to the cap and thus removed therefrom, said body-member being provided in its other end face with a group of bristles forming a brush element having a cross-sectional shape and size substantially smaller than the inside cross-sectional shape and size of the cap, whereby the cap and body-member can be removed from the container and separated from each other so that liquid contents can be poured into the cap and the brush element readily dipped therein in such a manner that the cap serves as a dish for the brush element, said other end face in which the bristles are mounted being substantially flat and being provided around its periphery with an upstanding annular flange so arranged as to form, in co-operation with said flat end face, a cup-like recess which is in direct communication with the bristles, whereby excess liquid draining downwardly from the bristles when the latter are in up-ended inoperative position will be caught by the cup-like recess and held around the lower end of the bristles and will run directly back into the bristles when the latter are again turned down into operative position.

References Cited in the file of this patent

UNITED STATES PATENTS

1,537,816	Fickett	May 12, 1925
2,074,830	Connor	Mar. 23, 1937
2,078,743	Traum	Apr. 27, 1937
2,100,173	Rubens	Nov. 23, 1937
2,185,699	Zeugner	Jan. 2, 1940
2,376,046	Gelfand	May 15, 1945
2,623,229	Brinton	Dec. 30, 1952

FOREIGN PATENTS

8,908	Great Britain	of 1891
365,359	Great Britain	Jan. 21, 1932
457,492	France	July 11, 1913