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FOUNTAIN APPLICATOR

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This invention relates to fountain applicators, and its general object is to provide an applicator that is primarily designed for detachable connection to the neck of a usual bottle of liquid shoe dressing for closing the mouth thereof, and for direct application of the contents of the bottle to shoes and other objects to be cleaned and dressed, in that the applicator includes a dauber and valve means for controlling the passage of the contents through the device in accordance with the pressure of the dauber against the shoe, so that the contents can be applied to the dauber and shoe in controlled quantities, thus eliminating waste.

An important object is to provide a fountain applicator in the form of an attachment that can be readily applied and removed with respect to the neck of bottles of any type used for liquid shoe dressing, and particularly that for white shoes, and the device is pliable and constructed in one size to fit necks of different diameters regardless of the cap retaining flanges or threads thereon, and in a manner to prevent possibility of leakage, casual removal or displacement.

Another important object is to provide an applicator that includes an outlet opening for the valve means, that is shaped to minimize closing, and in the event any dried particles of polish or other matter should by chance clog the same, such will be washed therefrom by the outgoing polish when using the device, thereby assuring free passage of the polish during use.

A further object is to provide an applicator that is preferably made wholly of elastic material, such as rubber or the like, to include a dauber and means cooperating therewith for spreading the liquid evenly throughout the entire surface of the shoe upper, and the dauber and spreader includes a plurality of minute elongated spine like teats providing brush like shoe engaging surfaces.

A further object is to provide an applicator that is primarily designed for use on white shoes of any type of leather, cloth or other material, and is capable of maintaining the same in a clean and proper condition with minimum effort on the part of the user.

Another object is to provide an applicator of the character set forth, that is simple in construction, inexpensive to manufacture, and extremely efficient in operation, use and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accom-

panying drawing and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is a top plan view of the device which forms the subject matter of the present invention.

Figure 2 is a front view thereof.

Figure 3 is a side elevation looking toward the spreader.

Figure 4 is a vertical sectional view taken through the device applied to a bottle having a neck of a relatively small diameter.

Figure 5 is a similar view with the device applied to a bottle having a neck of a larger diameter, than that shown in Figure 4.

Figure 6 is a sectional view taken approximately on line 6-6 of Figure 4, looking in the direction of the arrows.

Referring to the drawing in detail, it will be noted that we have illustrated our device in one size, as being applied to a bottle A with a neck of a small diameter and to a bottle B having a neck of a larger diameter, the necks, each being formed with an annular flange C and a segmental thread D for threadedly securing the usual closure cap for disposal in abutting engagement with the flange, therefore it will be seen that our applicator can be associated with bottle necks of various diameters, yet will perform its intended function with utmost efficiency. While the necks are shown with closure cap retaining means of a certain type, the device is capable of snugly fitting a neck having any type of retaining means thereon, without possibility of leakage, casual removal or displacement, due to the construction of the device and the fact that it is made wholly from elastic material.

Our device in the form shown is molded into a single unit of solid elastic rubber, but it can be made from sponge rubber or any other material suitable for the purpose and in any suitable manner, to provide a body having a central bore therein, so that the body is hollow and of substantially cylindrical formation to provide a skirt 1, having an open lower end and a top wall 2 closing the upper end of the body. The inner surface of the skirt from its lower end is tapered inwardly for a portion of its height as at 3, to facilitate the application of the device to the neck of a bottle, as will be apparent upon inspection of Figures 4 and 5, and the remaining portion of the skirt is relatively thick, with annular ribs 4 on the inner surface thereof for gripping engage-

ment with the flange C and thread D for securing the device to the neck, against casual removal or displacement.

The annular wall of the body between the threaded portion of the skirt and the top wall 2 is relatively thin to render the same extremely flexible so as to readily give under pressure, and is interiorly shaped to provide a substantially concaved chamber 5 having a projection 6 disposed centrally therein and formed on and depending from the top wall, as clearly shown in Figures 4 and 5. The projection is slit as at 7 across its diameter to provide a normally closed diaphragm valve and the slit extends in diverging relation to the upper surface of the top wall 2.

Extending through the top wall and within the projection to intersect the slit is an outlet port or opening 8 tapered outwardly to the upper surface of the top wall to cooperate with the slit for the passage of the polish through the device, when the slit is moved to open position, in a manner which will be later described. The shape of the opening 8 is of extreme importance in that the taper thereof not only prevents the opening from completely closing during the use of the device, but in the event the opening should become clogged with particles of dry polish or other matter, such will be immediately washed therefrom by the outgoing polish during the use of the device.

The outer surface of the wall of the body about the chamber is tapered inwardly toward the top wall which has formed on the upper surface thereof to project outwardly therefrom, a plurality of minute elongated outwardly tapered spine like teats 9 to provide a brush like dauber.

Formed on the body and extending laterally from the skirt thereof in the form shown is a spreader 10 of substantially rectangular formation and which is provided with a flat outer face that likewise has formed on and extending therefrom a plurality of teats 11 similar to the teats 9, but are shown as being slightly longer.

From the above description and the disclosure in the drawing, it is believed that the use of our device will be obvious, but it might be mentioned that the device is applied to the neck of a bottle as shown in Figures 1 and 4, thence the bottle which acts as a handle is inverted for the passage of the polish to the chamber 5. The dauber is then applied to a shoe or other surface to be dressed and it will be apparent that inward pressure upon the dauber will cause the valve to move inwardly within the chamber and thereby open the slit to allow the polish to pass from the chamber to the dauber and shoe, through the medium of the slit and outlet opening 8. When the pressure is relieved, the slit will close, with the result it will be seen that the passage of the bottle contents through the outlet opening will be under the constant control of the user at all times, thereby eliminating waste, but at the same time allowing a sufficient quantity of polish to be applied to the shoe.

It will be further obvious that the dauber is not only used for applying the polish or dressing to the shoe but can be used for spreading the same, preferably by a circular motion, and the spreader is primarily designed for leveling or

smoothing the dressing as well as for removing soiled spots and raising the nap on suede, buckskin and like shoes.

While our device is primarily designed for use in cleaning, dressing and polishing shoes, it can be used for dispensing, applying and spreading any kind of liquid, such as for example hand lotions, but when used for that purpose, the spreader 10 can be eliminated and all the spreading action can be accomplished by the dauber, which due to the soft pliable elastic teats 9 thereof, will in no way injure the skin of the user. However, the teats 9 can likewise be eliminated and the spreading action can then be accomplished by use of the top wall, if desired.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What we claim is:

1. A liquid applicator for attachment to a bottle for dispensing and applying the contents thereof and comprising a hollow body including a skirt having an open lower end portion tapered inwardly on its inner surface to facilitate the application of the skirt to the neck of the bottle, the remaining portion of the skirt being relatively thick, ribs formed on the interior surface of the thickened portion for detachably securing the skirt to the neck to provide a leak proof connection, a top wall for the body and having an outlet opening tapering outwardly toward and extending through the upper surface thereof, teats formed on and rising from said upper surface to provide a brush like dauber, said body having a substantially concaved chamber therein between the top wall and the skirt, said chamber having a relatively thin annular elastic wall connecting the top wall to the skirt for flexing movement of the top wall, a diaphragm valve including a projection formed on and depending from the top wall and having a normally closed slit therein converging toward said upper surface, and said slit intersecting the opening for controlling the passage of liquid therethrough and being movable to open position when pressure is applied to the dauber.

2. A liquid applicator for attachment to a bottle for dispensing and applying the contents thereof and comprising a hollow body including a skirt designed for detachable connection to the neck of the bottle, a top wall for the body and connected to the skirt for flexing movement, said top wall having an outlet opening tapered outwardly toward the upper surface of the top wall and extending therethrough, teats formed on and rising from the top wall to provide a brush like dauber, a diaphragm valve including a projection formed on and depending centrally from the top wall and having a normally closed slit therein converging toward said upper surface, and said slit intersecting the opening for controlling the passage of liquid therethrough and being movable to open position when pressure is applied to the dauber.

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