June 13, 1944. H. M. BORDEN 2,351,476

APPLICATOR

Filed Feb. 9, 1942

Fig. 1

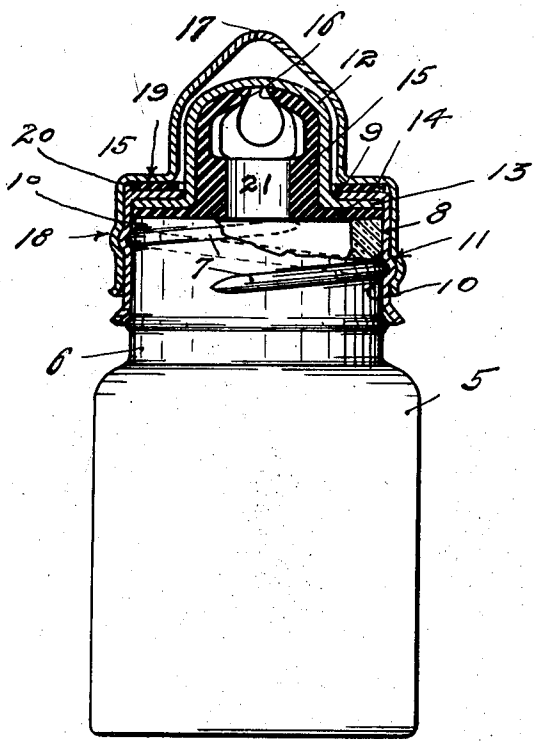
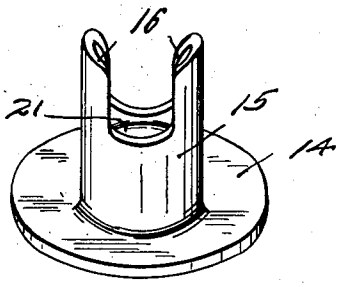


Fig. 2



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By His Attorney
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UNITED STATES PATENT OFFICE

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APPLICATOR

Henry M. Borden, Minneapolis, Minn.

Application February 9, 1942, Serial No. 430,026

1 Claim. (Cl. 15—134)

My present invention relates to applicators and, more particularly, to an applicator for dispensing and spreading liquids, such as white shoe cleaner, shoe blacking, shoe dye, mucilage and the like.

The object of this invention is to provide a relatively simple and highly efficient applicator which is always ready for instant use, which will prevent liquid therein from drying, leaking, spilling or dripping therefrom, and which is economical in the use of the liquid being dispensed.

By means of my improved applicator, liquid being dispensed therefrom can be evenly flowed and thoroughly spread on the object to which it is being applied and where wanted, without getting on the hands of the operator.

To the above end, generally stated, the invention consists of the novel devices and combination of devices hereinafter described and defined in the claim.

In the accompanying drawing, which illustrates the invention, like characters indicate like parts throughout the several views.

Referring to the drawing:

Fig. 1 is a view partly in side elevation and partly in central vertical section; and

Fig. 2 is a perspective view of the combined washer and swab-distending member removed from the applicator.

The numeral 5 indicates a bottle which is contracted at its mouth to afford a neck 6 having external screw-thread 7.

A main cap 8, having in its top a central round aperture 9, is applied to the neck 6 as a closure for the mouth of the bottle 5. Screw-threads are pressed from the skirt of the cap 8 to afford an internal screw-thread 10 and an external screw-thread 11, the former normally being in registration with the screw-thread 7 and removably holding the cap 8 on the neck 6.

A swab 12 of porous material and in the form of a dome extends through the aperture 9 from within the cap 8. Preferably, but not necessarily, the swab 12 is a piece of relatively thick cloth having a short nap on its exterior. The lower end portion of the swab 12 is turned outwardly and shaped to afford an annular flange 13 that snugly fits in the cap 8 and bears against the inner surface of the top of said cap.

A rubber washer 14 in the cap 8 is interposed between the outer end of the neck 6 and the flange 13 and forms a liquid-tight joint between the bottle 5 and the cap 8. The flange 13 clamped between the cap 8 and the washer 14 securely holds the swab 12 in place and also assists the washer 14 in sealing the joint between the cap 8 and the bottle 5. An upstanding tube 15, of relatively soft rubber, formed, as shown as an integral part of the washer 14, is in axial alignment with the hole in said washer. This tube 15 extends into the swab 12 and its upper end portion is longitudinally and centrally bifurcated to afford a pair of upstanding diametrically opposite flexible lips 16. These lips 16 are curved toward each other, are in engagement with the crown of the swab 12 and yieldingly hold the swab 12 distended substantially in the form of a hemisphere.

A secondary cap 17 is provided as a closure for the swab 12. This cap 17 has an internal screw-thread 18 on its skirt that normally is in registration with the internal screw-thread 11 on the main cap 8 and removably holds the secondary cap 17 on the main cap 8. The secondary cap 17 has on its top an annular internal shoulder 19 that loosely surrounds the swab 12 and overlies the top of the main cap 8. A washer 20 is interposed between the top of the main cap 8 and the shoulder 19 and forms a liquid-tight joint between the said two caps.

Obviously, the hole in the washer 14 and the axial opening in the tube 15 afford a continuous passageway 21 for the flow of liquid from the interior of the bottle 5 to the interior of the swab 12. To use the improved applicator, it is only necessary to invert the bottle 5 and apply the swab 12 to the object to be coated with the liquid in said bottle. The swab 12 extends considerably outwardly of the cap 8 so that the sides of the swab 12, as well as the top thereof, may be used in spreading the liquid without bringing the cap 8 into contact with the object to which the liquid is being applied.

The word "bottle" is herein use in a broad sense to include a can, a jar or any other suitable receptacle to which the improved applicator may be applied.

From what has been said, it will be understood that the applicator described is capable of modifications as to details of construction and arrangement within the scope of the invention herein disclosed and claimed.

What I claim is:

In a device of the kind described, a cap applicable to the neck of a bottle and having an aperture in its top, a tubular member of relatively soft rubber extending through the aperture in the cap and having an outstanding flange constructed and arranged to be clamped between the cap and the neck of the bottle, said tubular mem-

ber having a pair of long upstanding lips that are laterally spaced to leave a wide passageway therebetween, and a swab in the form of a dome extending over the tubular member, through the aperture in the cap and having an outstanding flange extending between the cap and the flange on the tubular member, said swab yieldingly holding the outer end portions of the lips of the tubular member folded toward each other under tension without obstructing the major portion of the passageway therebetween, said folded lips being under strain to move into upright positions and thereby yieldingly hold the swab distended.

HENRY M. BORDEN.