July 5, 1938. J. T. MORRIS 2,122,580

PERFUME APPLICATOR

Filed Sept. 16, 1936

Fig. 1.

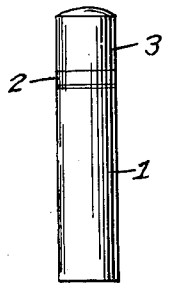


Fig. 2.

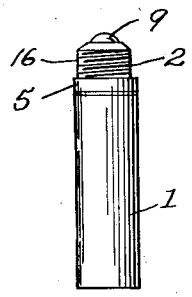


Fig. 3.

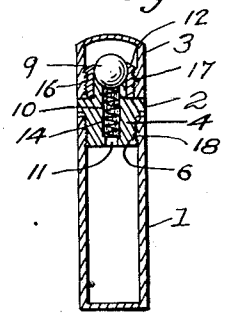


Fig. 4.

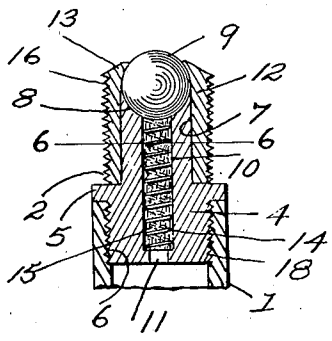


Fig. 5.

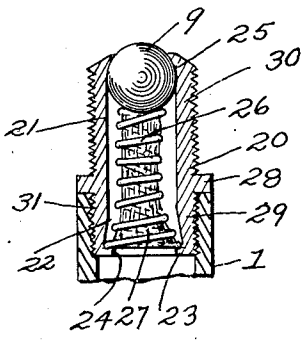


Fig. 6.

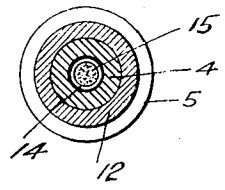


Fig. 7.

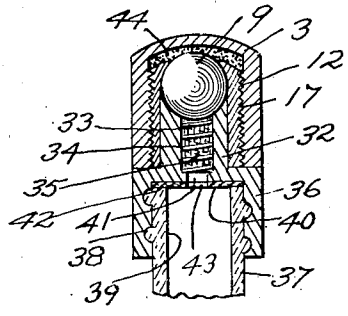


Fig. 8.

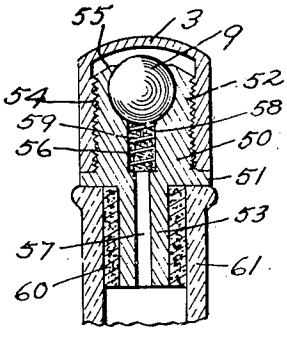
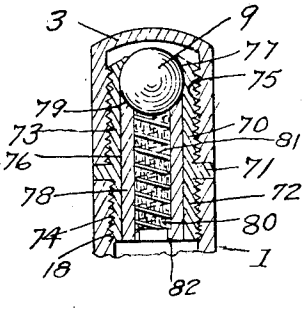


Fig. 9.



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PERFUME APPLICATOR

John T. Morris, Los Angeles, Calif.

Application September 16, 1936, Serial No. 101,057

2 Claims. (Cl. 221—16)

This invention relates to applicators for applying liquids to a surface, and more particularly to an applicator for applying liquid perfume to one's clothes or body.

The general object of the invention is to provide a fountain applicator in which a liquid perfume may be contained and readily applied to one's clothes or body by rubbing the applicator over the same.

A more particular object is to provide a fountain applicator constructed with a revoluble ball dispensing valve, to be pressed against and rolled over one's clothes or body for applying thereto a liquid perfume contained in the applicator.

Other objects and advantages will appear hereinafter.

The invention is illustrated in the annexed drawing which forms a part of this specification and in which,

Fig. 1 is an elevation of my applicator with its cap closing its applying end.

Fig. 2 is an elevation of my applicator with its cap removed from its applying end for use.

Fig. 3 is a longitudinal section of my applicator with its cap in position closing its applying end.

Fig. 4 is an enlarged fragmentary longitudinal section of my applicator as shown in Fig. 1.

Fig. 5 is a fragmentary longitudinal section of a modified form of my invention.

Fig. 6 is a horizontal section taken on line 6—6 of Fig. 4.

Fig. 7 is a fragmentary longitudinal section of another modification of my invention.

Fig. 8 is a fragmentary longitudinal section of another modification of my invention.

Fig. 9 is a fragmentary longitudinal section of another modification of my invention.

Referring more particularly to the drawing in which corresponding parts are designated by the same reference numerals, my applicator comprises generally a barrel 1, forming a reservoir for a liquid, such as liquid perfume, an applicator head 2 and a cap 3 for covering said applicator head.

The applicator head 2 comprises a plug 4 formed with an external annular flange 5 intermediate its ends and with an external thread 6 extending downwardly from said flange to the lower end of the plug, the external surface 7 of the upper portion of the plug above the flange 5 being straight and smooth. The upper end of the plug 4 is formed with a frusto-spherical seat 8, in which rests an applicator valve ball 9, and the plug is provided with a duct 10 extending downwardly from said seat to a point near the lower end of the plug, there being an inlet 11 in the lower end of the plug, communicating with the lower end of the duct 10, and of smaller diameter than said duct. A sleeve 12 is tightly fitted over the upper portion of the plug 4 upon the external surface 7, the upper portion of the inner surface 13 of which sleeve being spherically curved to form a seat for the outer half of the valve ball 9 to retain said ball in operative position in the outer end of the plug 4. In the duct 10 is placed a coil spring 14 which bears at its inner end upon the inner end of the duct 10 and at its outer end against the inner side of the valve ball 9 for normally holding the outer portion of said ball against its seat 13 for closing the barrel to the atmosphere. A wick 15 extends through the spring 14 the length of the duct 10. The sleeve 12 is provided with an external thread 16 which is engaged by an internal thread 17 in the cap 3 for holding said cap in position over the outer end of the applicator head 2. The barrel 1 is provided with an internal thread 18 in its open end to be engaged by the external thread 6 on the lower portion of the plug 4 which is thus screw-seated in said open end of the barrel.

The operation of my invention is as follows:

The barrel 1 being filled with perfume and the cap 3 being removed from the applicator head 2, the applicator is inverted and the ball 9 pressed against one's clothes or body out of close contact with its seat 13 and rolled over the clothes or body whereupon the perfume flows from the barrel, through the inlet 11, duct 10 and wick 15, between the ball 9 and its seats 8 and 13, and out upon the clothes or body. The wick 15 prevents too great an amount of perfume from flowing through the duct 10 past the ball 9. In the form of my invention shown in Fig. 5 a hollow plug 20 is substituted for the plug 4. The inner diameter 21 of the outer portion 30 of the plug 20 corresponds closely to the diameter of the ball 9 while the internal diameter 22 of the inner portion 29 diverges to the lower end of the plug, which end is formed with an internal annular flange 23 providing an opening 24 in the lower end of the plug, through which opening the ball 9 is introduced into the plug to the outer end thereof, the inner surface of which end is spherically curved to form a seat 25 for the ball 9. A coil spring 26 is located in said plug with its inner end resting upon the flange 23 and its outer end resting against the inner side of the ball 9 for holding said ball on its seat 25. A wick 27 extends through the spring 26. The plug is formed with an intermediate external flange 28, and with an inner externally

threaded portion 29 and an outer externally threaded portion 30. The inner portion 29 of the plug is screw-seated in the internally threaded open end 31 of the barrel 1, while the cap 3 screws on the outer externally threaded portion 30 of the plug.

In the form of my invention shown in Fig. 7 the construction of the plug 32 is the same as the construction of the plug 4 of the form of my invention shown in Figs. 1 to 4 inclusive, except that the duct 33, spring 34 and wick 35 are shorter than the duct 10, spring 14 and wick 15 respectively, and the lower portion of the plug is in the form of a screw cap 36 for a bottle 37, said cap being formed with a coarse internal thread 38 for engaging a corresponding external thread 39 on the neck of the bottle. The upper wall 40 of the cap 36 coincides with the flange 5 of the form of my invention shown in Figs. 1 to 4 inclusive, and is provided with an opening 41 leading into the inner end of the duct 33. A washer 42 provided with a central aperture 43 is placed in the cap 36 against the lower side of the upper wall 40 of the cap, which washer is clamped between said upper wall 40 and the top edge of the bottle 37, when the cap is screwed on the top of the bottle, to provide a seal between the cap and the bottle neck to prevent leakage from the bottle and evaporation.

A washer 44 is placed in the top of the cap 3 for engaging the top of the ball 9 and the top of the sleeve 12 when the cap is screwed on the sleeve thread 17, for sealing the outer end of the applicator to prevent the escape of liquid past the ball and to prevent evaporation of the liquid.

In the form of my invention shown in Fig. 8 the plug 50 is formed with an external flange 51 intermediate its ends and with an externally threaded outer portion 52 and a reduced inner portion 53. In the outer end of the plug is formed a seat 54 for the ball 9, the outer extremity 55 of the plug being contracted around the outer portion of the ball and forming the outer portion of the seat 54 to hold the ball in position in the plug. The duct 56 extends through the outer portion 52 of the plug to the ball seat 54, while a bore 57 of smaller diameter than said bore 56 extends through the reduced portion 53 of the plug to the inner end of the duct 56. A spring 58 is positioned in the duct 56 bearing at one end against the inner end of the duct and at its other end against the inner side of the ball 9 for holding the outer portion of the ball against the outer portion of the seat 54. A wick 59 extends through the spring 58. A cork sleeve 60 fits over the reduced portion 53 and is secured thereto. The reduced portion 53 of the plug together with the cork sleeve 60 is inserted in the mouth 61 of a bottle, with the flange 51 engaging the end of said mouth, the plug thus forming a cork for the bottle. The cap 3 screws on the externally threaded outer portion of the plug to enclose the ball 9.

In the form of my invention shown in Fig. 9 a plug 70 is formed with an external flange 71 intermediate its ends and with an inner member 72 and an outer member 73 extending inwardly and outwardly respectively from said flange 71. The inner member 72 is formed with an external thread 74 for engaging the thread 18 in the open end of the container 1. The outer member 73 is formed with an external thread 75 on which the cap 3 screws. The plug 70 is provided with a longitudinal bore 76 extending therethrough, which is formed with a seat 77 in its outer end for the outer side of the ball 9. A bushing 78 is fitted tightly in the bore 76 with its outer end 79 forming a seat for the inner half of the ball 9. In the bore of the bushing 78 is fitted a felt wick 80 extending from the inner end to the outer end of said bushing, through a spring 81 which is also located in the bore of said bushing, with its inner end resting upon an inturned flange 82 on the lower end of said bushing, and with its outer end engaging the inner side of the ball 9.

I claim:

1. A liquid applicator comprising a plug provided with a bore, said plug being provided with a seat in its outer end, a ball fitted to said seat, a sleeve fitted tightly over the outer end of said plug and formed with a seat for engaging the outer side of said ball, and a spring mounted in said bore and engaging the inner side of said ball for holding the outer side of said ball against the seat in said sleeve.

2. A liquid applicator comprising a plug provided with a bore, said plug being provided with a seat in its outer end, a ball fitted to said seat, a sleeve fitted tightly over the outer end of said plug and formed with a seat for engaging the outer side of said ball, and a spring mounted in said bore and engaging the inner side of said ball for holding the outer side of said ball against the seat in said sleeve and a wick extending through said spring.

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