

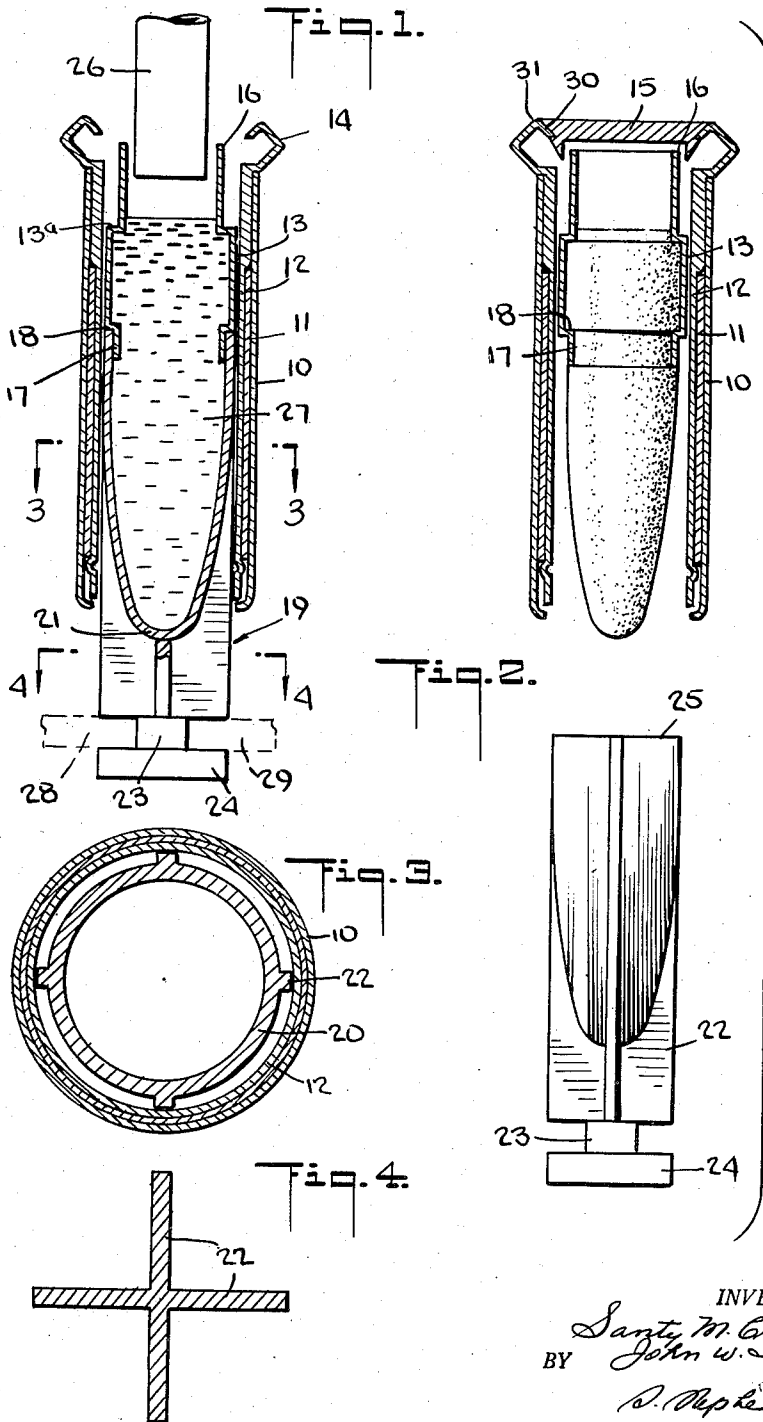
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METHOD OF FILLING LIPSTICK CONTAINERS

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METHOD OF FILLING LIPSTICK CONTAINERS

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This invention relates to a method of filling lipstick and other cosmetic containers.

The principal object of this invention is to provide a cosmetic container with greatly simplified means for filling the same and which offers substantial manufacturing economies. As one feature of the invention, the filling is done when the container is in a substantially finished state of assembly, a novel system of pouring and molding the lipstick being shown herein. In conventional practice, molten lipstick is poured into a mold, and then the molten mass and mold are chilled so that the mass solidifies well. The mold is then opened manually and the lipsticks are removed and inserted in the cup-like holder in the lipstick tube.

In conjunction with the above, we provide a removable lipstick mold and shaping mechanism which is receivable within the container itself but which is withdrawn therefrom after the lipstick substance has hardened into set form. The mold or shaping mechanism serves as a liner to insulate or space the injected substance from the walls of the container. The shaping mechanism is constructed so as to avoid marring of the molded lipstick and it is further fabricated so as to expedite cooling and therefore hardening of the thermoplastic lipstick substance.

The invention will be further understood from the following description and drawings in which:

Figure 1 is a longitudinal cross-sectional view of a lipstick case constructed according to the invention but shown upside down and illustrating the pouring and shaping of the injected substance;

Figure 2 is an exploded view illustrating the removal of the molding and shaping mechanism from the container after the lipstick is set;

Figure 3 is an enlarged cross-sectional view as taken along the line 3—3 of Figure 1; and

Figure 4 is an enlarged cross-sectional view as taken along the line 4—4 of Figure 1.

The cosmetic case is of the conventional rotary or swivel type where the lipstick is propelled by effecting relative rotation between the outer cylinder and the operating base at one end thereof. The outer cylinder 10 is of conventional construction and it houses the guide tube 11 as well as the propelling sleeve 12. As is well understood, the guide tube 11 is stationary in respect to outer tube or cylinder 10 and it is formed with a conventional spiral slot which operates in conjunction with a longitudinal slot formed in propelling sleeve 12. A rotatable cup holder 13 is received within the propelling sleeve 12 and such holder has the usual pin which engages both the longitudinal slot of the propelling sleeve and the spiral slot of the guide tube. All this is conventional mechanism and it is not deemed necessary to show it herein. Any conventional form of such swivel type of propelling lipstick may be employed.

In accordance with the instant invention, the propelling sleeve 12 is modified relative to conventional forms thereof. Generally, the base end thereof is provided with a closure cap. According to the instant invention, how-

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ever, such base is formed with an integral, enlarged, inwardly directed clip ring 14 which serves to receive a button closure 15 as will hereinafter be described.

The holder 13 of the instant invention assumes special form in accordance with the end to be realized. Thus, as opposed to conventional holder forms, it has no floor. It is formed with an inwardly projecting shoulder 13a at its base end. It is further provided with an integral, outwardly extending tube section 16 which is open at its outer end and which serves as a filler tube and reservoir as will hereinafter be described. The open outer end of the tube terminates short of the clip ring 14. The upper or mouth end of holder 13 is provided with a portion 17 of reduced diameter which not only serves to grip the cosmetic substance but further provides a shoulder 18 at its mouth end against which the mold or shaper may rest as will hereinafter be made clear.

The improved container may be filled as follows:

The foregoing elements, with exception of button 15, are first assembled as above noted so as to form a tubular structure which embraces the holder 13 concentrically these elements substantially comprising the finished container, and the holder being adjusted to a base position where its open upper end is approximately midway of the tubular structure. This assembly is disposed in reverse or upside down position as illustrated in Figure 1. A shaping and molding member 19 is set in place within the open mouth of the assembly. Shaping member 19 comprises a forward, hollow tubular section 20 which tapers down to a closed, oval-shaped end portion 21. This tubular section functions as a mold for the poured cosmetic substance.

Integral with the sides of tubular section 20 are a plurality of outer, longitudinal ribs 22 which, in the form shown, are 90° apart and serve to space and fix the position of tubular section 20 within the propelling sleeve 12. Ribs 22 are extended further outwardly than the closed end 21. A reduced circular section 23 is formed at the outer end of the ribs 22, followed by head section 24.

The cosmetic container is disposed in reverse position as illustrated in Figure 1, the base end thereof being maintained open by the absence of closure button 15. The open upper mouth 25 of the shaping member 19 is inserted into sleeve 12 and embracing the upper or mouth end of the holder so as to rest against shoulder 18, as illustrated in Figure 1, and a feed tube 26 is employed to inject the liquid or semi-liquid thermoplastic cosmetic substance 27 directly into tube 16, holder 13 and into hollow tubular section 20 of the shaping member 19. As will be well understood, feed tube 26 may be part of a feed machine. The cosmetic substance, flowing into the hollow tubular section 20, is correspondingly given the desired tapered shape. The reduced section 17 serves, in addition to providing an abutment shoulder 18, to provide a better gripping of the molded and hardened lipstick as illustrated in Figure 2.

It will be noted in Figure 1 that the holder 13 is overfilled with the semi-liquid cosmetic substance, the tube 16 serving to receive the overflow and thus serving as a reservoir. The purpose thereof is to provide additional lipstick substance as the substance hardens and accordingly contracts. Thus, it will be noted in Figure 2, the hardened lipstick does not extend into tube 16, the overflow having filled the space in cup 13 which is left by contraction and its absence from tube 16 being indicated in dotted lines.

In general, the cosmetic substance will harden into consistency of a paste within a few minutes. At this time, the shaper 19 may be withdrawn as illustrated in Figure 2. It is for this reason that the shaper 19 is formed

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with the outwardly extending ribs 22 as well as sections 23 and 24.

A suggested means of withdrawal includes the provision of two concavely arcuate fingers 28 and 29 which may serve to grip the reduced section 23 and withdraw the shaper 19. The fingers 28 and 29 will generally comprise elements of a more complex machine but no claim is specifically made thereof in this application. During such withdrawal, the outwardly extending ribs 22 prevent lateral shifting of the shaper 19 and thereby avoids distortion or marring of the set cosmetic substance. Such ribs also permit the wall of tubular section 20 to be made of thin plastic such as nylon or the like so as to allow quick cooling of the cosmetic substance, thereby increasing speed of production.

The filled lipstick container, appearing as in the upper portion of Figure 2, is then provided with a base closure 15 of the button type which snaps into the annular ring clip 14. Base closure 15 has an inwardly bevelled peripheral edge 30 terminated by a shoulder 31 which is engaged by the peripheral edge of annular clip 14 so as to complete the base closure. Base closure 15 may be of resilient plastic and, if desired, may have printed matter applied thereto before it is snapped into place. Thereafter, a conventional form of cap, not shown, is applied to the open mouth of the container as is usual.

There has been shown what is now considered a preferred embodiment of the invention but it is obvious that numerous changes and omissions may be made without departing from its spirit.

What is claimed is:

1. A method of filling a cosmetic case comprising an outer tubular structure and an internal holder concentric therewith, both said tubular structure and holder hav-

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ing both their ends open, said method comprising positioning a shaping member having an open mouth within said tubular structure by inserting it through one end thereof and disposing its open mouth against an open end of said holder, injecting a thermoplastic cosmetic substance while in a liquid state into the other open end of the holder so as to fill both said holder and said shaping member, allowing the injected substance to harden in said holder and shaping member, and thereafter withdrawing said shaping member so as to provide a molded lipstick within and extending from the holder and spaced from the tubular structure.

2. A method according to claim 1 and wherein said open mouth of said shaping member is positioned around, so as to embrace, said open end of said holder before the cosmetic substance is injected therein.

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