

[54] **HOLDER FOR A STICK OF PASTY
MATERIAL COMPRISING AN
EJECTABLE STICK PROTECTING CAP**

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[58] Field of Search.....**401/75-78, 63,
401/59-60, 107-108**

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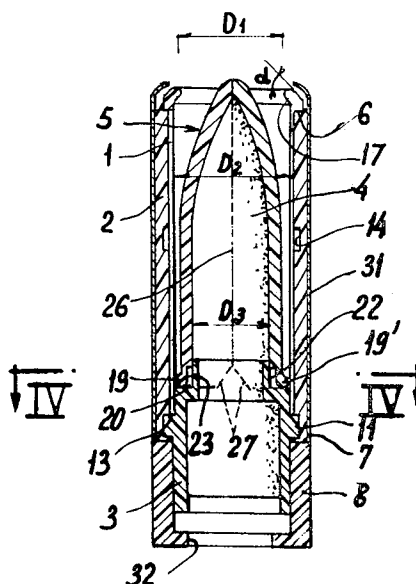
[57] **ABSTRACT**

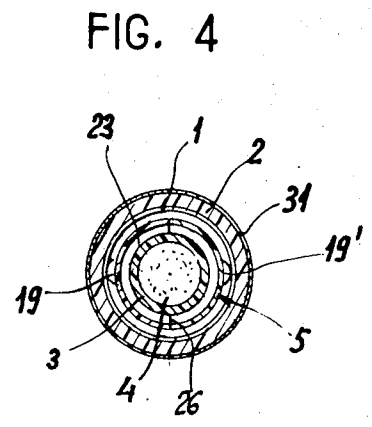
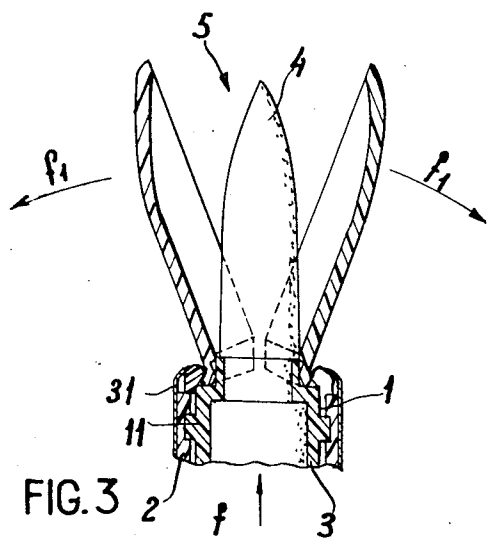
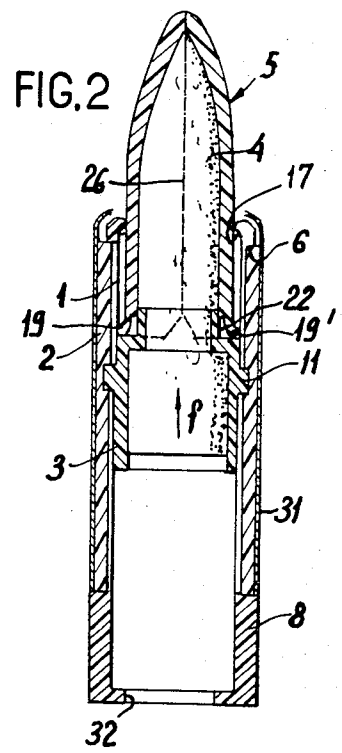
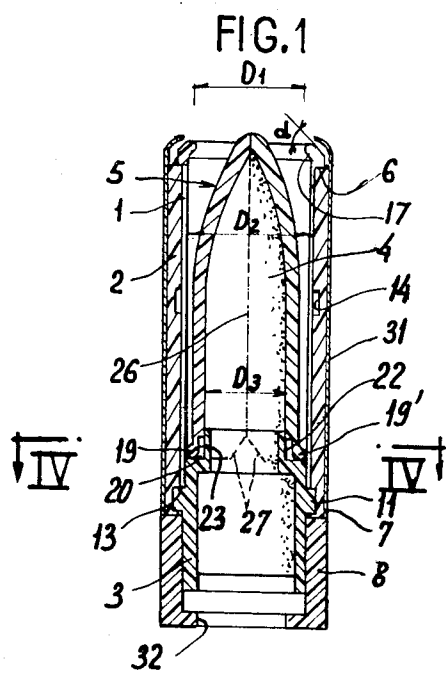
The present invention is related to a holder for a lip-stick or for a similar product in the form of a stick which is protected by an ejectable transparent moulding cap.

The invention is more particularly related to such a holder which allows for the ejection of the protecting moulding cap under the effect of the first outward motion of the stick.

The holder according to the present invention is therefore characterized in that the stick outlet end of the holder is provided with at least one inner projection having an inner radius smaller than the inner radius of the tubular body of the inner sleeve; the protecting moulding cap has an outer radius slightly smaller than the inner radius of said inner projection, and its open end which is placed over the stick holding cup is provided with at least one outwardly extending projection having an outer radius slightly smaller than said inner radius of the inner sleeve body; furthermore, the protecting moulding cap is of a split construction constituted by at least two juxtaposed cap segments defined by at least two longitudinal slits.

8 Claims, 4 Drawing Figures





HOLDER FOR A STICK OF PASTY MATERIAL COMPRISING AN EJECTABLE STICK PROTECTING CAP

The present invention is related to holders for packing a pasty product in the form of a stick, such as make-up, pomade, cosmetic, pharmaceutical, veterinary or similar products, having a slide or two coaxial sleeves rotatably mounted with respect to each other, a stick holding cup movable in the inner sleeve and provided with at least one lug extending through a slot of said inner sleeve and protruding into a slot of the outer sleeve, one of said slots being longitudinal and the other slot being helical, said holder comprising furthermore an ejectable transparent protecting moulding cap for the stick having its open end located in engagement with the corresponding end of said cup.

In known holders of this type it is necessary, with a view to ejecting the protecting cap, prior to the first use of the stick, to displace the stick holding cup until it reaches its extreme position adjacent the stick outlet end of the holder, so as to move the whole length of the protecting cap through the aperture of said holder outlet end, whereafter one must move the stick holding cup slightly in the opposite direction so as to separate the stick from the moulding cap the open end of which engages the annular end surface of the holder, whereby the protecting cap, being no longer retained, can then be removed.

The present invention is aimed at providing a holder of the above described type of the protecting moulding cap of which is adapted to be ejected under the effect of the first motion of the stick holding cup towards the open end of the holder, without it being necessary to effect the above-mentioned subsequent backwardly directed motion of said cup.

This object is achieved by the holder according to the present invention which is characterized in that the open stick outlet end of the holder is provided at least one inner projection having an inner radius smaller than that of the tubular body of the inner sleeve, the protecting moulding cap having an outer radius slightly smaller than the inner radius of said inner projection, the open end of said cap which is placed upon the stick holding cup being provided with at least one outer projection having an outer radius slightly smaller than said inner radius of the inner sleeve body, said protecting moulding cap being constituted by at least two juxtaposed segments defined by at least two longitudinal slits provided in the wall of said cap, whereby said segments are separated from each other and fall off when upon the first outwardly directed motion of said stick holding cup said outer projection of the moulding cap engages the corresponding inner projection of said outlet end of the holder.

Due to the above arrangement the user of the holder need not effect the above-mentioned slight backward motion of the stick holding cup when using the holder for the first time, with a view to ejecting the protecting moulding cap, after having moved said cup into its extreme position adjacent the holder outlet end. Furthermore, the construction according to the invention prevents the user from removing the moulding cap from the stick, such removal bringing along a risk of scratching or even breaking the stick of pasty material.

Other features and advantages of the present invention will become apparent from the description hereinafter which refers to the accompanying drawings showing an exemplary embodiment of the invention, and wherein:

FIG. 1 shows a closed stick holder, in a longitudinal section.

FIG. 2 shows the stick holder of FIG. 1 during the process of moving a stick outwardly with a view to ejecting the protecting moulding cap.

FIG. 3 shows the upper portion of the holder at the time of the ejection of the moulding cap, the segments constituting the latter being separated, just prior to falling off from the holder, and

FIG. 4 is a sectional view taken along the line IV—IV in FIG. 1.

The stick holder shown in FIGS. 1 and 2 essentially comprises two coaxial cylindrical sleeves 1, 2, a cylindrical cup 3 movable within the inner sleeve 1 and adapted to support a stick 4 made of a pasty product which, in the example shown, is a lipstick; the holder further comprises a transparent moulding cap 5 protecting the above-mentioned stick.

Sleeve 1 is arranged within sleeve 2 and is capable of rotative motion relative to the latter. The two sleeves are maintained in their relative position by two shoulders 6, 7 provided on the outer sleeve 2 and engaging the inner sleeve. Furthermore, shoulder 7 has an extension which forms an actuating button 8 allowing the two sleeves which are mounted with a gentle frictional mutual engagement to be rotated relative to each other.

Stick holding cup 3 has at least one lug 11; in the embodiment shown said cup has two diametrically opposed lugs extending each through a longitudinal slot 13 provided in the wall of inner sleeve 1, and engaging each in a helical slot 14 provided in the wall of outer sleeve 2; due to this arrangement cup 3 is axially displaced when the two sleeves are rotated with respect to each other.

The stick outlet end of the holder, which in the example shown is the open end of inner sleeve 1, is provided with an inner bead 17 having a diameter D1 smaller than the inner diameter D2 of the inner sleeve. Furthermore, the annular inner surface of this bead preferably has a substantial frusto-conical shape as indicated by angle α in FIG. 1.

The protective moulding cap 5 has an outer diameter slightly smaller than the inner diameter D1 of bead 17 and its open end which is mounted upon cup 3 has two projections 19, 19' in the shape of lugs the outer radius of which is slightly smaller than the inner radius D2 of inner sleeve 1.

With a view to eliminating the risk of deterioration of stick 4 during the ejection of transparent protective moulding cap 5 the open end of the latter is telescopically mounted on a portion 22 of cup 3 having a reduced diameter. In the embodiment shown the reduced diameter portion 22 has a diameter equal to inner diameter D3 of cap 5 which arrangement facilitates the ejection of said cap. The open end of cap 5 also has an enlarged inner portion 23 having an axial length smaller than that of the reduced diameter portion 22 of cup 3.

Moulding cap 5 is slit over its entire length so as to be divided into at least two juxtaposed segments. In the embodiment shown in FIGS. 1, 2 and 4 the cap is constituted by two segments, said cap being slit over its entire length in a diametrical medium plane, as indicated by reference numeral 26.

Preferably the edges of the end of each cap segment which is located adjacent cup 3 have a bevelled configuration as indicated by reference numeral 27.

Holders of the type considered are often provided with a decorative metallic tube 31 over which a tubular cover (not shown) may be adapted to be removably telescoped. In the embodiment shown the bottom of actuating button 8 has a central opening 32 through which the matter constituting stick 26 is injected with a view to moulding said stick in situ within moulding cap 5 and cup 3 during the process of manufacturing the complete assembly of holder and stick. The actuating button may be covered by a closing cap (not shown) which covers opening 32.

The holder described hereinbefore operates as follows:

Prior to the first utilization the holder has the aspect shown in FIG. 1 wherein a moulding cap 5 covers and protects the lipstick 26. When using the holder for the first time button 8 is rotated relative the outer sleeve 2 which, in a manner known per se, causes cup 3 to be displaced in the direction of arrow *f* (FIG. 2) and consequently causes stick 4 and moulding cap 5 to be moved out of the holder.

When projections 19, 19' of the two segments constituting moulding cap 5 engage the frusto-conical portion of bead 17 of the interior sleeve 1 the said projections are submitted to a force directed toward the axis of the holder and as the inner enlarged portion 23 of the open end of moulding cap 5 leaves a small space 20 between said end and the reduced diameter portion 22 of cup 3, each segment pivots in the direction of arrow *f*1 (FIG. 3), about the edge formed by the open end of the portion of moulding cap 5 having the diameter D3. The bevelled portions 27 eliminate any possible obstacle which might oppose the outwardly pivoting motion of the cap segments.

It follows from the preceding description that the simple motion of cup 3 towards its extreme position adjacent the open end of the holder automatically results in the separation and the ejection of the segments constituting moulding cap 5 without any necessary of effecting a slight backward motion of cup 3 when the latter has reached said extreme position which slight backward motion must be effected in the known holders of the type considered, as said force hereinabove.

The embodiment described hereinbefore is not constructed to limit the scope of the present invention which may undergo numerous modifications obvious to those skilled in the art.

For instance, the number of the segments constituting the protecting moulding cap may be greater than 2; the projections of the segments constituting said cap may form a continuous collar-shaped portion, while the bead provided on the inner sleeve may be replaced by separate projections in a number equal to that of the segments and positioned in front of the respective locations of the medium portions of the latter at the time of the ejection of said segments. Furthermore, the holder

may be of the slide type comprising a single sleeve having at least one longitudinal slot through which extends a lug of the stick holding cup, the open end of such a holder comprising at least one restrained portion constituting a projection for causing the segments of the moulding cap to be ejected; also the segments constituting the moulding cap may be interlocked and/or hinged to each other so as to provide for a better seal during the moulding of the stick; the separation and ejection of such segments may be obtained by the cooperation of only of said segments with the projection provided at the holder open end.

What is claimed is:

1. An improvement in a stick holder comprising a substantially cylindrical stick support adapted to receive a stick of pasty material, said stick being concentrically surrounded by and axially movable in at least one cylindrical sleeve having an open stick outlet end, and a stick protecting cap having a cylindrical portion, the outer diameter of which is smaller than the inner diameter of said sleeve, and an open end portion which is telescoped over a corresponding end portion of said stick support, said improvement comprising a stick protecting cap longitudinally split into at least two tightly juxtaposed segments, each of said segments having an outer projection adjacent the open end of said cap, and said sleeve having at least one inwardly projecting portion at said open stick outlet end of the sleeve, said outer cap segment projections having an outer diameter slightly smaller than the inner diameter of said sleeve, but greater than the inner diameter of said inwardly projecting sleeve portion, whereby said cap segment outer projections and said inwardly projecting sleeve portion cooperate pivotally to separate and to eject said cap segments on the first actuation of said holder when said stick support is moved axially into an extreme position adjacent said stick outlet end of said sleeve.

2. The improved holder of claim 1, wherein the end portion of said stick support over which said cap is telescoped has a lesser diameter than the diameter of the remaining portion of said stick support.

3. The improved holder of claim 2, wherein said open end of said cap defines an inner recess the axial length of which is less than the length of said lesser diameter end portion of said stick support.

4. The improved holder of claim 1, wherein the lower edges of each of said cap segments adjacent the open cap end are bevelled.

5. The improved holder of claim 1, wherein said inwardly projecting sleeve portion is annular and has an inner surface having a frusto-conical shape.

6. The improved holder of claim 1, wherein said inwardly projecting sleeve portion is constituted by a continuous annular bead, and said segment outer projections are each a lug located on the median line of the related segment.

7. The improved holder of claim 1, wherein said cap is so split that the juxtaposed segments are symmetrical and two in number.

8. The improved holder of claim 1, wherein said sleeve is the inner sleeve of a two-sleeve holder in which said inner sleeve has at least one longitudinal slot and is concentrically surrounded by an outer sleeve having at least one helical groove, said stick support

having at least one radially outwardly extending lug en-
gaging said slot and said groove.

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