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Grisel

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[54] COSMETIC CASE

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[58] Field of Search 132/88.7, 79, 79.3, 83;
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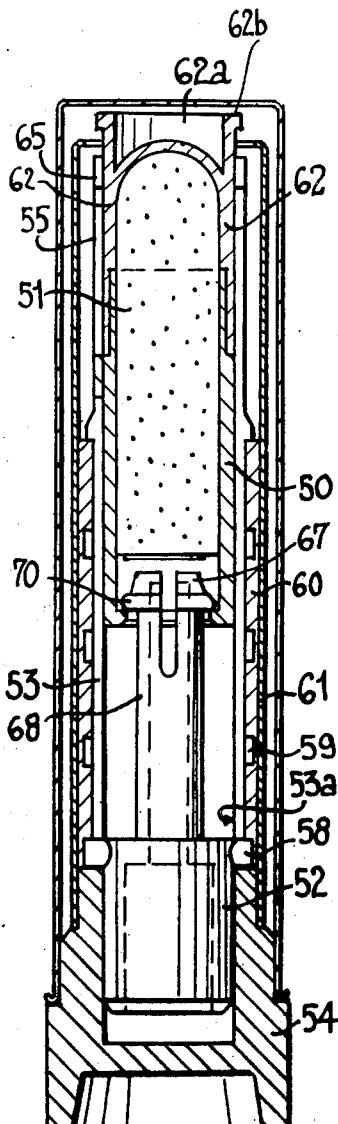
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[57] ABSTRACT

In a case for a stick of cosmetic material such as lipstick, the stick fits closely in a tubular casing open at both ends, the stick being advancable to extend its front end from the front end of the casing as the stick is worn away by a slide member extending through the other end of the casing and engaging the other end of the stick, the slide member, engaging the major part of the end surface of the stick. The casing and slide member are mounted in the remainder of the case for relative longitudinal movement and the casing is detachable for replacement by one containing a fresh stick. The tubular casing with the cosmetic stick is also retractable within an outer portion of the case by relative rotation of two case parts.

3 Claims, 9 Drawing Figures



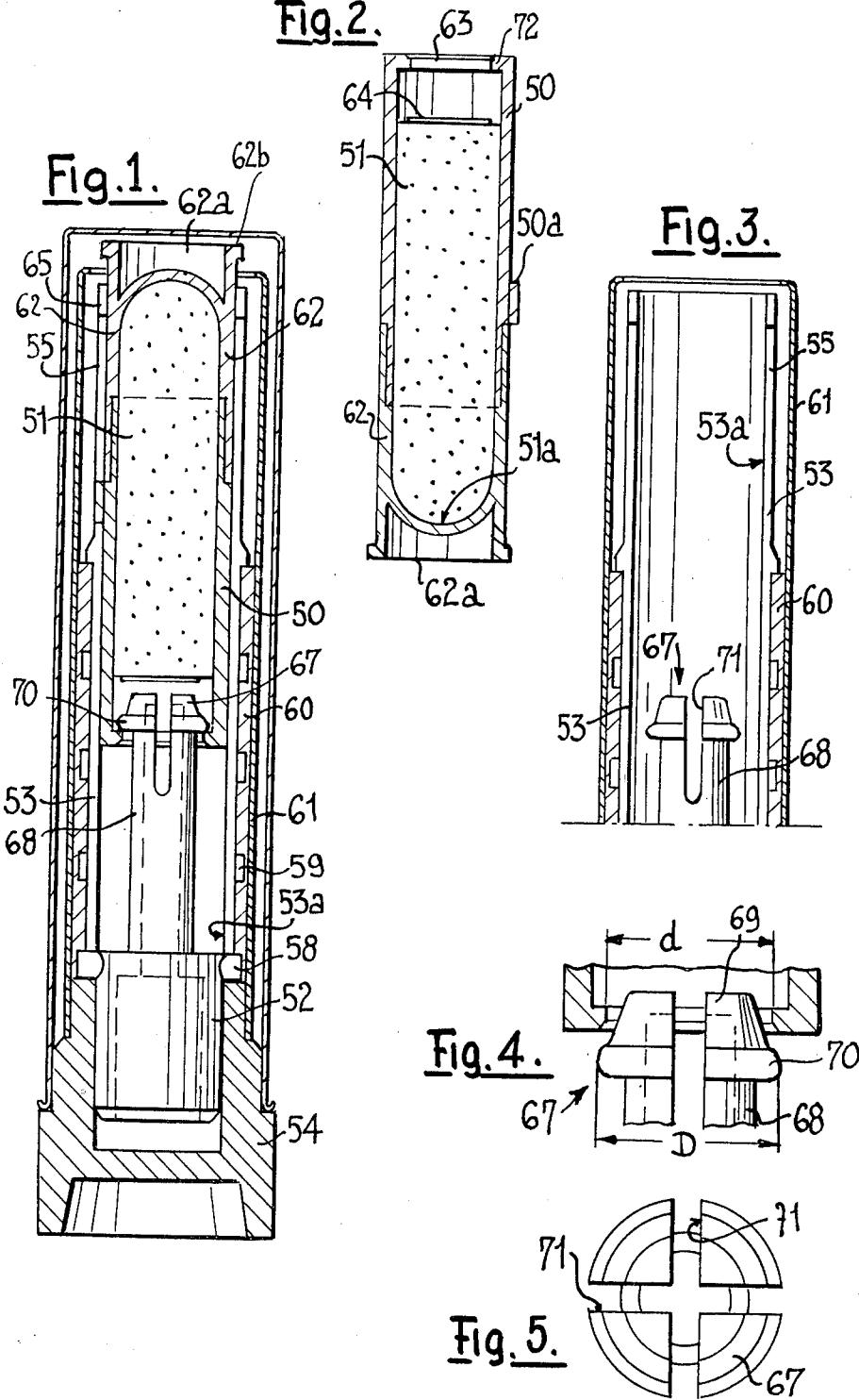
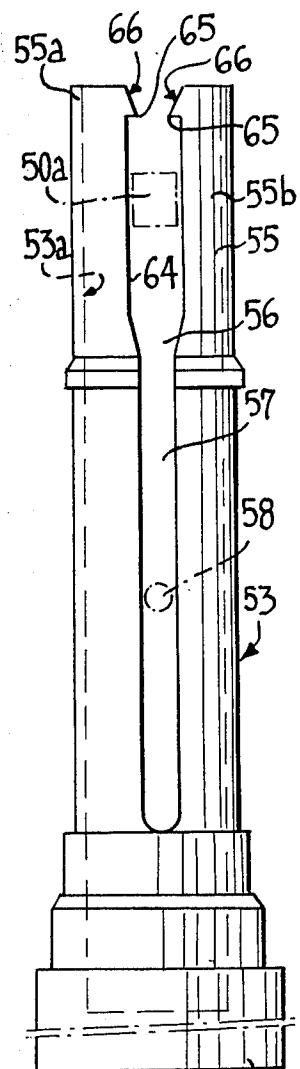
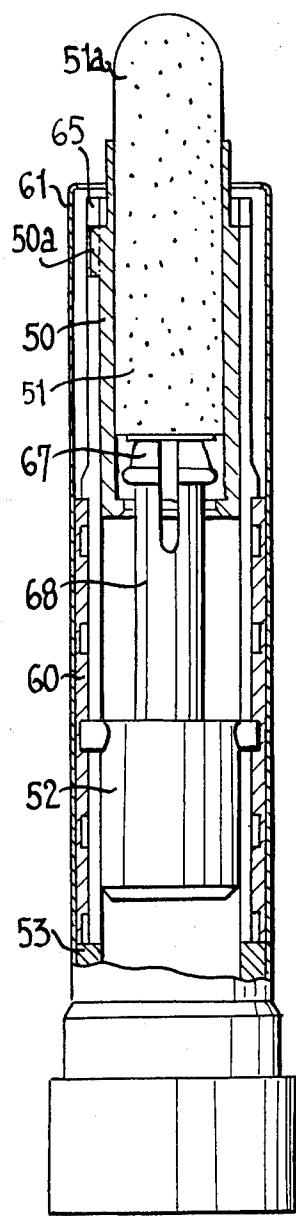
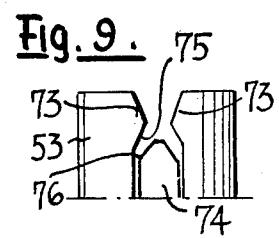
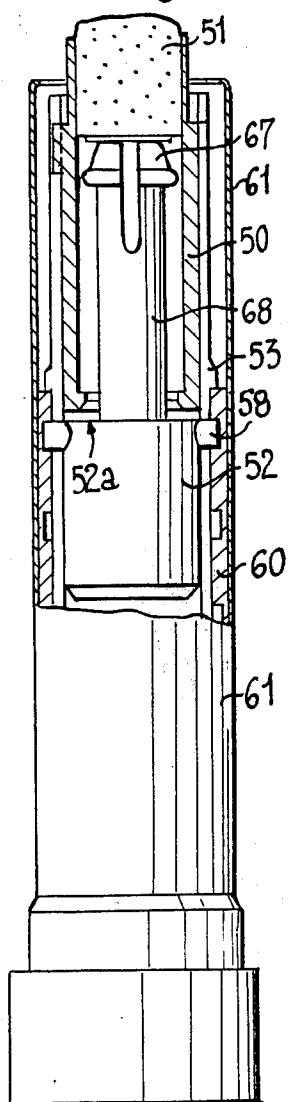


Fig. 6.Fig. 8. 54Fig. 7.

COSMETIC CASE

The invention relates to a cosmetic case comprising a tubular casing containing a stick of cosmetic material and a support member which can move in the casing to enable the cosmetic material to be advanced to renew a front portion of the stick extending beyond the casing as it becomes worn.

In prior art cosmetic cases, *inter alia* lipstick cases, a stick of cosmetic is attached only by its base to a support mounted for advance and retraction into a tubular case. The stick is therefore not supported laterally and therefore easily breaks at its base in the immediate vicinity of the support, the risk of this occurring being greatest when the stick is still long.

In other prior art cosmetic cases comprising a tubular casing in which a movable piston enables the cosmetic material to be advanced, a central control screw penetrating the inside of the cosmetic material extends through the piston. The stick then has a base portion of annular cross-section which is relatively weak; moreover, the cosmetic material may deteriorate due to being worn in contact with the screw, particularly during the retraction of the stick of cosmetic which is as a rule attached to the piston. Moreover, in cases of this kind with a central screw, the stick of cosmetic cannot be cast with an ogival or tapering end due to the fact that the form of the case places certain restrictions on the techniques which can be used in the casting of the cosmetic material, since the latter can be cast into the casing only through the top of the case in which the piston and screw have already been mounted. The end of the stick, cut off flush with the end of the case, therefore has a flat surface which is not very suitable for, *e.g.*, a lipstick.

In the aforementioned prior art cases the stick of cosmetic attached to the movable support or cast into the case cannot be replaced by the utilizer, so that the case must be thrown away once the stick has become worn.

It is an object of the invention to provide a cosmetic case in which the stick of cosmetic is more satisfactorily supported than in the prior art cases, in which the stick can have a base portion of stronger solid cross-section for increased strength, and can have an ogival or tapering end portion suitable for accurately depositing the cosmetic, as required *inter alia* in the case of lipstick. It is another object of the invention to provide a case in which the stick of cosmetic received in its support casing can readily be replaced to enable the case to be used for a long time.

SUMMARY OF THE INVENTION

According to the invention there is provided a cosmetic case comprising a first case member, a tubular casing open at both ends, a stick of cosmetic material fitting closely within the casing and supported over the major part of its length by the casing, an elongate slide member engaging one end of said stick within the casing, over a major part of the surface of said end of the stick, and extending through one end of said casing, the slide member, said tubular casing and said first case member being mounted with respect to each other for relative longitudinal movement whereby the slide member can be advanced with respect to said casing to push said stick, via said one end of the stick, along the casing to push the other end of the stick further out of the casing, and wherein retraction of the slide member

results in separation of the latter from the stick without corresponding retraction of the stick in the casing, the tubular casing being detachably retained with respect to the other components whereby, when the stick of cosmetic material has been exhausted, the casing can be detached and replaced by a similar casing containing a fresh stick of cosmetic material. Abutment means on the slide member and the casing prevent complete withdrawal of the slide member from the casing under a separating force below a predetermined value, and further abutment means on the first case member and the tubular casing prevent the casing from advancing with respect to the first case member beyond a predetermined position under the force exerted by the slide member on the casing through the stick of cosmetic material. Thus, by advancing and retracting the slide member longitudinally with respect to the casing without exerting force great enough to advance the stick in the tubular casing, the tubular casing can be advanced and retracted with respect to the first case member without altering the position of the stick of cosmetic material with respect to the tubular casing, and by advancing the slide member until the further abutment means engage and subsequently advance the slide member further, the stick of cosmetic material can be advanced with respect to the tubular casing.

Other features which may be incorporated in a cosmetic case according to the invention will appear from the following description, given by way of example, with reference to the accompanying drawings, of various embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a longitudinal sectional view of an embodiment of cosmetic case according to the invention;

FIGS. 2 and 3 illustrate a phase of the manufacture of the case illustrated in FIG. 1; FIG. 2 representing the manufacture of the cosmetic-filled casing and FIG. 3 representing the case before the casing has been put in place;

FIGS. 4 and 5 show to an enlarged scale details of the case illustrated in FIG. 7;

FIGS. 6 and 7 are views of the case illustrated in FIG. 1 in the position of use, FIG. 6 showing a brand new stick of cosmetic with its maximum length, and FIG. 7 showing the stick reduced to its minimum length;

FIG. 8 illustrates separately the body of the case illustrated in FIG. 1, and

FIG. 9 is a partial view of a variant of such body.

The case illustrated in FIG. 1 comprises a tubular casing 50 supporting a stick 51 of cosmetic material and longitudinally (i.e., axially) slidable in a case part 53. The casing 50 is connected to slide member 52 which is also longitudinally slidable in case part 53. The case part 53 comprises a base portion 54 forming the base of the case and an upper portion 55. The member 53 is substantially tubular and has a cylindrical bore 53a forming a guide for the casing 50 and slide 52. The upper portion 55 is divided into two halves 55a, 55b (FIG. 8) by two diametrically opposite longitudinal slots 56. The slots 56 each comprise a wider upper portion 64 and a narrower lower portion 57 through which two diametrically opposite radially extending pins 58 of the slide 52 extend, these pins engaging in two helical grooves 59 formed internally in a bush 60 rotatably mounted on the member 53. The bush 60 has fixed thereto a tubular sheath 61 which can thus also rotate

in relation to the member 53. Rotation of the sheath 61 and bush 60 in relation to the member 53 thus produces a longitudinal displacement of the slide 52 between bottom and top end positions shown respectively in FIGS. 1 and 7.

Referring to FIG. 2, during manufacture, the stick of cosmetic material is formed by casting in the casing 50. To this end, the casing 50, with a detachable hood 62 fitted to the end which is uppermost in FIG. 1 is inverted and the cosmetic material is cast in a liquid or pasty condition into the mould thus formed, through an opening 63 in the rear end of the casing. A washer 64, for instance a plastics washer, is thereafter placed on the exposed end of the cosmetic stick through the opening 63.

The assembly formed by the casing 50 capped by the hood 62 and containing the stick is then introduced into the bore 53a of the member 53, while the slide 52 is in the bottom position (FIGS. 1 and 3). During this operation a rectangular lateral boss 50a on the outside of the casing 50 engages in an outwardly diverging portion of the open outer longitudinal end of one of the slots 56, said portion being defined by inclined flanks 66 of lugs 65 formed at the ends of the halves 55a, 55b. The boss 50a can be forced past the retaining lugs 65 disposed at the inlet to the slot as the result of a momentary resilient deformation of the front portion of the member 53, whose two halves 55a, 55b are moved apart during the introduction of the boss 50a between the inclined flanks on camming surfaces 66 of the lugs 65 (FIG. 8). Thereafter the lugs 65 spring together again and downwardly facing abutment faces thereon, extending perpendicular to the longitudinal direction of the slots prevent the boss 50a from passing out of the slot by abutting the boss 50a. The casing 50 is then pushed down until a head 67 disposed at the upper end of a longitudinal rod part 68 of the slide 52 abuts the lower end of the casing 50. As shown in FIGS. 4 and 5, the head 67 comprises an upper conical portion 69 which is readily received in the opening 63 in the slide, and a rounded peripheral bead 70 of external diameter D slightly greater than the diameter d of the opening 63. The head 67 is divided into four sectors by two longitudinal, mutually perpendicular slots 71 (FIG. 5) so that when a rather strong thrust is exerted on the hood 62 capping the casing 50, the four sectors of the head move together, allowing it to pass through the opening 63. The edge of the opening axis is defined by an inwardly directed annular bead 72 at the end of the casing 50 so that the opening 63 has a smaller diameter than the interior of the casing 50. Thus, once past the bead 72, the four sectors of the resiliently deformed head spring back into their original positions, this time behind the bead 72 so that the head 67 is held captive in the casing 50, as shown in FIG. 1. During further downward movement of the casing, the lateral boss 50a of the casing 50 arrives at the bottom end of the wide portion 64 of the slot and limits further downward movement of the casing 50. The bead 70 can pass the bead 77 as the result of the momentary resilient contraction of the head 67, which resumes its original shape as soon as it has passed on the other side of the rib 72.

The hood 62 has a front extension 62a extending substantially further forward than the front end 51b of the cavity used for moulding the stick 51. The circular edge 62b of this extension offers a satisfactory support sur-

face to exert on the casing, capped with the hood, the pressure needed for bringing it into position on the head 67, all the more so since the extension 62a, as shown in FIG. 1, remains completely accessible as it emerges from the sheath. The moulding cavity of the hood 62 can also be non-circular or asymmetric, in which case interlocking between the hood and the casing is performed using a longitudinal key preventing the relative rotation of such elements.

Once the stick has been put in place as explained hereinbefore, the effect of a rotation in one direction of the sheath 61 in relation to the member 53 results in making the slide 52 rise so that its head 67, capped by the disc 64, urges the casing 50 with the stick 51 upwards. During such upward movement a position is reached when the boss 50a abuts the lugs 65, as shown in FIG. 6. Once the hood 62 has been removed, the article can be used without any risk of breakage of the cosmetic stick 51 which is closely supported by the wall 20 of the casing 50 over the major part of its length. After use, the casing 50 and cosmetic stick 51 can be retracted within the element 53, into the retracted position shown in FIG. 1 by rotating the sheath 61 in the opposite direction. In view of the small amount of resistance encountered, the head 67 is not then disengaged from the casing 50.

When the stick 51 is in the advanced position (FIG. 6), to renew the end portion 51 as it becomes worn, it is enough to continue to rotate the sheath 61 in the direction corresponding to the rise of the slide 52, after the forward position marked by the lugs 65 has been reached. The casing 50 is then retained by its boss 50a in abutment with the lugs 65 and the result of the slide 52 continuing to rise is that the thrust exerted on the stick 51 by the support member formed by the head 67 makes the stick advance progressively in the casing 50.

FIG. 7 shows the slide 52 almost in the uppermost position which it can take up in normal use, corresponding to the position where the stick 51 is almost used up. A rotation of the sheath in the opposite direction still enables the casing 50 and stick 51 to be retracted into the member 53, such rearward movement taking place simply after inoperative travel depending on the degree of wear of the stick, until the bead 70 of the head 67 abuts the rib 72 of the slide 50. The bead 70 and the rib 72 therefore form coupling means which on the one hand enable the casing 50 coupled to the slide 52 to be retracted during the retraction of the slide and on the other hand enable the cosmetic stick 51 to be advanced inside the casing 50 as a result of an advance of the slide 52, while the casing 50 abuts the retaining lug 65 and the head 67 forms a pusher bearing via washer 64 against the bottom end of the cosmetic stick 51.

To replace the casing 50 when the stick 51 has been completely worn away, it is enough merely to move the two halves 55a, 55b of the member 53 slightly apart, for instance using an instrument such as a nail file introduced into one of the slots 56, to enable the boss 50a to pass between the lugs 65 and the outlet of the casing 50. The casing 50 can then be pulled out until the ribs 72 abut the head 67 when the greater part of the casing will be outside the sheath 61 and can therefore readily be seized to be disengaged from the head 67 as the result of a rather stronger pull.

In a variant illustrated in FIG. 9, the undersides of lugs 73 of the member 53 corresponding to the lugs 65 in the embodiment of FIGS. 1 to 8, and a boss 74 of the

casing (corresponding to the boss 50a in FIGS. 1 to 8) are also given shapes comprising inclined faces 75, 76 forming cooperating cams marking the advanced position of the casing 50 while also enabling the casing to be disengaged from the member 53 simply by rotating the sheath 61 further, during which rotation the top face 52a of the slide (FIG. 7) abuts the bottom end of the casing 50 to push the latter upwards and make it pass between the lugs 73.

As shown in FIGS. 6 and 7, the head 67, capped by 10 the washer 64, forms a pusher solely allowing the advance of the cosmetic stick 51 in the casing 50 and presenting to the cosmetic material a support surface corresponding to the major part of the full surface of the cross-section of the casing. Moreover, the casing, 15 which can be filled via its open rear end, as described hereinbefore, is detachably fixed to the base part of the cosmetic case, so that the casing can be replaced when the cosmetic stick has been used up.

I claim:

1. A cosmetic case comprising
1. a first case member,
2. a tubular casing open at both ends,
3. a stick of cosmetic material fitting closely within the casing and supported over a major part of its 25 length by the casing,
4. an elongate slide member engaging one end of the stick within the casing over a major part of the surface of the one stick end and extending through one end of the casing,
- a. the slide member being mounted for longitudinal sliding movement in the first case member and
- b. the tubular casing being mounted for longitudinal sliding movement in the first case member for relative longitudinal movement of the casing and 30 the slide member whereby the slide member can be advanced with respect to the casing to push the stick along the casing and thereby to push the other end of the stick out of the casing, and retraction of the slide member results in separation of the slide member from the stick without corresponding retraction of the stick in the casing,
5. means retaining the tubular casing detachably with respect to the case and slide members whereby,

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when the stick of cosmetic materials has been exhausted, the casing can be detached and replaced by a similar casing containing a fresh stick of cosmetic material,

6. abutment means on the slide member and the casing for preventing complete withdrawal of the slide member from the casing under a separating force below a predetermined value, and
7. further abutment means on the first case member and the tubular casing for preventing the casing from advancing with respect to the first case member beyond a predetermined position under the force exerted by the slide member on the casing through the stick of cosmetic material whereby, by advancing and retracting the slide member longitudinally with respect to the casing without exerting force great enough to advance the stick in the tubular casing, the tubular casing can be advanced and retracted with respect to the first case member without altering the position of the stick of cosmetic material with respect to the tubular casing, and by advancing the slide member until the further abutment means engage and subsequently advancing the slide member further, the stick of cosmetic material can be advanced with respect to the tubular casing.
2. The cosmetic case of claim 1 wherein the tubular casing is mounted on the slide member, the first case member is tubular and the slide member, and with it the tubular casing and the stick of cosmetic material, can be advanced to project the tubular casing and the stick from the first case member and retracted to retract the tubular casing and stick into the first case member.
3. The cosmetic case of claim 1 wherein said slide member includes a resiliently deformable head within said tubular casing and said abutment means on the slide member are on said head and said tubular casing has an internal rib adjacent the end of the tubular casing through which the slide member passes, said rib forming the cooperating abutment means on the tubular casing.

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