

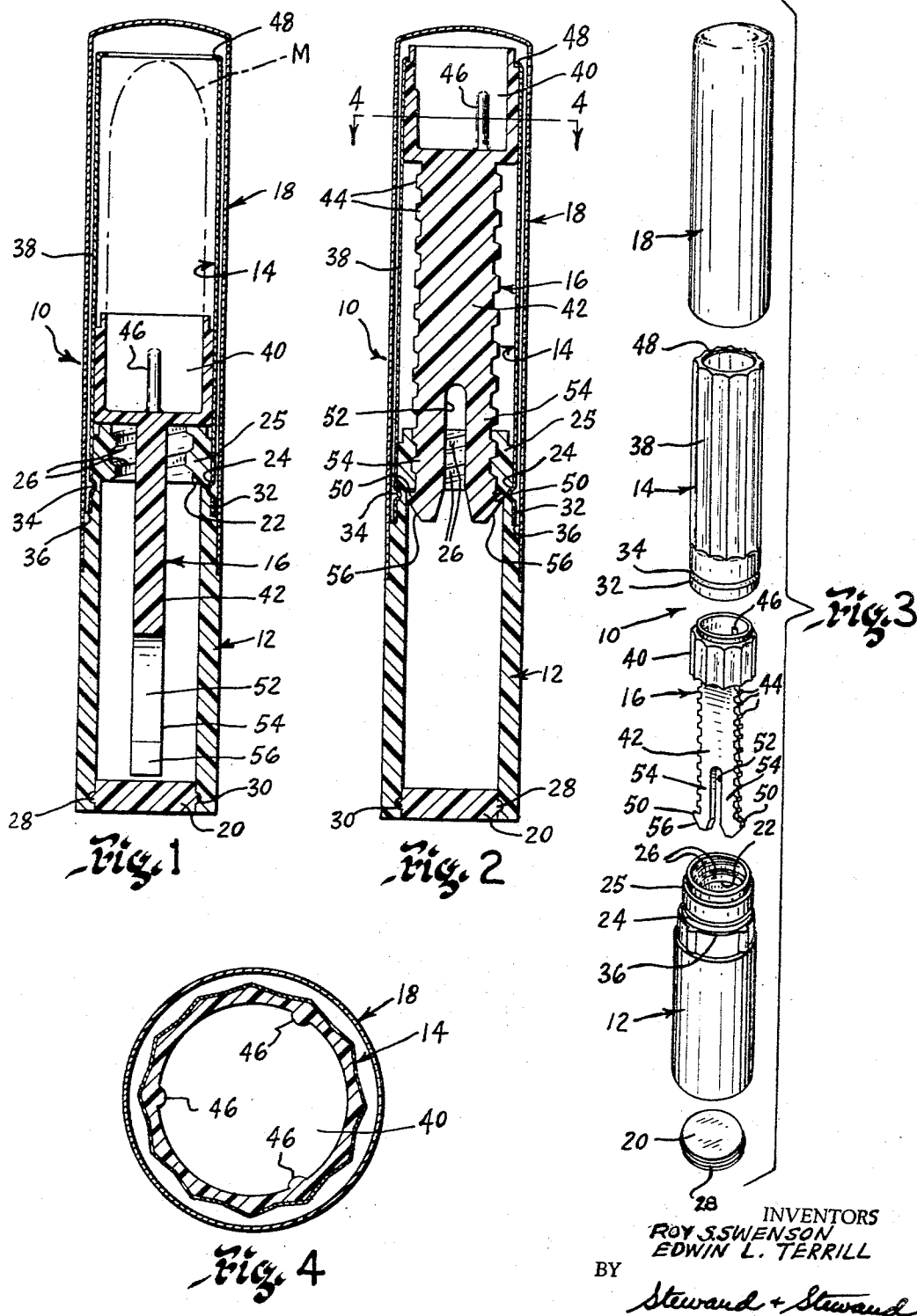
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E. L. TERRILL ET AL

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LIPSTICK

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INVENTORS
 ROY S. SWENSON
 EDWIN L. TERRILL
 BY *Steward + Steward*
 ATTORNEYS

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LIPSTICK

Edwin L. Terrill, Naugatuck, and Roy S. Swenson, Danbury, Conn., assignors to The Risdon Manufacturing Company, Naugatuck, Conn., a corporation of Connecticut

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This invention pertains to a holder for cosmetic or medicament materials, and more particularly to devices adapted to shift a mass of solid, or semi-solid, cosmetic or medicament material to and from an exposed position in respect to such holder. Typical examples of such devices are lipsticks, deodorant sticks, cologne sticks, styp-tic pencils and the like.

The invention herein disclosed pertains especially to holders of disposable or non-refillable type. Such items are mass-produced and it is essential that the cost of manufacturing and assembling the component parts be kept as low as possible. It is thus desirable not only to have as few separate parts as possible but also to form these in such a way that their assembly into the final device will involve a minimum number of operations, which operations preferably can be performed by automatic or semi-automatic machines.

With such general objectives in mind, the holder herein disclosed and claimed provides advantages of minimum parts, relatively simple fabrication and rapid assembly readily adaptable to automated means. Such advantages are accompanied by attractive appearance of the finished device which is of great significance in the cosmetic art, as well as by smooth and dependable functioning when in the hands of the customer or user.

The invention is described and claimed herein with reference to a specific embodiment of a lipstick holder shown for purposes of illustration in the accompanying drawings. While but one specific embodiment is here shown and described, it will be understood that the invention is not limited thereto but includes such modifications and equivalent structures as fall within the scope of the appended claims.

In the drawings,

FIG. 1 is an assembly view in cross-sectional elevation of a lipstick holder embodying the invention, the pomade carrier being in retracted position;

FIG. 2 is a view similar to FIG. 1 except that the pomade carrier is in axially extended position;

FIG. 3 is an exploded view of the several components as seen in perspective, arranged in order of their relative positions in the assembled device; and

FIG. 4 is a cross-sectional view taken on line 4—4 of FIG. 2.

The lipstick holder 10 shown in FIGS. 1 to 3 of the drawings consists of a base member 12, a sleeve member 14, a pomade carrier 16 and an outer cover 18. In this instance the assembly also includes a separable plug or insert 20 constituting a bottom closure for base 12.

Base member 12 is of hollow cylindrical form, closed at its lower end by plug 20, as above mentioned. As here shown, member 12 is formed of molded plastic material, such as a methacrylate, polyethylene or similar polymer material which is readily molded. Plug 20 is of similar material and may be retained in the lower end of base 12 by provision of molded tongue and groove elements 28, 30, on the respective members, whereby the members can be assembled very rapidly merely by forcing plug 20 into the open end of base 12 until elements 28, 30 inter-lock.

At its upper open end, member 12 is formed with an internal peripheral shoulder 22, as well as an external

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peripheral groove 24. Shoulder 22 forms a neck 25 of reduced internal diameter at the open end of member 12, and screw threads 26 are formed in the interior wall of this neck. Peripheral groove 24 constitutes external retaining means for a purpose now to be described.

Sleeve 14 is likewise of hollow cylindrical form, having an inner end portion 32 (see FIG. 3) which is circular and adapted to be telescopically received on the circular upper end or neck 25 of base 12. As here illustrated, sleeve 14 is of thin drawn metal. Portion 32 of the sleeve is formed with an interior peripheral flange 34 constituting retaining means adapted to engage groove 24 of base 12 when the base and sleeve are telescoped together as mentioned above. Limiting of the telescoping connection is effected by provision of a shoulder 36 in the outer periphery of base 12, against which the bottom edge of the sleeve abuts, as seen in FIGS. 1 and 2. The arrangement of the retaining means is such that the interengagement of flange 34 with groove 24 permits relative rotation of the base and sleeve members, while resisting axial separation thereof.

Sleeve 14 is of non-circular cross-section in region 38 located axially beyond or above inner end portion 32, and carrier 16 is provided with a pomade cup 40 also of non-circular cross-section which is adapted to be received in and axially slidable along region 38 of the sleeve. The non-circular cross-section of pomade cup 40 and region 38 of sleeve 14 prevents rotation of carrier 16 relative to sleeve 14, and carrier 16 therefore turns with sleeve 14 when the latter is rotated.

Carrier 16 is also preferably of molded plastic and is provided with a generally flat stem or tang 42 which depends from the base of pomade cup 40. In the assembled lipstick, stem 42 is received in the neck 25 of base member 12 and the stem is provided in its opposite edges with a plurality of teeth 44 which are, in effect, segments of interrupted screw threads encircling the stem. These teeth are in engagement with threads 26 in neck 25 of base 12 in the assembled lipstick holder. Rotation of sleeve 14 relative to base 12 thus causes carrier 16 to be screwed up or down within holder 10, depending upon the relative direction of rotation of the members. Access to the lipstick or pomade mass M is thus provided at the upper open end of sleeve 14, upon removal of cap 18. A plurality of holding ribs or nibs 46 are formed in the interior wall of the pomade cup 40 in order to grip the pomade mass securely and hold it firmly in the cup.

The upper free end of sleeve 14 is formed to provide an internal flange or shoulder 48 which may act as a stop against which cup 40 abuts, limiting the axially outward extension of the carrier. However it is desirable and as illustrated in the drawings the device incorporates further means to limit the outward extension of the carrier. This is effected by a pair of projections 50 closely adjacent to the lowermost end of stem 42 of carrier 16. These projections extend transversely of the axis of the carrier, beyond teeth 44, so that when the carrier is elevated to the position shown in FIG. 2, the projections come into abutment against the underside of shoulder 22 at the base of neck 25 in member 12.

In order to facilitate assembly of carrier 16 with base member 12, stem 42 of the carrier is bifurcated at its lower end by an axial slot 52 dividing that end of the stem into spaced legs 54. Due to the resilience of material from which stem is formed, legs 54 may be temporarily flexed toward each other to permit projections 50 to clear threads 26 of the base member as the carrier 16 is inserted into the base. Once projections 50 pass below shoulder 22, of course, legs 54 are free to return to their normal position and the projections 50 then act as stops or abutment members, as described above. In order still further to facilitate the assembly of carrier 16 with the

base, the lower free ends of legs 54 are tapered inwardly, as at 56, from projections 50. Tapers 56 thus act to cam legs 54 together, by-passing engagement of teeth 44 with threads 26, when the carrier is forced into the threaded neck 25 of the base, and allow the carrier to be assembled with the base by a straight axial motion without need for screwing the members together.

The bifurcation of the carrier stem and provision of projections 50 serve also in the holder design here illustrated to produce a desired "swivel friction" effect. This is the term applied in the art to a braking action in the propel-repel mechanism which is employed to prevent retraction of the pomade carrier and its associated cosmetic mass from extended position, due to endwise pressure on the pomade during application by the user. Thus, by causing the shoulders of projections 50 to bear against the inner surface of base 12, enough friction is supplied to overcome any resultant rotational force transmitted through teeth 44 and threads 26 of the screw mechanism. The resulting tongue is slight because of the mechanical disadvantage of the connection presented to such endwise pressure, and thus only a small amount of frictional drag is required. This is effectively applied to projections 50 by the splayed arrangement of the legs of stem 42. Similarly, swivel friction may be incorporated by inclusion of friction "shears" or flaps of conventional horseshoe configuration in the wall of cup 40 to bear outwardly against sleeve 14; or the sleeve may be slightly deformed in its cross-section so as to produce frictional engagement with cup 40.

The splayed arrangement and inherent resiliency of legs 54 mentioned above also provide the holder with a further advantage, commonly referred to as a "fail safe" design. This has reference to means for preventing damage to the mechanism of the holder by continued turning of the members 12 and 14 after carrier 16 has arrived at a limiting position within the holder. Because of the spring action of legs 54, the forces produced by attempting to advance the carrier beyond its normal stop position simply cam the legs together so that threads 26 are momentarily disengaged, in the nature of a ratcheting action, and the threads are protected against stripping. Upon reversing the direction of turning of the several parts, re-engagement of the threads automatically occurs.

Although the holder device here illustrated incorporates drawn metal shells for sleeves 14 and cover 18, it is quite apparent that such members could likewise be formed of plastic to provide an all-plastic holder. Conversely, of course, all of the components could readily be manufactured of stamped or turned metal components. However the particularly illustrated combination of metal and plastic components provides not only an economical design but one which gives the manufacturer an opportunity to produce interesting decorative effects through the use of different materials. Such modifications are of course well within the ability of those skilled in the art and are contemplated by the invention, as defined in the appended claims.

What is claimed is:

1. In a lipstick device, the combination of
 - (a) a base member of hollow cylindrical form having a closed lower end and an internal peripheral

shoulder adjacent its open upper end, said upper end being circular and external peripheral retaining means being formed in said circular portion;

- (b) a sleeve member of hollow cylindrical form having a circular inner end portion and internal retaining means formed thereon, said inner end portion being telescopically received over said upper end of said base to engage said respective retaining means and permit relative rotation of said members while resisting axial separation thereof;
 - (c) said sleeve member having a portion of non-circular cross-section located axially beyond said inner end portion;
 - (d) a pomade carrier axially reciprocable in said base and sleeve members and having a cup portion of non-circular cross section received in said outer portion of said sleeve and preventing rotation of said carrier relative to said sleeve, said carrier having a depending stem received in said open end of said base member, and said stem and base members having mutually engaged screw thread means to effect axial reciprocation of said carrier upon relative rotation of said base and sleeve members in opposite directions;
 - (e) said stem having a transverse projection at its inner end forming an abutment for engagement with said internal peripheral shoulder of said base member in the axially extended position of said carrier;
 - (f) said stem of said carrier being formed of resilient material and being bifurcated at its inner end permitting the free terminal portions thereof to be temporarily flexed toward each other.
2. A lipstick device as defined in claim 1, wherein said transverse projection is constantly urged radially outwardly into contact with the inner wall of said base member.
 3. A lipstick device as defined in claim 1, wherein the stem of said carrier comprises a flat tang integrally connected to said cup portion and said screw thread means comprises teeth formed in the sides of the tang and threads formed in the end of the base member.
 4. A lipstick device as defined in claim 3, wherein the free end of said stem is tapered inwardly from said projecting abutment.
 5. A lipstick device as defined in claim 3 wherein said transverse projection on said stem is located on at least one of said free terminal portions and is urged radially outwardly thereby into frictional contact with the inner surface of said base member.
 6. A cosmetic device as defined in claim 1, wherein said carrier member is formed integrally of resilient molded plastic material and the inner end of said stem is tapered inwardly from said projecting abutment.

References Cited

UNITED STATES PATENTS

2,546,195	3/1951	Mellette	206—56
2,592,064	4/1952	Peterson et al.	206—56
3,275,132	9/1966	Haltgren	206—56

60 THERON E. CONDON, *Primary Examiner*.
M. L. RICE, *Assistant Examiner*.