LIPSTICK HOLDER AND REFILL

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The present invention relates to a lipstick holder in which the lipstick can be moved backwards and forwards in the axial direction by means of a rotary movement and removed for the purpose of inserting a refill. The characteristic feature of the invention resides in the fact that the refill is arranged in a sleeve so as to be longitudinally movable therein and that it can be inserted in and removed from the lipstick holder together with the said sleeve. One portion of the feed mechanism is arranged on the lipstick holder and another portion is arranged on the sleeve of the refill. In addition, means are provided which will positively engage the portion of the feed mechanism arranged on the refill with the portion arranged on the holder when the said refill is inserted.

Lipstick holders with refills are known in which the refill is held by a short cup-shaped member and protected by means of a sleeve against contact when being inserted in the lipstick holder. Insertion in the holder is effected by connecting the refill held in the sleeve by means of its cup-shaped member to the feed mechanism of the holder more or less permanently, such as by a bayonet catch, and slipping or otherwise removing the sleeve from the cup-shaped member holding the lipstick. While insertion of the new lipstick is simple, the preceding removal of the cup-shaped member holding the used lipstick is most unsatisfactory since it cannot be effected without aids and undesirable oiling.

As lipstick holders often constitute comparatively valuable pieces of jewelry, there is a demand for a design eliminating the drawbacks of the constructions hitherto known, enabling the used lipstick to be easily replaced without undesirable oiling and permitting production in the simplest manner.

The lipstick holder with refill according to the present invention eliminates all drawbacks attaching to the designs hitherto known in that the refill is enclosed in a sleeve and together with the said sleeve inserted into the holder, and that, on its being used up, it is removed from the holder in the said sleeve and not used again. The lipstick is longitudinally movable in its sleeve which is provided with a portion of the feed mechanism cooperating, after insertion, with the portion of the feed mechanism arranged in the lipstick holder.

The sleeve provided with each refill and the one portion of the feed mechanism is of a design simple enough to cause no noticeable increase in the cost of manufacturing the refill. On the contrary, these members permit the refill to be used as a complete lipstick of simplest design (so-called sliding lipsticks) when suitably constructed.

The lipstick holder with refill according to the present invention together with its various advantages and characteristics will be disclosed in greater detail in the following specification taken in conjunction with the enclosed drawings, in which

Fig. 1 shows an embodiment of the holder and the refill according to this invention in assembly, on the right of the centre line in elevation, on the left, in longitudinal section.

Fig. 2 is a longitudinal section of the lipstick holder according to Fig. 1;

Fig. 3 is an elevation of the lower portion of the spare lipstick according to Fig. 1;

Fig. 4 shows a further embodiment of the lipstick holder and the refill, on the right of the centre line in elevation and on the left, in longitudinal section;

Fig. 5 is a longitudinal section of the upper portion of the lipstick holder according to Fig. 4, and

Fig. 6 is a longitudinal section of the lower portion of the refill according to Fig. 4.

In the embodiment shown diagrammatically in Figs. 1, 2 and 3, the lipstick holder 1 consists of a tubular body having a cylindrical interior and an exterior surface of optional configuration. The upper end of the inner wall of the holder 1 is provided with a cylindrical recess 2 on the lower end thereof with a similar recess 3. A helical keyway 4 is provided in the plain inner wall extending between the two recesses, here shown as a single-thread keyway. This helical keyway 4 does not quite reach the recess 2 while its lower end opens into recess 3, its lateral edges being suitably rounded as at 5. This helical keyway 4 whose function will be described later, represents the portion of the feed mechanism attached to the holder 1.

The refill comprises a thin-walled cylindrical sleeve 6 whose upper edge is slightly flared at 7. The lower end of the said sleeve ends in an edge or bead 8 which is designed as a turning knob for the sleeve 6 of the refill and has preferably the same outer diameter as the holder 1. The thin-walled sleeve 6 is provided with a longitudinal slot 9 beginning closely adjacent to the lower edge 8 and extending longitudinally along the sleeve 6 to its upper end which is flared as at 7. A short cylindrical cup 10 with a laterally projecting pintype lug 11 extending through the longitudinal slot 9 is arranged inside the sleeve. The longitudinally movable cup 10 with its lug 11 and the longitudinal slot 9 together constitute the portion of the feed mechanism for the lipstick provided on the refill. The lipstick is vertically inserted into the cup 10. Inside the bead edge 8 at the lower end of the sleeve 6 is a light compression spring, such as a coil spring 12, which the cup 10 engages so as to compress it when in the extreme lower position.

If the refill is inserted in the holder 1 from below, the sleeve 6, whose upper end is easily compressed owing to the presence of the slot 9, together with its flared end 7 slides along the inner wall of the holder 1 until the flared end 7 enters the upper recess 2 of the holder 1. The length of the sleeve 6 is such as to permit its flared end 7 to snap into recess 2 at the moment when the lower bead 8 of the sleeve 6 engages the lower edge of the holder 1. The sleeve 6 of the refill is held in the holder 1 in this position while being easily rotatable by means of the turning knob 8.

When the refill has been inserted in the holder 1 the pin-type lug 11 of the cup 10 engages the longitudinal slot 9 into the recess 3 of the holder 1 without, however, engaging its outer wall. The compression spring 12 tends to dislodge the cup 10 upwardly in the axial direction so that the lug 11 engages the inner edge 13 of the recess 3 under light spring pressure. If the sleeve of the refill is now rotated relative to the holder 1, it will turn through the upper keyway 4 opening into recess 3 and automatically slides into the said keyway 4 along the rounded edges 5. On rotation of the bead 8 relative to the lipstick holder 1 in the proper
holder 15 with its upper surface 29. The lug 11 together with cup 10 is longitudinally displaced by the helical keyway 4 until the said lug 11 reaches the upper end 14 of the keyway 4. By rotation of the knob 8 in the opposite direction the cup 10 with the lipstck can again be withdrawn into the sleeve 6 until it reaches its extreme low position.

In the extreme low position of the cup 10, further rotation of the knob 8 will withdraw the lug 11 beyond the rounded edges 5 and out of the helical keyway against the action of the compression spring 12, bringing the said lug to rest on the edge 13. In this latter position the refill can be withdrawn from the lipstick holder 1 by means of the bead 8 and replaced by another refill of similar design.

The further embodiment of the lipstick holder with refill disclosed in Figs. 4, 6 again consists of a tubular body 15 with a cylindrical interior and an outer shape which is cylindrical at least in its lower portion. At the lower end the outer diameter of the holder 15 is enlarged by a flange 16 on which glides a cylindrical bushing 17 slipped over the body 15 which bushing is freely rotatable and possesses an outer diameter exceeding that of the flange 16. On the outside of the said bushing 17 a length of tube 18 with a cylindrical interior is rigidly arranged as well as the holder 15 so as to constitute a rotatable extension of the holder 15 together with the bushing 17. Around the periphery of the portion of the tube 18 extending beyond the lower part of the holder 15 is provided a clamping member 19, such as a thin-walled sleeve of a resilient material provided with a plurality of longitudinal slits. The edge 20 of this clamping member, which is rigidly attached to the tube length 18, prevents the said tube length with its bushing from being slipped upward over the tubular holder 15 and the space between the edge 20 of the clamping member and the lower end of the bushing 17 determines the maximum clearance of the rotatable tube length 18 relative to the edge 16 of the body 15.

The refill shown partly projecting from the holder 15 in Fig. 4 consists of a cylindrical sleeve 21 to which is attached a cup-type base 22 whose outer shape is cylindrical and closed at its bottom as by the plate 23. This plate 23 supports a light compression spring, such as coil spring 24, on which rests a cup 25 longitudinally displaceable in the sleeve 21 when in its lowestmost position. This cup is designed to hold the lipstick. The cup 25 is provided with a pin-type lug 27 laterally projecting through the longitudinal slot 26 of the sleeve 21, by means of which the cup can be moved in either direction along the slot 26. The slot 26 ends closely adjacent to the upper end 28 of the sleeve 21 which is open on top.

The outer diameter of the sleeve 21 is somewhat smaller than the inner diameter of the holder 15 so that the refill can easily be slid into it from below. The outer diameter of the enlarged base portion 22 of the refill and its axial length are so dimensioned that the base portion 22 can be slid into the clamping member 19 when slight pressure is exerted, without engaging the edge 16 of the holder 15 with its upper surface 29. The clamping action of the clamping member 19 is sufficient to rotate the sleeve 21 with its base 22 relative to the holder 15 when the tube length 18 is rotated. The length of the sleeve 21 is such that the upper edge 28 of the refill will extend slightly beyond the holder 15 after insertion of the said refill. Slight pressure exerted upon this edge 28 will remove the base portion 22 from the clamping member 19 so that the entire refill can easily be removed from the holder and replaced by another of similar design.

When the refill is inserted in the holder 15, the lateral lug 27 extending through the longitudinal slot 26 of sleeve 21 engages the lower surface of the edge 16 of holder 15 under light spring pressure without, however, touching the interior of the upper portion 20 of the clamping member 19, and resting in an annular space formed by the lower surface of the edge 16 and the upper surface 29 of the base portion 22. When the sleeve 21 is rotated relative to the holder 15 by the tube length 18, the pin-type lug 27 slides along the lower face of the edge 16 of holder 15 until it automatically enters the helical keyway 30 at the point where the said keyway 30 begins at the lower edge. The lug is then in engagement with the keyway 30 forming the portion of the feed mechanism attached to holder 15 and will execute an axial motion, displacing the cup 25 together with the lipstick forwards or backwards owing to the pitch of the keyway 30 when the tube length 18 is further rotated relative to the holder 15.

In the two embodiments of the invention described the helical keyways 4 and 30 shown in Figs. 1–3 and Figs. 4–6 respectively is a single-thread keyway. The construction is not, however, limited thereto, it being possible to incorporate a multiple-thread keyway in its stead. The pitch should, however, always be dimensioned in such a manner as to ensure automatic blocking of the feed mechanism when axial pressure is exerted on the projected lipstick.

What I claim is:

1. A lipstick holder and refill, comprising a holder body which is cylindrical at least at the bottom end thereof, said holder body having a cylindrical inner surface having a helical keyway formed therein and communicating with said bottom end, a refill sleeve of smaller diameter than said cylindrical inner surface and removably fitting into said holder body, said refill sleeve having a longitudinall slot formed therein, a lipstck-carrying cup of smaller diameter than said refill sleeve and located within said sleeve, a lug carried by said cup, said lug extending through said slot and fitting into said helical keyway, a base firmly connected with said refill sleeve, a rotary tube, means rotatably supporting said rotary tube upon said cylindrical bottom end of the holder body, said rotary tube having a portion extending downwardly beyond said bottom end of the holder body, and an annular clamping member carried upon an inner wall of said portion of the rotary tube and adapted to clampingly engage said base for rotating said base and the refill sleeve when said rotary tube is rotated.

2. A lipstick holder and refill, comprising a holder body which is cylindrical at least at the bottom end thereof, said holder body having a cylindrical inner surface having a helical keyway formed therein and communicating with said bottom end, a refill sleeve of smaller diameter than said cylindrical inner surface and removably fitting into said holder body, said refill sleeve having a longitudinal slot formed therein, a lipstck-carrying cup of smaller diameter than said refill sleeve and located within said sleeve, a lug carried by said cup, said lug extending through said slot and fitting into said helical keyway, a rotary tube, a bushing rotatably supporting said rotary tube upon said cylindrical bottom end of the holder body, said rotary tube having a portion extending downwardly beyond said bottom end of the holder body, and an annular clamping member carried upon an inner wall of said portion of the rotary tube, a base firmly connected with said refill sleeve, said base having a larger diameter than said refill sleeve and comprising a portion which is of smaller diameter than said portion of the rotary tube and which fits into said portion of the rotary tube into clamping engagement with the refill sleeve when said rotary tube is rotated.

3. A lipstick holder and refill in accordance with claim 2, wherein the refill sleeve projects out of the upper end of the holder body when the base is in clamping engagement with said clamping member.

4. A lipstick holder and refill, comprising a holder body having a bottom annular flange and a cylindrical inner surface having a helical keyway formed therein and communicating with said bottom annular flange, a refill sleeve of smaller diameter than said cylindrical inner surface and
5 removably fitting into said holder body, said refill sleeve having a longitudinal slot formed therein and a closed bottom base, a lipstick-carrying cup of smaller diameter than said refill sleeve and located within said sleeve, a spring within said sleeve between said cup and said closed base, a rotary tube having a larger diameter than said bottom flange and comprising a portion extending downwardly beyond said bottom flange, means rotatably supporting said rotary tube upon said holder body, an annular clamping member carried upon an inner wall of said portion of the rotary tube and adapted to clampingly engage said base for rotating said base and the refill sleeve when said rotary tube is rotated, and a lug carried by said cup, said lug extending through said slot and adapted to engage said bottom flange and move into said helical keyway during said rotation.

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