This invention relates to cosmetic appliances, and more particularly, to a replaceable cartridge type lipstick assembly.

Various types of retractable type lipstick assemblies have been provided in which the stick of pomade is retractably supported within a tubular wall that removably supports a closure thereon when not in use. In many instances, however, it is intended that the lipstick supporting structure be discarded after the pomade has become exhausted. As a result, such disposable lipstick units must be made of relatively inexpensive materials which often cause malfunctioning of the parts, waste of pomade, and are often difficult to use.

It is therefore an object of the present invention to provide a replaceable cartridge type lipstick assembly in which the exterior portions thereof are of permanent construction so as to enable exhausted pomade sticks to be replaced, thus enabling the permanent parts of the assembly to be constructed from better grades and more decorative types of materials.

Another object of the present invention is to provide a lipstick assembly of the type described that is readily operated and adjusted, attractive in appearance, and which will overcome the aforementioned difficulties.

Still another object of the present invention is to provide a replaceable type cartridge lipstick assembly of the above type in which all of the major components thereof are detachably connected together to facilitate the disassembly and assembly thereof, without the use of special equipment.

Other objects of the invention are to provide a replaceable cartridge type lipstick bearing the above objects in mind which is of simple construction, has a minimum number of parts, is inexpensive to manufacture and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in conjunction with the accompanying drawings, in which:

FIGURE 1 is a front elevational view of a replaceable cartridge type lipstick assembly made in accordance with one form of the present invention;

FIGURE 2 is an exploded perspective view of the assembly shown in FIGURE 1;

FIGURE 3 is an enlarged fragmentary cross sectional view taken along line 3-3 of FIGURE 2;

FIGURE 4 is an enlarged fragmentary cross sectional view of certain parts of the assembly shown in FIGURE 3;

FIGURE 5 is a perspective view of a modified type of mounting cup forming a part of the present invention;

FIGURE 6 is an enlarged fragmentary cross sectional view taken along line 6-6 of FIGURE 5;

FIGURE 7 is an exploded front view of another embodiment of this invention;

FIGURE 8 is an enlarged view taken of line 8-8 of FIGURE 7;

FIGURE 9 is a perspective view of the cartridge component of FIGURES 7 and 8;

FIGURE 10 is an exploded view showing the components of the cartridge structure of FIGURE 8;

FIGURE 11 is a perspective view of the locking element of the structure shown in FIGURE 10;

FIGURE 12 is a view showing the step of inserting the cartridge component of FIGURE 8 into the carrier base thereof; and

FIGURE 13 is a perspective view of an embodiment of this invention, showing in particular a decorative base and cover member adapted for holding a replaceable cartridge.

Referring now more in detail to the drawing, and more particularly to FIGURES 1 to 4 thereof, a replaceable cartridge type lipstick assembly 10 made in accordance with the present invention is shown to include a mounting cup 12 having a substantially cylindrical side wall 13, a bottom wall 15, and defining an upwardly opening compartment 16 therewithin.

The mounting cup 12 slidably receives the base 18 of a replaceable lipstick cartridge 20 therewithin, in a manner hereinafter more fully described. This cartridge 20 includes a substantially hollow cylindrical sleeve 21, within which a pomade stick 22 is disposed for reciprocating longitudinal movement in response to rotation of the sleeve 21 relative to the base 18, through the action of a cam member 23 within an associated slot 24, in a manner well known to those skilled in the art. Of course, other types of retractable operators may be used in place of the cam and slot arrangement illustrated, such as the vertical slide type or push type that are also of well construction in the art.

A button type detent 26 is supported within the base 18 of the replaceable cartridge for reciprocating movement through an opening 27 in the side wall thereof. A compression spring 29 acting between the button detent 26 and the opposite side of the base 18 normally urges the button toward the extended position illustrated in FIGURE 4. The side wall 13 of the mounting cup 12 is also provided with a similar opening 31 that slidably receives the outer end of the button detent 26 therethrough in response to the insertion of the cartridge refill 20 into the mounting cup 12 during use. This detent thus not only serves to secure the parts together, but also provides a retraceable securement means for enabling the replaceable cartridge to be removed from the permanent mounting cup 12 whenever desired.

In actual use, a cartridge 20 is assembled with the base 12 by depressing the button detent 26 sufficiently to enable the base 18 to be inserted into the compartment 16 of the mounting cup, following which the detent 26 will be urged outwardly through the opening 31 in the side wall 13 of the mounting cup by the action of the spring 29, thus securing these parts together. The closure sleeve 33 may then be applied to the cartridge, thus completely enclosing the parts and providing a detent of attractive appearance. Because the mounting cup 13 and the closure sleeve 33 are permanent, such can be conveniently made of precious or semiprecious materials to provide an extremely attractive and long lasting article.

Referring now to FIGURES 5 and 6 of the drawing, a slightly modified form of construction 40 is shown wherein the mounting cup 42 is provided with a substantially cylindrical side wall 43 and a bottom wall 46 that defines an upwardly opening central compartment 46. This mounting cup 42 similarly receives the base 18 of a replaceable cartridge 20 therewithin. However, the side wall 43 is further provided with a radially inwardly extending bead 48 that extends around the entire circumference of the cup and defines a stop which limits the path of movement of the base 18 so as to limit downward movement thereof. As a result, the retractable button detent 26 is more readily located within the opening 50 of the side wall 43, thus further simplifying the assembly of the parts.

As shown in FIGURES 7 to 12, this embodiment comprises a cartridge 61 set in the carrier member or base 62...
and the cover 69. The cartridge 61, a currently preferred embodiment, comprises an outer sleeve or tube 63, an inner sleeve or tube 65 having a helical groove 66 and an innermost sleeve or tube 67 provided with a vertical slot 69, i.e., a rectilinear slot extending longitudinally of the sleeve 67. The cosmetic composition 72, in stick form, is mounted in cup 70, the latter being provided with a stud or follower 71 which is engaged within groove 66 and slot 69 to allow the cup to move longitudinally within sleeve 67. Positioned in the bottom of the cartridge is the locking member 74 comprising a resilient body provided with a stud 75. The locking member may be of ring-shaped configuration made from a resilient material, such as a suitable plastic, as for example, polyethylene. The stud 75, if desired, may be molded integrally with the body 74. The vertical slot 69 extends from the upper end of 67 to a point near the other end thereof, thereby providing a seat, as at 77, for the stud 75. The upper end of 63 is turned in, as at 64, where it is retained as at 68, thereby effectuating assemblage of the cartridge. The cartridge, when inserted in the carrier base 62, is retained therein by the engagement of the stud 75 within the orifice 76. The cartridge is withdrawable from the base 62 by pressing the stud 75 to disengage it from orifice 76.

As shown in FIGURE 13, the structure is one which may be used for positioning on a vanity. The base 50 is provided with a compartment 51, akin to 16, and having an opening 52 (akin to 31), to receive the base 18 of a replaceable cartridge. The base 50 may be surmounted with a cover member 53.

It will be recognized that various types of closures, mounting cups, and lipstick actuating elements may be substituted for those illustrated in the drawing. However, it is intended that the mounting cup and closure element be relatively permanent in construction so as to enable the lipstick cartridge and cartridge actuating mechanism to be relatively inexpensively and easily replaced whenever necessary. This will not only provide for more attractive and permanent lipstick applicator, but will greatly reduce the cost of replacing such exhausted cartridges and will further enable the user to substitute different shades of lipstick for various types of daytime and evening use, all without requiring a change in the basic mounting cup and closure sleeve elements.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claims.

I claim:

1. A cartridge of the class described comprising a first tube having a rectilinear slot extending longitudinally from the upper end of said tube to a position near the lower end thereof, a resilient body in the lower end of said tube, said body including a stud disposed transversely of the tube and extending through the slot thereof, a second tube surrounding said first tube, said second tube having a helical groove, a base carried by said lower end of said first tube having an orifice extending radially through a side thereof, said stud being received within said orifice and locking said first tube in assembly with said base and against relative rotation therewith, a cup movable longitudinally with the first tube, said cup having means engaging said slot and groove, and a third tube surrounding said second tube.

2. A cartridge in accordance with claim 1 wherein the resilient body is a ring-shaped member.

3. A cartridge in accordance with claim 1 including a cosmetic stick mounted in the cup.

4. A cartridge in accordance with claim 1 wherein the lower end of the first tube has an external diameter at the lower end greater than its external diameter in the region traversed by the cup in moving from fully retracted to fully extended position.

References Cited in the file of this patent

UNITED STATES PATENTS

2,273,138 Peterson Feb. 17, 1942
2,552,903 Natalicchio May 15, 1951
2,671,235 Gochel Mar. 9, 1954
2,859,867 Shotton Nov. 11, 1958

FOREIGN PATENTS

288,591 Switzerland May 16, 1953
876,726 Germany May 18, 1953
731,013 Great Britain June 1, 1955
314,497 Switzerland July 31, 1954