

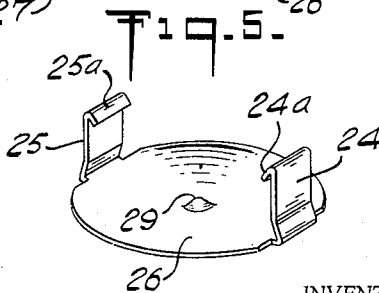
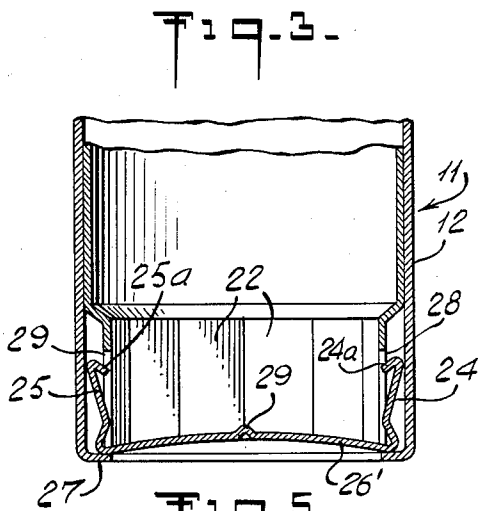
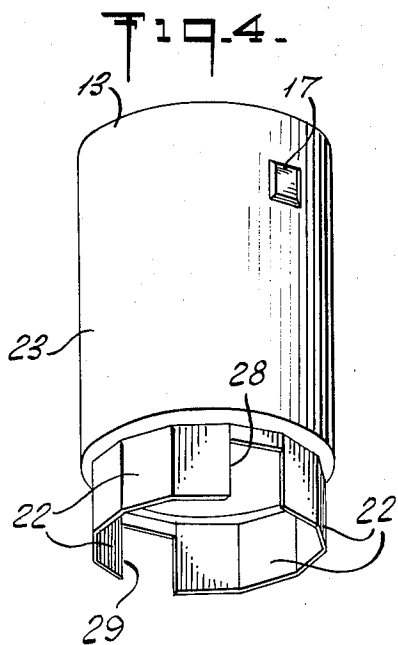
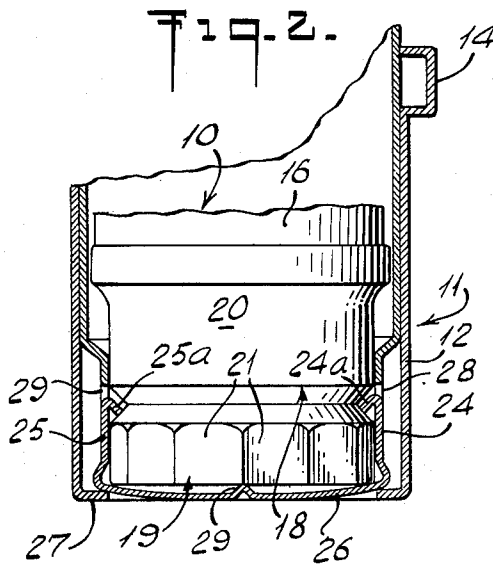
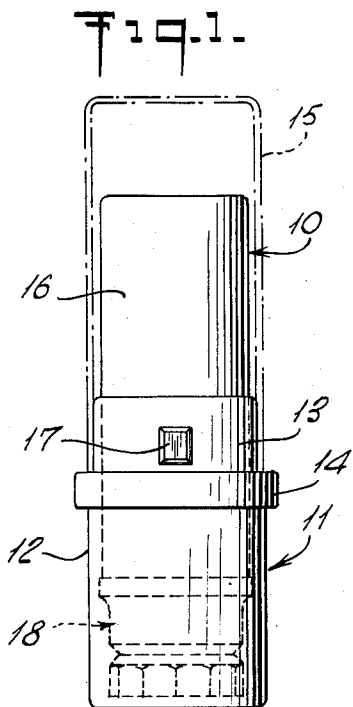
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CARTRIDGE TYPE REFILLABLE LIPSTICK CONTAINER

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CARTRIDGE TYPE REFILLABLE LIPSTICK CONTAINER

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Our invention relates to an improved lipstick container construction, and in particular to a lipstick of the removable cartridge type wherein the cartridge is removably received in an outer decorative casing.

It is an object of the invention to provide an improved device of the character indicated.

Another object is to provide a cartridge-type refill container construction featuring improved locking engagement between the parts when the cartridge is received in the housing.

Another object is to meet the above objects with a device in which positive locking action is assured as long as the parts are assembled, and yet they may be unlocked by simple manual manipulation.

Other objects and various further features of novelty and invention will be pointed out or will occur to those skilled in the art from a reading of the following specification in conjunction with the accompanying drawings.

In said drawings, which show, for illustrative purposes only, a preferred form of the invention:

FIG. 1 is a view in elevation of an assembly according to the invention with a cartridge refill received in the base housing member of the outer decorative housing, the closure cap being suggested in phantom outline;

FIG. 2 is an enlarged fragmentary sectional view revealing internal construction of the base of the housing member in a first relation of parts, with the cartridge in place;

FIG. 3 is a view similar to FIG. 2, but showing the parts in another relation, with the cartridge removed;

FIG. 4 is a view in perspective of one of the elements of FIGS. 2 and 3; and

FIG. 5 is a view in perspective of still another of the elements of FIGS. 2 and 3.

Briefly stated, the invention contemplates an improved snap-lock operating means effective to retain an inserted cartridge refill lipstick or the like container within a housing member in such manner as to permit operation of the lipstick when so assembled. The particular feature of the invention resides in the snap-lock mechanism in the total combination, being so provided that the cartridge refill is freely receivable in the housing member until insertion is complete, at which time the snap-lock means is effective to provide permanent positive retention of the parts.

A further feature resides in so arranging the mechanism as to facilitate manual manipulation to release the locking engagement for free unopposed separation of the refill from the housing member.

Referring to FIG. 1 of the drawings, the invention is shown in application to a cartridge refill container designated generally 10 and removably received within the lower or base half of an outer decorative housing member designated generally 11. The housing member is shown to be generally cylindrical and to comprise a lower cylindrical end 12 and an upper or reduced cylindrical end 13, through which the refill cartridge 10 is insertably received. A bead 14 separates the two cylindrical portions 12-13, and the entire assembly is closed when desired by placement of the closure cap 15 over the sleeve portion 13 for friction retention, as by nib means 17 against the bead 14. The cartridge refill 10 may be of

the type employing two relatively rotatable parts to produce propel-repel action of a lipstick carrier therewithin, and it suffices for present purposes to identify the upper or application end 16, which may be cylindrical, having an upper open end through which the lipstick is selectively projected, and in addition, to identify a lower or base operating end 18, indicated generally by dashed outlines in FIG. 1.

In accordance with the invention, one of the externally exposed rotatable parts 16-18 of the cartridge refill is provided with a circumferential enlargement which, upon insertion of the refill in the bore of the casing member 11 may have snap-lock engagement with snap-lock arms to be described. In the form shown, the circumferential enlargement 19 is formed at the lower limit of the base operating member 18 and is defined by a necked-down or grooved portion 20 of the base end 18. Also, the enlargement 19 is shown formed with key means such as angularly spaced flats 21 for engagement with suitably formed recess faces 22 in a lower socket portion of the base of the housing 11.

The socket flats 22 are shown formed at the lower end of an inner sleeve member 23 (FIG. 4) which may carry or be integrally formed with the bead 14 and with the upper cylindrical part 13 of the base housing member. Alternatively, the casing member 11 may be formed with bead 14, as shown. In either event, the lower cylindrical part 12 may be secured to the sleeve part 23 as by force-fit engagement. In accordance with the invention, snap-lock engagement with the enlargement 19 is developed by suitably formed opposed or angularly spaced arms 24-25 integrally formed at the periphery of a snap disc 26, which is axially retained between the lower radially inward flange 27 of the outer sleeve 12 (on the one hand) and the lower skirt of the sleeve 23 (on the other hand). The socket flats 22 are shown formed in this lower skirt and are cut open at 28-29 to receive and loosely retain the arms 24-25 of the snap-lock mechanism. The snap disc may be formed of tempered, spring sheet material, preferably metal, as, for example, Phosphor bronze or beryllium copper.

In the engaged relation of parts illustrated in FIG. 2, the lock arms 24-25 have been displaced radially inwardly, with their hook ends 24a-25a engaging under the enlargement 19 for secure locking action. It will be noted that in this relation of parts, the snap disc 26 has been bowed down or outwardly, and that its lower surface is exposed for manual actuation. In the absence of such manual actuation, the parts will remain locked as shown in FIG. 2. When it is desired to remove the refill cartridge, a mere thumb engagement at the exposed face of the snap disc 26 is all that is necessary. This flattens the disc past its dead-center position so that it snaps into the concave position shown at 26' in FIG. 3. Unless inwardly dished, the outer limits of the snap disc 26 are oppositely canted so that the arms 24-25 spread apart enough to permit the enlargement 19 to freely clear the hook ends 24a-25a thereof. Upon insertion of a new refill cartridge or of the same cartridge, the flat surface of the base 10 will engage the upwardly projecting center of the snap disc, and upon further insertion, the disc is flattened past dead-center position so as to snap back into the convex position shown in FIG. 2, thus again locking the parts in assembled relation. If desired, assurance of snap action upon insertion of the refill container may be made more certain by forming the snap disc 26 with a central dimple or inward projection 29 as shown, thus making sure that the base of the cartridge refill must project the center of the snap disc past its dead-center position.

It will be seen that we have disclosed an improved cartridge refill and housing construction wherein posi-

tive locking engagement of the parts is assured except at such time as removal is desired. In that event, a deliberate manual manipulation is necessary to free the parts, but once they have been snapped into free relation, axial separation of the refill from the housing is unopposed by friction or any other restraint. The snap-lock mechanism of my invention is smooth and circumferentially continuous insofar as external appearances are concerned, so that the provision of such mechanism in no way detracts from the overall appearance of an assembled container. Furthermore, the circumferentially continuous engagement of the snap disc with the retaining flange 27 assures against fouling of the parts through accumulation of dust, grit or the like. The action of the snap-lock engagement is fool-proof, and there are no unsightly appearances.

While we have described the invention in detail in connection with the preferred form illustrated, it will be understood that modifications may be made within the scope of the invention as defined in the claims which follow.

We claim:

1. In combination, a lipstick or the like container cartridge having two relatively rotatable parts and including propulsion mechanism for propelling lipstick with respect to an application end, said cartridge having an actuating member at an opposed base end, and a cup-shaped housing member having an opening removably receiving the base end of said cartridge, one of said relatively rotatable parts having a circumferentially extending enlargement, and said base end having key engagement with the opening of said housing member when received therein, so that rotation of said housing member with respect to an exposed part of the other rotatable part of said cartridge may effect lipstick propulsion, and convex-concave snap-lock means retained within the opening of said housing member and having plural lock arms for snap-lock engagement with the enlargement of said cartridge, said snap-lock means including an externally accessible manually manipulable part.

2. In combination, a lipstick or the like container cartridge comprising two relatively rotatable parts and propulsion mechanism for expelling lipstick or the like out one end thereof, one of said rotatable parts being a base actuating member and having a circumferential bead defining an enlargement on said base, and a cup-shaped housing member having an opening removably receiving the base end of said cartridge and having key engagement with said base end, and convex-concave snap-lock means retained within the opening of said housing member and having plural lock arms for snap-lock engagement with said enlargement, said snap-lock means including an externally accessible manually manipulable part.

3. In combination, a lipstick or the like container cartridge having a base end and an applicator end for exposing lipstick or the like to be applied, said base end having a circumferentially extending groove defining an enlargement, a cup-shaped housing member having an opening removably receiving the base end of said cartridge, and convex-concave snap-lock means retained within the opening of said housing member and having plural lock arms for snap-lock engagement with the enlargement of said base end, said snap-lock means including an externally accessible manually manipulable part.

4. In combination, a lipstick or the like container cartridge having a base end and an applicator end for exposing lipstick or the like to be applied, and a cup-shaped

housing member having an opening removably receiving the base end of said cartridge, said base end having a circumferentially extending enlargement, and snap-lock means retained within the opening of said housing member and having snap-lock engagement with the enlargement of said base end, said housing member comprising an elongated sleeve open at both ends, a convex-concave disc contained within said sleeve and having integral lock arms carried on the periphery of said disc and extending into overlapping relation with said enlargement when said cartridge is inserted in said housing member, and two axially spaced peripherally extending shoulder means for retaining said disc, the axially outer one of said shoulder means having a central opening exposing the outer surface of said disc for manual manipulation.

5. In combination, a rotary lipstick or the like container cartridge having a base operating end and an applicator end for exposing lipstick or the like to be applied, said ends being rotatable with respect to each other to propel and repel lipstick or the like at said applicator end, a cup-shaped housing member having an opening removably receiving the base end of said cartridge, said base end having a circumferentially extending enlargement with non-circular key formations for engagement with similarly formed key formations within the bore of said opening upon cartridge insertion in said housing member, said housing member comprising an elongated sleeve open at both ends and having at the lower end a radially inward flange, a convex-concave disc retained by said flange and having lock-arm means on the periphery thereof, a second sleeve carried by the bore of said first sleeve and having a lower end in retaining relation with said disc, said second sleeve including means having an opening receiving the lock-arm means carried by said disc, said lock-arm means extending in overlapping relation with said enlargement.

6. In combination, a lipstick or the like container cartridge having a base end and an applicator end for exposing lipstick or the like to be applied, and a cup-shaped housing member having an opening removably receiving the base end of said cartridge, said base end having a circumferentially extending enlargement, and snap-lock means carried within the opening of said housing member and having snap-lock engagement with the enlargement of said base end, said snap-lock means including a convex-concave disc externally accessible, said disc having plural integral lock arms at angularly spaced locations on the periphery of said disc and extending axially in overlapping relation with said enlargement upon cartridge insertion of said housing member, said disc having a first or concave snapped position in which said lock arms engage said enlargement, and having a second or convex snapped position in which said lock arms are free of said enlargement.

7. The combination of claim 6, in which said disc includes centrally thereof an upstanding integral projection for engagement with the base end of said cartridge upon insertion into said housing, whereby upon such insertion said projection will facilitate actuation of said disc from concave to convex position.

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