June 10, 1958 L. E. ISELE 2,838,170

LIPSTICK CONTAINER

Filed July 26, 1957

Fig. 1.

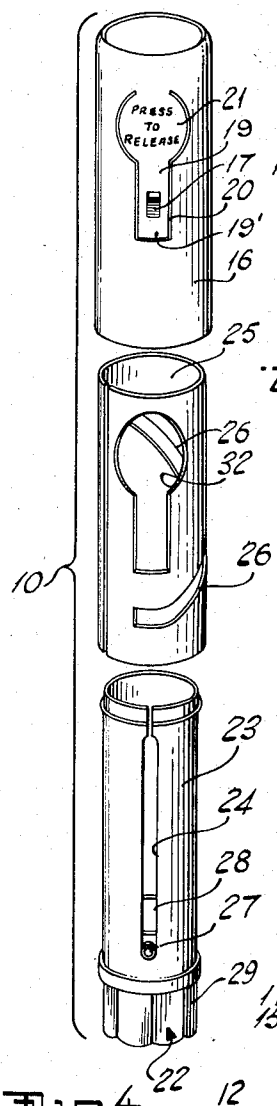


Fig. 2.

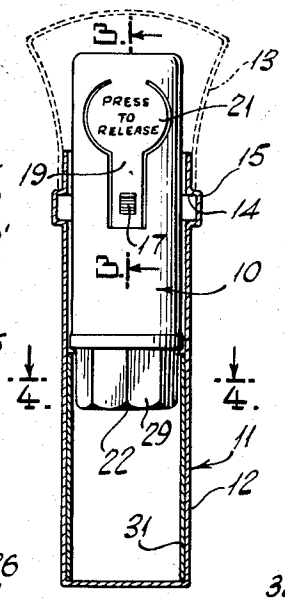


Fig. 6.

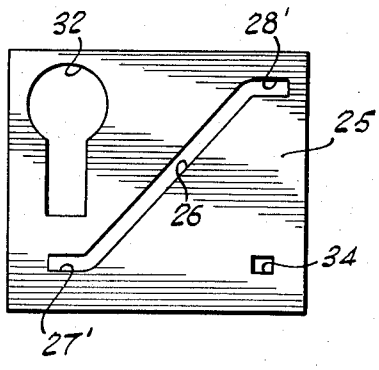


Fig. 8.

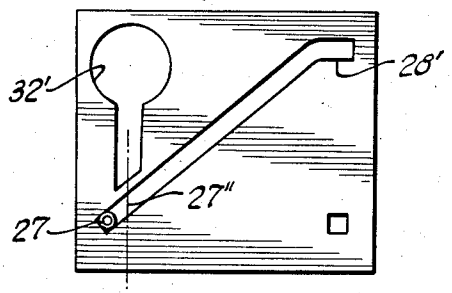


Fig. 3.

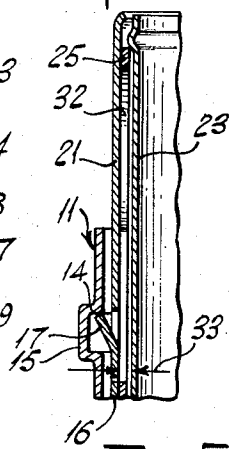


Fig. 7.

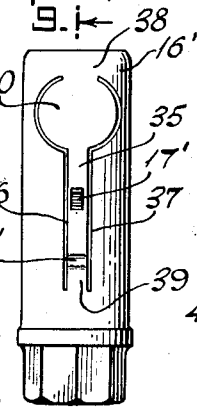


Fig. 9.

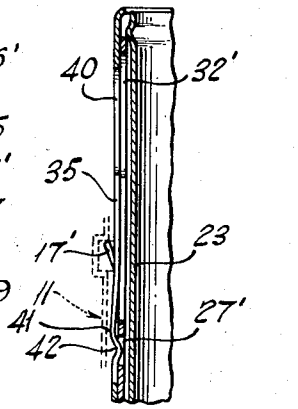


Fig. 4.

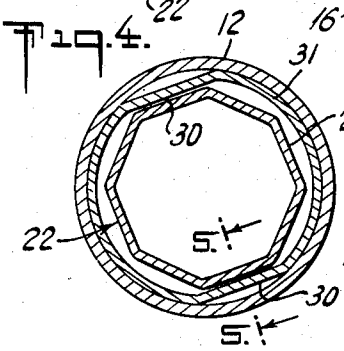
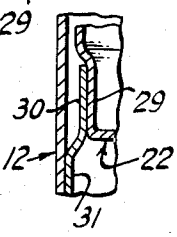


Fig. 5.



INVENTOR
LOUIS E. ISELE

BY Mitchell & Beckert
ATTORNEYS

United States Patent Office

2,838,170

Patented June 10, 1958

2,838,170

LIPSTICK CONTAINER

Louis E. Isele, Oakville, Conn.

Application July 26, 1957, Serial No. 674,460

12 Claims. (Cl. 206—56)

This invention relates to an improved cosmetic-container construction, and is particularly concerned with configurations in which a decorative external case (with removable closure cap) is adapted to removably receive a selected one of a number of various cartridge assemblies.

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

It is another object to provide an improved cartridge construction for containers of the character indicated whereby, once inserted in the decorative case, the cartridge may be locked positively against axial separation from the case.

It is also an object to provide a cartridge meeting the above objects and having manually actuable means for readily separating, that is, for unlocking the engagement between, the cartridge and the case.

Still another object is to meet the above objects with a construction in which the means which serves for locking engagement between the cartridge and the case also serves for detent-retention of propulsion mechanism within the cartridge, in the "down" position of the propulsion mechanism.

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, preferred forms of the invention:

Fig. 1 is an exploded view in perspective of an improved cartridge of the invention;

Fig. 2 is a view in elevation of the cartridge in Fig. 1, shown assembled to a decorative case to illustrate the coacting parts for locking engagement, the case being shown in section;

Fig. 3 is an enlarged fragmentary longitudinal sectional view of parts of Fig. 2, taken in the plane 3—3 of Fig. 2;

Fig. 4 is an enlarged sectional view taken in the plane 4—4 of Fig. 2;

Fig. 5 is a fragmentary sectional view taken in the plane 5—5 of Fig. 4;

Fig. 6 is a simple flattened development of piercings in one of the cam parts of the container of Fig. 1;

Fig. 7 is a view of an assembled cartridge representing an alternative for the cartridge of Fig. 1;

Fig. 8 is a view similar to Fig. 6, but illustrating the corresponding part for the alternative of Fig. 7; and

Fig. 9 is an enlarged fragmentary sectional view taken in the plane 9—9 of Fig. 7.

Briefly stated, the invention contemplates an improved cosmetic-container construction in which a complete cosmetic-cartridge assembly is removably insertable in the body of an outer decorative case. The principal characterizing feature of the invention is that, once thus inserted, the parts are positively locked against axial separation, and yet there is complete freedom for relative rotation of the parts to produce lipstick or other cosmetic propulsion and retraction as desired. In order to remove the cartridge from the case, a finger-piece portion of that part of the cartridge which projects beyond the open end of the decorative case is actuable upon pressing to disengage the locked engagement, so that unimpeded axial separation is then achievable. No friction is relied upon to hold the parts assembled, and the locked engagement is positive assurance against loss of the parts.

In one form of the invention, the locking parts are carried by the cartridge at the free end of a spring tap having an enlarged finger-piece portion, which is exposed when the cartridge is assembled in the case. In the other form to be described, the locking part is formed on an elongated flexible strip integrally joined (at both longitudinal ends) to the outer sleeve of the case and again having an enlarged finger-piece portion exposed beyond the open end of the case. In the latter embodiment, the elongated spring strip is formed near the lower end thereof with an inward deformation for resilient detent engagement with the cam follower of the cosmetic carrier within the cartridge; thus, upon down propulsion of said carrier to (and, if desired, beyond) engagement with the inwardly formed detent portion, there may be resilient retention of the carrier against inadvertent propulsion, as when subjected to vibration during shipment.

Referring to Figs. 1 to 6 of the drawings, the invention is shown in application to a cartridge assembly 10 insertably receivable in locked relation with a decorative outer case comprising an elongated tubular body 12 and a closure cap 13, removably applicable over the open end of the body 12. Suitable friction means (not shown) may cooperate between the closure cap 13 and the body 12. The body 12 is provided near the open end thereof with a radially outward shoulder 14 defined within the bore, and if desired, formed as a part of a circumferentially continuous decorative bead 15. The shoulder 14 serves not only for the locking action characteristic of the invention, but also provides a convenient stop for application of the closure cap, as will be understood.

The cartridge 10 comprises essentially an outer tubular casing or sleeve-like part 16 formed with a locking lug 17 for locking engagement with the shoulder 14 within the bore of the case 12; said locking engagement is shown in detail in Fig. 3, wherein it will be seen that the lug 17 is preferably struck outwardly with a taper or slope which diverges away from the sleeve 16 in the axial direction toward the open end of the container. This permits direct axial-locating abutment between the lug 17 and the shoulder 14 (to avoid axial separation of the parts) and yet affords a means whereby the lugs 17 may be cammed inwardly by resilient action, upon insertion of the cartridge into the case, the lugs 17 resiliently snapping into the position shown in Fig. 3 when the parts are sufficiently axially assembled.

In accordance with the invention, the lug 17 is formed as part of a locally weakened area of the sleeve 16, and in Figs. 1 to 6, this weakened area takes the form of a spring tab 19 defined by a generally U-shaped piercing 20. The upper end of the tab 19 is integrally joined or effectively hinged to the sleeve 16, and the lower end 19', which carries the locking lug 17, is the free end. The U-shaped piercing 20 preferably extends sufficiently near the open end of the sleeve 16 to permit exposure of an enlarged area or finger piece 21 for finger engagement. The legend on the drawing shows that this enlarged area 21 may be stamped with the instruction "Press to Release," meaning that, upon finger depression or squeezing at 21, the lug 17 is inwardly displaced out of locking

engagement with the shoulder 14 so that the cartridge 10 may then be readily removed.

The cartridge 10 happens to be shown as a propulsion-type lipstick-container assembly, in which the sleeve part 16 is one of two externally exposed relatively rotatable actuating parts. The other externally exposed actuating part is a base button 22 formed at the base of or otherwise connected to an inner tubular cam member 23 having an elongated cam slot 24. The inner surface of the sleeve 16 may be formed with another cam, but, in the form shown, a separate inner sleeve or cam member 25 is formed for non-rotative connection to the outer sleeve 16, and has a suitable piercing to define the cam 26. Cams 24—26 diverge relatively to each other and are simultaneously engaged with the follower 27 of a carrier cup 28, for supporting cosmetic substance.

Figs. 4 and 5 show details of engagement between the base button 22 and the body 12 of the decorative case. In the form shown, the base button 22 is of generally polygonal prismatic shape for keyed engagement with the body 12. Such keying may be achieved by locally inwardly deforming the body 12 at one or more angularly spaced locations; however, in the drawings, a separate liner 31 having inward keying depressions 30 is permanently fitted within the bore of the case 12. Keying means 29—30 assures positive rotary drive to the base button 22 and also provides an axial stop to limit insertion of the cartridge 10; and means 14—17 provides axial retention against loss. Thus, there is no need for friction engagement at 29—30.

Fig. 6 shows in detail the layout for the sleeve 25, the cam 26 of which may be provided with non-sloping limiting ends 27'—28' whereby no cam action will be possible for propelling the lipstick when positioned at either the extreme-down or the extreme-up location. Fig. 6 also illustrates the provision of an opening 32 in register with the finger-actuating tab 19, whereby radial clearance is available to permit sufficient inward depression of the locking lug 17 to remove the locking engagement. In the enlarged fragmentary detail of Fig. 3, this clearance is suggested at arrows 33. The last remaining opening 34 in the member 25 is for purposes of retaining assembly of the cam member 25 to the sleeve 21, there being a suitable locking lug inwardly pressed out of the body of the sleeve 16 for permanent axial-retaining engagement with cam member 25 at opening 24, as will be understood.

In the arrangement of Figs. 7, 8 and 9, the locking lug 17' is formed generally centrally of an elongated flexible finger-operated strip 35 defined by two symmetrically formed piercings or lancings 36—37 so that the strip 35 may be integrally joined at the open end (at 38) and at the lower end (at 39) with the body of the sleeve part 16'. As with the case of the form of Figs. 1–6, an enlarged fingre-piece portion 40 may be provided on the elongated strip 35, said portion 40 being, of course, exposed beyond the outer limits of the decorative case 12. The elongated strip 35 is preferably made more resilient by undulating the same at 41 so that the necessary additional length of strip 35 is available to permit resilient inward flexing of the same. The undulation 41 is preferably defined near the lower end of the strip 35 and is characterized by an inwardly displaced portion 42 preferably overlying the lower end 27'' of the cam 26''. The radially inward extent of the projection 42 is preferably such as to intercept the cam follower 27 when in the down position, thus providing resilient detent-retention of the parts in the retracted or down position.

It will be seen that an improved cosmetic container has been described in which replaceable cartridges are readily insertable in a decorative case, and yet in which there may be positive assurance against inadvertent or other separation of the cartridge, particularly in the presence of rough handling or vibration, as during shipment of loaded containers. The deliberate act of first squeezing the exposed thumb piece 21 or 40 is necessary before the cartridge can be removed, and in the form of Figs. 7–9 the "down-latch" feature of the lug strip 35 provides the further assurance that the cosmetic substance cannot inadvertently be driven against the closure cap 13.

While the invention has been described in detail for the preferred forms illustrated, it will be understood that modifications may be made within the scope of the invention as defined in the claims which follow.

What is claimed is:

1. In a cosmetic or the like container of the character indicated, an outer decorative case comprising an elongated tubular body open at one end thereof, said body including within the bore and near said open end a circumferentially continuous radial shoulder, and a rotary-propulsion cartridge removably receivable within said open end, said cartridge comprising relatively rotatable base and sleeve parts, and mechanism responsive to such relative rotation for selectively propelling a lipstick or the like beyond the end of said sleeve part, said cartridge base having angularly keyed engagement with said body, means carried by said sleeve part and projecting radially outwardly and having snap-locking engagement with said shoulder, actuating means for said last-mentioned means and projecting externally of said open end, and a closure cap removably engageable with said body at said open end and covering otherwise exposed parts of said cartridge.

2. In a cosmetic or the like container, an outer decorative case comprising an elongated tubular body open at one end thereof, said body including within the bore and near said open end a circumferentially continuous radially outwardly extending bead defining within said bore a radially outward shoulder, and a tubular cartridge assembly removably receivable within said open end, said cartridge assembly having a base portion centrally located within said case, locking means carried by said cartridge assembly near the other end thereof and projecting radially outwardly in axially-locked engagement with said shoulder, a portion of said cartridge projecting beyond the open end of said case when said locking means is engaged, actuating means for said locking means and carried on outwardly projecting portion of said cartridge, and a closure cap removably engaged with said body at said open end and covering otherwise exposed parts of said cartridge, whereby, upon operation of said actuating means with the closure cap removed, said cartridge may be unlocked and removed from said case.

3. A container according to claim 2, in which said cartridge includes an outer sleeve part extending at least from said shoulder to the outer end of said cartridge when said cartridge is inserted in said case, said locking means comprising a locking lug struck out of the body of said sleeve part at the location of locking engagement with said shoulder, said sleeve part being locally pierced and deformably weakened in the vicinity of said locking lug and in the adjacent externally projecting vicinity, whereby the externally projecting pierced region of said sleeve may constitute the actuating means for disengaging a locking engagement between said sleeve and said shoulder.

4. A container according to claim 3, in which said piercing is generally U-shaped, said locking lug being located near the free end of the tab formed by the U-shaped piercing.

5. A container according to claim 3, in which said piercing comprises two symmetrically formed elongated lancings, whereby an elongated resilient tongue is defined between the outwardly projecting end of said sleeve and a portion thereof near said base, said locking lug being formed on said tongue.

6. In a cosmetic or the like container, an outer decorative case comprising an elongated tubular body open at one end thereof, said body including within the bore and

near said open end a circumferentially continuous radial shoulder, and a rotary-propulsion cartridge removably receivable within said open end, said cartridge comprising relatively rotatable base and sleeve parts and mechanism responsive to said relative rotation for selectively propelling a lipstick or the like beyond the end of said sleeve part, the base of said cartridge having an angularly keyed engagement with said body, a snap-locking lug formed outwardly from the body of said sleeve part at a location for engagement with said shoulder and positively retaining said cartridge against axial separation from said case, said sleeve part being lanced in the vicinity of said locating lug and in the externally projecting vicinity, whereby a finger piece is defined for radially inward displacement of said locating lug, the interior of said cartridge being locally cut away in the vicinity of said actuating parts, whereby substantial radially inward displacement of said locating lug is afforded and therefore said locking lug may have substantial radial overlap with said shoulder.

7. A container according to claim 6, in which said cartridge comprises inner cam parts, and a cosmetic carrier having a follower engaging said cam parts and adapted for axial propulsion upon relative rotation of said cam parts, one of said cam parts being fixedly related to said base, the other of said cam parts being fixedly related to said sleeve part, said other cam part having an opening therein in register with the lanced portion of said sleeve part, thereby defining the cut-away interior portion, whereby said locking lug may be depressed at least for the radial thickness of said other cam part.

8. A container according to claim 6, in which said cartridge comprises relatively rotatable tubular cam parts, and a carrier having a follower engaging both cam parts for axial propulsion upon relative rotation of said cam parts, one of said cam parts being connected to said base, and the other of said cam parts being connected to said sleeve part, said other cam part having an opening therein in register with the lanced portion of said sleeve and at an angular location near the down limit of the cam of said other cam part, the lug-supporting member of said sleeve having a portion thereof extending in overlapping relation with said lower end of said cam and also having a portion extending radially inwardly at the location of said cam for resilient detent engagement with said follower upon propulsion of said follower to the lower limit, whereby said finger piece may not only serve to lock said cartridge in said case, but may also serve to retain by detent action the carrier in its down position and safely against loss or inadvertent propulsion when covered by a closure cap.

9. In a cosmetic or the like container, an outer decorative case comprising an elongated tubular body open at one end thereof, said body including within the bore

and near said open end a circumferentially continuous radial shoulder, and a rotary-propulsion cartridge removably receivable within said open end, said cartridge comprising relatively rotatable base and sleeve parts, and mechanism responsive to such relative rotation for selectively propelling a lipstick or the like beyond the end of said sleeve part, said cartridge base having angularly keyed engagement with said body, a snap-locking lug struck out of the material of said sleeve parts and projecting radially outwardly for axial-locating engagement with said radial shoulder, said lug being inclined radially outwardly of said cartridge with a slope tapering outwardly in the direction of the open end of said sleeve part, whereby said lug may be cammed inwardly upon assembly of said cartridge to said case and may snap into locked position upon passing said shoulder.

10. A container according to claim 9, in which said locking lug is formed as an integral part of an enlarged finger-operated spring tab formed out of the body of said sleeve part, the finger-piece portion of said tab being located on an externally projecting portion of said cartridge when said cartridge is in locked relation with said case.

11. A container according to claim 9, in which said locking lug is formed integrally with a finger-operated elongated spring strip formed out of the body of said sleeve part, said strip being integrally joined at both longitudinal ends to the body of said sleeve part and having an enlarged finger-piece portion at a location on said cartridge which projects externally of said case when said locking lug is engaged with said shoulder.

12. In a cosmetic or the like container, an outer decorative case comprising an elongated tubular body open at one end thereof, said body including within the bore and near said open end a circumferentially continuous radial shoulder, a rotary-propulsion cartridge removably receivable within said open end, said cartridge comprising relatively rotatable base and sleeve parts, and mechanism responsive to such relative rotation for selectively propelling a lipstick or the like beyond the end of said sleeve part, said cartridge base having angularly keyed engagement with said body, a finger-operated elgonated spring strip formed out of the body of said sleeve part, said strip being integrally joined at both longitudinal ends to the body of said sleeve part, and a locking lug struck out of a part of said spring strip and projecting radially outwardly for axial-locating engagement with said radial shoulder.

References Cited in the file of this patent

UNITED STATES PATENTS

2,426,418 Seaver ---------- Aug. 26, 1947

FOREIGN PATENTS

1,100,656 France ---------- Apr. 6, 1955

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 2,838,170 June 10, 1958

Louis E. Isele

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

In the grant, lines 1 to 3, for "Louis E. Isele, of Oakville, Connecticut," read -- Louis E. Isele, of Oakville, Connecticut, assignor to The Eyelet Specialty Company, of Waterbury, Connecticut, a corporation of Connecticut,; line 12, for "Louis E. Isele, his heirs" read -- The Eyelet Specialty Company, its successors --; in the heading to the printed specification, line 3, for "Louis E. Isele, Oakville, Conn." read -- Louis E. Isele, Oakville, Conn., assignor to The Eyelet Specialty Company, Waterbury, Conn., a corporation of Connecticut --; column 6, line 42, for "elgonated" read -- elongated --.

Signed and sealed this 26th day of August 1958.

(SEAL)

Attest:
KARL H. AXLINE

Attesting Officer

ROBERT C. WATSON
Commissioner of Patents