April 2, 1963 W. G. CLARK 3,083,822

COSMETIC CONTAINER

Filed July 11, 1961

Fig. 1.

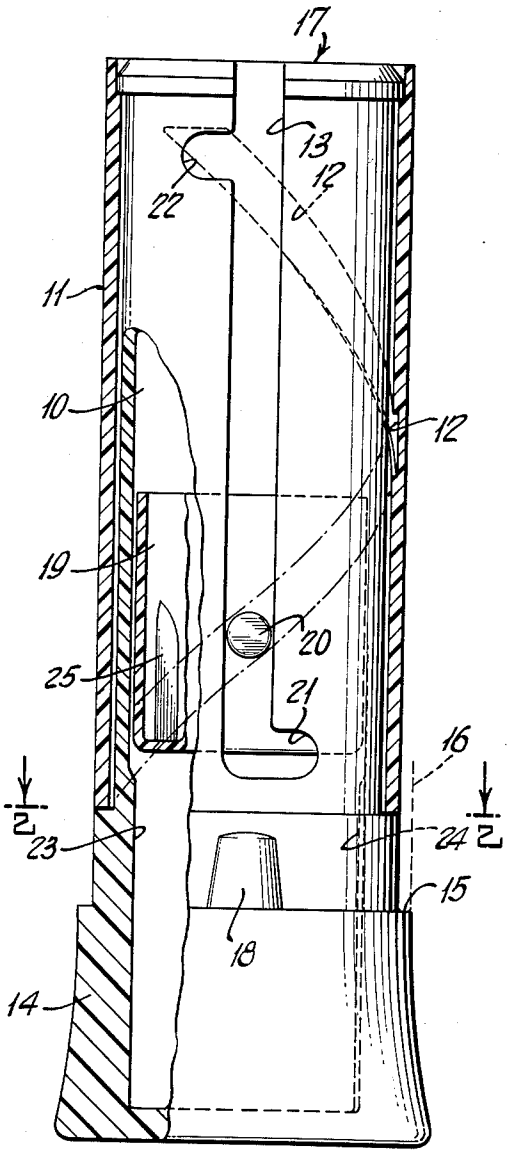



Fig. 2.

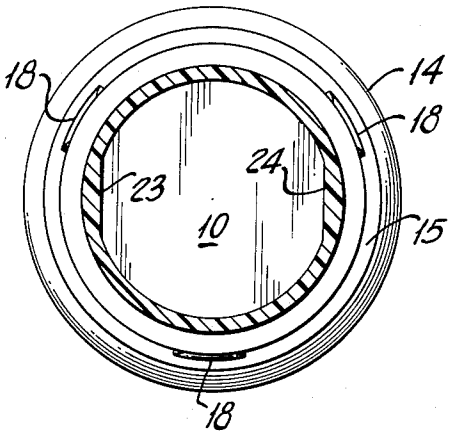



Fig. 3A.

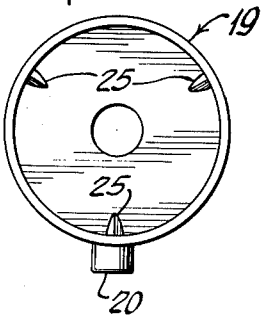
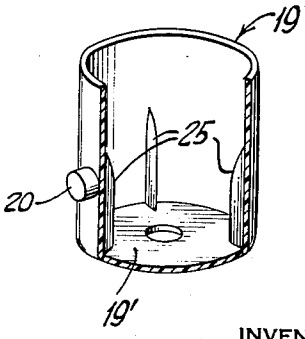



Fig. 3.




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# COSMETIC CONTAINER

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My invention relates to an improved lipstick or the like container construction of the type wherein relative rotation of two tubular elements produces propel-repel action in a carrier member.

It is an object of the invention to provide an improved construction of the character indicated featuring ease of propel-repel action and at the same time retention of the parts against relative movement for one of the extremes of movement of the carrier members.

It is a specific object to meet the above objects with a construction in which the carrier member is frictionally retained in the down position so as to resist displacement upon vibration during transit and thus avoid damage which might otherwise be occasioned by contact of the lipstick with the inner surface or bottom of the closure cap.

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 an enlarged view in elevation of a container embodying features of the invention and showing parts broken away and in longitudinal section to reveal internal details;

FIG. 2 is a sectional view in the plane 2—2 of FIG. 1;

FIG. 3 is a view in perspective and partly broken away to reveal the carrier construction used in the combination of FIG. 1; and

FIG. 3A is a plan view of the carrier of FIG. 3 and drawn to the scale of FIG. 2.

Briefly stated, the invention contemplates a lipstick container construction of the type wherein two relatively rotatable tubular members are provided with cooperating cams which engage the follower of a carrier member so as to longitudinally propel or repel the same for dispensing or retracting lipstick mounted on the carrier member. According to the invention, yielding frictional or interference-fit engagement is promoted between the inner wall of the inner tubular member and outer wall of the carrier member in one extreme limit of the displacement of the carrier member. In the form described, this friction engagement is achieved near the fully retracted position so as to avoid inadvertent dislocation of the carrier member from its retracted position as in the presence of vibration during its initial shipment or during storage in a handbag or the like.

Referring to the drawings, the invention is shown in application to a lipstick container comprising inner and outer tubular members 10 and 11 which overlap for substantially their entire length and which include cam elements such as the spiral groove 12 formed on the inner wall of the outer tubular member 11 and the straight longitudinal slot 13 formed along substantially the entire length of the inner tubular member 10. For actuating purposes, the inner tubular member 10 may be extended by an integral knob or fingerpiece 14 of configuration suited to the aesthetic appearance of the overall container. In the form shown, the fingerpiece of knob is provided with a recess or step 15 against which a closure cap (suggested by fragmentary phanton outline 16) may be fitted when the open end 17 of the container is to be closed. One or more friction ridges or elements 18 may



be provided on the knob 14 adjacent the step 15 for engagement with the inner surface of the closure cap to retain the same in place when the container is closed.

A lipstick or the like (not shown) is frictionally received within the bore of a carrier member 19, which is longitudinally slidable within the bore of the inner tubular member 10. The carrier member 19 includes a cam follower 20 projecting radially outwardly into cooperating engagement with both the slot 13 on the inner tubular member and the spiral cam 12 on the outer tubular member 11. If desired, lateral offset portions 21—22 may be provided at the longitudinal limits of the cam structure so as to allow the cam follower 20 to, in effect, lock against propulsion action for each of the two extremes of cam-propelled movement. In the case of the offset 22, the location of cam follower 20 at this point will assure convenient use of the lipstick without any tendency of the propulsion mechanism to retract during use. In like manner, reception of the cam follower 20 in the offset 21 for the retracted position will assure against longitudinal movement of the carrier member 19 in the absence of rotary movement of the tubular members.

In spite of the action of the offset 21 to reduce the tendency of inadvertent propulsion of the carrier from its retracted position, it does occur in the presence of vibration, as in the case of shipment when the loaded containers may be inverted, that the cam follower 20 may disengage from the offset 21, and the weight of the loaded carrier will tend to permit the lipstick to ride against the inner recess or bottom of the closure cap 16. To prevent this from occurring, and in accordance with the invention, I provide interference-fit means between adjacent portions of the carrier member 19 and the inner tubular member 10 near one of the extremes of longitudinal movement of the carrier member 19. Of course, to avoid this inadvertent dislocation from the retracted position, it is necessary that such interference-fit provision be made at the retracted end of the container, although it will be understood that similar provision for friction retention of the extended position of the carrier may also be made. In the form shown, the interference-fit relation is achieved by providing one or more flats 23—24 integral with the inner wall of the tubular member 10 near the down position of the carrier. In FIG. 1, the parts are shown with the carrier a short distance from its most downward possible position in order that the interference-fit relation may be more readily demonstrated. This interference-fit relation arises from the fact that the diameter of the cup 19 exceeds the clearance between the opposed flats 23—24 and also from the fact that one or both of the members 10—19 is yieldable. In the case of all-plastic constructions, this is achieved by employing thin-enough wall structures for both of the parts.

In order that yielding between the members 10—19 may occur primarily in the carrier member 19, I prefer that this member be of the lesser radial thickness and of course to provide adequate strength in the walls, some reinforcement is desirable; for this purpose, I have shown a plurality of elongated reinforcement ribs 25 at equal angularly spaced locations within the carrier member 19. These reinforcements are shown generally triangular in section and integrally formed both with the wall and the bottom 19' of this part. It is preferred that the reinforcements 25 be provided in a plurality which is different from the plurality of friction elements 23—24 on the bore of the inner tubular members 10. By providing different numbers of the ribs 25 and the flats 23—24, one is assured that the yielding action, characteristic of the invention upon interference-fit engagement, will be of a fairly uniform nature upon relative rotation of the parts, as must necessarily result when the carrier follower 20 is displaced into the slot offset 21.

It will be appreciated that I have described as improved lipstick construction which, without the provision of any further parts, nevertheless provides the very desirable result of retaining the carrier cup in one of its extreme positions and in particular in the retracted position so as to prevent inadvertent displacement during shipment. It should be noted that the frictional engagement achieved by the interference-fit is primarily such as to resist relative rotation of the carrier **19** and the engagement part of the inner tubular member **10**, there being minimum tendency to produce such relative rotation when the cam follower **20** is in the offset portion **21**, regardless of the inversion or vibration to which a loaded container may be subjected in shipment.

While I have described the invention in detail for the preferred form shown, it will be understood that modifications may be made within the scope of the invention as defined by the claims which follow.

I claim:

1. A lipstick or the like container, comprising two relatively rotatable tubular members, one within the other and open at one longitudinal end, a cylindrical carrier member longitudinally slidable within the inner tubular member and including a radially outwardly projecting cam follower, propel-repel cam means on each of said tubular members and coacting with said cam follower to longitudinally displace said carrier member upon relative rotation of said tubular members, a friction element carried on the inner surface of said inner tubular member near one longitudinal end thereof and projecting radially inwardly to an extent to be in frictionally interference-fit relation with said carrier member upon displacement of said carrier member to the end having said friction element.

2. A container according to claim 1, in which one of the inner two of said members is radially resiliently yieldable.



3. A lipstick or the like container, comprising two relatively rotatable tubular members, one within the other and open at one longitudinal end, a cylindrical carrier member longitudinally slidable within the inner tubular member and including a radially outwardly projecting cam follower, propel-repel cam means on each of said tubular members and coacting with said cam follower to longitudinally displace said carrier member upon relative rotation of said tubular members, a plurality of friction elements carried on the inner surface of said inner tubular member near one longitudinal end thereof and in equal angularly spaced relation and projecting inwardly to an extent to be in frictionally interference-fit relation with said carrier member on displacement of said carrier member to the end having said friction element, said carrier member having on the inner wall surface thereof, a plurality of elongated reinforcement ribs projecting radially inwardly and serving the further purpose of friction engagement with an inserted lipstick, said carrier reinforcement elements being equally angularly spaced from each other and being of a number different from the number of said friction elements, whereby distortion produced on friction engagement with said friction element may at least in part be accommodated by a relatively uniform yielding action of said carrier member.

4. The combination of claim 3 in which the number of friction elements is two.

5. The combination of claim 3, in which the number of reinforcement ribs is three.

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