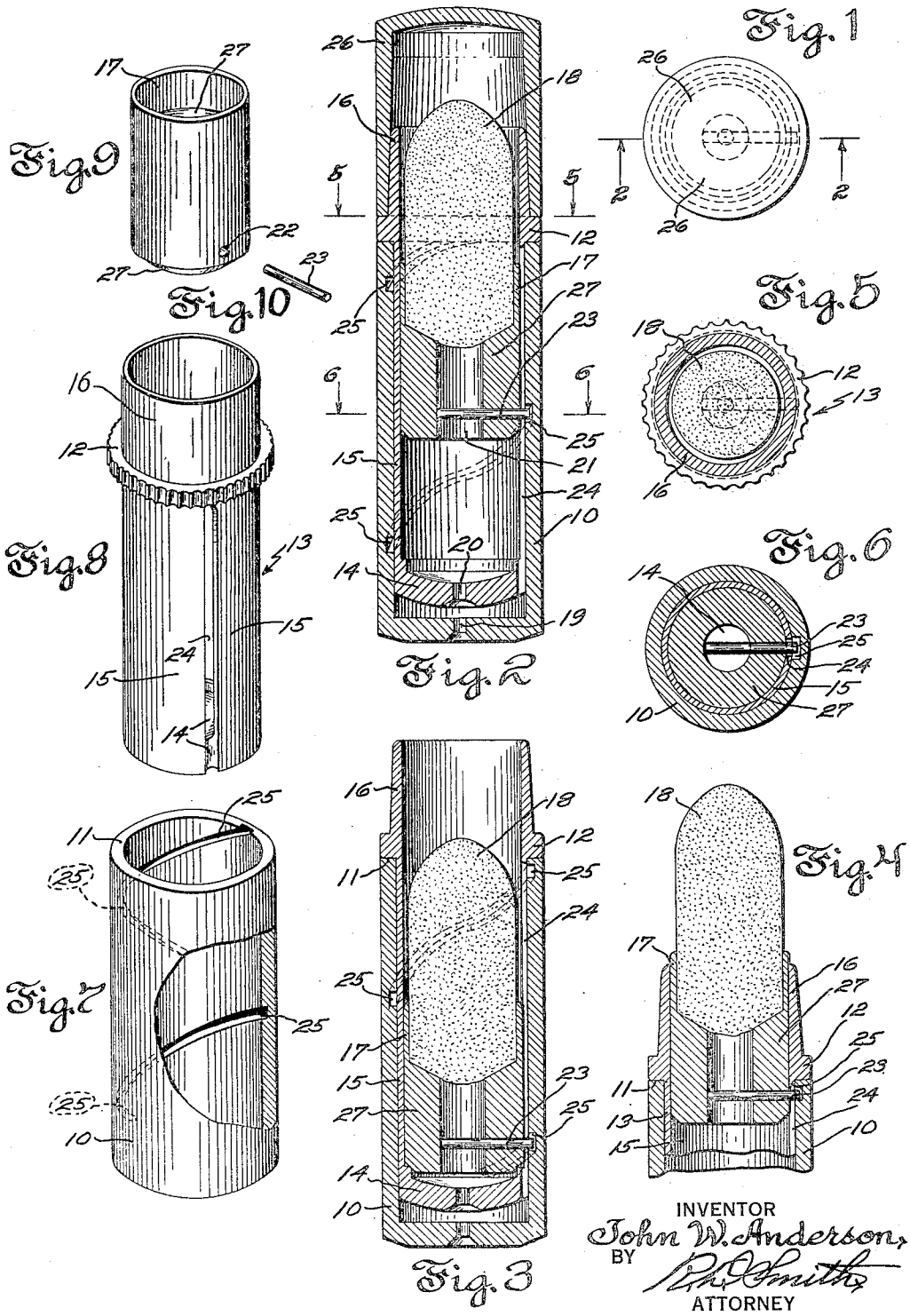
March 28, 1944. J. W. ANDERSON 2,345,315

COSMETIC STICK EXPELLANT HOLDER

Filed May 19, 1941



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Patented Mar. 28, 1944 2,345,315

UNITED STATES PATENT OFFICE

2,345,315

COSMETIC STICK EXPELLANT HOLDER

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Application May 19, 1941, Serial No. 394,139

3 Claims. (Cl. 206—56)

This invention relates to handle-like containers for holding, expelling, using and retracting pencil-like sticks of medical, hygienic, or cosmetic substances as, for instance, lip sticks.

Despite the desirable advantages of making holders for this purpose out of parts molded from the newer so-called "plastic" materials, which advantages include their being proof against corrosion and denting, free from sharp edges, warm and pleasant to the touch, and producible without surface coating in a variety of ornamental colors, as well as lower than metal in cost, it has not heretofore been proposed to make all of the major parts of such holders from molded non-metallic materials because problems arise in the ability of such parts to form an assembly which can perform the mechanical functions necessary to expel, firmly hold and then retract the lip stick.

The main object of my present invention is to produce a successfully operating and conveniently manipulated lip stick expelling and retracting holder whose parts, including those which fit together for acting mechanically, are fewer in number and composed entirely or almost entirely of molded or "plastic" materials.

A further object is to enable relative movement to be imparted conveniently to the working parts of an expellant holder by the fingers of the same hand of the user which grasps and maneuvers the holder and in a manner to expel, hold and retract the cosmetic pencil to selective extents of protrusion from its casing or container.

A further object is to produce a construction of such lip stick holder necessitating an assemblage of only three telescopically nested cup-like parts of molded materials or "plastics."

A further object is to rely upon direct telescopic sliding contact between cylindrical walls of these three nested cup-like parts of non-metallic molded material for the bearing surfaces and operating fits employed in the assemblage.

A further object is so to construct and form one of said parts that it may be as rugged as its duty requires and yet possess walls of "plastic" material which are thin enough and so disposed and constrained as to yield resiliently for producing a light frictional fit.

Still another object is to provide for the reception of a closure cap of such nature that it may be lodged in position to cover the applicative end of the cosmetic stick when not in use and still be readily displaced from this position through manipulation by fingers of the user's same hand which grasps and holds the container.

The above and related objects will be more fully understood from the following description of a preferred form of the invention in which reference is had to the appended drawing, wherein:

Fig. 1 is a plan view of the top end of an expellant holder for lip stick embodying the present improvements.

Fig. 2 is a sectional view taken on the diametral plane 2—2 in Fig. 1, showing the internal lip stick carrier cup at a mean position in its range of travel lengthwise of the container.

Fig. 3 is a view similar to Fig. 2 showing the cap removed and the carrier cup in its fully retracted position.

Fig. 4 shows a fragmentary portion of the assembled parts of Fig. 3 with the carrier cup elevated to its farthest expelling position.

Fig. 5 is a view taken in section on the plane 5—5 in Fig. 2 looking in the direction of the arrows.

Fig. 6 is a view taken in section on the plane 6—6 in Fig. 2 looking in the direction of the arrows.

Fig. 7 is a perspective view of the casing cup with a portion of its wall broken away.

Fig. 8 is a corresponding view of the intermediate cup removed from its normally nested relation to the casing cup of Fig. 7.

Fig. 9 is a corresponding view of the carrier cup removed from its normally nested relation to the intermediate cup of Fig. 8.

Fig. 10 is a perspective view of the tracking pin removed from its retaining hole in the carrier cup of Fig. 9.

The three major working parts of the complete cosmetic holder comprise an outside casing cup 10 of "plastic" or non-metallic molded material having relatively thick and rigid walls and having its largest internal compass extending through its open top end which presents a terminal seating edge 11.

An intermediate cup 13 comprises an integral member preferably of "plastic" or non-metallic molded material in the form of an elongated hollow shell composed of a relatively thick cross wall 14 at its bottom end continuous with relatively thin cylindrical walls 15 elongated to extend from said bottom wall 14 to the flange portion 12 of a ferrule providing structure affording a shoulder which may rest on and swivel relative to the terminal edge 11 of the casing cup 10. This ferrule providing structure also includes an upstanding end portion or terminal rabbet 16 preferably tapered as shown to receive and fit the

correspondingly tapered interior surface of a cap member 26.

Intermediate cup 13 rests within and is in direct surface contact with casing cup 10. Inside of the intermediate cup 13 is a plunger-like carrier cup 17 in which is lodged the bottom end of a lip stick or the like, indicated by 18, so that such lip stick moves lengthwise of the holder in unison with its carrier cup 17 in both directions. Carrier cup 17 nests within and is in direct surface contact with the intermediate cup 13, and has a cross wall 27 which is thicker and more rigid than its side walls continuous therewith. Thus intermediate cup 13 sleeves carrier cup 17 within casing cup 10.

To prevent trapping of air, each of the three relatively nested and relatively movable cups 10, 13 and 17 contain respectively in their bottom end walls the apertures 19, 20 and 21. Carrier cup 17 further has a laterally directed or crosswise hole 22 in which is removably lodged the tracking pin 23. The latter is of such length that when its inner end abuts against one surface of the wall bordering aperture 20, its outer end protrudes somewhat from the peripheral surface of carrier cup 17 and extends slidably through a straight slot 24 molded lengthwise in wall 15 of the intermediate cup 13, and then enters and slidably engages a continuous helical groove 25 sunk by molding or otherwise into the interior surface of the side wall of casing cup 10.

From the foregoing description of the parts and their relation to one another and to pin 23, which may be made of a hard "plastic" or of fibre or metal, it will be seen that this pin can simultaneously track lengthwise of slot 25 while following the helical incline of groove 25. Thus if the casing cup 10 is grasped between and held from turning by the palm and second finger of the user's hand while the flange 12 of the ferrule-like structure, and thereby the intermediate cup 13, is rotated relative to the casing cup by the thumb and index finger of the user's same hand, then the outer end of pin 23 will track simultaneously in slot 24 and groove 25 causing the carrier cup 17 in which pin 23 is lodged to move lengthwise of both cups 10 and 13. This expels or retracts the lip stick depending upon the direction of relative rotation between these two cups.

In my improved and simplified lip stick holder constructed as shown, not only can the lip stick be expelled and retracted as described but through manipulation by the same fingers of the user's hand that are so employed, a suitable cap 26 which fits on the rabbet 16 of the ferrule-like structure of cup 13 can be removed therefrom.

Coming now to certain unique features of the construction which help make possible an all "plastic" lip stick holder capable of the above described performance while composed of only three relatively movable major parts, it will be observed that the elongated cylindrical walls 15 of the intermediate cup 13 are very much thinner than the surrounding cylindrical elongated walls of the casing cup 10 and also that the slot 24 breaks the circular continuity of walls 15 along a considerable extent of their length so that even when produced of molded, non-metallic materials, walls 15 may be springy and resilient in the vicinity of slot 24 and may possess a diametrical fullness that slightly exceeds the internal compass of the casing cup 10 engaged thereby. Thus through resilient inward yielding of walls 15, a light pressure can be brought into play between the interior surface of casing cup 10 and the exterior surface of walls 15 without danger of any abrupt or undesirable binding. Thus can be produced a frictional cling between intermediate cup 13 and casing cup 10 capable of lightly opposing relative rotative movement between these two cups which thus will tend to hold the lip stick carrier cup 17 more firmly in whatever expelled position it may be established preparatory to use or application of the cosmetic. There should be emphasized the importance of the thickness of the bottom end walls of the cups by which the cooperative yielding and non-yielding of the side walls can dependably be produced in an all molded part and in a manner that would not be possible to a mere tube of "plastic" or non-metallic molded material. The thick bottom end wall 14 is not itself distortable as would be the case if it were as thin as are the side walls 15 and therefore it serves as a solid base restricting resilient yielding of walls 15 to a kind and degree and locality in the cup whereby such resilience can operate with the effect described.

When completely assembled with cap 26 in place, my improved holder exposes the notched periphery of flange 12 of the ferrule structure intermediate the casing cup 10 and the cap 26. Since this cap is carried by the ferrule structure, if it is fitted sufficiently tight thereon, it can be used as a handle in place of, or in conjunction with, flange 12 for turning intermediate cup 13 relative to casing cup 10. The extreme limits of this relative turning movement in one direction are set up by the closing together of the bottom walls of the cups. There is no limit to the turning in the other direction as the end of tracking pin 23 may ride freely and completely out of the open ended helical groove 25 enabling cups 10 and 13 to come freely apart as shown in Figs. 7 and 8. Since pin 23 can then drop out of its hole 22 in carrier cup 17, the latter can thereupon be separated from intermediate cup 13 all as shown in Figs. 8, 9 and 10. This cosmetic container is therefore readily disassembled for cleaning and requires no tools to readily put it back together again.

As there are many possible modifications which will be suggested by the disclosure hereof to those working in this art, the following claims are intended to cover all substitutes and equivalents for the kinds and combination of parts herein particularly illustrated and described which fairly come within the language employed in the claims.

I claim:

1. An expellant holder for cosmetic sticks receptive to a cap for covering the latter, including the combination, with a slidable carrier for the cosmetic stick, of an external casing cup surrounding said carrier, a helical guide track presented internally by said casing cup, a projection carried by said carrier riding in engagement with said track, and an elongated hollow shell, one end portion of whose length sleeves said carrier within said casing cup and is free for rotation relative to the latter and contains an axially extending slot slidably engaged by said projection, the opposite end portion of whose length forms a terminal rabbet outside of said casing cup for receiving the stick covering cap, and an intermediate portion of whose length comprises a ferrule having an overall girth at least as large as that of said casing cup and larger than that of said end portions.

2. An expellant holder for cosmetic sticks re-

ceptive to a cap for covering the latter, including the combination with an internal slidable carrier cup for holding the cosmetic stick, of an external casing cup having a thick cylindrical integral wall surrounding said carrier, a groove in said integral wall forming a helical guide track, a projection carried by said carrier riding in engagement with said track, and an elongated intermediate cup, said intermediate cup having a closed end portion of its length formed as relatively thin resilient walls sleeving said carrier cup within said casing cap containing an axially extending slot slidably engaged by said projection and having an open end portion of its length formed as a terminal rabbet and having an intermediate portion of its length formed as a ferrule having an overall girth at least as large as that of said casing cup and larger than that of said end portions.

3. In an expellant holder, the combination of, an internal carrier, an external casing surrounding said carrier, a helical guide track on the inside surface of said casing, a projection on said carrier engaging with said track, and an intermediate elongated hollow shell one portion of whose length rotatably sleeves said carrier within said casing and contains an axially extending slot engaged by said projection, the opposite portion of whose length forms a terminal rabbet outside of said casing, and an intermediate portion of whose length comprises a ferrule outside of said casing having an overall girth at least as large as that of the casing.

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