

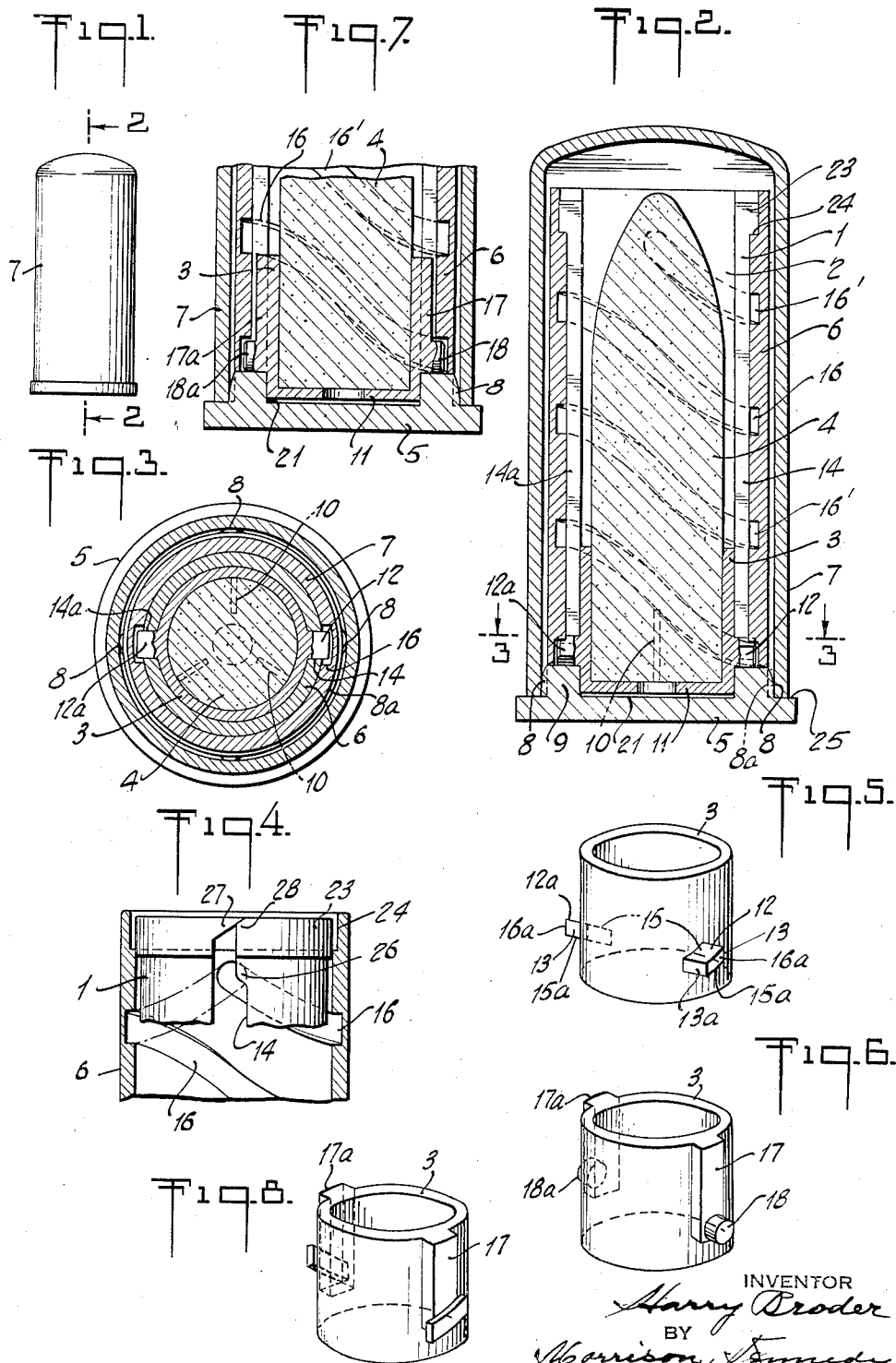
April 18, 1950

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LIPSTICK HOLDER

2,504,490

Filed May 17, 1946

2 Sheets-Sheet 1



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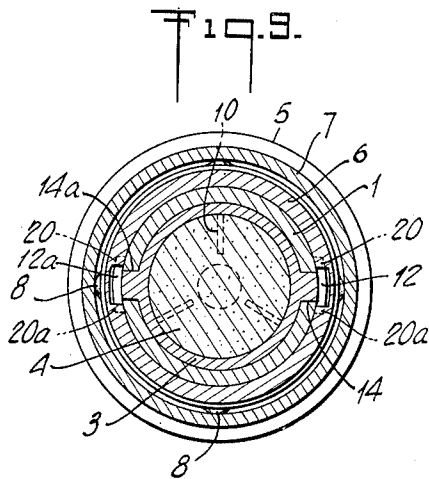
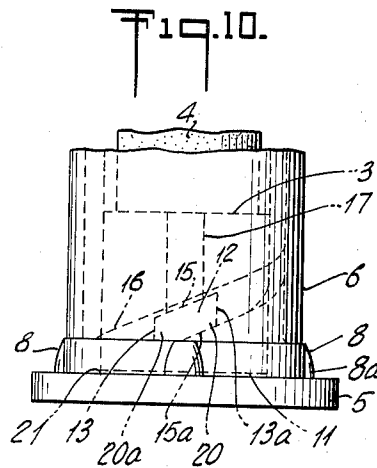
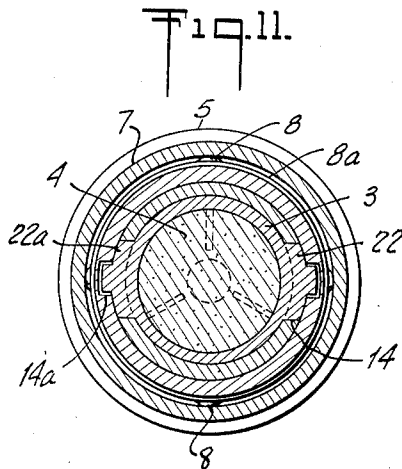
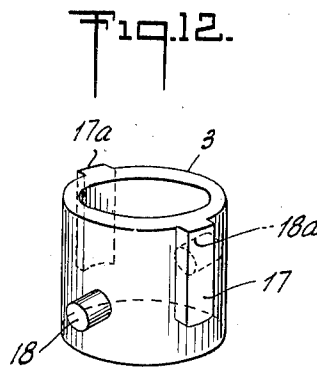
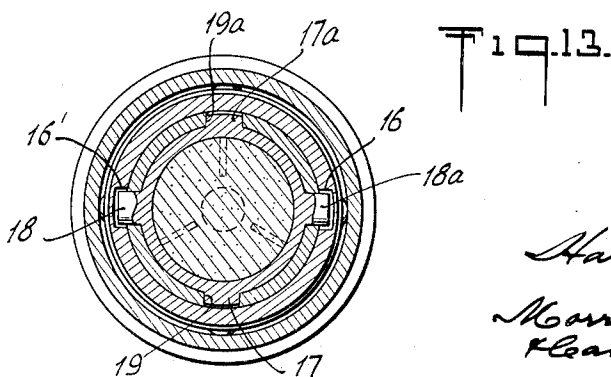
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2 Sheets-Sheet 2



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2,504,490

LIPSTICK HOLDER

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Application May 17, 1946, Serial No. 670,567

9 Claims. (Cl. 206—56)

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The invention relates to a lipstick holder of the type which includes concentric inner and outer cylindrical shells, the inner shell presenting a longitudinal bore to receive a carrier for the lipstick cartridge, and the carrier being provided with a laterally extending pin to cooperate with a longitudinal slot in the inner shell and a helical groove in the outer shell. In some well known lipstick holders of the art, the carrier is provided with two opposed laterally extending pins which cooperate with two longitudinal slots in the inner shell and two helical grooves in the outer shell. In all cases, the arrangement is such that as the inner shell, for instance, is rotated relatively to the outer shell in one direction, the carrier will be moved longitudinally along the bore to project the lipstick cartridge, when its use is desired; whereas, when the parts are relatively rotated in the opposite direction, the carrier will be moved in the reverse direction to retract the lipstick cartridge into the bore, as when it is not to be used. It is also customary to provide such a lipstick container with a cover or cap to prevent access to the lipstick of contaminating foreign matter, as well as to prevent the lipstick itself from coming into contact with and soiling other articles.

It frequently happens, that in lipstick holders of the said types, the carrier for the lipstick cartridge will wobble when being projected from and retracted into the inner shell. This wobbling may result in the lipstick being pressed against the adjacent wall of the inner shell, smearing the latter, or it may result in staining the fingers of the user, or both these undesirable results may happen. A further and even more serious result is that the lipstick, which is carefully made to give the best service in use, may be deformed and thus rendered less serviceable, if not entirely unfit, for use. Indeed, in many instances the lipstick holders are rejected because of such faulty operations.

It is of first importance, nevertheless, that the formation of the inner shell slots and the helical guides or grooves in the outer shell and of the pins which travel in them, as well as the resulting cooperation of the slots, grooves and pins, be of such character that any binding or pinching of the pins in the slots or grooves or of the lipstick carrier in the inner shell will be entirely avoided, while yet permitting the parts of the holders to be made of any desired materials, and it is also of equal importance that the carrier or cup shall be evenly balanced in its travels in the inner

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shell so that any wobbling or swerving by the cup from a true course will not occur.

Having the foregoing in view, the prime object of the invention is to produce a lipstick holder whose operative parts shall be so constructed and arranged that the lipstick cartridge carrier or cup, as it may properly be called, shall always be free and unrestrained in its travels through the inner shell to project the lipstick cartridge into operative position and then to retract the same into inoperative position; and, contributing to this result, whose said cup shall at all times be properly supported in the grooves of the outer shell and maintained in stable equilibrium.

In effecting these and other objects of the invention and according to one feature thereof, the cartridge carrier or cup is provided on its outer surface with oppositely spaced pins, disposed at the same level, and each of which is formed with a body portion which travels in a slot in the inner shell and a projecting head which travels in a groove in the outer shell. The body of the pin is fashioned with vertical sides which freely slide on the adjacent sides of the slot, thus conducing to the stability of the cup in its travels in the shell. Further, the head of the pin is made with top and bottom faces which are inclined in order to conform to the pitch of the groove in which the pin travels, and with its outer side conforming to the shape of the vertical wall of the groove. Also, and of importance, broadly, the head projects laterally over the adjacent area of the outer surface of the inner shell, and in particular has wings, one on each of its opposite sides which slide over the respective adjacent areas of said outer surface, thus adding greatly to the stability of the cup when travelling.

According to another and leading feature of the invention, the cup and inner shell are provided with additional guiding and supporting means, one of said elements being formed with a laterally projecting longitudinal rib which slides in a slot formed in the other of said elements. In one form of the invention illustrated herein, the rib is formed on the cup and operates in a slot formed in the inner shell and, in one embodiment of this form, in a slot previously devoted to a pin. In a preferred embodiment of the invention, the cup is formed with two ribs oppositely disposed on its outer surface and the inner shell is formed with two slots properly disposed for the ribs.

And according to yet another feature of the invention, the rib and improved form of pin described are formed in one embodiment of the in-

vention as an integral element, thus combining in one structure the advantages of both improved constructions and by this combination of them adding yet further advantages to the new element thus formed.

In the accompanying drawings there are illustrated preferred embodiments of the invention and certain modifications thereof, the same serving when taken in connection with the following description to set forth the principles and advantages of the invention.

Of the drawings:

Fig. 1 is a front elevation of a lipstick holder constructed in accordance with the invention;

Fig. 2 is an enlarged vertical cross-section taken on the line 2—2 of Fig. 1;

Fig. 3 is a horizontal cross-section on an enlarged scale taken on the line 3—3 of Fig. 2;

Fig. 4 is an enlarged fragmentary view of the upper part of the holder; partly in section and partly in elevation, showing the parts in process of assembly;

Fig. 5 is a perspective view showing the lipstick carrier or cup used in Figs. 1—4;

Fig. 6 is a perspective view of a modified form of lipstick carrier or cup, showing a combined rib and pin;

Fig. 7 is an enlarged fragmentary cross-section of the lower portion of a lipstick holder showing the modified form of cup illustrated in Fig. 6;

Fig. 8 is a perspective view showing a further modified form of cup, with the combined rib and improved form of pin;

Fig. 9 is a horizontal cross-section similar to Fig. 3, showing the modified form of cup illustrated in Fig. 8;

Fig. 10 is a fragmentary elevational view, with the cup removed, of the modified form of holder shown in Figs. 8 and 9;

Fig. 11 is a horizontal cross-section, similar to Fig. 9, of another modified form of cup showing a pin mounted on a novel form of rib;

Fig. 12 is a perspective view of a further modified form of cup, showing the pins and ribs disposed at right angles; and

Fig. 13 is a horizontal cross-section similar to Fig. 11, showing the modified form of cup of Fig. 12 mounted in the holder.

Referring to the drawings in detail, each of the preferred embodiments of the lipstick holder illustrated, when assembled for use, includes an inner cylindrical shell 1 having a bore 2 serving as a guide for a cylindrical lipstick cartridge carrier or cup 3 adapted to contain a lipstick cartridge 4. The shell 1 is formed integrally with a base member 5. An outer shell member 6, concentric with the inner shell 1, encircles the latter with the exception of the base member 5. The lipstick holder further includes a cap 7, which completely encircles the outer shell 6 and which frictionally engages knobs 8 on the outer cylindrical surface 8a of a reduced portion 9 of the base 5, see Fig. 2. The lipstick holder as a whole or its different elements may be made of any desired materials, as metals or plastics, although the present improvements are particularly applicable to molded plastic materials.

The cartridge cup 3 is open at the top to receive the lipstick cartridge 4 which, when inserted in the cup, is suitably held against turning, as by triangular prongs 10 rising from a base plate 11. It is to be understood that the lipstick cartridge is relatively soft and must be pushed down into the cup, when the device is being loaded, to become impaled on the prongs 10.

A cartridge cup supported in the grooves of the outer shell by two oppositely disposed pins on the cup in what may be termed a two-point support, a form common in the art, will be supported in some but not all directions and therefore is subject to wobbling. According to the invention, and in one embodiment thereof, this two-point support of the art is improved so that the cup, which is loosely fitting in the inner shell, is supported in two main directions running transversely or at right angles to each other, thus eliminating any wobbling or unsteadiness of the cup in either of said directions. As shown, see Fig. 5, the cup 3 is provided with two combined rib and pin elements 12, 12a formed integrally with and projecting laterally from the outer cylindrical surface of the cup and located preferably near the bottom of the cup. These elements are suitably spaced apart, preferably 180°, and are both at the same level. The elements 12 and 12a are finished each in its body portion with vertical sides 13, 13a to provide in effect laterally projecting guide ribs which freely slide on the adjacent sides of slots 14, 14a in the inner shell in which the elements travel, thus checking any tilting motion of the elements or the cup in a lateral direction or at an angle to the length of the elements. To check any tilting or wobbling of the cup both laterally and longitudinally of the elements 12, 12a, the head of each element, which in effect is a pin projecting laterally from the associated guide rib, is made with top and bottom faces 15, 15a, see Fig. 5, which are inclined, in order to conform to the pitch of the groove 16 in the outer shell in which the pin travels, and with its outer face 16a conforming to the shape of the adjacent wall of the groove. A further and important improvement associated with the pin will be set forth in connection with another embodiment of the invention, presently to be described, but it will be seen that with the form of pin thus far shown there is afforded a decided improvement in stabilizing the motion of the cup in its travel in the shell.

According to a principal feature of the invention, additional means are provided for supporting and guiding the cup in its travels in the inner shell. As shown in Fig. 12, the cup 3 is provided on its outer cylindrical surface with two longitudinal ribs 17, 17a extending each from a point near the bottom of the cup to the top thereof, and the ribs preferably being oppositely disposed and each midway of pins 18, 18a. The inner shell 1 is formed with suitable slots 19, 19a (see Fig. 13) appropriately disposed for the ribs 17, 17a.

A variant of this feature of the invention is shown in Fig. 6, in which the pins 18, 18a are formed on the ribs 17, 17a, which slide in the said slots 19, 19a, this construction avoiding the necessity for additional slots for the pins. It has the further advantage that the pin and rib, forming thus one integral structure, are helped in their respective functions each by the other, the rib by the support which it obtains from the pin in the latter's free contact with the sides of the groove of the outer shell and the pin by the support which it receives from the rib in the rib's free engagement with the sides of the slot in the inner shell 1. It will be noted that the special advantage inherent in this combination of rib and pin as an integral element will obtain even if the pin, as shown in Fig. 6, be of a cylindrical shape of the art.

Another form of the combined rib and pin is

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shown in Fig. 8, which is like the form shown in Fig. 6 except that the pin, while generally of the shape shown in Fig. 5, is formed to project over the adjacent outer surface of the inner shell 1. Preferably it has wings 20, 20a which project, as well shown in Fig. 10, one from each side of the pin, and respectively slide on the adjacent surfaces of the outer surface of the inner shell 1. These wings may be of any desired shape and size, the examples illustrated affording sufficient wing surface for the desired contact with the surface of the inner shell. It will be seen that with this wing structure, see Figs. 9 and 10, each of the opposite edge portions of the inner shell, defining each of the oppositely disposed slots in said shell, will have a sliding contact on three sides; with the adjacent outer surface of the cup 3, a vertical side of a pin, and an inner side of the wing of the coating pin, respectively. Further, each wing of the pin will on its inner side slide on the outer surface of the inner shell; on its outer side make free contact with the inner wall of the groove in the outer shell; and on its top and bottom faces, respectively, will freely engage the upper and lower walls of the groove, to the pitch of which said faces conform. The great advantages inherent in such a construction and combination of parts will be obvious.

It will be observed that with a construction of two opposed ribs and two pins as heretofore described, efficient means are provided for preventing any tilting or wobbling of the cup in the direction of a straight line drawn between said ribs or between said pins, in what may be called a fore and aft motion, and that with the ribs disposed each between and apart from the pins, any wobbling in a direction of a line between the pins or transversely to the fore and aft motion described is also checked. It will now be noted that if the ribs are extended laterally, as shown in Fig. 11, a check to both these fore and aft and transverse tiltings of the cup is provided, the extent of which in the transverse direction depends upon the width of the rib. Ribs 22 and 22a, formed to describe an arc of about 60°, as shown in said Fig. 11, will furnish a structure, operative between the cooperating walls of the inner and outer shells, which will check wobbling or tilting of the cup in any direction. And to the effect produced by the width of the ribs 22 and 22a is added the effect of the pins bearing upon the upper and lower faces of the inner walls of the grooves in the outer shells.

The inner shell is divided above its base into sections, partly cylindrical in form, their edges being cut away to present the longitudinal slots heretofore described through which the pins and ribs extend. The pins, whether mounted directly upon the cup 3 or upon the ribs 17, 17a project beyond the slots and into helical grooves of the outer shell 6. In order to avoid any possibility of the pins becoming pinched or wedged in the slots or grooves, they are formed as heretofore described to slide freely therein. The grooves start at the bottom of the shell and terminate at the top thereof. The slots and grooves are spaced apart to correspond with the spacing of the ribs and pins. When the ribs are located on the cup apart from the pins, as shown for instance in Figs. 12 and 13, the inner shell 1 will be formed with four slots in correspondence with the said ribs and pins and the outer shell with four grooves. When, however, the

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ribs and pins are combined in one element, as in Figs. 6 and 11, two slots in the inner shell will be sufficient, each of a width to correspond with the width of the ribs, and two grooves will suffice in the outer shell. Here it may be noted that the inner shell 1 is recessed as at 21 to accommodate that portion of the cup 3 below the pins.

According to the foregoing arrangement, when the cup 3 is in its lowermost position, see Fig. 2, the lipstick cartridge will be located entirely within the confines of the bore 2. However, assuming that the cap 7 has been removed, when the inner shell 1 and the outer shell 6 are relatively rotated, as by holding the outer shell and rotating the base portion of the inner shell 1 in one direction, the cup 3, by virtue of the engagement of its pins, say, 12, 12a in the longitudinal slots 14, 14a, respectively, of the inner shell 1, and the helical grooves 16, 16', of the outer shell, will be moved outwardly to project the lipstick beyond the bore 2 so that access to it may be had; and, conversely, when the inner and outer shells are relatively rotated in the opposite direction, the cup 3 will be moved inwardly to retract the lipstick cartridge within the confines of the bore.

The inner shell 1 is formed at the top with an external annular boss 23 which fits into a complementary recess 24 formed in the inner face of the outer shell 6, the boss 23 and the recess 24 presenting interengaging shoulders in a plane perpendicular to the axis of the holder. At its lower end, the outer shell 6 engages the base 5 of the inner shell. This construction at the opposite ends of the shells effectively locks them against relative longitudinal movement, while permitting free relative rotative movement, once the parts are assembled.

When the cap 7 is in place with its lower end engaging an annular shoulder 25 presented at the top of the larger portion of the base 5, it completely encloses the outer shell 6 and is frictionally locked to said base as heretofore described. The friction, however, is not so great but that the user readily will be able to assemble the cap.

Since the cap or cover 7 when in service engages the base member of the inner shell 1 and since there is full clearance between the cap and the outer shell, relative rotation between the inner and the outer shells is impossible and there will be no danger of the lipstick cartridge being crushed against the top of the cap.

As shown in Fig. 4, there is formed in one edge of each slot in the inner shell near the top, a protrusion 26 which acts as a stop to limit the upward movement of the cartridge cup since it stands in the path of any pin or rib travelling in the slot. Also, the opposed walls of each slot terminate at the top in complementary bevelled portions 27 and 28 which, when the parts are assembled, overlap one another, giving an optical illusion of continuity except for a slight line which is unnoticeable unless attention is directed particularly to it. The illusion is further enhanced by bevelling oppositely the different edges of each shell section.

As the inner shell is formed, the walls of the slots therein flare outwardly toward the top. In this manner, there are provided adequate openings at the upper ends of the slots readily to admit the protruding pins and ribs on the sides of the carrier, which is the first step in the assembly of the parts. It will also be noted that

such construction facilitates removal of the shell from the molding core.

After the cartridge cup 3 has been placed in the inner shell 1, the latter is inserted endwise into the outer shell 6. In performing this operation, the cylindrical sections are pressed together against their natural tendency to maintain their molded form, and entered into that end of the outer shell which is opposite the recess 21, the entry being facilitated by an internal bevel formed at the lower inner end of the outer shell 6. Thereafter, the inner shell is pushed up into the outer shell until the pins and ribs are entered into the lower open ends of the helical grooves which, as before stated, are disposed in correspondence with the pins and ribs. Then the two shells are rotated, one relatively to the other, to enter the pins and ribs into the lower open ends of the helical grooves. By this same rotation of the two shells, the base portion 5 of the inner shell is brought up against the lower end of the outer shell. At that time, the boss 23 at the top of the inner shell comes into register with the annular recess 24 in the outer shell, whereupon the sections of the inner shell, being under stress, will spring out and seat in the recess, thereby locking the parts together in assembled relation.

It will now be seen that in a lipstick holder constructed as heretofore described the cartridge cup is free to slide without binding or undue friction in its up and down movements. Furthermore, because of the longitudinal and lateral support of the cup in the slots and grooves, it will be properly supported in all directions and at all times in its travel in the inner shell, any tipping or off-balance movement of the cup, whereby it could become jammed or impeded in its movement, being avoided.

The invention in its broader aspects is not limited to the precise constructions shown and described, as many changes may be made in the details thereof without departing from the main principles of the invention or sacrificing its chief advantages.

Having thus described my invention, what I claim is:

1. A lipstick holder including in combination, a cartridge cup having a laterally projecting longitudinal rib extending from near the bottom of the cup to the top thereof and a pin projecting laterally from the rib and located near the bottom of the rib, an inner shell member presenting a bore to accommodate said cup and formed with a longitudinal slot for the rib, and an outer shell member formed with a helical groove in its inner surface for the pin, said shell members being relatively rotatable, in one direction to project

the lipstick cartridge outwardly from the bore for use, and in the opposite direction to retract the cartridge into the bore.

2. A lipstick holder as in claim 1, characterized in that the pin extends laterally beyond a side of the longitudinal rib.

3. A lipstick holder as in claim 1, characterized in that the pin extends laterally beyond both sides of the longitudinal rib.

4. A lipstick holder as in claim 1, characterized in that the rib extends laterally beyond a side of the pin.

5. A lipstick holder as in claim 1, characterized in that the rib extends laterally beyond both sides of the pin.

6. A lipstick holder including in combination, a cartridge cup having a laterally projecting longitudinal rib and a pin projecting laterally from the rib, said rib being of substantially greater length than the height of the pin, an inner shell member presenting a bore to accommodate said cup and formed with a longitudinal slot for the rib, and an outer shell member formed with a helical groove in its inner surface for the pin, said shell members being relatively rotatable, in one direction to project the lipstick cartridge outwardly from the bore for use, and in the opposite direction to retract the cartridge into the bore.

7. A lipstick holder as in claim 6 characterized in that the rib extends laterally beyond both sides of the pin.

8. A lipstick holder as in claim 6 characterized in that the pin extends laterally beyond both sides of the rib.

9. A lipstick holder as in claim 6 characterized in that one of said rib and pin parts extends laterally beyond a side of the other of said parts.

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