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(54) **PACKAGE**

VERPACKUNG

EMBALLAGE

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Description

TECHNICAL FIELD

[0001] The present application relates to a container for cosmetic, more specifically, to a package.

BACKGROUND

[0002] Lipstick is a commonly used cosmetic, and generally is received in a lipstick package. As shown in Fig. 1, a lipstick package 100 in general includes a cup 110, a guiding sleeve 120, a driving sleeve 130, an outer housing 140 and a cap 150. The cup 110 is configured to accommodate and hold a lipstick bar, and is arranged within the guiding sleeve 120. The cup 110 is provided with a transmission slider that protrudes out of the guiding sleeve 120 and passes through a through groove of a side wall of the guiding sleeve 120. The driving sleeve 130 is provided with a transmission spiral groove matching with the transmission slider, and is fixed to the outer housing 140. In use, the user rotates the outer housing 140 to drive the driving sleeve 130 into rotation. The rotation of the driving sleeve 130 drives the cup 110 to move axially in the guiding sleeve 120 through the transmission spiral groove and the transmission slider. In this way, the lipstick bar can be exposed out of the guiding sleeve 120 for use. After the use, the cap 150 is capped on the outer housing 140. In the package, the guiding sleeve 120 is generally made of a metal, and other elements are generally made of plastics. Such packages for a lipstick are for instance known from US 2021/093070 A1 and US 2630215 A.

[0003] With the stricter demand of environmental protection, more and more attention is paid to material recycling. During the material recycling, elements made of different materials should be separated from each other, and elements made of the same material should be collected together. However, for the existing lipstick package, it is difficult to separate the metallic guiding sleeve 120 from the other elements made of plastics, such as the cup 110, the driving sleeve 130 or the outer housing 140.

SUMMARY

[0004] In view of this, embodiments of the present application provide a package, in which elements made of different materials can be separated from each other.

[0005] In order to achieve the forgoing objective, the package is defined by the features of claim 1.

[0006] The embodiments of the present application provide a package, which includes a cup, a guiding sleeve, a driving sleeve, and an outer housing.

[0007] The cup is configured to accommodate and support a content.

[0008] The guiding sleeve is disposed around the cup, and the cup is movable in the guiding sleeve in an axial

direction of the guiding sleeve.

[0009] The driving sleeve is configured to drive the cup to move in the axial direction, and the driving sleeve is disposed around the guiding sleeve.

[0010] The outer housing is disposed around the driving sleeve and coupled to the driving sleeve.

[0011] In the package, the guiding sleeve is detachably coupled to the driving sleeve and is rotatable relative to the driving sleeve in a circumferential direction.

[0012] The outer housing includes a top end and a bottom end opposite to one another in the axial direction, and each of the top end and the bottom end is provided with an opening. The outer housing is detachably coupled to the driving sleeve, so that an assembly constituted by the driving sleeve, the guiding sleeve and the cup is capable to be separated from the outer housing from the bottom end of the outer housing.

[0013] Preferably, the top end of the outer housing is provided with a neck to limit an axial movement of the driving sleeve towards the top end of the outer housing, and an inner wall of the neck of the outer housing is in contact with an outer peripheral wall of the guiding sleeve.

[0014] Preferably, the guiding sleeve is provided with a first stopper, and the driving sleeve is provided with a second stopper matching with the first stopper, to limit a movement of the guiding sleeve relative to the driving sleeve in the axial direction.

[0015] Preferably, the first stopper includes a first stopping protrusion formed on an outer wall of the guiding sleeve in a circumferential direction.

[0016] The second stopper includes a second stopping protrusion formed on an inner wall of the driving sleeve in a circumferential direction, the first stopping protrusion and the second stopping protrusion are configured to cooperate with one another to limit an axial movement of the guiding sleeve relative to the driving sleeve towards the top end of the outer housing.

[0017] Preferably, the second stopper includes a third stopping protrusion formed on the inner wall of the driving sleeve in the circumferential direction, the first stopping protrusion and the third stopping protrusion are configured to cooperate with one another to limit an axial movement of the guiding sleeve relative to the driving sleeve towards the bottom end of the outer housing.

[0018] Preferably, one of an outer wall of the driving sleeve and an inner wall of the outer housing is provided with at least one rib, and the other one of the outer wall of the driving sleeve and the inner wall of the outer housing is provided with at least one groove matching with the corresponding rib. The rib and the groove cooperate with one another to limit an axial movement or a circumferential movement of the driving sleeve relative to the outer housing.

[0019] Preferably, the groove is provided with a guiding surface for guiding the rib.

[0020] Preferably, an axial force required to detach the outer housing from the driving sleeve is less than an axial force required to detach the guiding sleeve from the driv-

ing sleeve.

[0021] Preferably, the package further includes a bottom plug detachably coupled to a bottom end of the driving sleeve, and the outer housing is arranged around an outer circumference wall of the bottom plug.

[0022] Preferably, the bottom plug is coupled to the bottom end of the driving sleeve through a snap-fit.

[0023] Preferably, an inner wall of the bottom end of the outer housing forms a dovetail-shaped hole, and the bottom plug is wedged into the dovetail-shaped hole.

[0024] Preferably, the package further includes an elastic ring mounted around the driving sleeve, the driving sleeve is provided with an annular groove for receiving the elastic ring, a depth of the annular groove is greater than a diameter of the elastic ring, the annular groove includes at least one empty area through which the elastic ring contacts an outer peripheral wall of the guiding sleeve.

[0025] According to the package of the embodiments of the present application, the driving sleeve is detachably coupled to the driving sleeve, so that the guiding sleeve can be separated from the driving sleeve.

[0026] Other beneficial effects of the embodiments of the present application will be further described in conjunction with specific technical solutions.

BRIEF DESCRIPTION OF THE DRAWINGS

[0027] In order to more clearly describe the technical solutions in the embodiments of the present application, the following will briefly describe the drawings used in the description of the embodiments. It should be understood that the drawings described below are only a part of the drawings of the embodiments of the present application. For those of ordinary skill in the art, other drawings can be obtained from these drawings without creative work.

FIG. 1 is a schematic view of a package in the related art.

FIG. 2 is a schematic view of a package of an embodiment of the present application.

FIG. 3 is a schematic view of a guiding sleeve of a package of an embodiment of the present application.

FIG. 4 is a schematic view of a driving sleeve of a package of an embodiment of the present application.

FIG. 5 is a partial enlarged view of a part A in FIG. 2.

FIG. 6 is a schematic diagram shows a force applied for detaching an outer housing of a package of an embodiment of the present application.

FIG. 7 is a schematic diagram shows a package of an embodiment of the present application after an outer housing is detached.

FIG. 8 is a schematic diagram shows a force applied for detaching a guiding sleeve of a package of an embodiment of the present application.

FIG. 9 is a schematic diagram shows a package of an embodiment of the present application after a guiding sleeve is detached.

List of reference numerals:

[0028] Related art: 100 package; 110 cup; 120 guiding sleeve; 130 driving sleeve; 140 outer housing; 150 cap.
[0029] Embodiments of the present application: 200 package; 210 cup; 211 holding ridge; 220 guiding sleeve; 221 first stopping protrusion; 222 strip-type groove; 230 driving sleeve; 231 rib; 232 engagement projection; 233 second stopping protrusion; 240 outer housing; 241 groove; 2411 guiding surface; 250 bottom plug; 251 slot.

DETAILED DESCRIPTION

[0030] For the problem in related art, embodiments of the present application provide a package, which includes a cup, a guiding sleeve, a driving sleeve, and an outer housing.

[0031] The cup is configured to accommodate and support a content.

[0032] The guiding sleeve is disposed around the cup, and the cup is movable in the guiding sleeve in an axial direction of the guiding sleeve.

[0033] The driving sleeve is configured to drive the cup to move in the axial direction, and the driving sleeve is disposed around the guiding sleeve.

[0034] The outer housing is disposed around the driving sleeve and coupled to the driving sleeve.

[0035] In the package, the guiding sleeve is detachably coupled to the driving sleeve and is rotatable relative to the driving sleeve in a circumferential direction.

[0036] According to the package of the embodiments of the present application, the driving sleeve is detachably coupled to the guiding sleeve, so that the guiding sleeve can be separated from the driving sleeve in the axial direction.

[0037] The package here may include a container for cosmetic, such as a package, but is not limited to the package. The package is taken as an example to illustrate the following specific embodiments.

[0038] The following detailed description for the application will be further described below in conjunction with the drawings and specific embodiments. It should be understood that the specific embodiments described here is only used for explaining the present application, instead of limiting the present application. Moreover, the described embodiments below are a part of, but not all

of the embodiments of the present application. According to these embodiments, all other embodiments obtained by those of ordinary skill in the art without creative work shall fall within the protection scope of this present application.

First Embodiment

[0039] The embodiment provides a package 200. As shown in FIG. 2, the package 200 includes a cup 210, a guiding sleeve 220, a driving sleeve 230, and an outer housing 240.

[0040] The cup 210 is configured to accommodate and support a lipstick bar.

[0041] The guiding sleeve 220 is disposed around the cup 210, and the cup 210 is movable in the guiding sleeve 220 in an axial direction of the guiding sleeve 220.

[0042] The driving sleeve 230 is configured to drive the cup 210 to move in the axial direction, and the driving sleeve 230 is disposed around the guiding sleeve 220.

[0043] The outer housing 240 is disposed around the driving sleeve 230 and is coupled to the driving sleeve 230.

[0044] In the package, the guiding sleeve 220 is detachably coupled to the driving sleeve 230 and is rotatable relative to the driving sleeve 230 in a circumferential direction.

[0045] That is, the package in the embodiment is the package 200, and the content is the lipstick bar.

[0046] The cup 210, the guiding sleeve 220, the driving sleeve 230, and the outer housing 240 in the package of the embodiment are all disposed in the axial direction, therefore an axial direction of the guiding sleeve may be an axial direction of the package 200, that is, the axial direction of the guiding sleeve is also an axial direction of the cup 210, an axial direction of the driving sleeve 230, and an axial direction of the outer housing 240. Therefore, the axial direction mentioned below is the axial direction of the guiding sleeve, unless otherwise explained.

[0047] In the embodiment, the guiding sleeve 220 is made of a metal, and other elements are all made of plastics. According to an optional embodiment of the present application, the guiding sleeve 220 may be provided with a first stopper, and the driving sleeve 230 is provided with a second stopper matching with the first stopper, to limit a movement of the guiding sleeve 220 relative to the driving sleeve 230 in the axial direction.

[0048] According to an optional embodiment of the present application, the first stopper includes a first stopping protrusion 221 formed on an outer wall of the guiding sleeve 220 in a circumferential direction.

[0049] The second stopper includes second stopping protrusions 233 formed on an inner wall of the driving sleeve 230 in a circumferential direction. The first stopping protrusion 221 and the second stopping protrusions 233 are configured to cooperate with one another to limit an axial movement of the guiding sleeve 220 relative to

the driving sleeve 230 towards the top end of the outer housing 240.

[0050] Specifically, as shown in FIG. 2 and FIG. 3, the first stopping protrusion 221 is an annular protrusion. The second stopping protrusions 233 are also annular protrusions but are discontinuous in a circumferential direction, which facilitate injection molding of the driving sleeve 230.

[0051] Furthermore, the second stopper further includes third stopping protrusions 234 formed on the inner wall of the driving sleeve 230 in the circumferential direction. The first stopping protrusion 221 and the third stopping protrusions 234 are configured to cooperate with one another to limit an axial movement of the guiding sleeve 220 relative to the driving sleeve 230 towards the bottom end of the outer housing 240.

[0052] In the package, the first stopping protrusion 221, the second stopping protrusions 233, and the third stopping protrusions 234 can limit an axial position of the guiding sleeve 220 relative to the driving sleeve 230 without hindering relative rotation of the guiding sleeve 220 and the driving sleeve 230 in the circumferential direction.

[0053] In the package, a shape of the first stopping protrusion 221 is continuous in the circumferential direction, which is more convenient for manufacturing. Both the second stopping protrusions 233 and the third stopping protrusions 234 are formed at intervals on the inner wall of the driving sleeve 230 in the circumferential direction, which is more convenient for de-molding the driving sleeve 230 after the injection molding.

[0054] In the embodiment, the guiding sleeve 220 may be directly pulled out upward. As shown in FIG. 2, a direction of a force is as shown by F0. Under a pulling force F0, at least one of the first stopping protrusion 221 and the second stopping protrusion 233 is slightly deformed, so that the second stopping protrusion 233 cannot limit the first stopping protrusion 221, and the first stopping protrusion 221 moves upward, that is, the guiding sleeve 220 moves upward and is separated from the driving sleeve 230. In this way, the purpose of separating the guiding sleeve 220 made of a metal from the driving sleeve 230 made of plastics in the axial direction may be achieved, and the guiding sleeve 220 and the driving sleeve 230 will not be damaged.

[0055] Specifically, the foregoing slight deformation may be an elastic deformation or a combination of both the elastic deformation and a minute plastic deformation. Furthermore, the driving sleeve 230 may be made of plastics with good elasticity.

[0056] It may be understood that in other embodiments of the present application, a fixing structure for fixing the guiding sleeve 220 and the driving sleeve 230 with each other may be other structures except the first stopping protrusion 221, the second stopping protrusion 233 and the third stopping protrusion 234, that is, other structures that can limit an axial position of the guiding sleeve 220 relative to the driving sleeve 230 without hindering relative rotation of the guiding sleeve 220 and the driving

sleeve 230 in the circumferential direction.

[0057] More specifically, as shown in FIG. 2 and FIG. 3, the section of each of the first stopping protrusion 221 and the second stopping protrusion 233 in the longitudinal direction may have a circular arc shape, so that it is more convenient to separate the guiding sleeve 220 from the driving sleeve 230.

Second Embodiment

[0058] The embodiment provides a package 200, which, based on the first embodiment, further includes an outer housing as described below.

[0059] The outer housing 240 includes a top end and a bottom end opposite to one another in an axial direction, and each of the top end and the bottom end is provided with an opening. The outer housing 240 is detachably coupled to the driving sleeve 230, so that an assembly constituted by the driving sleeve 230, the guiding sleeve 220 and the cup 210 is capable to be separated from the outer housing 240 from the bottom end of the outer housing 240.

[0060] In this way, it is more convenient to separate the guiding sleeve 220 made of a metal from the driving sleeve 230 made of plastics in the axial direction. That is, a user may directly pull out the guiding sleeve 220 from above, or may detach the outer housing 240 firstly, then hold the driving sleeve 230 with a rougher surface to detach the guiding sleeve 220 to more conveniently apply a force to the guiding sleeve 220.

[0061] According to an optional embodiment of the present application, the top end of the outer housing 240 is provided with a neck to limit an axial movement of the driving sleeve 230 towards the top end of the outer housing 240, and an inner wall of the neck of the outer housing 240 is in contact with an outer peripheral wall of the guiding sleeve 220. In this way, the outer housing 240 and the guiding sleeve 220 are tightly assembled together, which easily prevents entry of dust. It is also not easy to see lower elements from above, which makes it more aesthetically pleasing, and facilitates the cooperation of the outer housing and a cap of the package.

[0062] According to an optional embodiment of the present application, one of an outer wall of the driving sleeve 230 and an inner wall of the outer housing 240 is provided with at least one rib, and the other one of the outer wall of the driving sleeve 230 and the inner wall of the outer housing 240 is provided with at least one groove matching with corresponding rib. The rib and the groove cooperate with one another to limit an axial movement or a circumferential movement of the driving sleeve relative to the outer housing.

[0063] In the embodiment, as shown in FIG. 4, the driving sleeve 230 may be provided with at least one rib 231 disposed on the outer wall of the driving sleeve 230. The outer housing 240 may be provided with a groove 241 matching with the rib 231, and the groove 241 is disposed at the inner wall of the outer housing 240. The coopera-

tion of the rib 231 and the groove 241 not only can limit the axial position of the driving sleeve 230 relative to the outer housing 240, but also can limit a circumferential position of the driving sleeve 230 relative to the outer housing 240, which is simple in structure and is easy in installation.

[0064] In the embodiment, the cooperation of the rib 231 and the groove 241 not only further limits a detachable structure between the driving sleeve 230 and the outer housing 240, but also limits an order for detaching the guiding sleeve 220. That is, the guiding sleeve 220 moves downward to drive the driving sleeve 230 to move downward, the rib 231 of the driving sleeve 230 is disengaged from the groove 241 of the outer housing 240, then the outer housing can be removed from above. The detaching process will be described in detail with respect to FIG. 7 below.

[0065] More specifically, the number of the ribs 231 may be 4, and the ribs 231 are evenly disposed in the circumferential direction, which is more reliable due to such a fixing structure.

[0066] According to an optional embodiment of the present application, as shown in FIG. 5, the groove 241 is provided with a guiding surface 2411 for guiding the rib 231.

[0067] In this way, the driving sleeve 230 is easily disengaged from the bottom end of the outer housing 240. The specific detaching method may refer to FIG. 6, that is, a pushing force F1 is applied to the top end of the guiding sleeve 220 to drive the driving sleeve 230 to move downward. Under the guiding of the guiding surface 2411, the driving sleeve 230 is disengaged from the lower end of the outer housing 240, and then the outer housing 240 is removed from above the driving sleeve 230. The elements of the package after removal may refer to FIG. 7.

[0068] Specifically, the principle that the guiding sleeve 220 drives the driving sleeve 230 to move downward is as follows. When the guiding sleeve 220 moves downward, the first stopping protrusion 221 on the guiding sleeve 220 squeezes the third stopping protrusion 234 on the driving sleeve 230, so as to push the driving sleeve 230 to move downward. And/or, when the guiding sleeve 220 moves downward, the bottom end of the guiding sleeve 220 is in contact with a bottom plug 250 (see below) to drive the bottom plug 250 to move downward. The bottom plug 250 is coupled to the driving sleeve 230 through a snap-fit, to push the driving sleeve 230 to move downward.

[0069] After the outer housing 240 is removed from above the driving sleeve 230, the user may hold the driving sleeve 230 with the rougher surface to detach the guiding sleeve 220. The specific detaching method may refer to FIG. 8. One hand holds a lower end of the driving sleeve 230, and the other hand holds an upper end of the guiding sleeve 220 and applies a force F2 to the guiding sleeve 220, that is, the guiding sleeve 220 may be removed from the driving sleeve 230. The elements of

the package after removal may refer to FIG. 9.

[0070] According to an optional embodiment of the present application, the package 200 may be designed in such a way that an axial force required to detach the outer housing 240 from the driving sleeve 230 is less than an axial force required to detach the guiding sleeve 220 from the driving sleeve 230. In this way, the axial force required to detach the guiding sleeve 220 from the driving sleeve 230 may be designed to be larger so as to prevent the user from a false action in use, since the lipstick bar cannot be used any more if the guiding sleeve 220 is disassembled.

[0071] It may be understood that since the driving sleeve 230 is disposed around the guiding sleeve 220, and the outer housing 240 is disposed around the driving sleeve 230, the force required for the detaching is the axial force.

[0072] After the axial force required to detach the guiding sleeve 220 is designed to be larger, the outer housing 240 may be detached firstly, then the user holds the driving sleeve 230 with the rougher surface to detach the guiding sleeve 220 to more conveniently apply the pulling force to the guiding sleeve 220, so that the problem of laborious detaching or complex detaching caused by the larger axial force may be overcome.

[0073] Specifically, the axial force required to detach the guiding sleeve 220 from the driving sleeve 230 being designed to be larger may be realized by increasing an amount of interference fit, or may also be realized by changing a radius of the circular arc of the first stopping protrusion 221 or the second stopping protrusion 233.

[0074] According to an optional embodiment of the present application, the package 200 may further include the bottom plug 250 detachably coupled to the bottom end of the driving sleeve 230, and the outer housing 240 is arranged around an outer circumference wall of the bottom plug 250. Since the cup 210, the guiding sleeve 220, and the driving sleeve 230 are hollow, the bottom plug 250 is required to close off the bottom of the package 200. In this way, the lipstick bar can remain sealed and moist, and also has a better appearance.

[0075] Specifically, the bottom plug 250 may be coupled to the bottom end of the driving sleeve 230 through a snap-fit, which is convenient to install. Specifically, as shown in FIG. 5, the driving sleeve 230 is provided with an engagement projection 232, and the bottom plug 250 has a slot 251 matching with the engagement projection 232.

[0076] Furthermore, the package may be designed in such a way that an inner wall of the bottom end of the outer housing 240 forms a dovetail-shaped hole, and the bottom plug 250 is wedged into the dovetail-shaped hole. In this way, when the outer housing 240 is detached, the bottom plug does not hinder the outer housing 240 from removing upward, and it is not affected even a fit clearance becomes smaller due to a process error or thermal expansion.

[0077] According to an optional embodiment of the

present application, the bottom plug 250 and the driving sleeve 230 may be designed to be integrally formed, that is, the driving sleeve 230 is designed to be non-hollow. In this way, assembly operations may be reduced.

[0078] According to an optional embodiment of the present application, the package further includes an elastic ring 260 mounted around the driving sleeve 230. The driving sleeve 230 is provided with an annular groove 235 for receiving the elastic ring 260, and a depth of the annular groove 235 is greater than a diameter of the elastic ring 260. The annular groove 235 includes at least one empty area through which the elastic ring 260 contacts an outer peripheral wall of the guiding sleeve 220. In the package, the elastic ring 260 can limit the rotation of the guiding sleeve 220 relative to the driving sleeve 230 by friction, that is, when the guiding sleeve 220 rotates relative to the driving sleeve 230, a damping force will be generated and felt by the user, which provides a better user experience.

[0079] Specifically, the magnitude of the damping force of the rotation of the guiding sleeve 220 relative to the driving sleeve 230 depends on a contact area between the elastic ring 260 and the guiding sleeve 220, that is, the magnitude of the damping force is related to the number and area of the empty areas of the annular groove 235. The more the empty areas, the greater the total area, and therefore the greater the damping force, and vice versa. Therefore, the number and area of the empty areas of the annular groove 235 may be designed to accurately control the damping force.

[0080] Further, the annular groove 235 provides the following effect. Since the elastic ring 260 is located within the annular groove 235, the annular groove 235 can limit the position of the elastic ring 260 by friction, so that when the package is assembled or in use, the position of the elastic ring 260 will not be changed, thereby ensuring damping stability.

[0081] Further, the annular groove 235 may prevent the elastic ring 260 from contacting other elements and using lubricating oil.

[0082] According to an optional embodiment of the present application, the guiding sleeve 220 may include at least one strip-type groove 222 located at a sidewall of the guiding sleeve 220, and the cup 210 includes at least one transmission bump (not shown in drawings) that protrudes out of the outer wall of the guiding sleeve 220 and passes through the strip-type groove 222, so that the cup 210 is movable along the inner wall of the guiding sleeve 220 in the axial direction. In this way, since the axial movement of the cup 210 along the inner wall of the guiding sleeve 220 in the axial direction is guided by the strip-type groove 222, the trajectory of the cup 210 is stable.

[0083] Specifically, the number of strip-type grooves 222 may be 2, and they are evenly disposed in the circumferential direction. Therefore, the cup 210 moves in a more even and reliable way.

[0084] According to an optional embodiment of the

present application, an inner wall of the cup 210 may further be provided with at least two holding ridges 211 that make the lipstick bar extend longitudinally. In this way, the shape of the lipstick bar is easily kept, and when the lipstick bar is loaded into the cup 210, the lipstick bar can also be guided to a certain extent.

[0085] Specifically, the number of holding ridges 211 may be 4, and are evenly disposed in the circumferential direction. In this way, the shape of the lipstick bar is easily kept.

[0086] It is to be noted that in the embodiment of the present application, the term "connection" should be made in a broad understanding unless otherwise specified and defined. For example, it may be an electrical connection, or it may be in communication inside two elements, and may be directly connected, or indirectly connected by an intermediate medium. The specific meaning of the above terms may be understood by those of ordinary skill in the art according to specific situations.

[0087] In the embodiment of the present application, if there are terms "first/second/third", they are only used to distinguish similar objects, which do not represent specific sequence for the objects. It may be understood that the terms "first/second/third" can interchange, if permitted, the sequential or chronological order.

[0088] As described above, the above are only preferred embodiments of the present application and are not intended to limit the present application, any modification, equivalent replacement, improvement, etc. made as long as these fall within the scope of the appended claims.

Claims

1. A package (200), comprising:

a cup (210) configured to accommodate and support a content;
 a guiding sleeve (220) disposed around the cup (210), the cup (210) being movable in the guiding sleeve (220) in an axial direction of the guiding sleeve (220);
 a driving sleeve (230) for driving the cup (210) to move in the axial direction, the driving sleeve (230) being disposed around the guiding sleeve (220); and
 an outer housing (240) disposed around the driving sleeve (230) and coupled to the driving sleeve (230),
 wherein the guiding sleeve (220) is detachably coupled to the driving sleeve (230) and is rotatable relative to the driving sleeve (230) in a circumferential direction,
characterised in that
 the outer housing (240) comprises a top end and a bottom end opposite to one another in the axial direction, each of the top end and the bottom

end being provided with an opening, the outer housing (240) being detachably coupled to the driving sleeve (230), so that an assembly constituted by the driving sleeve (230), the guiding sleeve (220) and the cup (210) is capable to be separated from the outer housing (240) from the bottom end of the outer housing (240).

2. The package (200) according to claim 1, wherein the top end is further provided with a neck to limit an axial movement of the driving sleeve (230) towards the top end of the outer housing (240), an inner wall of the neck of the outer housing (240) is in contact with an outer peripheral wall of the guiding sleeve (230).
3. The package (200) according to claim 2, wherein the guiding sleeve (220) is provided with a first stopper, and the driving sleeve (230) is provided with a second stopper matching with the first stopper, to limit a movement of the guiding sleeve (220) relative to the driving sleeve (230) in the axial direction.
4. The package (200) according to claim 3, wherein the first stopper comprises a first stopping protrusion formed on an outer wall of the guiding sleeve (220) in a circumferential direction; and the second stopper comprises a second stopping protrusion formed on an inner wall of the driving sleeve (230) in a circumferential direction, the first stopping protrusion and the second stopping protrusion are configured to cooperate with one another to limit an axial movement of the guiding sleeve (220) relative to the driving sleeve (230) towards the top end of the outer housing.
5. The package (200) according to claim 4, wherein the second stopper further comprises a third stopping protrusion formed on the inner wall of the driving sleeve in the circumferential direction, the first stopping protrusion and the third stopping protrusion are configured to cooperate with one another to limit an axial movement of the guiding sleeve (220) relative to the driving sleeve (230) towards the bottom end of the outer housing.
6. The package (200) according to claim 1, wherein one of an outer wall of the driving sleeve (230) and an inner wall of the outer housing (240) is provided with at least one rib, and the other one of the outer wall of the driving sleeve (230) and the inner wall of the outer housing (240) is provided with at least one groove matching with corresponding rib, the rib and the groove cooperate with one another to limit an axial movement or a circumferential movement of the driving sleeve (230) relative to the outer housing (240).

7. The package (200) according to claim 6, wherein the groove is provided with a guiding surface for guiding the rib.
8. The package (200) according to any one of claims 1 to 6, wherein an axial force required to detach the outer housing (240) from the driving sleeve (230) is less than an axial force required to detach the guiding sleeve (220) from the driving sleeve (230).
9. The package (200) according to claim 8, further comprising a bottom plug (250) detachably coupled to a bottom end of the driving sleeve (230), and the outer housing (240) is arranged around an outer circumference wall of the bottom plug (250).
10. The package (200) according to claim 9, wherein the bottom plug (250) is coupled to the bottom end of the driving sleeve (230) through a snap-fit.
11. The package (200) according to claim 9, wherein an inner wall of the bottom end of the outer housing (240) forms a dovetail-shaped hole, and the bottom plug (250) is wedged into the dovetail-shaped hole.

Patentansprüche

1. Verpackung (200), umfassend:

einen Becher (210), der so konfiguriert ist, dass er einen Inhalt aufnimmt und trägt;
 eine Führungshülse (220), die um den Becher (210) herum angeordnet ist, wobei der Becher (210) in der Führungshülse (220) in einer axialen Richtung der Führungshülse (220) beweglich ist;
 eine Antriebshülse (230) zum Antreiben des Bechers (210), sich in der axialen Richtung zu bewegen, wobei die Antriebshülse (230) um die Führungshülse (220) herum angeordnet ist; und
 ein Außengehäuse (240), das um die Antriebshülse (230) herum angeordnet und mit der Antriebshülse (230) gekoppelt ist,
 wobei die Führungshülse (220) lösbar mit der Antriebshülse (230) gekoppelt und relativ zur Antriebshülse (230) in Umfangsrichtung drehbar ist,
dadurch gekennzeichnet, dass das Außengehäuse (240) ein oberes Ende und ein unteres Ende aufweist, die einander in axialer Richtung gegenüberliegen, wobei das obere Ende und das untere Ende jeweils mit einer Öffnung versehen sind, wobei das Außengehäuse (240) lösbar an die Antriebshülse (230) gekoppelt ist, so dass eine aus der Antriebshülse (230), der Führungshülse (220) und dem Becher (210) bestehende Baugruppe vom unteren Ende des Au-

ßengehäuses (240) her von dem Außengehäuse (240) getrennt werden kann.

2. Verpackung (200) nach Anspruch 1, wobei das obere Ende weiter mit einem Hals versehen ist, um eine axiale Bewegung der Antriebshülse (230) in Richtung des oberen Endes des Außengehäuses (240) zu begrenzen, wobei eine Innenwand des Halses des Außengehäuses (240) mit einer Außenumfangswand der Führungshülse (230) in Kontakt steht.
3. Verpackung (200) nach Anspruch 2, wobei die Führungshülse (220) mit einem ersten Stopper versehen ist und die Antriebshülse (230) mit einem zweiten Stopper versehen ist, der mit dem ersten Stopper zusammenpasst, um eine Bewegung der Führungshülse (220) relativ zur Antriebshülse (230) in axialer Richtung zu begrenzen.
4. Verpackung (200) nach Anspruch 3, wobei der erste Stopper einen ersten Stoppvorsprung umfasst, der an einer Außenwand der Führungshülse (220) in Umfangsrichtung ausgebildet ist; und der zweite Stopper einen zweiten Stoppvorsprung umfasst, der an einer Innenwand der Antriebshülse (230) in Umfangsrichtung ausgebildet ist, wobei der erste Stoppvorsprung und der zweite Stoppvorsprung so konfiguriert sind, dass sie miteinander zusammenwirken, um eine axiale Bewegung der Führungshülse (220) relativ zur Antriebshülse (230) zum oberen Ende des Außengehäuses zu begrenzen.
5. Verpackung (200) nach Anspruch 4, wobei der zweite Stopper weiter einen dritten Stoppvorsprung umfasst, der an der Innenwand der Antriebshülse in Umfangsrichtung ausgebildet ist, wobei der erste Stoppvorsprung und der dritte Stoppvorsprung so konfiguriert sind, dass sie miteinander zusammenwirken, um eine axiale Bewegung der Führungshülse (220) relativ zur Antriebshülse (230) zum unteren Ende des Außengehäuses zu begrenzen.
6. Verpackung (200) nach Anspruch 1, wobei entweder eine Außenwand der Antriebshülse (230) oder eine Innenwand des Außengehäuses (240) mit mindestens einer Rippe versehen ist und die andere der Außenwand der Antriebshülse (230) und der Innenwand des Außengehäuses (240) mit mindestens einer Nut versehen ist, die zu einer entsprechenden Rippe passt, wobei die Rippe und die Nut miteinander zusammenwirken, um eine axiale Bewegung oder eine Umfangsbewegung der Antriebshülse (230) relativ zum Außengehäuse (240) zu begrenzen.
7. Verpackung (200) nach Anspruch 6, wobei die Nut mit einer Führungsfläche zum Führen der Rippe ver-

sehen ist.

8. Verpackung (200) nach einem der Ansprüche 1 bis 6, wobei eine zum Lösen des Außengehäuses (240) von der Antriebshülse (230) erforderliche Axialkraft geringer ist als eine zum Lösen der Führungshülse (220) von der Antriebshülse (230) erforderliche Axialkraft. 5
9. Verpackung (200) nach Anspruch 8, weiterhin umfassend einen Bodenstopfen (250), der abnehmbar mit einem unteren Ende der Antriebshülse (230) gekoppelt ist, und wobei das Außengehäuse (240) um eine Außenumfangswand des Bodenstopfens (250) herum angeordnet ist. 10 15
10. Verpackung (200) nach Anspruch 9, wobei der Bodenstopfen (250) durch eine Schnappverbindung mit dem unteren Ende der Antriebshülse (230) gekoppelt ist. 20
11. Verpackung (200) nach Anspruch 9, wobei eine Innenwand des unteren Endes des Außengehäuses (240) ein schwalbenschwanzförmiges Loch bildet und der Bodenstopfen (250) in das schwalbenschwanzförmige Loch eingekeilt ist. 25

Revendications

1. Étui (200), comprenant : 30
 - une cupule (210) configurée pour accueillir et supporter un contenu ;
 - un manchon de guidage (220) disposé autour de la cupule (210), la cupule (210) étant mobile dans le manchon de guidage (220) dans une direction axiale du manchon de guidage (220) ; 35
 - un manchon d'entraînement (230) pour entraîner la cupule (210) à se déplacer dans la direction axiale, le manchon d'entraînement (230) étant disposé autour du manchon de guidage (220) ; et 40
 - une enveloppe extérieure (240) disposée autour du manchon d'entraînement (230) et couplée au manchon d'entraînement (230), dans lequel le manchon de guidage (220) est couplé de manière détachable au manchon d'entraînement (230) et peut tourner par rapport au manchon d'entraînement (230) dans une direction circonférentielle, 45

caractérisé en ce que l'enveloppe extérieure (240) comprend une extrémité supérieure et une extrémité inférieure opposées l'une à l'autre dans la direction axiale, chacune de l'extrémité supérieure et de l'extrémité inférieure étant pourvue d'une ouverture, l'enveloppe extérieure (240) étant couplée de manière détachable au 55

manchon d'entraînement (230), de sorte qu'un ensemble constitué par le manchon d'entraînement (230), le manchon de guidage (220) et la cupule (210) est capable d'être séparé de l'enveloppe extérieure (240) à partir de l'extrémité inférieure de l'enveloppe extérieure (240).

2. Étui (200) selon la revendication 1, dans lequel l'extrémité supérieure est en outre pourvue d'un col pour limiter un mouvement axial du manchon d'entraînement (230) vers l'extrémité supérieure de l'enveloppe extérieure (240), une paroi intérieure du col de l'enveloppe extérieure (240) est en contact avec une paroi périphérique extérieure du manchon de guidage (230).
3. Étui (200) selon la revendication 2, dans lequel le manchon de guidage (220) est pourvu d'un premier arrêt, et le manchon d'entraînement (230) est pourvu d'un second arrêt s'appariant au premier arrêt, pour limiter un mouvement du manchon de guidage (220) par rapport au manchon d'entraînement (230) dans la direction axiale.
4. Étui (200) selon la revendication 3, dans lequel le premier arrêt comprend une première saillie d'arrêt formée sur une paroi extérieure du manchon de guidage (220) dans une direction circonférentielle ; et le second arrêt comprend une seconde saillie d'arrêt formée sur une paroi intérieure du manchon d'entraînement (230) dans une direction circonférentielle, la première saillie d'arrêt et la seconde saillie d'arrêt sont configurées pour coopérer l'une avec l'autre pour limiter un mouvement axial du manchon de guidage (220) par rapport au manchon d'entraînement (230) vers l'extrémité supérieure de l'enveloppe extérieure. 30 35
5. Étui (200) selon la revendication 4, dans lequel le second arrêt comprend en outre une troisième saillie d'arrêt formée sur la paroi intérieure du manchon d'entraînement dans la direction circonférentielle, la première saillie d'arrêt et la troisième saillie d'arrêt sont configurées pour coopérer l'une avec l'autre pour limiter un mouvement axial du manchon de guidage (220) par rapport au manchon d'entraînement (230) vers l'extrémité inférieure de l'enveloppe extérieure. 40 45
6. Étui (200) selon la revendication 1, dans lequel l'une d'une paroi extérieure du manchon d'entraînement (230) et d'une paroi intérieure de l'enveloppe extérieure (240) est pourvue d'au moins une nervure, et l'autre de la paroi extérieure du manchon d'entraînement (230) et de la paroi intérieure de l'enveloppe extérieure (240) est pourvue d'au moins une rainure s'appariant à la nervure correspondante, la nervure et la rainure coopèrent l'une avec l'autre pour limiter 55

un mouvement axial ou un mouvement circonférentiel du manchon d'entraînement (230) par rapport à l'enveloppe extérieure (240).

7. Étui (200) selon la revendication 6, dans lequel la rainure est pourvue d'une surface de guidage pour guider la nervure. 5
8. Étui (200) selon l'une quelconque des revendications 1 à 6, dans lequel une force axiale nécessaire pour détacher l'enveloppe extérieure (240) du manchon d'entraînement (230) est inférieure à une force axiale nécessaire pour détacher le manchon de guidage (220) du manchon d'entraînement (230). 10
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9. Étui (200) selon la revendication 8, comprenant en outre un bouchon inférieur (250) couplé de manière détachable à une extrémité inférieure du manchon d'entraînement (230), et l'enveloppe extérieure (240) est disposée autour d'une paroi circonférentielle extérieure du bouchon inférieur (250). 20
10. Étui (200) selon la revendication 9, dans lequel le bouchon inférieur (250) est couplé à l'extrémité inférieure du manchon d'entraînement (230) par un encliquetage. 25
11. Étui (200) selon la revendication 9, dans lequel une paroi intérieure de l'extrémité inférieure de l'enveloppe extérieure (240) forme un trou en forme de queue d'aronde, et le bouchon inférieur (250) est calé dans le trou en forme de queue d'aronde. 30

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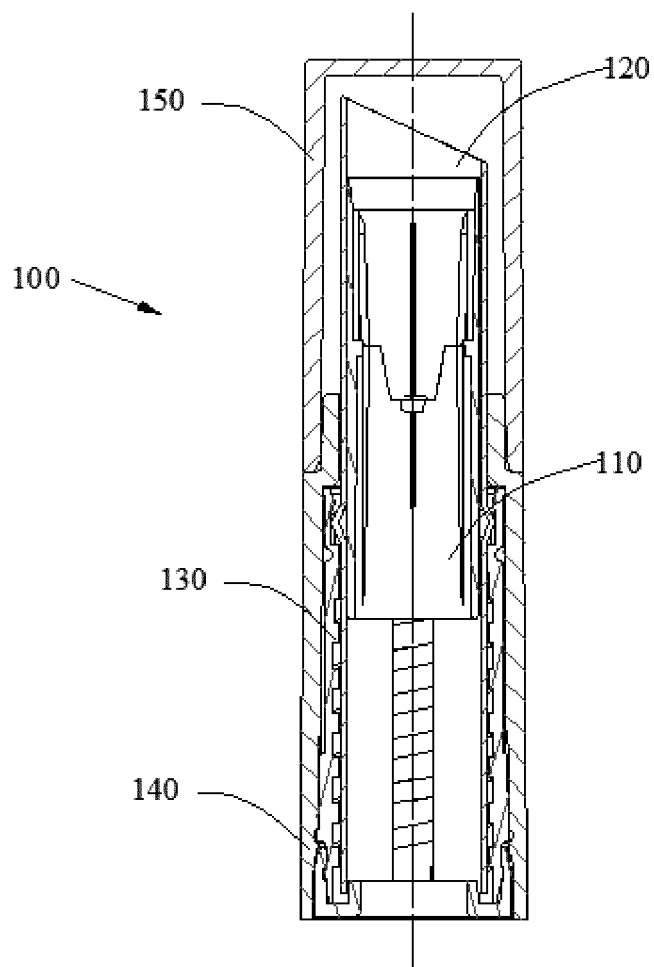


FIG. 1

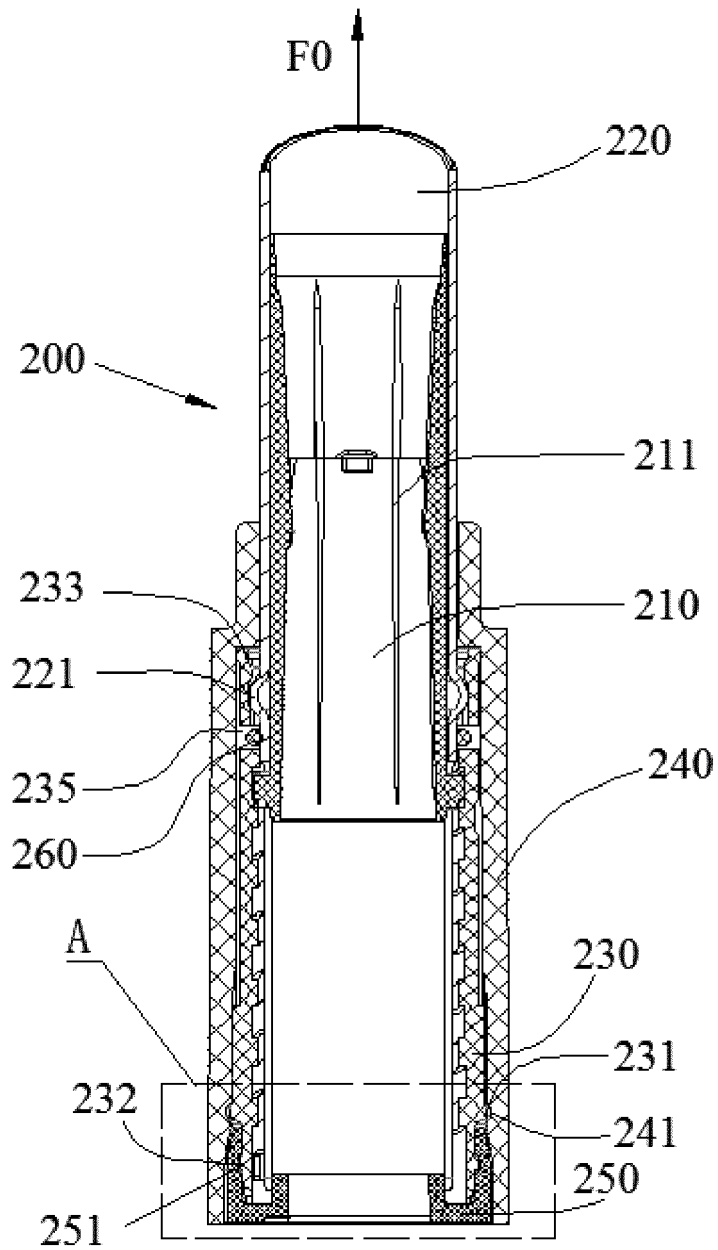


FIG. 2

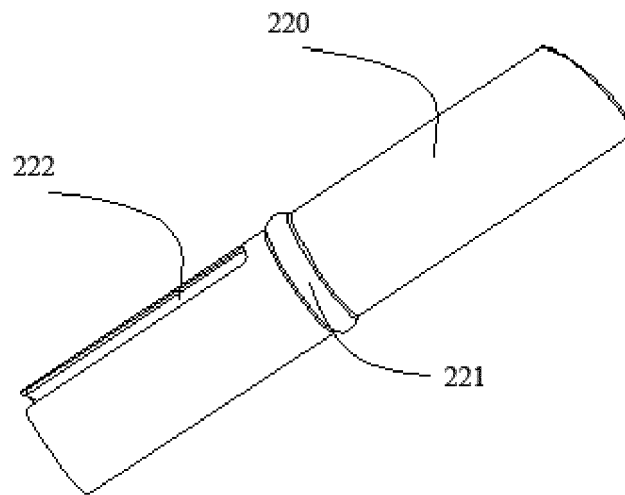


FIG. 3

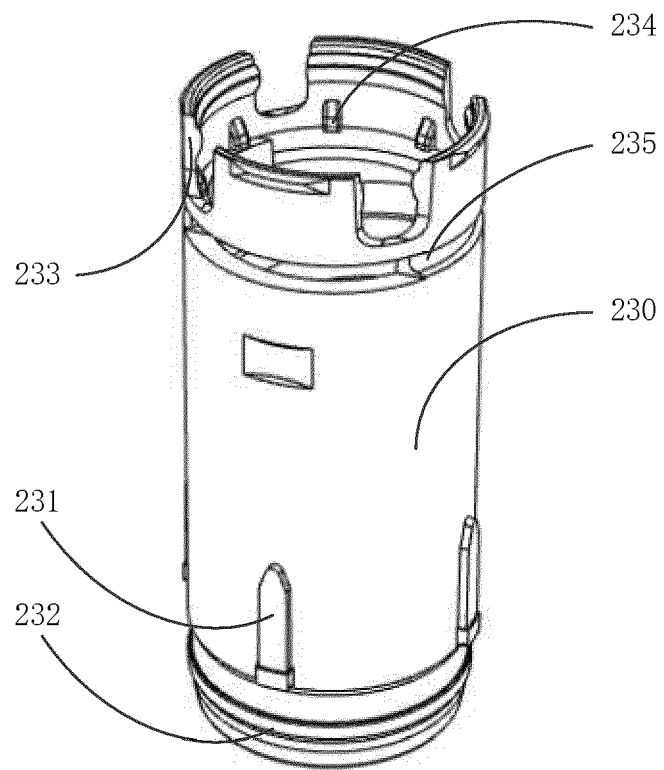


FIG. 4

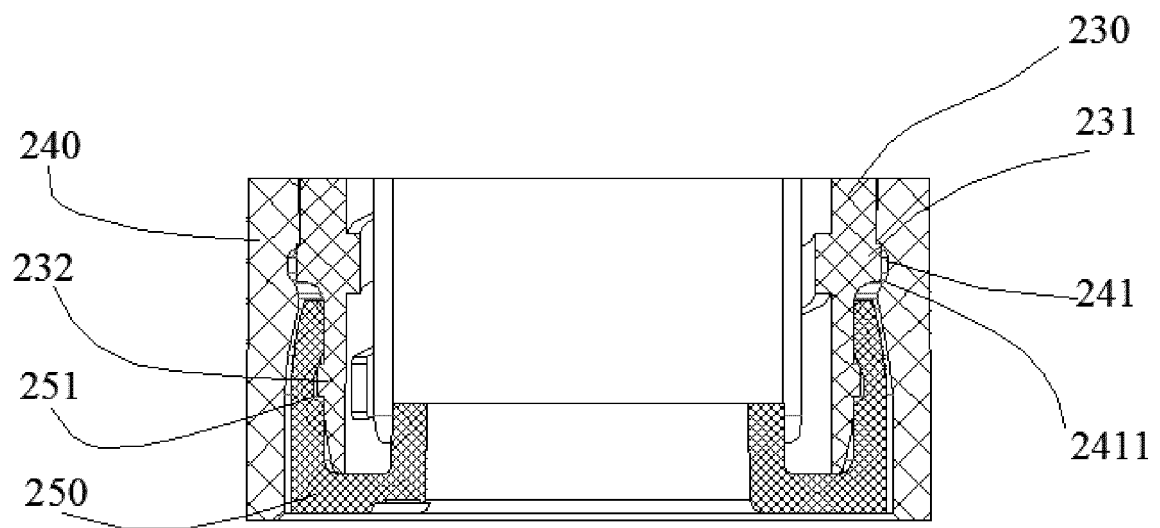


FIG. 5

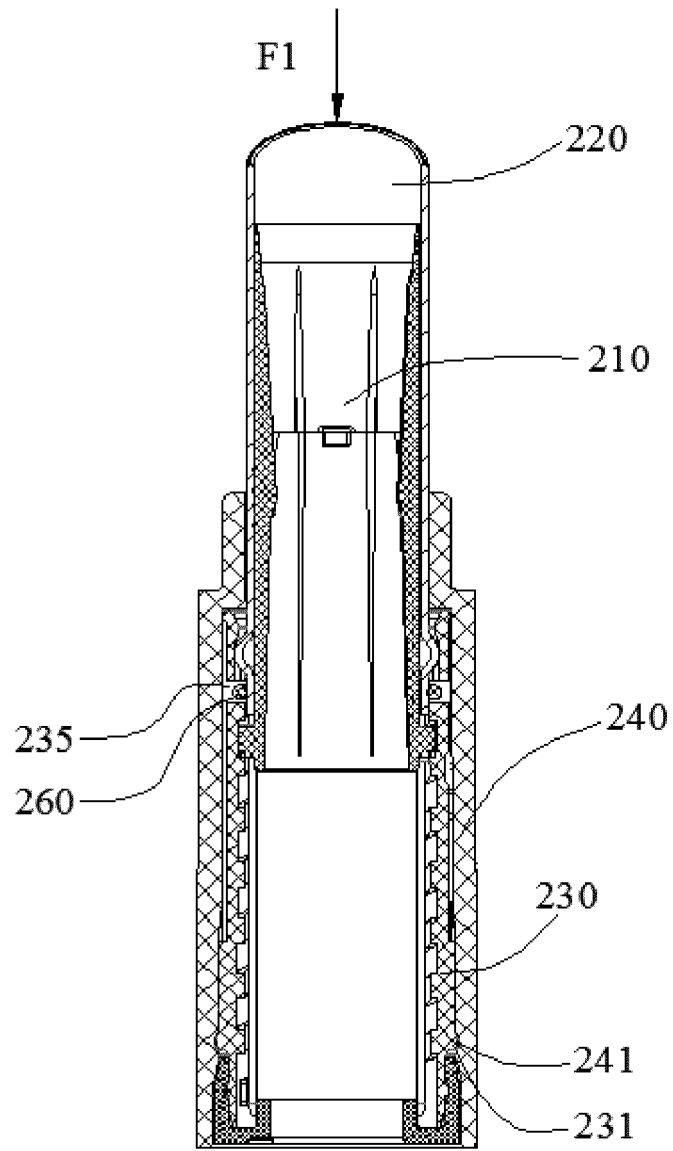


FIG. 6

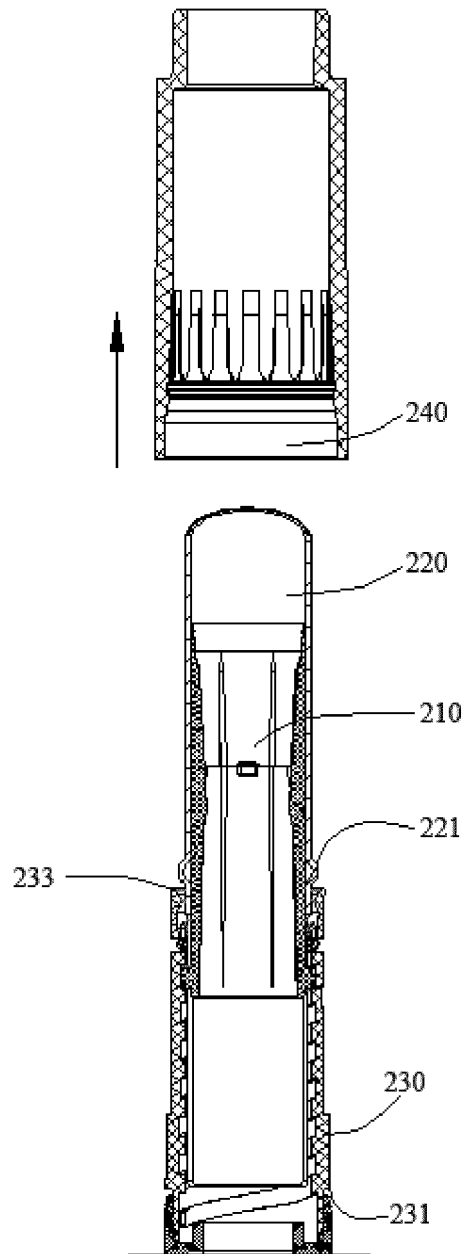


FIG. 7

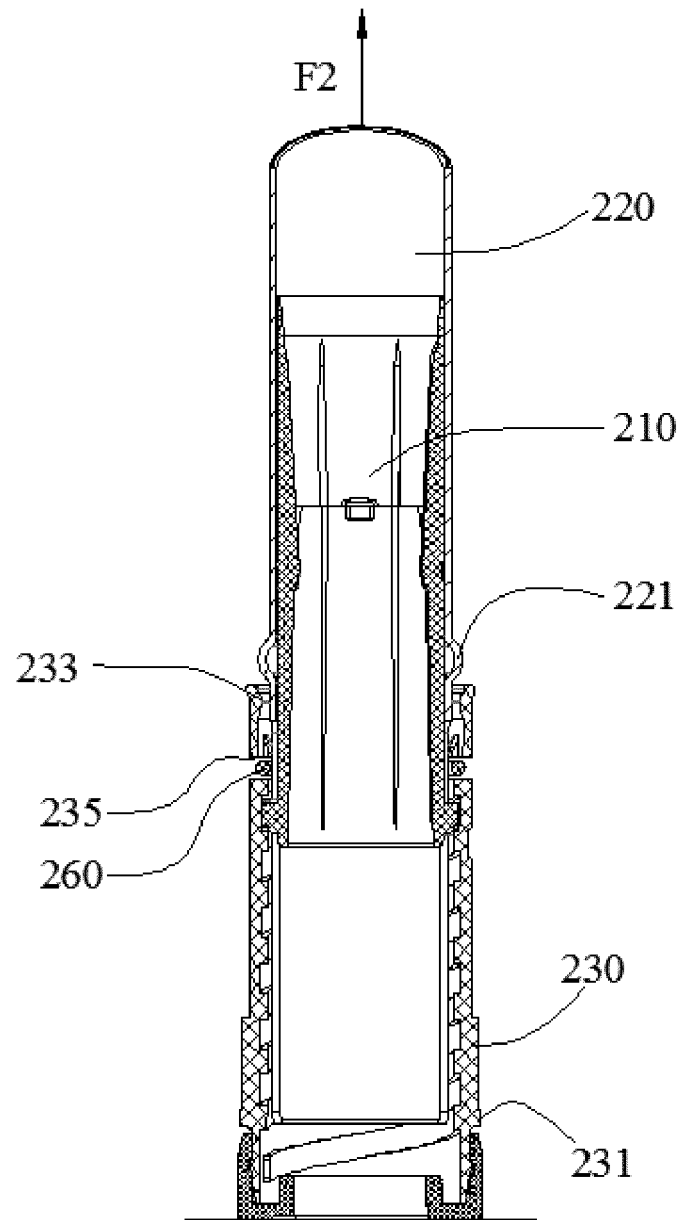


FIG. 8

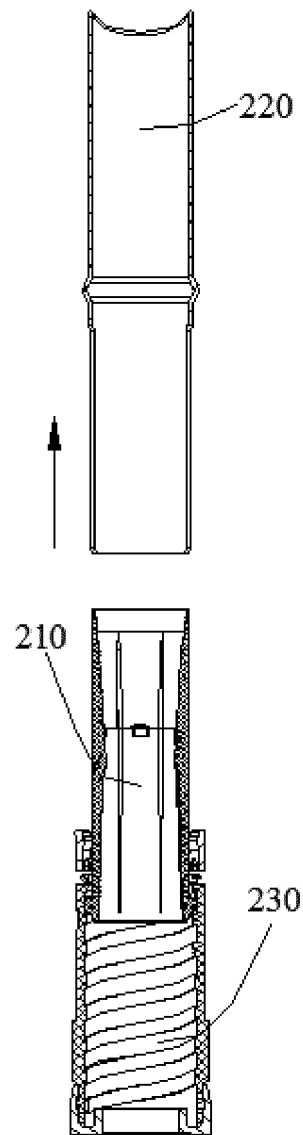


FIG. 9

REFERENCES CITED IN THE DESCRIPTION

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