(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 4 578 335 A1**

(12) **EUROPEAN PATENT APPLICATION**
published in accordance with Art. 153(4) EPC

(43) Date of publication:
02.07.2025 Bulletin 2025/27

(21) Application number: **23857603.7**

(22) Date of filing: **03.08.2023**

(51) International Patent Classification (IPC):
A45D 34/04 *(2006.01)* ***A45D 40/26*** *(2006.01)*
B65D 77/04 *(2006.01)* ***B65D 53/02*** *(2006.01)*
B65D 51/32 *(2006.01)* ***A45D 34/00*** *(2006.01)*

(52) Cooperative Patent Classification (CPC):
A45D 34/00; A45D 34/04; A45D 40/26; B65D 51/32; B65D 53/02; B65D 77/04

(86) International application number:
PCT/KR2023/011391

(87) International publication number:
WO 2024/043568 (29.02.2024 Gazette 2024/09)

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA
Designated Validation States:
KH MA MD TN

(30) Priority: **26.08.2022 KR 20220107310**

(71) Applicant: **CTK Co., Ltd.**
Seoul 06709 (KR)

(72) Inventors:
- **CHUNG, In Yong**
  Seoul 06544 (KR)
- **LEE, Won Eui**
  Seoul 08362 (KR)
- **UM, In Young**
  Seoul 02077 (KR)
- **KIM, Myung Joong**
  Pocheon-si Gyeonggi-do 11160 (KR)
- **KANG, Kyung Ho**
  Suwon-si Gyeonggi-do 16682 (KR)
- **LEE, Ji Yong**
  Seoul 06904 (KR)
- **OH, Min Ji**
  Seoul 06716 (KR)

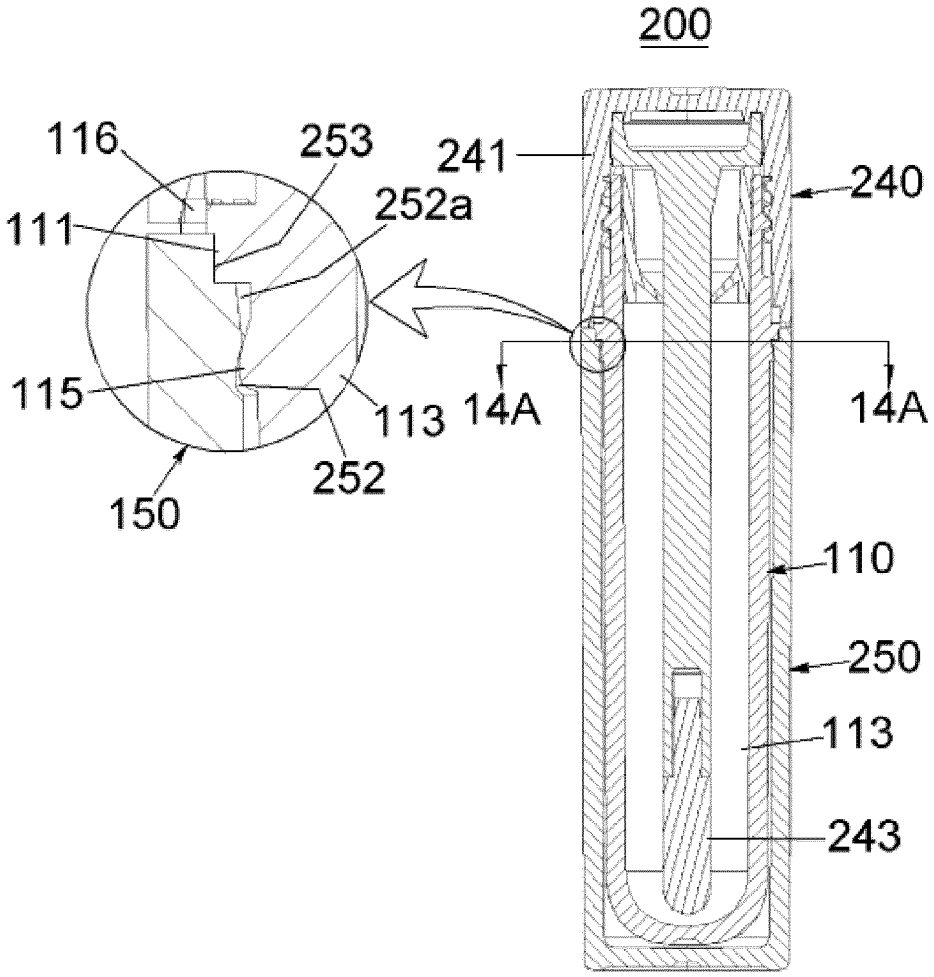
(74) Representative: **M. Zardi & Co S.A.**
Via G. B. Pioda, 6
6900 Lugano (CH)

(54) LIP GLOSS CARTRIDGE AND REFILLABLE LIP GLOSS USING SAME

(57) A lip gloss cartridge and a refillable lip gloss using same are disclosed. To this end, the present invention relates to a refillable cartridge comprising: a refill container having an inlet provided above a support rim formed on the outer peripheral surface thereof, and having, at the lower portion thereof, a filling part in which cosmetic contents are filled and which is open toward the inlet; an airtight packing which is airtightly coupled to the inlet of the refill container, and which has a wiper formed in the center of the inside thereof, and a cover that opens/closes with respect to the inlet, wherein one or more idling-prevention ribs are formed in the longitudinal direction on the outer peripheral surface of the filling part at the lower end of the support rim, a blocking rod for airtightly blocking the wiper of the airtight packing during closing of the cover is formed in the cover, and, in a state in which only the cover is removed from a refillable cartridge structure, a cap of a brush rod having an application tip on an application connection rod is coupled to be opened/closed with respect to the inlet of the refill container so as to be used during lip gloss application, or a packaging container is additionally covered and is coupled to the outer side of the filling part of the refill container such that more convenient portable usage is provided.

EP 4 578 335 A1

FIG. 13


200
116
253
241
240
111
252a
115
113
14A
14A
252
150
110
250
113
243

Description

Technical Field

[0001] The present disclosure relates generally to a lip gloss applicator used for lip makeup. More specifically, the present disclosure relates to a lip gloss cartridge and a refillable lip gloss applicator using the same, in which a refill container in which cosmetic contents are filled is provided for use as a refill cartridge by only having an airtight packing and a cover, or the refill container provided for use as the refill cartridge is provided for use as a refill cosmetic by removing the cover from the refill container and coupling a brush rod having an application tip to the refill container, or a packaging container is further coupled to the refill container having the brush rod, so refill use of a lip gloss product is implemented in various structures and shapes.

Background Art

[0002] As is well known in the art, lip gloss is a cosmetic product that is applied to the lips by applying a cosmetic liquid contained in a container using an applicator tip provided on a brush rod.

[0003] However, since a conventional lip gloss applicator does not have a refill structure, the entire lip gloss applicator is discarded after use. Moreover, since the above lip gloss applicator is typically composed of several parts and these parts are manufactured and assembled using different materials depending on their function, there are cases where the parts need to be separated when disposed, but the problem is that separate disposal of the parts is not properly conducted in practice.

[0004] Therefore, due to the reasons described above, it is difficult to avoid the problem of increasing the cost of purchasing cosmetics, causing environmental pollution due to waste materials including waste of resources, and significantly reducing the recycling or reuse rate of resources due to the difficulty of separate disposal.

[Documents of Related Art]

[Patent Documents]

[0005] (Patent Document 1) 1. KR 2020180002316 U (2-18.07.31. registered)

Disclosure

Technical Problem

[0006] Accordingly, the present disclosure has been made keeping in mind the above problems occurring in the related art, and one objective of the present disclosure is to provide a lip gloss cartridge provided for refilling.

[0007] Furthermore, another objective of the present disclosure is to provide a refillable lip gloss applicator, in which a lip gloss cartridge is replaced by removing only a cover from the cartridge and coupling a brush rod to the cartridge, thereby enabling continuous use of the brush rod.

[0008] Moreover, still another objective of the present disclosure is to provide a refillable lip gloss applicator, in which a separate packaging container is further coupled to the outside of a refill container, thereby further securing stability during carrying and storage.

Technical Solution

[0009] The present disclosure provides a lip gloss cartridge, including: a refill container having an inlet formed above a support rim formed on an outer peripheral surface of the refill container, and a filling portion in which a cosmetic liquid is filled and formed below the support rim so as to be open toward the inlet; an airtight packing airtightly coupled to the inlet of the refill container and having a wiper formed in a center of an inside of the airtight packing; and a cover configured to be opened and closed relative to the inlet. One or more idling prevention ribs may be formed in a longitudinal direction on an outer peripheral surface of the filling portion at a lower end of the support rim, a blocking rod configured to airtightly block the wiper of the airtight packing when the cover is closed may be formed inside the cover, and a reverse rotation prevention protrusion configured to prevent arbitrary reverse rotation may be formed on an upper surface of the support rim of the refill container.

[0010] The present disclosure provides a refillable lip gloss applicator, including: a refill container having an inlet formed above a support rim formed on an outer peripheral surface of the refill container, and a filling portion in which a cosmetic liquid is filled and formed below the support rim so as to be open toward the inlet; an airtight packing airtightly coupled to the inlet of the refill container and having a wiper formed in a center of an inside of the airtight packing; and a brush rod comprising a brush rod cap that is configured to be opened and closed relative to the inlet of the refill container, a tip connecting rod extendedly formed at a lower end of an inside of the brush rod cap, and an application tip provided at a lower end of the tip connecting rod. One or more idling prevention ribs may be formed in a longitudinal direction on an outer peripheral surface of the filling portion at a lower end of the support rim, and a reverse rotation prevention protrusion configured to prevent arbitrary reverse rotation may be formed on an upper surface of the support rim of the refill container.

[0011] The refillable lip gloss applicator according to the present disclosure may further include: a packaging container configured to be detachably mounted on an outside of the refill container to cover the refill portion of the refill container. One or more idling prevention grooves into which the idling prevention ribs formed on the outer

peripheral surface of the filling portion at the lower end of the support rim are inserted may be formed correspondingly on an inner peripheral surface of the packaging container, and the refill container may be prevented from rotating along with the brush rod cap due to mutual fitting engagement of the idling prevention ribs and the idling prevention grooves when the brush rod cap of the brush rod is rotated while holding the packaging container.

[0012] According to the present disclosure, a locking rim may be further formed on the outer peripheral surface of the filling portion of the refill container.

[0013] According to the present disclosure, a locking groove may be further formed on an inner peripheral surface of the packaging container. When coupling the packaging container to the filling portion of the refill container, the locking groove may be fittedly coupled to the locking rim formed on the outer peripheral surface of the filling portion, thereby preventing the packaging container from being arbitrarily separated from the filling portion.

[0014] According to the present disclosure, a reverse rotation prevention groove opposite to the reverse rotation prevention protrusion formed on the upper surface of the support rim of the refill container may be further formed on an inner peripheral surface of a lower end of the brush rod cap that is configured to be opened and closed relative to the inlet of the refill container. When the brush rod cap is completely closed, the reverse rotation prevention groove may be fittedly engaged with the reverse rotation prevention protrusion, so the brush rod cap may be prevented from being arbitrarily opened unless the brush rod cap is artificially opened.

[0015] According to the present disclosure, a step configured to support the support rim of the refill container when the packaging container is coupled to the filling portion of the refill container may be further formed on an inner peripheral surface of an upper end of the packaging container.

[0016] According to the present disclosure, an upper portion of the locking groove of the packaging container may have an inclined entry surface widened upward to facilitate entry and coupling of the locking rim.

[0017] According to the present disclosure, an application tip provided on the tip connecting rod of the brush rod may have a replaceable structure.

Advantageous Effects

[0018] According to the present disclosure, by enabling only a refill container for a cartridge containing a cosmetic liquid to be replaced and enabling a brush rod to be used continuously, it is possible to supply a refillable product, thereby reducing the cost of purchasing cosmetics, and significantly increasing the ease of disposal and the recycling or use rate of resources.

[0019] Additionally, even when a packaging container is coupled to the refill container, the refill container can be prevented from rotating along with the brush rod during opening and closing of the brush rod, thereby ensuring the stability of coupling of the refill container and the packaging container while providing high convenience of use.

[0020] Additionally, a brush rod cap of the brush rod that is opened and closed relative to the refill container can be prevented from being opened arbitrarily, thereby preventing leakage of the cosmetic liquid during carrying and storage.

Description of Drawings

[0021]

FIG. 1 is an assembled perspective view illustrating a lip gloss cartridge according to the present disclosure.

FIG. 2 is an exploded perspective view of FIG. 1.

FIG. 3 is an assembled side sectional view of FIG. 1.

FIG. 4 is an exploded side sectional view of FIG. 3.

FIG. 5 is a partial side view illustrating the external structure of a refill container according to the present disclosure.

FIG. 6 is an assembled perspective view illustrating a refillable lip gloss applicator according to the present disclosure.

FIG. 7 is an exploded perspective view of FIG. 6.

FIG. 8 is an assembled side sectional view of FIG. 6.

FIG. 9 is an exploded sectional view of FIG. 8.

FIG. 10 is a side sectional view illustrating a use state in which a brush rod is separated from the refill container and used, according to the present disclosure.

FIG. 11 is an assembled perspective view illustrating another embodiment of the structure of a refillable lip gloss applicator including a packaging container according to the present disclosure.

FIG. 12 is a partially exploded perspective view of FIG. 11.

FIG. 13 is an assembled side sectional view of FIG. 11.

FIG. 14 is a sectional view taken along line 14A-14A of FIG. 13.

FIG. 15 is a partial side sectional view illustrating a packaging container according to the present dis-

closure.

FIG. 16 is a side sectional view illustrating a use state in which the brush rod is separated and used while the refill container is coupled to the packaging container according to the present disclosure.

Best Mode

[0022] Hereinafter, exemplary embodiments of the present disclosure will be described in detail with reference to the accompanying drawings.

[0023] In describing the present disclosure, the same elements are given the same reference numerals and described in each embodiment, and for the same elements, a redundant description may be omitted as necessary.

[0024] First, a lip gloss cartridge 100 according to the present disclosure will be described with reference to FIGS. 1 to 5.

[0025] The lip gloss cartridge 100 is fundamentally used for refilling by being coupled to a refillable lip gloss applicator according to the present disclosure, which will be described later.

[0026] For this purpose, the lip gloss cartridge may include a refill container 110, an airtight packing 120, and a cover 130.

[0027] The refill container 110 may include an inlet 112 provided above a support rim 111 and a filling portion 113 formed below the support rim so as to be open toward the inlet.

[0028] A screw portion 112a for coupling with other parts may be provided on an outer peripheral surface of the inlet 112.

[0029] Here, the screw portion for coupling is not necessarily limited and may be replaced with a similar coupling function as needed.

[0030] An appropriate amount of cosmetic liquid may be filled into the filling portion 113 through the inlet 112.

[0031] The cosmetic liquid is fundamentally used for lip gloss products, but as needed, other cosmetic liquids used for lipstick, mascara, eyeliner, and nail polish products may also be used.

[0032] An idling prevention rib 114 may be extendedly formed in the longitudinal direction on the outer peripheral surface of the filling portion 113 at a lower end of the support rim 111 at an appropriate interval. Here, one or more idling prevention ribs 114 may be formed and arranged.

[0033] Additionally, a locking rim 115 may be further formed on the outer peripheral surface of the filling portion 113 of the refill container 110.

[0034] The idling prevention ribs 114 or the locking rim 115 provided in the refill container 110 functions to induce coupling stability when coupling with other members for refilling.

[0035] Additionally, a reverse rotation prevention protrusion 116 for preventing arbitrary reverse rotation may be further formed on an upper surface of the support rim 111 of the refill container 110.

[0036] The airtight packing 120 may be seated and supported in the inlet 112 of the refill container 110, and may have a wiper 121 therein.

[0037] The airtight packing 120 may be made of a rubber material or a soft synthetic resin material that has appropriate elasticity, taking into account its function.

[0038] Therefore, the inlet 112 may be airtightly sealed by the airtight packing 120, and the wiper 121 may be used to wipe off the cosmetic liquid attached to the periphery of a tip connecting rod or an application tip of a brush rod, which will be described later.

[0039] The cover 130 may be opened and closed relative to the inlet 112 of the refill container 110. A screw portion 131 corresponding to the screw portion 112a formed on the outer peripheral surface of the inlet may be formed inside the cover.

[0040] Additionally, a blocking rod 132 for airtightly blocking the wiper 121 of the airtight packing when the cover 130 is coupled to the inlet 112 may be extendedly formed inside the cover.

[0041] Therefore, when the cover 130 is closed, the inlet 112 may be airtightly sealed by the airtight packing 120 and the wiper 121 of the airtight packing may be airtightly blocked by the blocking rod 132, so the cosmetic liquid filled in the filling portion 113 of the refill container 110 may be prevented from leaking to the outside of the refill container during distribution.

[0042] As described above, the lip gloss cartridge 100 may be distributed separately in a state where the cosmetic liquid is filled in the filling portion 113 of the refill container 110 and the inlet 112 is airtightly sealed by the airtight packing 120 and the cover 130. Moreover, consumers may purchase lip gloss cartridges separately and use them for refills, so unnecessary waste of cosmetics may be prevented.

[0043] Next, a refillable lip gloss applicator 200 according to the present disclosure will be described with reference to FIGS. 6 to 10.

[0044] The refillable lip gloss applicator 200 may include a refill container 110, an airtight packing 120, and a brush rod 240.

[0045] In describing the refillable lip gloss applicator 200, the configuration of the refill container 110 and the airtight packing 120 remains the same as that of the refill container and the airtight packing of the lip gloss cartridge 100, and thus a detailed description thereof will be omitted and will be replaced with the description provided above.

[0046] The brush rod 240 may include a brush rod cap 241 opened and closed relative to an inlet 112 of the refill container 110, a tip connecting rod 242 coupled to the inside of the brush rod cap, and an application tip 243 provided at a lower end of the tip connecting rod.

[0047] The application tip 243 may be replaceably assembled to the tip connecting rod 242. Additionally, the application tip 243 may be used in various shapes,

structures, and materials depending on cosmetic purposes.

[0048] When the brush rod cap 241 is closed, the application tip 243 provided on the tip connecting rod 242 may be positioned inside a filling portion 113 of the refill container 110, more preferably, close to a bottom of the inside of the filling portion so that the application tip 243 is always covered with a cosmetic liquid filled therein. When the brush rod cap 241 is opened to withdraw the brush rod 240, the application tip 243 may pass through a wiper 121 formed in the airtight packing 120, causing the cosmetic liquid attached thereto to be properly wiped off.

[0049] A screw portion 241a corresponding to a screw portion 112a formed on an outer peripheral surface of the inlet 112 of the refill container 110 may be formed on an inner peripheral surface of the brush rod cap 241 of the brush rod 240.

[0050] Additionally, a reverse rotation prevention groove 244 opposite to a reverse rotation prevention protrusion 116 formed on an upper surface of a support rim 111 of the refill container 110 may be further formed on an inner peripheral surface of a lower end of the brush rod cap 241.

[0051] Through the configuration of the reverse rotation prevention groove 244 formed in the brush rod cap 241, when the brush rod cap 241 of the brush rod 240 is completely closed against the inlet 112 of the refill container 110, the reverse rotation prevention groove 244 may be fittedly coupled the reverse rotation prevention protrusion 116, so the brush rod cap 241 of the brush rod 240 may be prevented from being arbitrarily opened from the inlet 112 of the refill container 110 unless the brush rod cap 241 is artificially opened.

[0052] Therefore, when carrying and using the refillable lip gloss applicator 200, the brush rod 240 may enable the brush rod cap 241 to maintain a very stable coupling state with the inlet 112 of the refill container 110, so leakage of the cosmetic liquid or arbitrary separation of the brush rod 240 caused by replacement of the refill container 110 may be prevented.

[0053] Additionally, according to the refillable lip gloss applicator 200 according to the present disclosure, when the cosmetic liquid filled in the refill container 110 is used up, the brush rod 240 may be removed from the refill container 110, then only a cover 130 may be removed

)[희1],

from a lip gloss cartridge 100 [1], and finally the brush rod 240 previously used may be coupled to a new refill container 110 for continuous use, thereby enabling supply of a refillable lip gloss product.

[0054] Moreover, the continuous use of the brush rod 240 may provide the effect of reducing the cost of purchasing cosmetics to some extent, and minimizing environmental pollution by reducing the number of discarded parts.

[0055] Meanwhile, as illustrated in FIGS. 11 to 16, the refillable lip gloss applicator 200 according to the present disclosure may further include a packaging container 250 detachably mounted on the outside of the filling portion 113 of the refill container 110.

[0056] The packaging container 250 may accommodate the refill container 110 for convenient carrying, storage, and use.

[0057] For this purpose, the packaging container 250 may have a shape with one side open so as to have a space in which the refill container 110 is inserted.

[0058] Additionally, a bottom surface of the packaging container may be formed flat so that the refill container 110 stands upright on a surface when stored.

[0059] Additionally, one or more idling prevention grooves 251 into which one or more idling prevention ribs 114 formed on an outer peripheral surface of the filling portion of the refill container 110 are inserted may be formed correspondingly on an inner peripheral surface of an upper end of an opening of the packaging container 250.

[0060] Therefore, due to mutual fitting engagement of the idling prevention ribs 114 and the idling prevention grooves 251, when the refill container 110 and the packaging container 250 are coupled to each other, the refill container 110 and the packaging container 250 may be stably coupled to each other, and when the brush rod cap 241 of the brush rod 240 is rotated while holding the packaging container 250, the refill container 110 may be prevented from rotating along with the brush rod cap.

[0061] Additionally, a locking groove 252 fittedly coupled to a locking rim 115 formed on an outer peripheral surface of the filling portion 113 of the refill container 110 may be further formed on an inner peripheral surface of the packaging container 250.

[0062] Through the configuration of the locking groove 252 of the packaging container 250 and the configuration of the locking rim 115 formed on the outer peripheral surface of the filling portion 113 of the refill container 110, when the packaging container 250 is coupled to the filling portion 113 of the refill container 110, the packaging container may be prevented from being arbitrarily separated from the filling portion.

[0063] Additionally, a step 253 supporting the support rim 111 of the refill container 110 when the packaging container 250 is coupled to the filling portion 113 of the refill container 110 may be further formed on the inner peripheral surface of the upper end of the packaging container 250.

[0064] Through the configuration of the step 253, when the packaging container is coupled to the refill container 110, the support rim 111 may be fitted into and coupled to the step while being accommodated inside the packaging container, thereby achieving a stable assembling state.

[0065] Additionally, an upper portion of the locking groove 252 of the packaging container may have an inclined entry surface 252a widened upward to facilitate entry and coupling of the locking rim 115.

[0066] Through the configuration of the inclined entry surface 252a, when the packaging container 350 is

coupled to the filling portion 113 of the refill container 110, an entry operation of the locking rim 115 can be performed more quickly and easily.

[0067] Through the configuration of the lip gloss cartridge 100 and the configuration of the refillable lip gloss applicator 200 according to the present disclosure, only the refill container 110 may be replaced for the brush rod 240 while the brush rod 240 or the packaging container 250 is used continuously, or the packaging container 250 may be further coupled to the refill container as needed. This makes it possible to perform refill use of a lip gloss product very conveniently and effectively.

[0068] Meanwhile, the present disclosure has been described with respect to the lip gloss cartridge 100 and the refillable lip gloss applicator 200 that are used for lip gloss products, but due to their structure, they may be used for other cosmetic products such as lipstick, mascara, eyeliner, and nail polish that can use cosmetic liquids, in addition to lip gloss products.

[0069] Although the preferred embodiments of the present disclosure have been disclosed for illustrative purposes, the present disclosure is not limited to only the embodiments set forth herein, and those skilled in the art will appreciate that the present disclosure can be embodied in many alternate forms.

[Description of the Reference Numerals in the Drawings]

[0070]

100: lip gloss cartridge 110: refill container
111: support rim 112: inlet
113: filling portion 114: idling prevention rib
115: locking rim 116: reverse rotation prevention protrusion
120: airtight packing 121: wiper
130: cover 132: blocking rod
200: refillable lip gloss applicator 240: brush rod
241: brush rod cap 242: tip connecting rod
243: application tip 244: reverse rotation prevention groove
250: packaging container 251: idling prevention groove
252: locking groove 252a: inclined entry surface
253: step

Claims

1. A lip gloss cartridge, comprising:

a refill container having an inlet formed above a support rim formed on an outer peripheral surface of the refill container, and a filling portion in which a cosmetic liquid is filled and formed below the support rim so as to be open toward the inlet;
an airtight packing airtightly coupled to the inlet of the refill container and having a wiper formed in a center of an inside of the airtight packing; and
a cover configured to be opened and closed relative to the inlet,
wherein one or more idling prevention ribs are formed in a longitudinal direction on an outer peripheral surface of the filling portion at a lower end of the support rim,
a blocking rod configured to airtightly block the wiper of the airtight packing when the cover is closed is formed inside the cover, and
a reverse rotation prevention protrusion configured to prevent arbitrary reverse rotation is formed on an upper surface of the support rim of the refill container.

2. A refillable lip gloss applicator, comprising:

a refill container having an inlet formed above a support rim formed on an outer peripheral surface of the refill container, and a filling portion in which a cosmetic liquid is filled and formed below the support rim so as to be open toward the inlet;
an airtight packing airtightly coupled to the inlet of the refill container and having a wiper formed in a center of an inside of the airtight packing; and
a brush rod comprising a brush rod cap that is configured to be opened and closed relative to the inlet of the refill container, a tip connecting rod extendedly formed at a lower end of an inside of the brush rod cap, and an application tip provided at a lower end of the tip connecting rod,
wherein one or more idling prevention ribs are formed in a longitudinal direction on an outer peripheral surface of the filling portion at a lower end of the support rim, and
a reverse rotation prevention protrusion configured to prevent arbitrary reverse rotation is formed on an upper surface of the support rim of the refill container.

3. The refillable lip gloss applicator of claim 2, further comprising:

a packaging container configured to be detachably mounted on an outside of the refill container to cover the refill portion of the refill container,
wherein one or more idling prevention grooves into which the idling prevention ribs formed on the outer peripheral surface of the filling portion at the lower end of the support rim are inserted are formed correspondingly on an inner peripheral surface of the packaging container, and

the refill container is prevented from rotating along with the brush rod cap due to mutual fitting engagement of the idling prevention ribs and the idling prevention grooves when the brush rod cap of the brush rod is rotated while holding the packaging container.

4. The refillable lip gloss applicator of claim 2 or 3, wherein a locking rim is further formed on the outer peripheral surface of the filling portion of the refill container.

5. The refillable lip gloss applicator of claim 4, wherein a locking groove is further formed on an inner peripheral surface of the packaging container,
wherein when coupling the packaging container to the filling portion of the refill container, the locking groove is fittedly coupled to the locking rim formed on the outer peripheral surface of the filling portion, thereby preventing the packaging container from being arbitrarily separated from the filling portion.

6. The refillable lip gloss applicator of claim 2 or 3, wherein a reverse rotation prevention groove opposite to the reverse rotation prevention protrusion formed on the upper surface of the support rim of the refill container is further formed on an inner peripheral surface of a lower end of the brush rod cap that is configured to be opened and closed relative to the inlet of the refill container,
wherein when the brush rod cap is completely closed, the reverse rotation prevention groove is fittedly engaged with the reverse rotation prevention protrusion, so the brush rod cap is prevented from being arbitrarily opened unless the brush rod cap is artificially opened.

7. The refillable lip gloss applicator of claim 3, wherein a step configured to support the support rim of the refill container when the packaging container is coupled to the filling portion of the refill container is further formed on an inner peripheral surface of an upper end of the packaging container.

8. The refillable lip gloss applicator of claim 5, wherein an upper portion of the locking groove of the packaging container has an inclined entry surface widened upward to facilitate entry and coupling of the locking rim.

9. The refillable lip gloss applicator of claim 2 or 3, wherein an application tip provided on the tip connecting rod of the brush rod has a replaceable structure.

FIG. 1

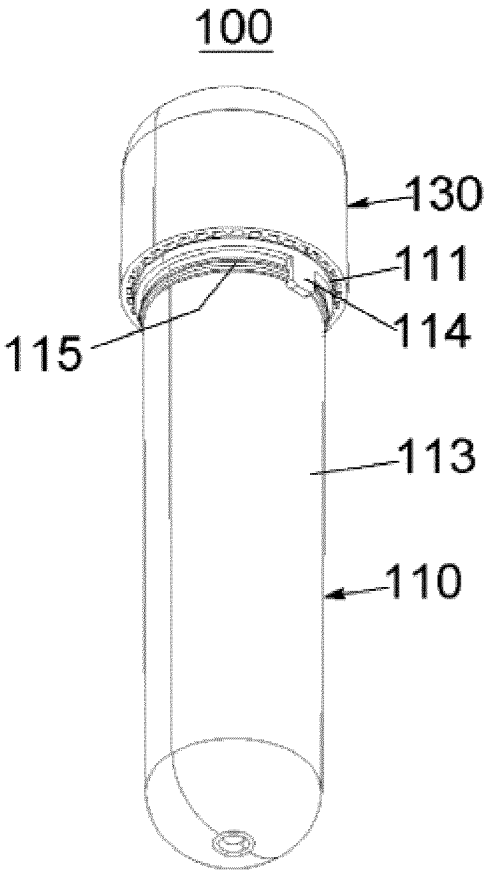


FIG. 2

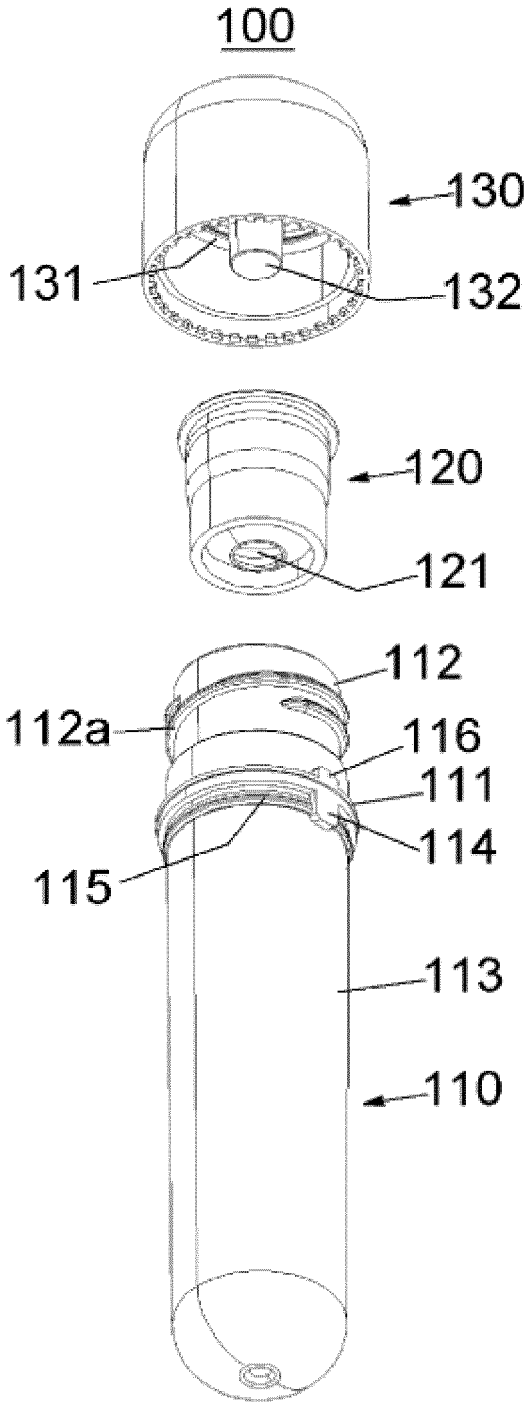


FIG. 3

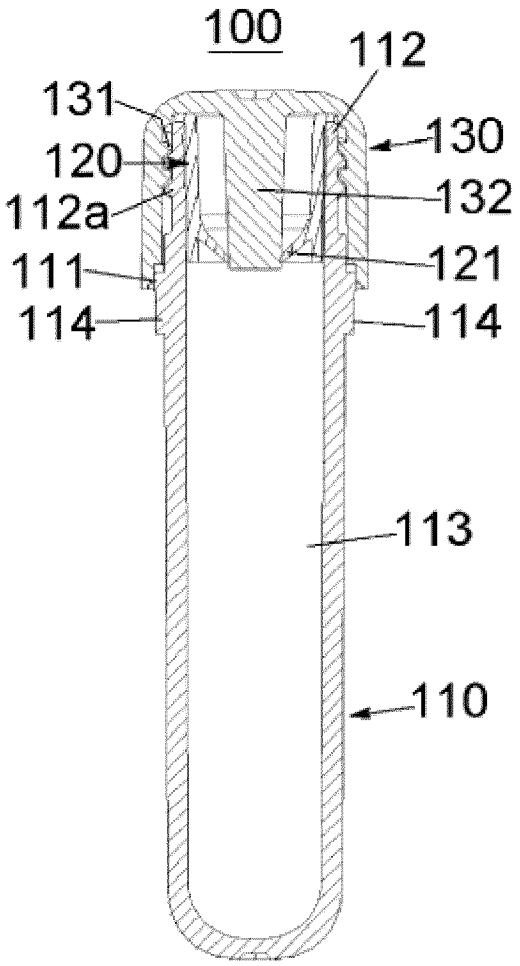


FIG. 4

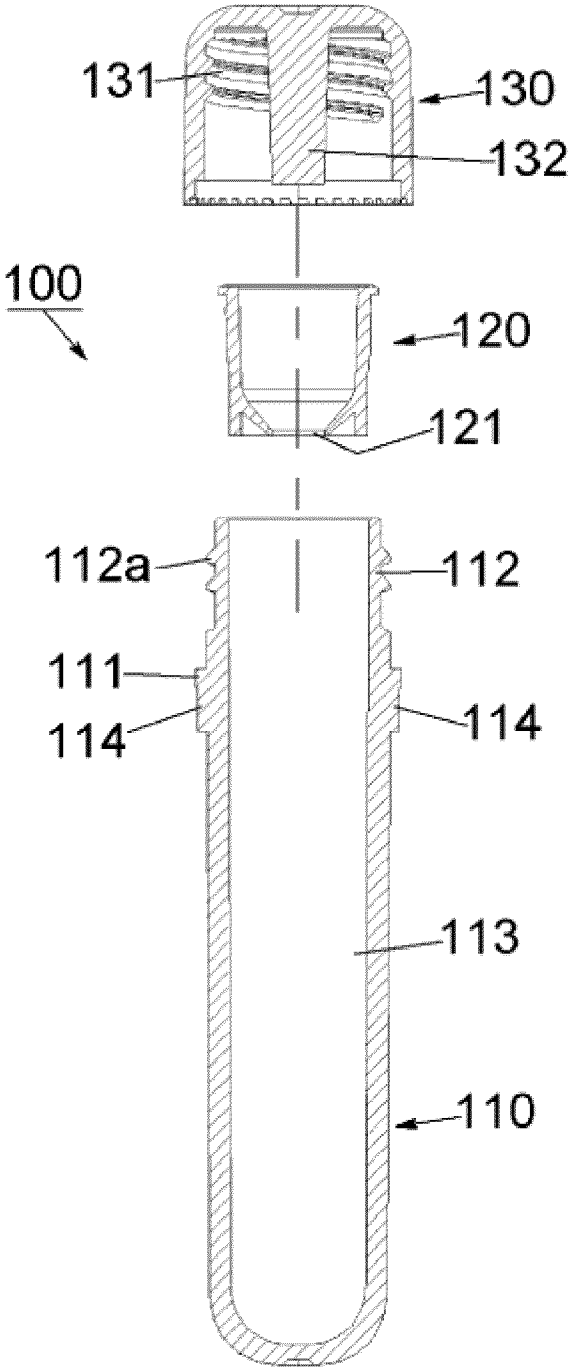


FIG. 5

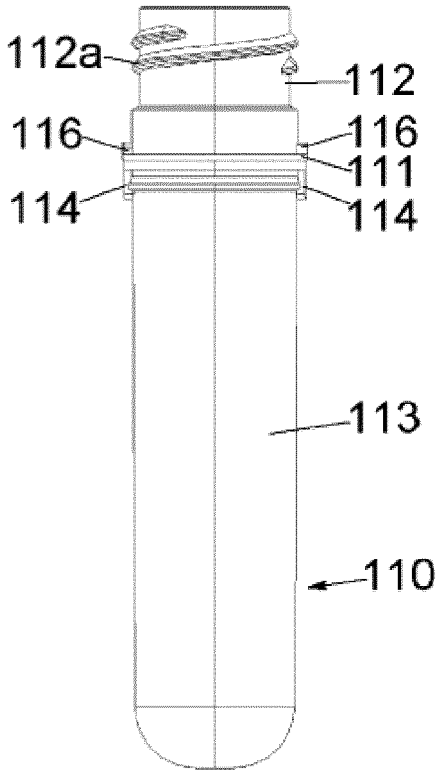

112a
112
116
116
111
114
114
113
110

FIG. 6

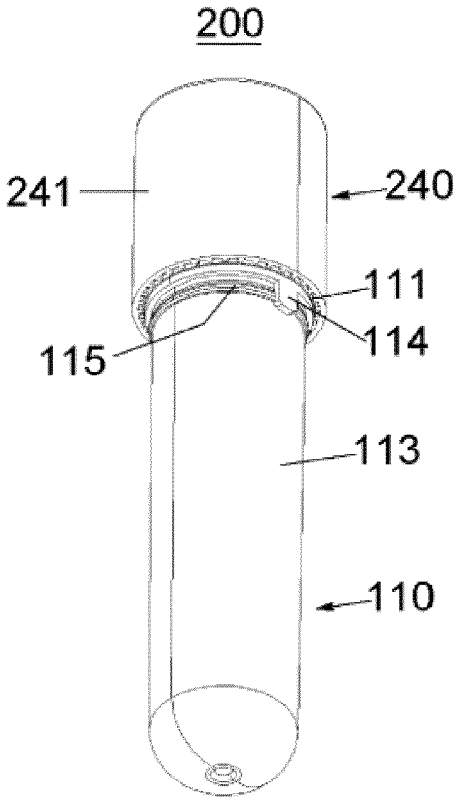

200
241
240
111
115
114
113
110

FIG. 7

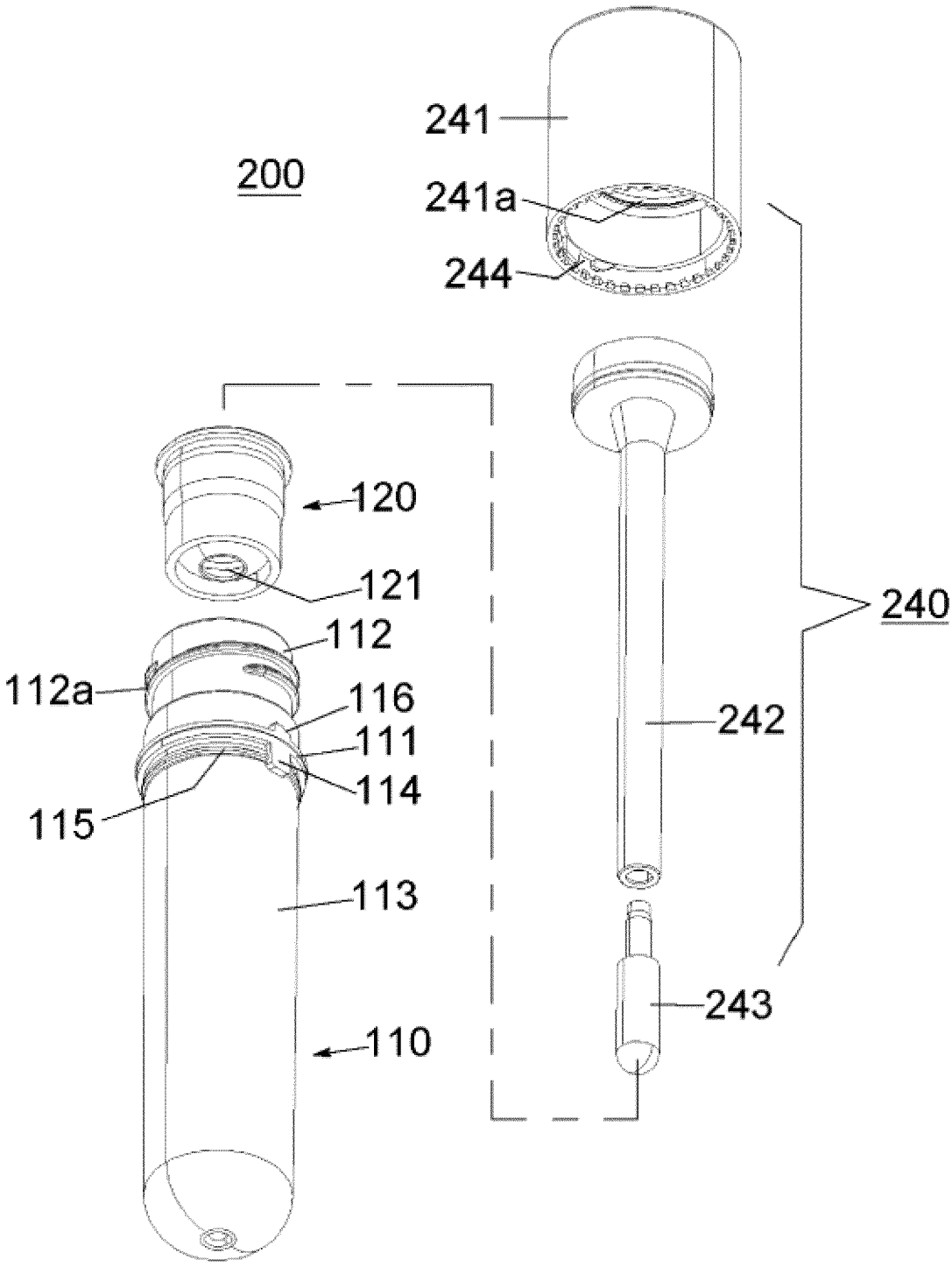

200
241
241a
244
240
120
121
112
112a
116
111
114
115
113
242
243
110

FIG. 8

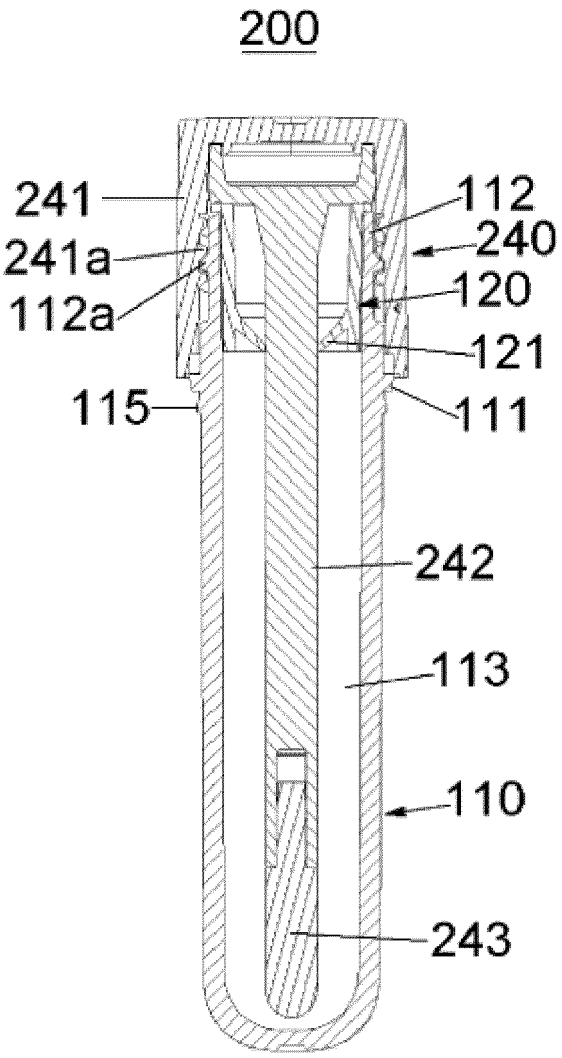


FIG. 9

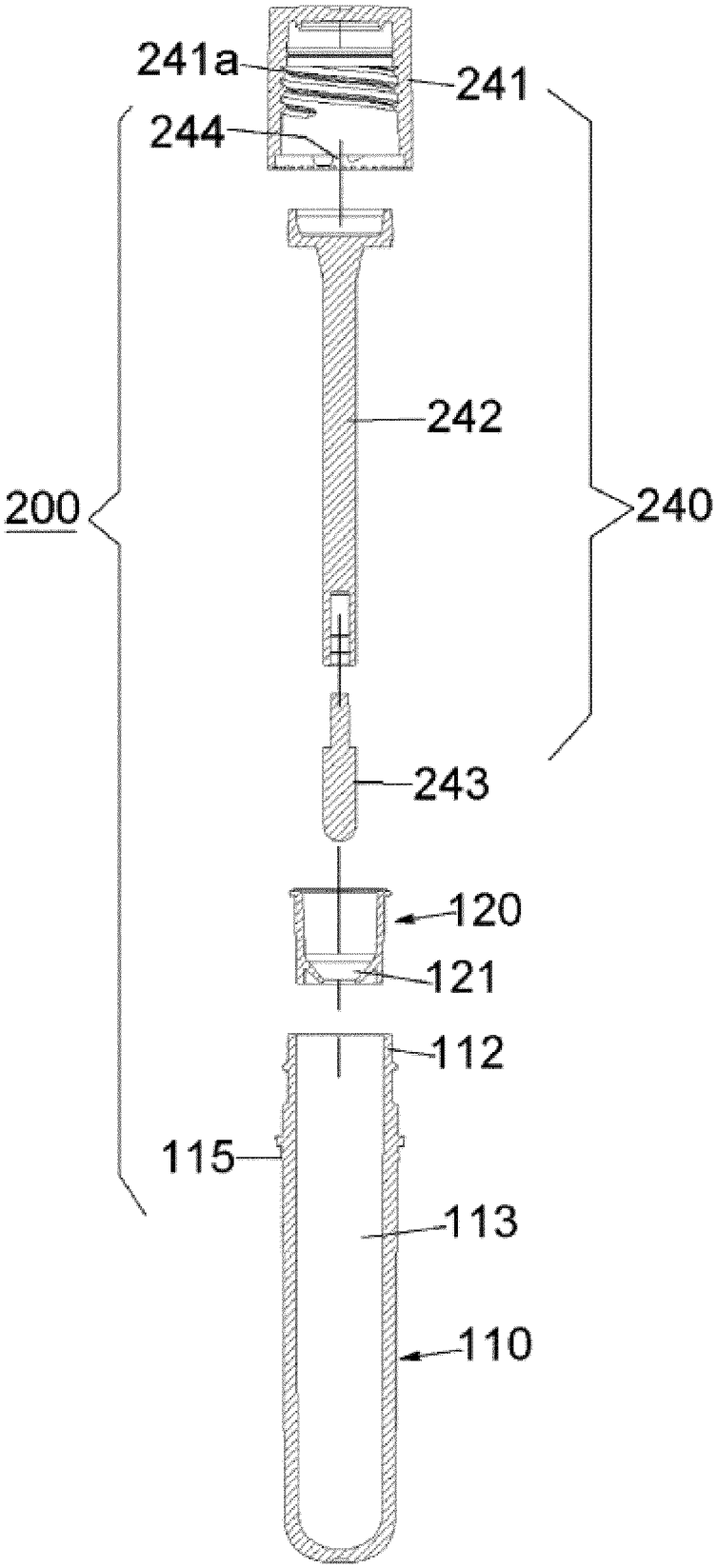


FIG. 10

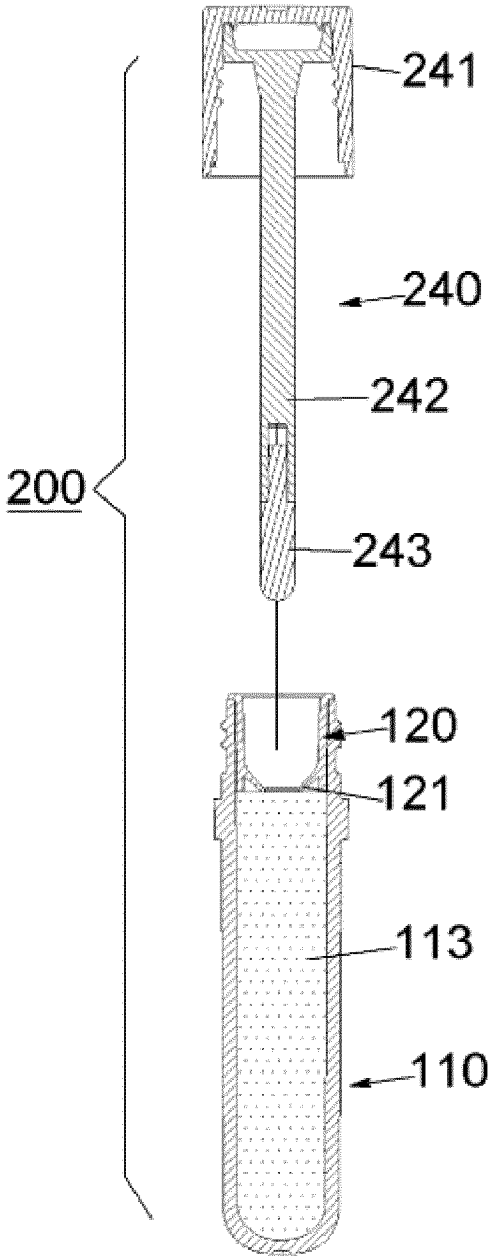


FIG. 11

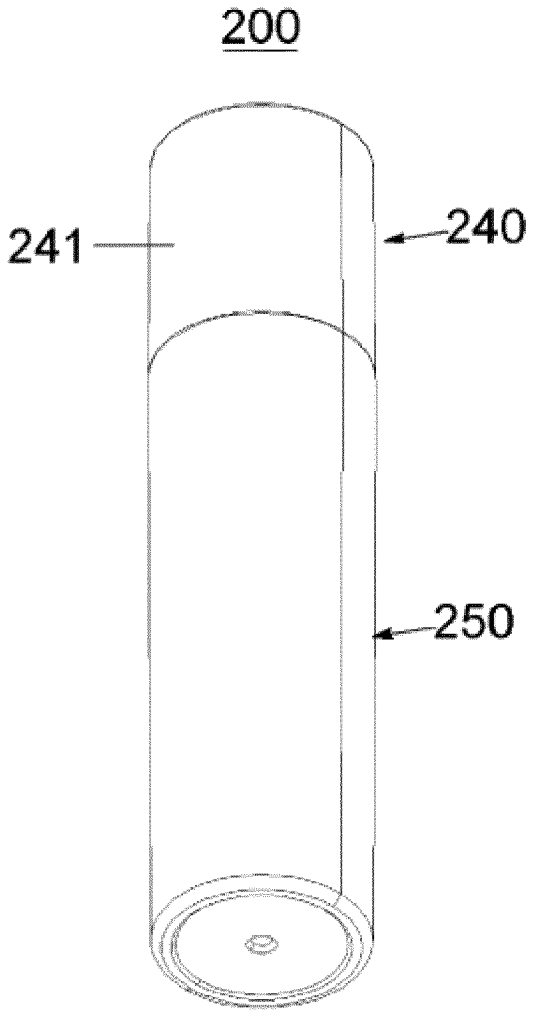


FIG. 12

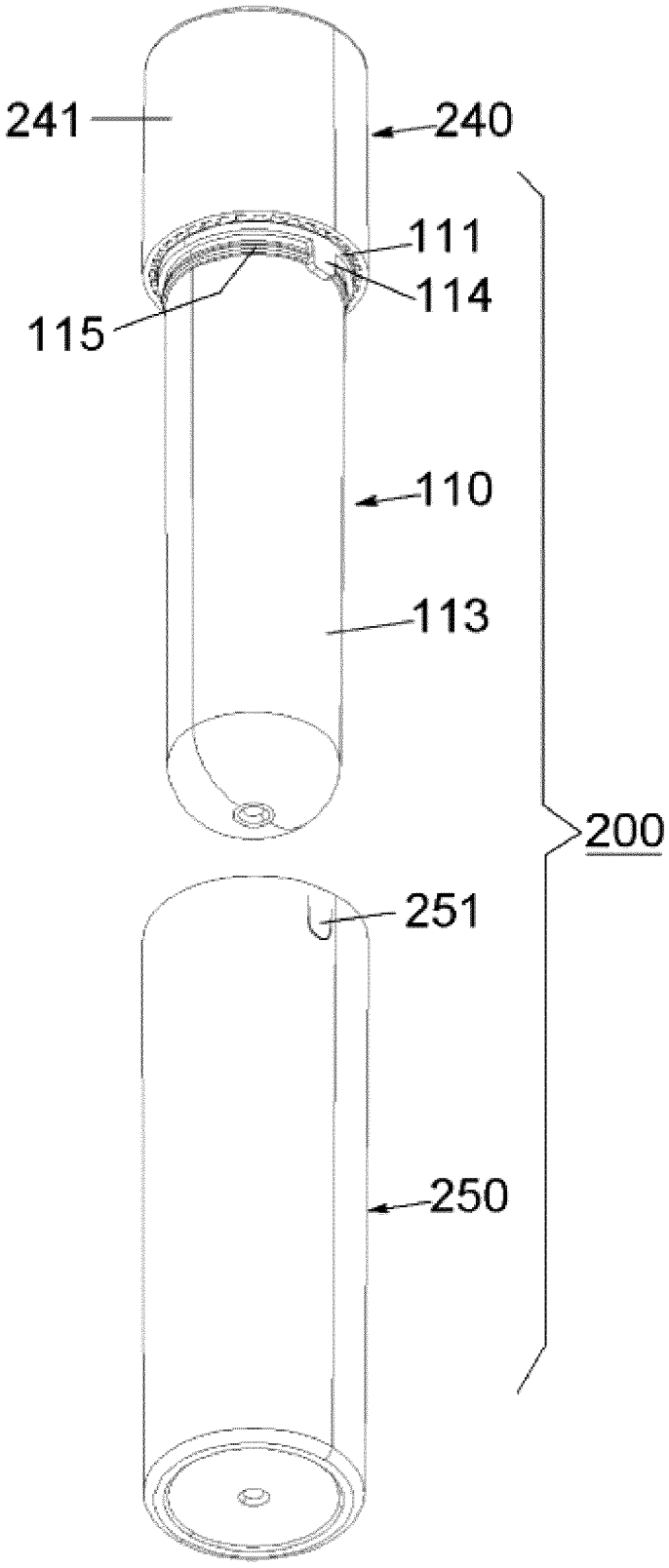


FIG. 13

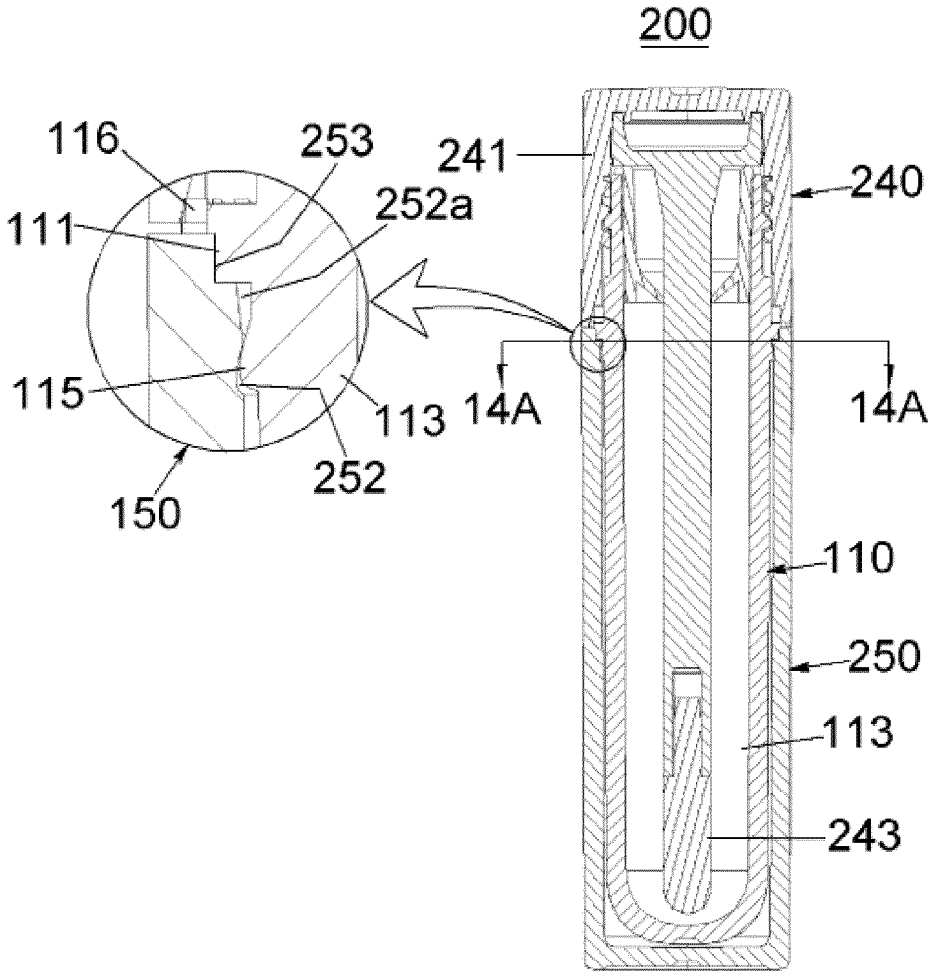

200
116
253
241
240
111
252a
115
113
14A
14A
252
150
110
250
113
243

FIG. 14

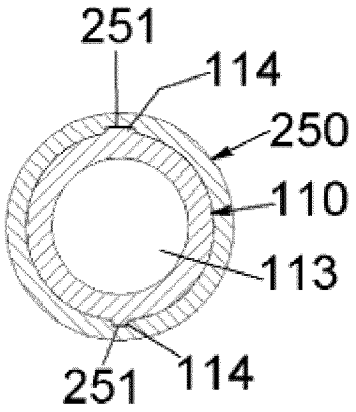

251
114
250
110
113
251
114

FIG. 15

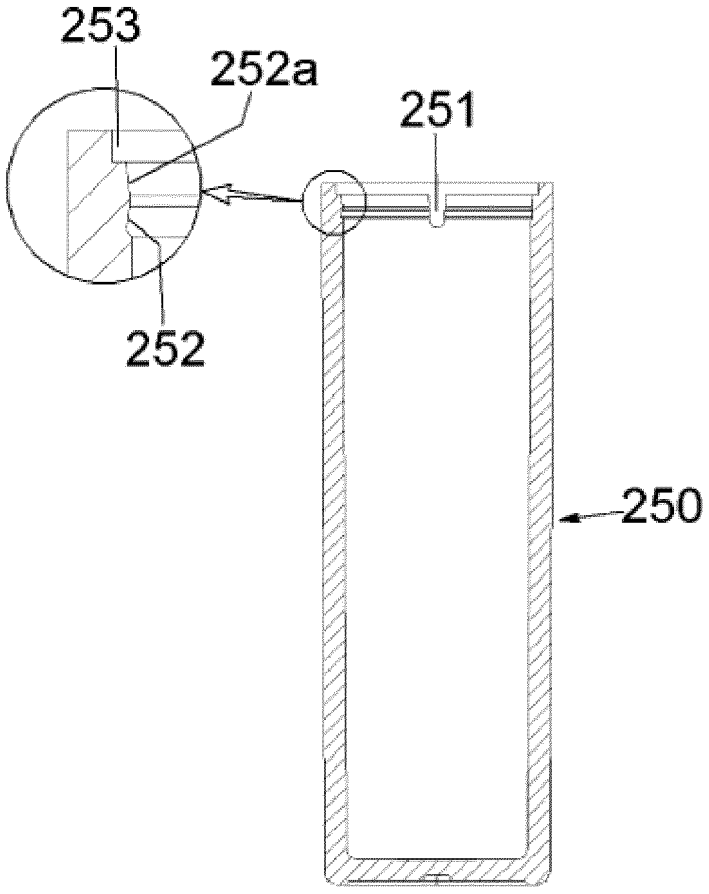
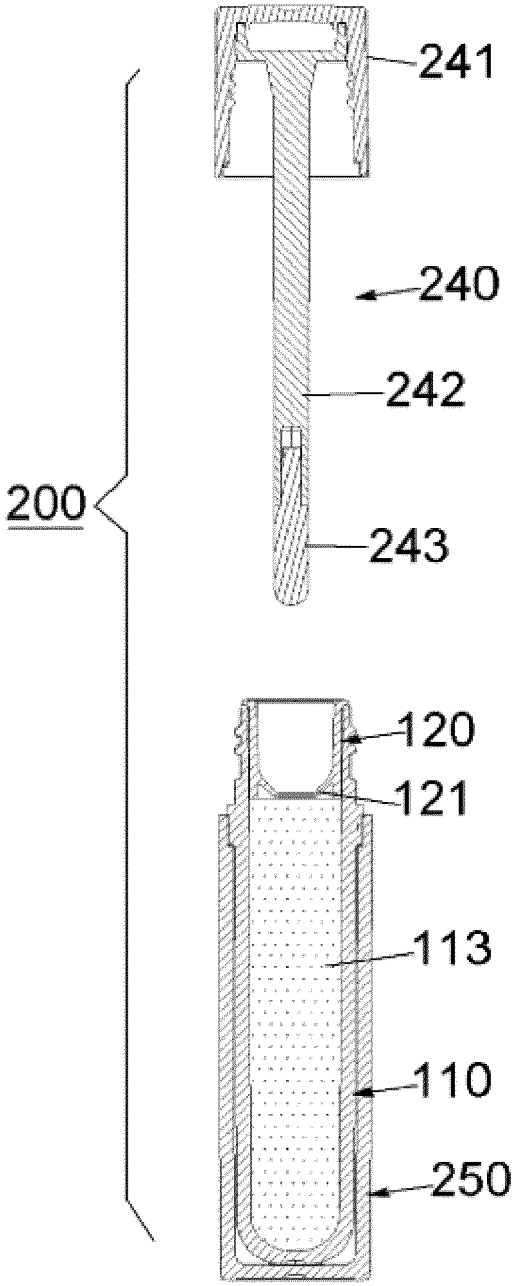


FIG. 16



INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2023/011391

A. CLASSIFICATION OF SUBJECT MATTER

A45D 34/04(2006.01)i; **A45D 40/26**(2006.01)i; **B65D 77/04**(2006.01)i; **B65D 53/02**(2006.01)i; **B65D 51/32**(2006.01)i; **A45D 34/00**(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A45D 34/04(2006.01); A45D 33/00(2006.01); A45D 34/00(2006.01); A45D 40/26(2006.01); B65D 25/02(2006.01); B65D 25/18(2006.01); B65D 45/00(2006.01); E05C 19/00(2006.01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models: IPC as above
Japanese utility models and applications for utility models: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS (KIPO internal) & keywords: 립글로스(lip gloss), 리필용기(refill container), 패킹(packing), 카트리지(cartridge), 캡(cap)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 10-2409567 B1 (CTK CO., LTD.) 22 June 2022 (2022-06-22) See paragraphs [0035]-[0069]; and figures 1-26.	1-9
A	US 2010-0176131 A1 (LOPEZ LEON, J. et al.) 15 July 2010 (2010-07-15) See entire document.	1-9
A	KR 10-1601613 B1 (SAMWHA PLASTIC IND. CO.) 21 March 2016 (2016-03-21) See entire document.	1-9
A	JP 5887649 B2 (SANYO KAGAKU KOGYO KK) 16 March 2016 (2016-03-16) See entire document.	1-9
A	KR 20-0433693 Y1 (JEONG, Yong-Man) 13 December 2006 (2006-12-13) See entire document.	1-9

☑ Further documents are listed in the continuation of Box C. ☑ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"D" document cited by the applicant in the international application
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
20 November 2023	**20 November 2023**
Name and mailing address of the ISA/KR **Korean Intellectual Property Office** **Government Complex-Daejeon Building 4, 189 Cheongsa-ro, Seo-gu, Daejeon 35208** Facsimile No. **+82-42-481-8578**	Authorized officer Telephone No.

Form PCT/ISA/210 (second sheet) (July 2022)

INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2023/011391

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
PX	KR 10-2519731 B1 (CTK CO., LTD.) 28 April 2023 (2023-04-28) See entire document. * This document is the published patent of an earlier application that serves as a basis for claiming priority of the present international application.	1-9

Form PCT/ISA/210 (second sheet) (July 2022)

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/KR2023/011391

Patent document cited in search report	Publication date (day/month/year)	Patent family member(s)	Publication date (day/month/year)
KR 10-2409567 B1	22 June 2022	None	
US 2010-0176131 A1	15 July 2010	EP 1943159 A1	16 July 2008
		EP 1943159 B1	23 September 2009
		ES 2331854 T3	18 January 2010
		WO 2007-022608 A1	01 March 2007
KR 10-1601613 B1	21 March 2016	None	
JP 5887649 B2	16 March 2016	JP 2012-239793 A	10 December 2012
KR 20-0433693 Y1	13 December 2006	None	
KR 10-2519731 B1	28 April 2023	None	

Form PCT/ISA/210 (patent family annex) (July 2022)

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- KR 2020180002316 U **[0005]**