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(54) **ROTATING COSMETIC CONTAINER**

(57) A rotatable cosmetic container is provided. The rotatable cosmetic container includes a housing case that includes unit housing sections arranged in a circular shape, a rotatable case that is rotatably coupled to the housing case and that includes a selection hole for exposing the unit housing sections to the outside, and unit cases that are detachably inserted into the unit housing sections and that contain contents therein. The rotatable

cosmetic container has merits that a user can conveniently select desired color cosmetics, the rotatable cosmetic container can be easily refilled, mixing and outflow of color cosmetics can be prevented, and the rotatable cosmetic container has a beautiful design. The rotatable cosmetic container can be used without opening a lid, which is convenient for use.

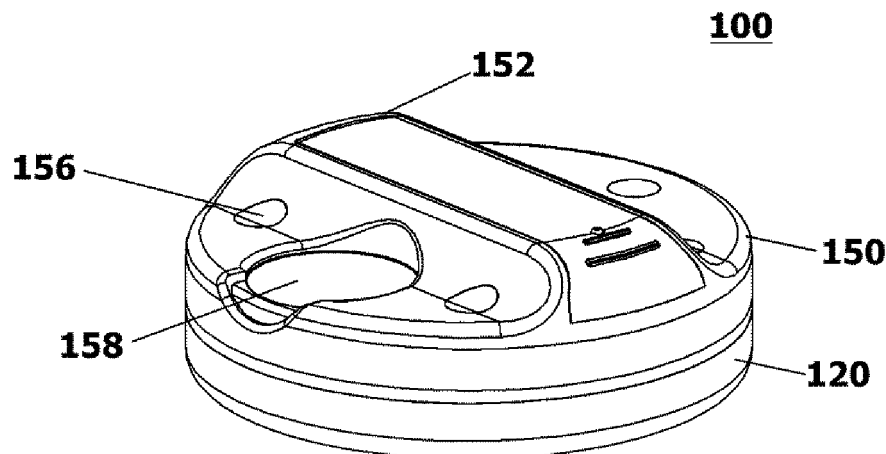


FIG 1

Description

TECHNICAL FIELD

[0001] The present invention relates to a rotatable cosmetic container, and more particularly, to a rotatable cosmetic container that enables easy selection of desired contents by rotation of the container.

BACKGROUND ART

[0002] In the related art, a color cosmetic case has a configuration in which various colors of cosmetics are housed in plural grooves defined in a grid pattern. A transparent cover capable of covering all the grooves is used to prevent the color cosmetics housed in the grooves from flowing out to the outside. Therefore, in order to select a desired color of cosmetics, a user has to remove the transparent cover from the cosmetic case.

[0003] However, the color cosmetic case of the related art has a problem in that since the cover has to be removed to use a desired color of cosmetics, unused color cosmetics flow out to the outside or flow into the groove of other color cosmetics to cause mixture of colors. The color cosmetic case also has a problem in that an exhausted color cosmetic cannot be easily refilled.

SUMMARY OF THE INVENTION

Technical Problem

[0004] Therefore, the invention is made to solve the above-mentioned problems, and an object thereof is to provide a rotatable cosmetic container that enables a user to easily select desired contents by rotation of the container.

[0005] Another object of the invention is to provide a rotatable cosmetic container that can prevent contents from flowing out to the outside or being mixed with each other.

[0006] Still another aspect of the invention is to provide a rotatable cosmetic container that can replace or refill contents.

[0007] Other objects of the invention will become apparent from the following embodiments.

Solution to Problem

[0008] According to an aspect of the invention, there is provided a rotatable cosmetic container including: a housing case that includes unit housing sections arranged in a circular shape; a rotatable case that is rotatably coupled to the housing case and that includes a selection hole for exposing the unit housing sections to the outside; and unit cases that are detachably inserted into the unit housing sections and that contain contents therein.

[0009] The rotatable cosmetic container according to

the aspect of the invention may have one or more of the following embodiments. For example, the rotatable case may include a storage space protruding upward and the storage space may be covered with a cap. Through-holes corresponding to the unit housing sections may be formed in the rotatable case and a transparent cover may be inserted into each through-hole.

[0010] The selection hole may include a partition wall for preventing outflow or mixing of contents.

[0011] The housing case may be coupled to a lower case, a locking groove and a fixing groove may be formed in the housing case, and a locking protrusion inserted into the locking groove and a fixing protrusion inserted into the fixing groove may be formed in the lower case.

[0012] A concave portion for facilitating replacement of the unit case may be formed in each unit housing section, and a recessed portion corresponding to the concave portion may be formed in the selection hole.

Advantageous Effect of the Invention

[0013] According to the invention, it is possible to provide a rotatable cosmetic container that enables a user to easily select desired contents by rotation of the container.

[0014] According to the invention, since the rotatable cosmetic container can be used without opening a lid, it is possible to a rotatable cosmetic container that is convenient and sanitary.

[0015] According to the invention, it is possible to provide a rotatable cosmetic container that can prevent contents from flowing out to the outside or being mixed with each other.

[0016] According to the invention, it is possible to provide a rotatable cosmetic container that can replace or refill contents.

[0017] According to the invention, since the colors of color cosmetics are exposed to the outside, it is possible to provide a rotatable cosmetic container having beautiful appearance.

BRIEF DESCRIPTION OF THE DRAWINGS

[0018]

FIG. 1 is a perspective view of a rotatable cosmetic container according to an embodiment of the invention.

FIG. 2 is a plan view of the rotatable cosmetic container illustrated in FIG. 1.

FIG. 3 is a cross-sectional view taken along line A-A' of FIG. 2.

FIG. 4 is an exploded perspective view of the rotatable cosmetic container illustrated in FIG. 1.

FIG. 5 is a front view of a unit case.

DETAILED DESCRIPTION OF THE INVENTION

[0019] The invention can be modified in various forms and can have various embodiments. Specific embodiments will be illustrated in the drawings and described in detail. However, the embodiments are not intended to limit the invention, but it should be understood that the invention includes all modifications, equivalents, and replacements belonging to the concept and the technical scope of the invention. When it is determined that detailed description of known techniques involved in the invention makes the gist of the invention obscure, the detailed description thereof will not be made.

[0020] The terms used in the following description are intended to merely describe specific embodiments, but not intended to limit the invention. An expression of the singular number includes an expression of the plural number, so long as it is clearly read differently. The terms such as "include" and "have" are intended to indicate that features, numbers, steps, operations, elements, components, or combinations thereof used in the following description exist and it should thus be understood that the possibility of existence or addition of one or more other different features, numbers, steps, operations, elements, components, or combinations thereof is not excluded.

[0021] Hereinafter, embodiments of the invention will be described in detail with reference to the accompanying drawings. In describing the invention with reference to the accompanying drawings, like elements are referenced by like reference numerals or signs regardless of the drawing numbers and description thereof is not repeated.

[0022] FIG. 1 is a perspective view of a rotatable cosmetic container 100 according to an embodiment of the invention. FIG. 2 is a plan view of the rotatable cosmetic container 100 illustrated in FIG. 1. FIG. 3 is a cross-sectional view taken along line A-A' of FIG. 2. FIG. 4 is an exploded perspective view of the rotatable cosmetic container 100 according to the embodiment of the invention. FIG. 5 is a front view of a unit case 180 which is coupled to the rotatable cosmetic container 100 according to the embodiment of the invention. In FIG. 3, cross-sections are not hatched to clearly illustrate elements.

[0023] Referring to FIGS. 1 to 5, the rotatable cosmetic container 100 according to the embodiment of the invention includes a lower case 120, a housing case 130 coupled to the lower case 120, a rotatable case 150 rotatably coupled to the housing case 130, a cap 170 covering a storage space 152 of the rotatable case 150, unit cases 180 inserted into unit housing sections 138 of the housing case 130, and transparent covers 190 covering through-holes 156 of the rotatable case 150.

[0024] In the rotatable cosmetic container 100 according to this embodiment, the unit cases 180 containing various colors of cosmetics (not illustrated) are arranged in plural unit housing sections 138 arranged in a circular shape, and a selection hole 158 corresponding to the unit housing sections 138 is formed in the rotatable case

150. In the rotatable cosmetic container 100 according to this embodiment having the above-mentioned structure, color cosmetics can be used by rotating the rotatable case 150 so as to locate the selection hole 158 on the unit housing section 138 containing a desired color cosmetic. At this time, the other color cosmetics are covered with the rotatable case 150. Accordingly, the rotatable cosmetic container 100 according to this embodiment can prevent outflow and mixing of color cosmetics, is convenient for use because a color cosmetic can be selected by simple rotation of the container, and can easily refill or replace color cosmetics because the unit cases 180 can be simply detached and coupled.

[0025] The lower case 120 includes a circular bottom surface 122 and a lower circumferential surface 124 with a predetermined height protruding upward from the edge of the bottom surface 122. Apart of the housing case 130 is inserted into the lower case 120.

[0026] In the lower circumferential surface 124, a locking groove 126 is formed vertically and a fixing groove 128 is formed horizontally. A locking protrusion 132 of the housing case 130 is inserted into the locking groove 126, whereby the housing case 130 is not rotatable relative to the lower case 120. A fixing protrusion 134 of the housing case 130 is inserted into the fixing groove 128, whereby the housing case 130 is not easily detached from the lower case 120.

[0027] The housing case 130 is a case containing contents such as color cosmetics, is fixedly coupled to the lower case 120, and is rotatably coupled to the rotatable case 150.

[0028] The housing case 130 includes plural unit housing sections 138 arranged in a circular shape, a mirror groove 144 formed with a depth less than that of the unit housing sections 138, a circumferential protrusion 136 locked to the upper end of the lower circumferential surface 124, and a locking protrusion 132 and a fixing protrusion 134 formed below the circumferential protrusion 136.

[0029] In the drawing, five unit housing sections 138 are arranged in a circular shape along the circumference of the housing case 130. The diameter of each unit housing section 138 is equal to or slightly less than the diameter of the selection hole 158. The unit housing sections 138 communicate with each other, a locking hole 140 is formed in the bottom surface thereof, and a concave portion 142 formed to be concave is disposed on the outer side thereof.

[0030] The locking hole 140 is a portion into which an insertion protrusion 184 formed in each unit case 180 is inserted and prevents the unit case 180 from being easily detached from the unit housing section 138. The concave portion 142 exposes a part of the unit case 180 to the outside so as to enable a user to easily grasp the unit case 180.

[0031] The mirror groove 144 is a circular groove formed with a depth less than that of the unit housing section 138 and corresponds to a portion at which the

selection hole 158 is located when color cosmetics are not used. A circular mirror (not illustrated) is inserted into the mirror groove 144.

[0032] In this embodiment, the unit housing sections 138 and the mirror groove 144 have a circular shape, but the invention is not limited to the circular shape and the unit housing sections and the mirror groove may have various shapes such as an elliptical shape or a polygonal shape. In this embodiment, five unit housing sections 138 and one mirror groove 144 are arranged at intervals of 60 degrees, but the number of unit housing sections and the number of mirror grooves may vary.

[0033] The circumferential protrusion 136 is formed to protrude outward from the circumference of the housing case 130, the lower portion of the housing case 130 with the circumferential protrusion 136 as a boundary is coupled to the lower case 120, and the upper portion of the housing case 130 is coupled to the rotatable case 150. The circumferential protrusion 136 is exposed to the outside of the rotatable cosmetic container 100 as illustrated in FIG. 3.

[0034] In the upper portion of the circumferential protrusion 136 corresponding to the circumferential surface of the rotatable case 150, a rotation groove 137 is formed along the circumference of the housing case 130. A protrusion (not illustrated) formed in the rotatable case 150 is inserted into the rotation groove 137, whereby the rotatable case 150 can rotate relative to the housing case 130.

[0035] The locking protrusion 132 and the fixing protrusion 134 are formed in the lower portion of the circumferential protrusion 136. The locking protrusion 132 is formed in the vertical direction and is inserted into the locking groove 126 of the lower case 120 to prevent the rotation of the housing case 130 relative to the lower case 120. The fixing protrusion 134 is formed in the horizontal direction and is inserted into the fixing groove 128 of the lower case 120 to prevent easy detachment of the housing case 130 from the lower case 120.

[0036] The rotatable case 150 is a portion rotatably coupled to the housing case 130, prevents outflow or mixing of color cosmetics, and enables a user to select a desired color cosmetic by rotation.

[0037] The rotatable case 150 includes a storage space 152 formed to protrude at the center and a selection hole 158 and plural through-holes 156 arranged in a circular shape.

[0038] A stick 210 used for color makeup is housed in the storage space 152. An insertion groove 154 is formed in the longitudinal direction is formed on both sides in the storage space 152, and a cap protrusion 172 formed in the cap 170 is inserted into the insertion groove 154.

[0039] Since the storage space 152 protrudes upward with a predetermined height from the center of the top surface of the rotatable case 150, a space with a size capable of housing a makeup tool such as the stick 210 is formed.

[0040] The through-holes 156 are arranged in a circu-

lar shape on the top surface of the rotatable case 150. The positions and the number of through-holes 156 correspond to the positions and the number of unit housing sections 138. A user can check what colors of cosmetics are contained therein through the through-holes 156, and the color cosmetics are exposed to the outside to make the rotatable cosmetic container 100 have beautiful appearance. The transparent covers 190 are inserted into the through-holes 156 so as to prevent outflow of color cosmetics inflow of external foreign particles.

[0041] The selection hole 158 enables using of the color cosmetics in the unit housing sections 138 and has a diameter equal to or slightly larger than the diameter of the unit housing sections 138. The selection hole 158 is located over the unit housing section 138 when the corresponding color cosmetic is used, and is located over the mirror groove 144 when no color cosmetic is used. A recessed portion 160 and a partition wall 162 are formed in the selection hole 158.

[0042] The recessed portion 160 is a portion recessed concave and corresponds to the concave portion 142 of the unit housing sections 138. The recessed portion 160 and the concave portion 142 expose a part of the unit case 180 inserted into the corresponding unit housing section 138 so as to easily grasp the unit case 180. Accordingly, a user can easily replace the corresponding unit case 180.

[0043] The partition wall 162 is formed to protrude downward in the inner circumferential surface of the selection hole 158 and comes in contact with the top of the unit case 180 when the selection hole 158 is located over the unit case 180. Accordingly, neighboring color cosmetics are not mixed by the partition wall 162 at the time of use. When the partition wall 162 is located over the mirror groove 144, the partition wall 162 serves to prevent outflow of color cosmetics or inflow of foreign particles through the selection hole 158.

[0044] A side protrusion 14 is formed above the circumferential protrusion 136 on the side surface of the housing case 130. The side protrusion 146 has a structure which protrudes and retreats with application of an external force. Grooves (not illustrated) corresponding to the side protrusion 146 is formed on the inner surface of the rotatable case 150. These grooves are formed at positions corresponding to the unit housing sections 138. Accordingly, when the rotatable case 150 rotates, the grooves formed to correspond to the unit housing sections 138 are locked to the side protrusion 146, whereby a user can feel the rotation of the selection hole 158 by a desired angle.

[0045] The rotatable case 150 includes an upper circumferential surface 164 protruding downward. The upper circumferential surface 164 rotates while coming in contact with the top surface of the circumferential protrusion 136. A protrusion (not illustrated) inserted into the rotation groove 137 of the housing case 130 to enable the rotation of the rotatable case 150 is formed in the upper circumferential surface 164.

[0046] The cap 170 covers the storage space 152 of the rotatable case 150 and includes a cap protrusion 172 formed on both sides thereof. The cap protrusion 172 is inserted into the insertion groove 154 formed in the longitudinal direction in the storage space 152 so as to couple the cap 170 to the storage space 152.

[0047] A containing section 182 of which the top surface is opened and in which color cosmetics are contained is formed in each unit case 180. An insertion protrusion 184 protrudes downward from the bottom of the unit case 180. The insertion groove 184 is inserted into the locking groove 140 of the unit housing section 138 so as to prevent the unit case 180 from being easily detached from the unit housing section 138.

[0048] A grip 186 is formed on one side of the upper end of the unit case 180. The grip 186 enables a user to easily grasp and replace the unit case 180.

[0049] Apart of the unit case 180 is exposed through the recessed portion 160 of the selection hole 158 and the concave portion 142 of the unit housing section 138. Accordingly, a user can easily grasp the unit case 180 and can easily insert and remove the unit case 180 into and from the unit housing section 138.

[0050] In the rotatable cosmetic container 100 according to this embodiment, color cosmetics are contained in the unit cases 180, but the invention is not limited to this example. Various types of contents can be contained in the unit cases 180. For example, shadow or lip balm may be contained in the unit cases 180, and different types of contents may be contained in the unit cases 180.

[0051] While the invention is described above with reference to the embodiment, it will be understood by those skilled in the art that the invention can be modified and changed in various forms without departing from the spirit and scope of the invention described in the appended claims.

Claims

1. A rotatable cosmetic container comprising:

a housing case that includes unit housing sections arranged in a circular shape;
a rotatable case that is rotatably coupled to the housing case and that includes a selection hole for exposing the unit housing sections to the outside; and
unit cases that are detachably inserted into the unit housing sections and that contain contents therein.

2. The rotatable cosmetic container according to claim 1, wherein the rotatable case includes a storage space protruding upward, and
wherein the storage space is covered with a cap.

3. The rotatable cosmetic container according to claim

1, wherein through-holes corresponding to the unit housing sections are formed in the rotatable case, and
wherein a transparent cover is inserted into each through-hole.

4. The rotatable cosmetic container according to claim 1, wherein the selection hole includes a partition wall for preventing outflow or mixing of contents.

5. The rotatable cosmetic container according to claim 1, wherein the housing case is coupled to a lower case, wherein a locking groove and a fixing groove are formed in the housing case, and wherein a locking protrusion inserted into the locking groove and a fixing protrusion inserted into the fixing groove are formed in the lower case.

6. The rotatable cosmetic container according to claim 1, wherein a concave portion for facilitating replacement of the unit case is formed in each unit housing section, and wherein a recessed portion corresponding to the concave portion is formed in the selection hole.

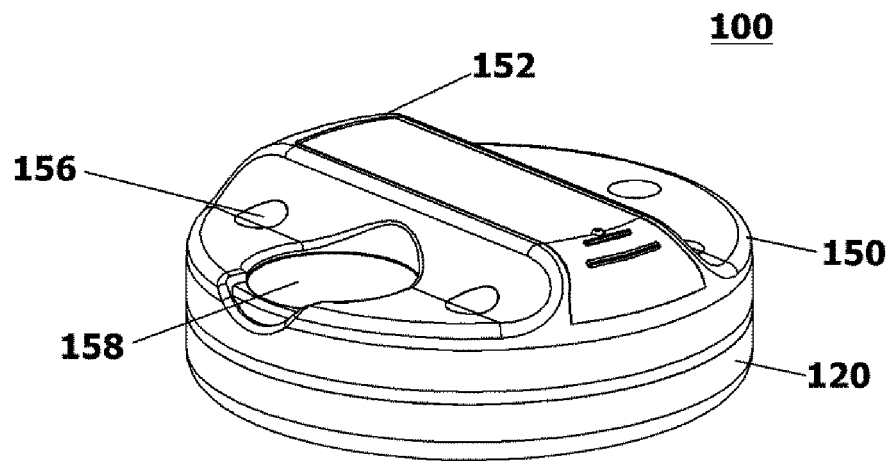


FIG 1

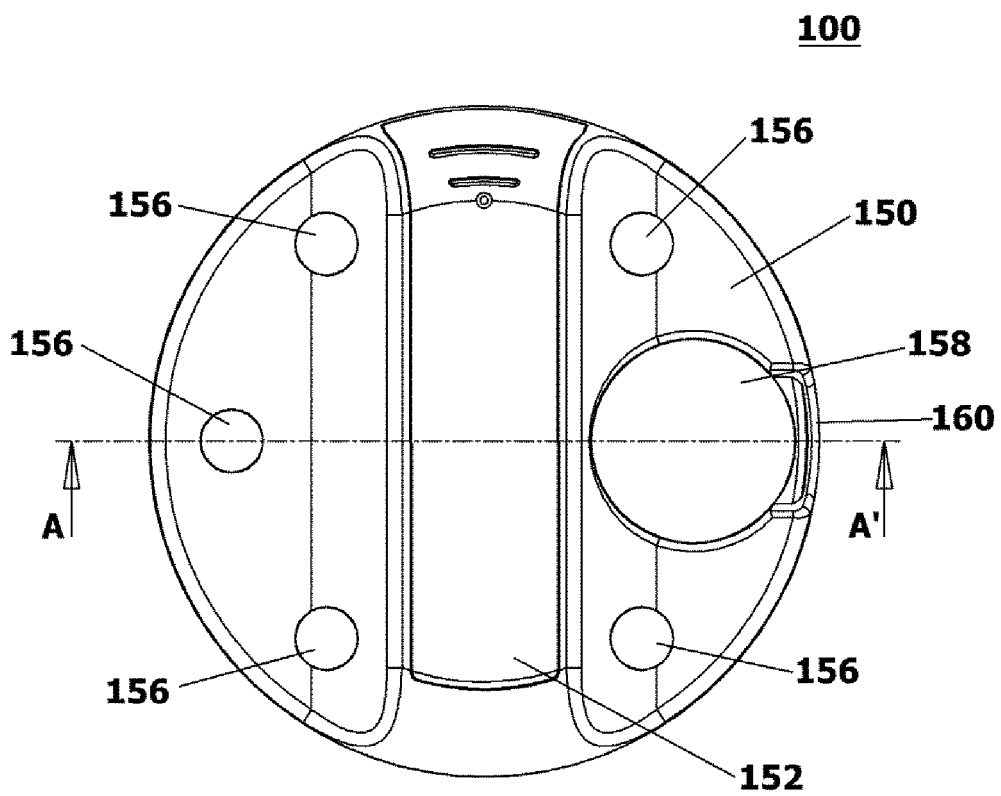


FIG 2

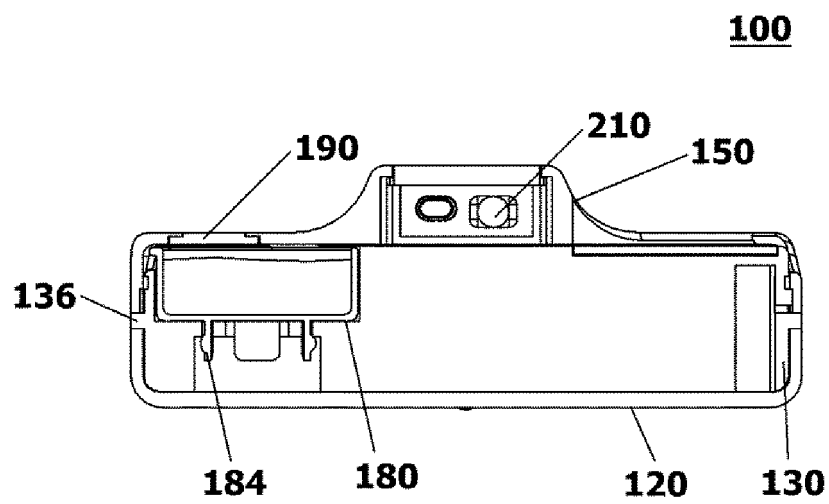


FIG 3

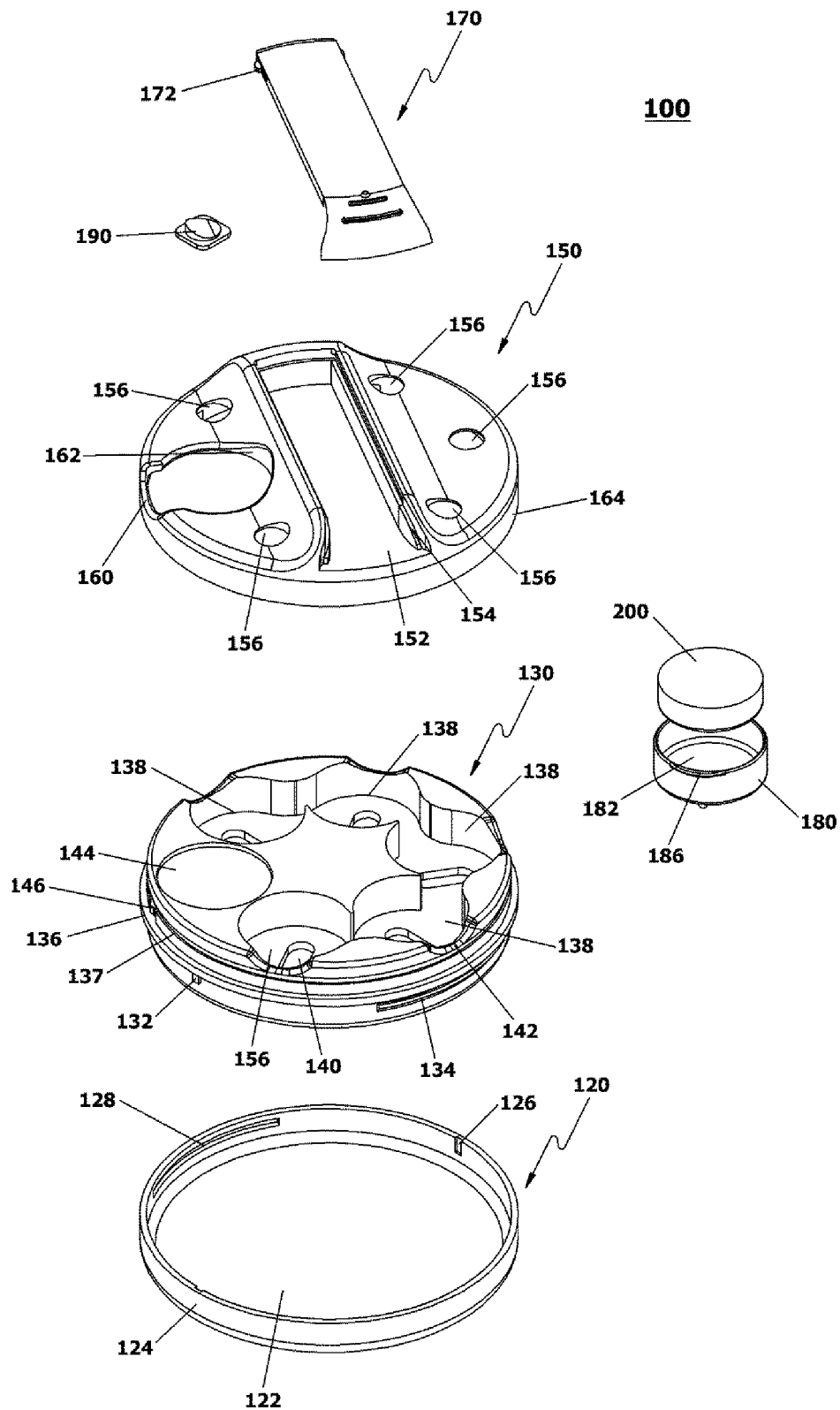


FIG 4

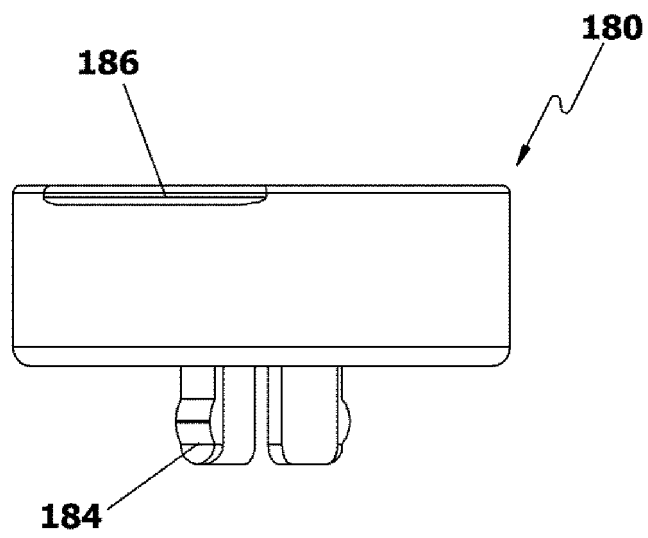


FIG 5

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2012/002027

A. CLASSIFICATION OF SUBJECT MATTER

A45D 33/00(2006.01)i, A45D 33/16(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 33/00; B65D 83/06; A45D 33/16

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: cosmetic container, rotation

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	KR 20-0442207 Y1 (AMOREPACIFIC CORPORATION) 20 October 2008 See claim 3 and figure 1.	1 2-6
A	KR 10-2003-0070801 A (CHUNG, Hee Chae) 02 September 2003 See claim 1 and figure 1.	1-6

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

* Special categories of cited documents:

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"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

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Date of the actual completion of the international search

20 NOVEMBER 2012 (20.11.2012)

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23 NOVEMBER 2012 (23.11.2012)

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INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2012/002027

Patent document cited in search report	Publication date	Patent family member	Publication date
KR 20-0442207 Y1	20.10.2008	NONE	
KR 10-2003-0070801 A	02.09.2003	AU 2003-208636 A1	09.09.2003
		KR 10-2004-0075393 A	30.08.2004
		WO 03-072458 A1	04.09.2003

Form PCT/ISA/210 (patent family annex) (July 2009)