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Inventors:
 - KIM, Junyoung
17074 Yongin-si, Gyeonggi-do (KR)
 - SON, Bobae
17074 Yongin-si, Gyeonggi-do (KR)
- (74)

Representative: Viering, Jentschura & Partner
mbB
Patent- und Rechtsanwälte
Am Brauhaus 8
01099 Dresden (DE)
- (30)

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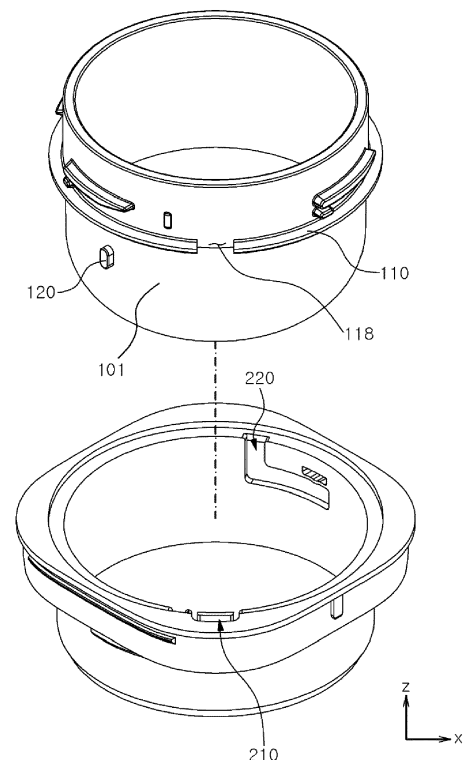
Applicant: Amorepacific Corporation
Seoul 04386 (KR)

(54)

REFILLABLE COSMETIC CONTAINER

(57) This disclosure relates to a refillable cosmetic container. According to an aspect of the disclosure, a refillable cosmetic container can be provided, which includes a refill container configured to store a content, and a container body selectively coupled with the refill container, wherein in the refill container, a fixing groove is formed, and wherein in the container body, an elastic part is formed, which is provided to be elastically deformable by an external force applied by the refill container, and which is configured to be fixed in the fixing groove via the relative rotation between the refill container and the container body.

[FIG. 3]



Description

TECHNICAL FIELD

[0001] This disclosure relates to a refillable cosmetic container.

BACKGROUND

[0002] In general, a cosmetic material (lotion, cream, essence, or the like) is stored in a cosmetic container, and a user can use the cosmetic material contained in the cosmetic container.

[0003] This cosmetic container is usually discarded after the cosmetic material has been used, which may in turn aggravate the problem of environmental pollution because the discarded cosmetic containers increase the amount of environmental pollutants. Additionally, since such a cosmetic container needs to be also manufactured whenever a new cosmetic material is produced, there is a problem in that the production cost of the cosmetic is increased.

[0004] In order to alleviate these drawbacks, a cosmetic container that separately provides a container body and a refill container capable of refilling a cosmetic has been proposed.

[0005] However, such a conventional refillable cosmetic container has a structure with which a user cannot easily detach or couple the refill container from or with the container body, and so this proposal is problematic in that it is difficult for the user to manipulate the refill container and the container body (to separate the refill container from the container body or to fix the refill container to the container body).

[Document of Related Art]

[Patent Document]

[0006] Patent Document 1: Korean Patent No. KR 10-1934058 B1 (Registered on December 24, 2018)

SUMMARY

[0007] The exemplary embodiments of the disclosure, which have been conceived to address above-described problems, are to provide a refillable cosmetic container with which a user can securely fix a refill container to a container body during use and can easily separate the refill container from the container body when replacing the refill container with new one.

[0008] In addition, they are to provide a cosmetic container capable of avoid aggravating the problem of environmental pollution.

[0009] According to an aspect of the present invention, there is provided a refillable cosmetic container comprising: a refill container configured to store a content; and a container body selectively coupled with the refill con-

tainer, wherein in the refill container, a fixing groove is formed, and wherein in the container body, an elastic part is formed, which is provided to be elastically deformable by an external force applied by the refill container, and which is configured to be fixed in the fixing groove via the relative rotation between the refill container and the container body.

[0010] Further, there is provided a refillable cosmetic container, wherein on the outer side of the refill container, at least one rotation protrusion is formed, and wherein in the inner side of the container body, a guide groove is formed, which is configured to guide the movement of the rotation protrusion.

[0011] Further, there is provided a refillable cosmetic container, wherein when the rotation protrusion descends along a first guide groove extending in a vertical direction, the elastic part is elastically deformed outward in a radial direction by a wing part protruding from the container body, wherein when the rotation protrusion moves along a second guide groove extending in a circumferential direction, the elastic part remains in the elastically deformed state by the wing part, and wherein when the rotation protrusion reaches an end point located at the end of the second guide groove, the elastic part is released from the elastically deformed state, and is inserted into the fixing groove.

[0012] Further, there is provided a refillable cosmetic container, wherein in the refill container, a wing part is formed, which is configured to be seated on the container body, wherein the wing part is formed along the circumference of the refill container, and is provided with a non-continuous portion, and wherein the fixing groove is formed by the non-continuous portion of the wing part.

[0013] Further, there is provided a refillable cosmetic container, wherein the guide groove includes: a first guide groove extending in a vertical direction and provided with an inlet through which the rotation protrusion is introduced; and a second guide groove connected to the first guide groove and extending in a circumferential direction, and wherein in one side of the second guide groove, an elastic protrusion is provided, which is configured to fix the rotation protrusion.

[0014] Further, there is provided a refillable cosmetic container, wherein in the inner side of the container body, a deformation groove is formed, which is located at a predetermined distance from the second guide groove and allows elastic deformation of the elastic protrusion.

[0015] Further, there is provided a refillable cosmetic container, wherein the refill container includes: a refill container body forming a content storage space configured to store the content; and a wing part protruding outward along the circumference of the refill container body.

[0016] Further, there is provided a refillable cosmetic container, wherein the container body includes: a first inner surface configured to be in contact with the refill container body; and a second inner surface which has a diameter greater than that of the first inner surface and is configured to surround the wing part.

[0017] Further, there is provided a refillable cosmetic container, wherein the elastic part includes: a tension lever which extends from the first inner surface of the container body configured to be in contact with the refill container, and which is configured to be elastically deformed in a radial direction; and a locking lever which extends from the tension lever and is configured to be caught in the fixing groove.

[0018] Further, there is provided a refillable cosmetic container, wherein the locking lever includes a third inner surface protruding inward further than a second inner surface configured to surround a wing part of the refill container.

[0019] Further, there is provided a refillable cosmetic container, wherein in the container body, a cutout portion is formed along the periphery of the elastic part to allow elastic deformation of the elastic part.

[0020] Further, there is provided a refillable cosmetic container, wherein a first angle formed by the rotation protrusion and the fixing groove is greater than a second angle formed by the elastic part and a first guide groove.

[0021] Further, there is provided a refillable cosmetic container, wherein the wing part includes: a lower side surface forming the lower side of the wing part; an upper side surface forming the upper side of the wing part; a first support surface extending downward from the upper side surface; and a first inclined surface extending slantingly from the first support surface to the lower side surface.

[0022] According to another aspect of the present invention, there is provided a refillable cosmetic container comprising: a refill container configured to store a content; and a container body selectively coupled with the refill container, wherein on the outer side of the refill container, at least one rotation protrusion is formed, and wherein in the inner side of the container body, a guide groove is formed, to which the rotation protrusion is movably coupled.

[0023] Further, there is provided a refillable cosmetic container, wherein the guide groove includes: a first guide groove extending in a vertical direction; and a second guide groove connected to the first guide groove and extending in a circumferential direction, and wherein on one side of the upper or lower portion of the second guide groove, an elastic protrusion is provided, which is elastically deformable by the rotation protrusion and prevents the rotation of the rotation protrusion.

[0024] Further, there is provided a refillable cosmetic container, wherein on the upper or lower side of the elastic protrusion a deformation groove is formed, which allows the elastic deformation of the elastic protrusion.

[0025] Further, there is provided a refillable cosmetic container, wherein on the upper or lower side of the elastic protrusion, a deformation surface is formed, which forms one side of the deformation groove, and wherein the deformation surface is provided to be elastically deformable by receiving a force from the elastic protrusion.

[0026] Further, there is provided a refillable cosmetic

container, wherein on one side of the elastic protrusion, a slit is formed, which allows the deformation of the elastic protrusion.

[0027] Further, there is provided a refillable cosmetic container, wherein the slit is provided as a space connecting the deformation groove and the second guide groove.

[0028] Further, there is provided a refillable cosmetic container, wherein the slit is provided as a space connecting the deformation groove and the first guide groove.

[0029] The refillable cosmetic container according to an embodiment of the present disclosure advantageously enables a user to securely fix a refill container to a container body during use and to easily separate the refill container from the container body when replacing the refill container with new one.

[0030] Additionally, it can avoid aggravating the problem of environmental pollution.

BRIEF DESCRIPTION OF DRAWINGS

[0031]

FIG. 1 shows a schematic perspective view of a refillable cosmetic container 1 according to an embodiment of the present disclosure;

FIG. 2 shows a perspective view showing a state in which a refill container 10 and a container body 20 are combined to each other while removing an upper case 100 and a lower case 200 from the refillable cosmetic container 1 of FIG. 1.

FIG. 3 shows an exploded perspective view of the refill container 10 and the container body 20 of FIG. 2; FIG. 4 shows a perspective view of the refill container 10 of FIG. 2;

FIG. 5 shows a bottom view of the refill container 10 of FIG. 4;

FIG. 6 shows a cross-sectional view of a portion of the refill container 10 of FIG. 4 where a wing part 110 is formed;

FIG. 7 shows a perspective view of the container body 20 of FIG. 2;

FIG. 8 shows a top view of the container body 20 of FIG. 7;

FIG. 9 shows an enlarged view of an elastic part 210 and a guide groove 220 of the container body 20 of FIG. 7;

FIG. 10 shows a schematic cross-sectional view of the elastic part 210 of FIG. 7 (taken along the line A-A' of FIG. 7);

FIGS. 11 to 14 are views showing a process in which the refill container 10 and the container body 20 are coupled to each other;

FIG. 15 is a view showing a refillable cosmetic container 1' according to another embodiment of the present disclosure;

FIG. 16 is a view showing a refill container 10' and

a container body 20' disposed inside the refillable cosmetic container 1' of FIG. 15;

FIG. 17 is an enlarged view of a guide groove 220' and a deformation groove 250' formed in the container body 20' of FIG. 16;

FIG. 18 is a view showing a guide groove 220" and a deformation groove 250" of a refillable cosmetic container according to still another embodiment of the present disclosure; and

FIG. 19 is a view showing a guide groove 220''' and a deformation groove 250''' of a refillable cosmetic container according to yet still another embodiment of the present disclosure.

DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS

[0032] Hereinafter, specific exemplary embodiments of the present disclosure will be described in detail with reference to the accompanying drawings. Additionally, it is noted that in the description of the disclosure, the detailed description for known related configurations or functions may be omitted when it is deemed that such description may obscure essential points of the disclosure.

[0033] FIG. 1 shows a schematic perspective view of a refillable cosmetic container 1 according to an embodiment of the present disclosure, FIG. 2 shows a perspective view showing a state in which a refill container 10 and a container body 20 are combined to each other while removing an upper case 100 and a lower case 200 from the refillable cosmetic container 1 of FIG. 1, FIG. 3 shows an exploded perspective view of the refill container 10 and the container body 20 of FIG. 2, FIG. 4 shows a perspective view of the refill container 10 of FIG. 2, FIG. 5 shows a bottom view of the refill container 10 of FIG. 4, FIG. 6 shows a cross-sectional view of a portion of the refill container 10 of FIG. 4 where a wing part 110 is formed, FIG. 7 shows a perspective view of the container body 20 of FIG. 2, FIG. 8 shows a top view of the container body 20 of FIG. 7, FIG. 9 shows an enlarged view of an elastic part 210 and a guide groove 220 of the container body 20 of FIG. 7, and FIG. 10 shows a schematic cross-sectional view of the elastic part 210 of FIG. 7 (taken along the line A-A' of FIG. 7).

[0034] Referring to FIGS. 1 to 10, the refillable cosmetic container 1 according to an embodiment of the present disclosure may include the refill container 10 for storing a content, and the container body 20 selectively coupled with the refill container 10.

[0035] Herein, examples of the content may include all known cosmetic materials such as cream, lotion, and the like. However, there is no restriction on the kind of the content.

[0036] The refillable cosmetic container 1 of this embodiment may include the lower case 200 for surrounding the container body 20, and the upper case 100 for surrounding the refill container 10. In this case, the lower

case 200 and the upper case 100 form the outer appearance of the cosmetic container 1. The lower case 200 may be integrally formed with the container body 20, and the upper case 100 serves as a cover for the refill container 10.

[0037] Examples of the upper case 100 and the lower case 200 may include all known cases, and so a detailed description thereof will be omitted.

[0038] In the container body 20, the elastic part 210 may be formed, which is provided to be elastically deformable by an external force applied by the wing part 110 of the refill container 10, and which can be fixed in a fixing groove 118 via the relative rotation between the refill container 10 and the container body 20.

[0039] In the process of coupling the refill container 10 and the container body 20, the wing part 110 can elastically deform the elastic part 210, and in a state where the refill container 10 and the container body 20 have been coupled to each other, the elastic part 210 can be coupled to the fixing groove 118 formed in the wing part 110.

[0040] When the elastic part 210 is coupled to the fixing groove 118, a rotation protrusion 120 formed in the refill container 10 can be fixed to a guide groove 220 formed in the container body 20, and the elastic part 210 of the container body 20 can prevent the rotation of the wing part 110 of the refill container 10. Accordingly, the separation of the refill container 10 and the container body 20 can be prevented. A detailed description of this will be provided below.

[0041] The refill container 10 may include the wing part 110 which can be seated in the container body 20, and the rotation protrusion 120 for being coupled to the guide groove 220 formed in the container body 20.

[0042] In this embodiment, there may be a plurality of rotation protrusions 120. This embodiment will be described, for example, under the condition that there are two rotation protrusions 120. However, there is no restriction on the number of rotation protrusions 120.

[0043] Specifically, the refill container 10 may include a refill container body 101 forming a content storage space S1 capable of storing a content, and the wing part 110 protruding outward along the circumference of the refill container body 101.

[0044] The content storage space S1 may be formed inside the refill container body 101, and the wing part 110 and the rotation protrusions 120 may be formed on the outer side of the refill container body 101.

[0045] On the upper side of the refill container body 101, a coupling protrusion 102 may be provided, which can be coupled to the upper case 100. The coupling protrusion 102 may be formed as a screw thread.

[0046] The wing part 110 may be disposed above the rotation protrusion 120.

[0047] The lower part of the refill container body 101 based on the wing part 110 may be inserted into the container body 20, and the upper part of the refill container body 101 may be coupled with the upper case 100.

[0048] In the wing part 110, the fixing groove 118 may be formed, which is to be coupled to the elastic part 210.

[0049] Specifically, the wing part 110 may be formed along the circumference of the refill container body 101, but may be provided with a non-continuous portion formed therein, which can in turn constitute the fixing groove 118.

[0050] That is, the fixing groove 118 may be understood as a configuration defined by the non-continuous portion of the wing part 110.

[0051] The wing part 110 may include a lower side surface 121A forming the lower side of the wing part 110, an upper side surface 121B forming the upper side of the wing part 110, a first support surface 113 extending downward from the upper side surface 121B, and a first inclined surface 112 extending slantingly from the first support surface 113 to the lower side surface 121A (see FIG. 6).

[0052] As the wing part 110 descends, the first inclined surface 112 formed slantingly can press a second inclined surface 213B formed on a locking lever 213 of the elastic part 210 to deform the elastic part 210 outwardly in the radial direction (x-axis).

[0053] The lower side surface 121A can be supported by a seating surface 242 of the container body 20.

[0054] The first support surface 113 may be supported by the second inner surface 243 of the container body 20.

[0055] The rotation protrusion 120 may be formed to protrude from the refill container body 101.

[0056] There may be a plurality of rotation protrusions 120. This embodiment will be described, for example, under the condition that there are two rotation protrusions 120.

[0057] Based on the center of the refill container 10, the two rotation protrusions 120 may be disposed at opposite locations to each other (see FIG. 5).

[0058] The two rotation protrusions 120 may be provided in different sizes, and the guide grooves 220 for being coupled with them respectively may also be provided in different sizes.

[0059] One of the rotation protrusions 120 and the fixing groove 118 may be arranged to have a first angle $\theta 1$ therebetween (see FIG. 5).

[0060] Also, as will be described later, the elastic part 210 and the first guide groove 222 may be arranged to have a second angle $\theta 2$ therebetween (see FIG. 8).

[0061] In this case, the first angle $\theta 1$ may be formed to be greater than the second angle $\theta 2$.

[0062] In this regard, the first angle $\theta 1$ can be understood as an angle formed by a virtual straight line formed by connecting the center O1 of the refill container 10 and the rotation protrusion 120 and another virtual straight line formed by connecting the center O1 of the refill container 10 and the fixing groove 118 (see FIG. 5).

[0063] The one of the rotation protrusions 120, which is used to define the first angle $\theta 1$, may be understood as one of the rotation protrusions 120 disposed closer to the fixing groove 118 than the other one of the rotation

protrusions 120.

[0064] Additionally, the second angle $\theta 2$ can be understood as an angle formed by a virtual straight line formed by connecting the center O2 of the container body 20 and the elastic part 210 and another virtual straight line formed by connecting the center O1 of the container body 20 and a first guide groove 222 (see FIG. 8).

[0065] In other words, the distance between the rotation protrusion 120 and the fixing groove 118 may be formed to be greater than the distance between the elastic part 210 and the first guide groove 222.

[0066] With such configuration, when the rotation protrusion 120 moves along the first guide groove 222, the elastic part 210 can be elastically deformed by the wing part 110, and when the rotation protrusion 120 arrives at an end point 225 formed in a second guide groove 224, the elastic part 210 can be fixed to the fixing groove 118.

[0067] In the container body 20, the elastic part 210 and the guide groove 220 may be formed.

[0068] The present embodiment will be described, for example, under the condition that there are formed one elastic part 210 and two guide grooves 220.

[0069] However, the technical idea of the present disclosure is not limited to this configuration, but there may be a plurality of elastic parts 210, and there may be a plurality of corresponding fixing grooves 118.

[0070] The container body 20 includes a first inner surface 241 for being in contact with the refilling container body 101, the seating surface 242 extending from the first inner surface 241 to support the wing part 110, and the second inner surface 243 extending from the seating surface 242 to surround the wing part 110 (see FIGS. 7 and 9).

[0071] Additionally, the container body 20 includes an outer surface 245 for being coupled to the lower case 200.

[0072] On the inner side of the container body 20, the elastic part 210 may be formed so that the elastic part 210 can be coupled to the fixing groove 118 formed in the wing part 110 of the refill container 10.

[0073] One side of the elastic part 210 may be connected to the first inner surface 241 of the container body 20, and the other side thereof may form a free end.

[0074] Specifically, the elastic part 210 includes a tension lever 211 which extends from the first inner surface 241 of the container body 20 configured to be in contact with the refill container 10, and which is configured to be elastically deformed in a radial direction, and the locking lever 213 which extends from the tension lever 211 and is configured to be caught in the fixing groove 118.

[0075] Here, the radial direction may be understood as a direction away from the center O2 of the container body 20.

[0076] In addition, a cutout portion 230 is formed in the container body 20 along the periphery of the elastic part 210 to allow elastic deformation of the elastic part 210. Specifically, on opposite sides of the tension lever 211, a pair of first cutout portions 232 are formed, which allow elastic deformation of the tension lever 211.

[0077] At the rear side of the locking lever 213, a second cutout portion 234 is formed, which allows the movement of the locking lever 213.

[0078] In this connection, the rear side may be understood as indicating a radially outward direction with respect to the locking lever 213.

[0079] Also, the first cutout portions 232 and the second cutout portion 234 may be understood as empty spaces.

[0080] The tension lever 211 may be formed by the pair of first cutout portions 232 formed as empty spaces in the first inner surface 241 of the container body 20.

[0081] The one end of the tension lever 211 is connected to the first inner surface 241 of the container body 20, and the other end of the tension lever 211 is connected to the locking lever 213.

[0082] The tension lever 211 can be elastically deformed outward in the radial direction by an external force (force applied by the wing part 110 or force applied by a user).

[0083] The tension lever 211 may include an inner surface 211A of the tension lever forming the same surface as the first inner surface 241 of the container body 20, and an upper surface 211B of the tension lever bent at an angle (e.g., 80 to 110 degrees, preferably 90 degrees) from the inner surface 211A of the tension lever (see FIG. 10).

[0084] Here, the first inner surface 241 of the container body 20 and the inner surface 211A of the tension lever may be located at the same distance from the center O2 of the container body 20 in the radial direction.

[0085] Based on the gravity direction (Z-axis direction), the upper surface 211B of the tension lever may be formed to be lower than the seating surface 242 of the container body 20.

[0086] Accordingly, the elastic part 210 can be moved by an external force without interference between the wing part 110 of the container body 20 and the upper surface 211B of the tension lever of the elastic part 210.

[0087] The locking lever 213 includes a third inner surface 213A protruding inward further than the second inner surface 243 of the container body 20 surrounding the wing part 110 of the refill container 10 (see FIG. 10).

[0088] In addition, the locking lever 213 may include the second inclined surface 213B extending from the third inner surface 213A and receiving a force from the first inclined surface 112 of the wing part 110. Here, the first inclined surface 112 and the second inclined surface 213B may be formed to have the same angle so as to contact each other.

[0089] Additionally, in the inner side of the container body 20, the plurality of guide grooves 220 may be formed.

[0090] The pair of guide grooves 220 may be disposed to face each other, and the elastic part 210 may be disposed closer to one of the pair of guide grooves 220.

[0091] The pair of guide grooves 220 are formed in the same shape. However, the sizes of the guide grooves

220 may be determined depending on the sizes of the pair of rotation protrusions 120.

[0092] Each of the guide grooves 220 includes the first guide groove 222 extending in the vertical direction and provided with an inlet 221 through which the rotation protrusion 120 is introduced, and the second guide groove 224 connected to the first guide groove 222 and extending in the circumferential direction (see FIG. 9).

[0093] In one side of the second guide groove 224, an elastic protrusion 226 is provided, which is configured to fix the rotation protrusion 120.

[0094] The first guide groove 222 and the second guide groove 224 are formed to have an angle of 90 degrees therebetween.

[0095] The elastic protrusion 226 may be formed on the upper or lower side of the second guide groove 224. In this embodiment, the elastic protrusion 226 is described by way of example as being formed on the upper side of the second guide groove 224.

[0096] The distance between the rotation protrusion 120 and the fixing groove 118 in the circumferential direction is equal to the distance between the elastic part 210 and the end point 225 in the circumferential direction.

[0097] Further, a deformation groove 250 may be formed in the inner side of the container body 20 at a predetermined distance from the first guide groove 222, and allow the elastic deformation of the elastic protrusion 226.

[0098] The deformation groove 250 may be formed parallel to the second guide groove 224, and may be understood as a space whose portion corresponding to the elastic protrusion 226 protrudes toward the second guide groove 224.

[0099] The deformation groove 250 is a space formed by a first surface 251, a second surface 252, a third surface 253, and a deformation surface 254.

[0100] The first surface 251 is formed parallel to the second guide groove 224, and the deformation surface 254 is formed parallel to the elastic protrusion 226. The second surface 252 and the third surface 253 are side surfaces connecting the first surface 251 and the deformation surface 254, respectively.

[0101] The deformation surface 254 may be provided to be elastically deformable by receiving a force from the elastic protrusion 226.

[0102] FIGS. 11 to 14 are views showing a process in which the refill container 10 and the container body 20 are coupled to each other.

[0103] Hereinafter, a coupling process between the refill container 10 and the container body 20 will be described with reference to FIGS. 11 to 14.

[0104] A method of operating a refillable cosmetic container according to an embodiment of the present disclosure may include descending the rotation protrusion 120 formed on the refill container 10 toward the first guide groove 222 formed on the container body 20 (step S1, see FIG. 11), moving the elastic part 210 formed in the container body 20 in the radial direction by a force applied

from the wing part 110 formed on the refill container 10 (step S2, see FIG. 12), moving the rotation protrusion 120 formed on the refill container 10 along the second guide groove 224 formed on the container body 20 (Step S3), and moving the rotation protrusion 120 formed on the refill container 10 to the end point 225 of the second guide groove 224, and fixing the elastic part 210 formed on the container body 20 to the fixing groove 118 formed in the refill container 10 (step S4).

[0105] In step S1, a user may adjust the relative positional relationship between the refill container 10 and the container body 20 so that the rotation protrusion 120 can be inserted into the first guide groove 222.

[0106] In step S2, when the rotation protrusion 120 descends along the first guide groove 222 extending in the vertical direction, the elastic part 210 can be elastically deformed outward in the radial direction by the wing part 110.

[0107] In step S3, during the movement of the rotation protrusion 120 along the second guide groove 224 extending in the circumferential direction, the elastic part 210 remains elastically deformed by the wing part 110 outward in the radial direction.

[0108] In step S4, when the rotation protrusion 120 reaches the end point 225 located at the end of the second guide groove 224, the elastic part 210 can be released from the elastically deformed state, and be inserted into the guide groove 220.

[0109] The release process of the refill container 10 and the container body 20 can be understood as the reverse order of the above-described process.

[0110] That is, when the user pulls the locking lever 213 outward in the radial direction and then rotates the refill container 10 relative to the container body 20, the locking lever 213 can be maintained in an elastically deformed state by the wing part 110. At this time, the rotation protrusion 120 may move along the second guide groove 224.

[0111] After that, the rotation protrusion 120 is moved along the first guide groove 222 by raising the refill container 10 with respect to the container body 20, and thus the refill container 10 and the container body 20 can be released from each other.

[0112] FIG. 15 is a view showing a refillable cosmetic container 1' according to another embodiment of the present disclosure.

[0113] FIG. 16 is a view showing a refill container 10' and a container body 20' disposed inside the refillable cosmetic container 1' of FIG. 15.

[0114] FIG. 17 is an enlarged view of a guide groove 220' and a deformation groove 250' formed in the container body 20' of FIG. 16.

[0115] The refillable cosmetic container 1' shown in FIGS. 15 to 17 is different from the refillable cosmetic container 1 described above with reference to FIGS. 1 to 14 in that it is devoid of the elastic part 210 and the fixing groove 118 of the refillable cosmetic container 1.

[0116] Therefore, it should be noted that descriptions

on the same configurations will be quoted from those provided above with reference to FIGS. 1 to 14.

[0117] Referring to FIGS. 14 to 17, the refillable cosmetic container 1' according to another embodiment of the present disclosure includes the refill container 10' configured to store a content; and the container body 20' selectively coupled with the refill container 10, and a rotation protrusion 120' is formed on the outside of the refill container 10', and a guide groove 220' is formed on the inside of the container body 20', wherein the rotation protrusion 120' can be coupled to and moved along the guide groove 220'.

[0118] As in the embodiment described above in FIGS. 1 to 14, the guide groove 220' includes a first guide groove 222' extending in the vertical direction, and a second guide groove 224' connected to the first guide groove 222' and extending in the circumferential direction.

[0119] Here, an elastic protrusion 226' is provided on one side of the upper or lower portion of the second guide groove 224' to be elastically deformed by the rotation protrusion 120' and prevent the rotation of the rotation protrusion 120'.

[0120] In addition, on the upper or lower side of the elastic protrusion 226', a deformation groove 250' is formed, which allows the elastic deformation of the elastic protrusion 226'.

[0121] The deformation groove 250' is formed by a first surface 251', a second surface 252', a third surface 253', and a deformation surface 254', and the description of this is replaced by the description of the embodiment shown in FIGS. 1 to 14.

[0122] FIG. 18 is a view showing a guide groove 220" and a deformation groove 250" of a refillable cosmetic container according to still another embodiment of the present disclosure.

[0123] The embodiment of FIG. 18 differs from the refillable cosmetic container 1' according to an embodiment described in FIGS. 15 to 17 mainly in that a slit 258 is formed in one side of an elastic protrusion 226", and thus the differences therebetween will be mainly described hereinafter, while descriptions and reference numerals of the above-described embodiments will replace those of the same parts.

[0124] Referring to FIG. 18, according to still another embodiment of the present disclosure, the slit 258 allowing the deformation of the elastic protrusion 226" may be formed in one side of the elastic protrusion 226".

[0125] The slit 258 may be provided as a space connecting the deformation groove 250" and a second guide groove 224".

[0126] Since the slit 258 is provided, the amount of elastic deformation of the elastic protrusion 226" can be increased, and the rotation protrusion can easily reach an end point 225" after passing past the elastic protrusion 226".

[0127] FIG. 19 is a view showing a guide groove 220''' and a deformation groove 250''' of a refillable cosmetic container according to yet still another embodiment of

the present disclosure.

[0128] FIG. 19 conceptually shows the locations where the guide groove 220''' and the deformation groove 250''' are formed.

[0129] The embodiment of FIG. 19 differs from the embodiment shown in FIG. 18 mainly in terms of the locations where the deformation groove 250''' and the slit 258' are formed, and thus the differences therebetween will be mainly described hereinafter, while descriptions and reference numerals of the above-described embodiments will replace those of the same parts.

[0130] Referring to FIG. 19, according to still another embodiment of the present disclosure, the slit 258' allowing the deformation of the elastic protrusion 226''' may be formed, and the slit 258' may be provided as a space connecting the first guide grooves 222''' and the deformation groove 250'''.

[0131] The following is a list of the above-described embodiments.

[0132] Item 1 may provide a refillable cosmetic container including: a refill container configured to store a content, and a container body selectively coupled with the refill container, wherein in the refill container, a fixing groove is formed, and wherein in the container body, an elastic part is formed, which is provided to be elastically deformable by an external force applied by the refill container, and which is configured to be fixed in the fixing groove via the relative rotation between the refill container and the container body.

[0133] Item 2 may provide the refillable cosmetic container of Item 1, wherein on the outer side of the refill container, at least one rotation protrusion is formed, and wherein in the inner side of the container body, a guide groove is formed, which is configured to guide the movement of the rotation protrusion.

[0134] Item 3 may provide the refillable cosmetic container of Item 1 or 2, wherein when the rotation protrusion descends along a first guide groove extending in a vertical direction, the elastic part is elastically deformed outward in a radial direction by a wing part protruding from the container body, wherein when the rotation protrusion moves along a second guide groove extending in a circumferential direction, the elastic part remains in the elastically deformed state by the wing part, and wherein when the rotation protrusion reaches an end point located at the end of the second guide groove, the elastic part is released from the elastically deformed state, and is inserted into the fixing groove.

[0135] Item 4 may provide the refillable cosmetic container of any one of Items 1 to 3, wherein in the refill container, a wing part is formed, which is configured to be seated on the container body, wherein the wing part is formed along the circumference of the refill container 10, and is provided with a non-continuous portion, and wherein the fixing groove is formed by the non-continuous portion of the wing part.

[0136] Item 5 may provide the refillable cosmetic container of any one of Items 1 to 4, wherein the guide groove

includes: a first guide groove extending in a vertical direction and provided with an inlet through which the rotation protrusion is introduced; and a second guide groove connected to the first guide groove and extending in a circumferential direction, and wherein in one side of the second guide groove, an elastic protrusion is provided, which is configured to fix the rotation protrusion.

[0137] Item 6 may provide the refillable cosmetic container of any one of Items 1 to 5, wherein in the inner side of the container body, a deformation groove is formed, which is located at a predetermined distance from the second guide groove and allows elastic deformation of the elastic protrusion.

[0138] Item 7 may provide the refillable cosmetic container of any one of Items 1 to 6, wherein the refill container includes: a refill container body forming a content storage space configured to store the content; and a wing part protruding outward along the circumference of the refill container body.

[0139] Item 8 may provide the refillable cosmetic container of any one of Items 1 to 7, wherein the container body includes: a first inner surface configured to be in contact with the refill container body; and a second inner surface which has a diameter greater than that of the first inner surface and is configured to surround the wing part.

[0140] Item 9 may provide the refillable cosmetic container of any one of Items 1 to 8, wherein the elastic part includes: a tension lever which extends from the first inner surface of the container body configured to be in contact with the refill container, and which is configured to be elastically deformed in a radial direction; and a locking lever which extends from the tension lever and is configured to be caught in the fixing groove.

[0141] Item 10 may provide the refillable cosmetic container of any one of Items 1 to 9, wherein the locking lever includes a third inner surface protruding inward further than a second inner surface configured to surround a wing part of the refill container.

[0142] Item 11 may provide the refillable cosmetic container of any one of Items 1 to 10, wherein in the container body, a cutout portion is formed along the periphery of the elastic part to allow elastic deformation of the elastic part.

[0143] Item 12 may provide the refillable cosmetic container of any one of Items 1 to 11, wherein a first angle formed by the rotation protrusion and the fixing groove is greater than a second angle formed by the elastic part and a first guide groove.

[0144] Item 13 may provide the refillable cosmetic container of any one of Items 1 to 12, wherein the wing part includes: a lower side surface forming the lower side of the wing part; an upper side surface forming the upper side of the wing part; a first support surface extending downward from the upper side surface; and a first inclined surface extending slantingly from the first support surface to the lower side surface.

[0145] Item 14 may provide the refillable cosmetic container of any one of Items 1 to 13, a refill container con-

figured to store a content, and a container body selectively coupled with the refill container, wherein on the outer side of the refill container, at least one rotation protrusion is formed, and wherein in the inner side of the container body, a guide groove is formed, to which the rotation protrusion is movably coupled.

[0146] Item 15 may provide the refillable cosmetic container of any one of Items 1 to 14, wherein the guide groove includes: a first guide groove extending in a vertical direction; and a second guide groove connected to the first guide groove and extending in a circumferential direction, and wherein on one side of the upper or lower portion of the second guide groove, an elastic protrusion is provided, which is elastically deformable by the rotation protrusion and prevents the rotation of the rotation protrusion.

[0147] Item 16 may provide the refillable cosmetic container of any one of Items 1 to 15, wherein on the upper or lower side of the elastic protrusion, a deformation groove is formed, which allows the elastic deformation of the elastic protrusion.

[0148] Item 17 may provide the refillable cosmetic container of any one of Items 1 to 16, wherein on the upper or lower side of the elastic protrusion, a deformation surface is formed, which forms one side of the deformation groove, and wherein the deformation surface is provided to be elastically deformable by receiving a force from the elastic protrusion.

[0149] Item 18 may provide the refillable cosmetic container of any one of Items 1 to 17, wherein on one side of the elastic protrusion, a slit is formed, which allows the deformation of the elastic protrusion.

[0150] Item 19 may provide the refillable cosmetic container of any one of Items 1 to 18, wherein the slit is provided as a space connecting the deformation groove and the second guide groove.

[0151] Item 20 may provide the refillable cosmetic container of any one of Items 1 to 19, wherein the slit is provided as a space connecting the deformation groove and the first guide groove.

[0152] While until now the refillable cosmetic containers according to examples of the disclosure have been described as concrete embodiments, these are just exemplary embodiments, and the present disclosure should be construed in the broadest scope consistent with the fundamental technical ideas disclosed herein, rather than as being limited to them. By combining or replacing a part or parts of embodiments disclosed herein, a person having ordinary skill in the art may practice an embodiment which is not explicitly described herein, and however, it should be noted that it shall not depart from the scope of the patent right of this disclosure. Besides, a person having ordinary skill in the art may easily change or modify embodiments disclosed herein based on this disclosure, and however, it is obvious that such changes or modifications also fall within the scope of the patent right of this disclosure.

[Reference Sign List]

[0153]

- 5 1, 1': Refillable cosmetic container
10, 10': Refill container
20, 20': Container body

10 Claims

1. A refillable cosmetic container comprising:

- 15 a refill container (10) configured to store a content; and
a container body (20) selectively coupled with the refill container (10),
wherein in the refill container (10), a fixing groove (118) is formed, and
20 wherein in the container body (20), an elastic part (210) is formed, which is provided to be elastically deformable by an external force applied by the refill container (10), and which is configured to be fixed in the fixing groove (118) via the relative rotation between the refill container (10) and the container body (20).

2. The refillable cosmetic container of claim 1, wherein on the outer side of the refill container (10), at least one rotation protrusion (120) is formed, and wherein in the inner side of the container body (20), a guide groove (220) is formed, which is configured to guide the movement of the rotation protrusion (120).

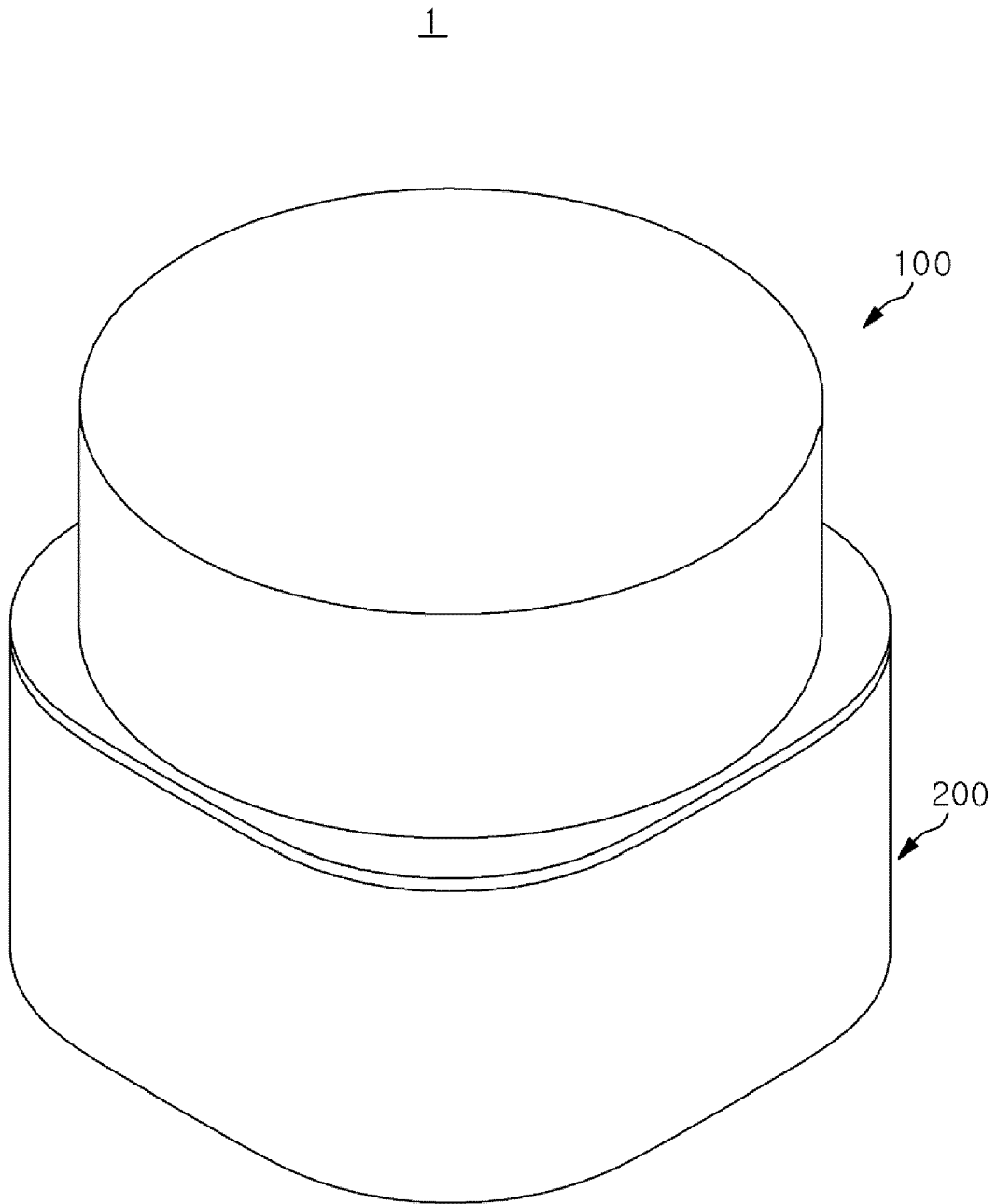
3. The refillable cosmetic container of claim 2, wherein when the rotation protrusion (120) descends along a first guide groove (222) extending in a vertical direction, the elastic part (210) is elastically deformed outward in a radial direction by a wing part (110) protruding from the container body (20),

- 45 wherein when the rotation protrusion (120) moves along a second guide groove (224) extending in a circumferential direction, the elastic part (210) remains in the elastically deformed state by the wing part (110), and
wherein when the rotation protrusion (120) reaches an end point (225) located at the end of the second guide groove (224), the elastic part (210) is released from the elastically deformed state, and is inserted into the fixing groove (118).

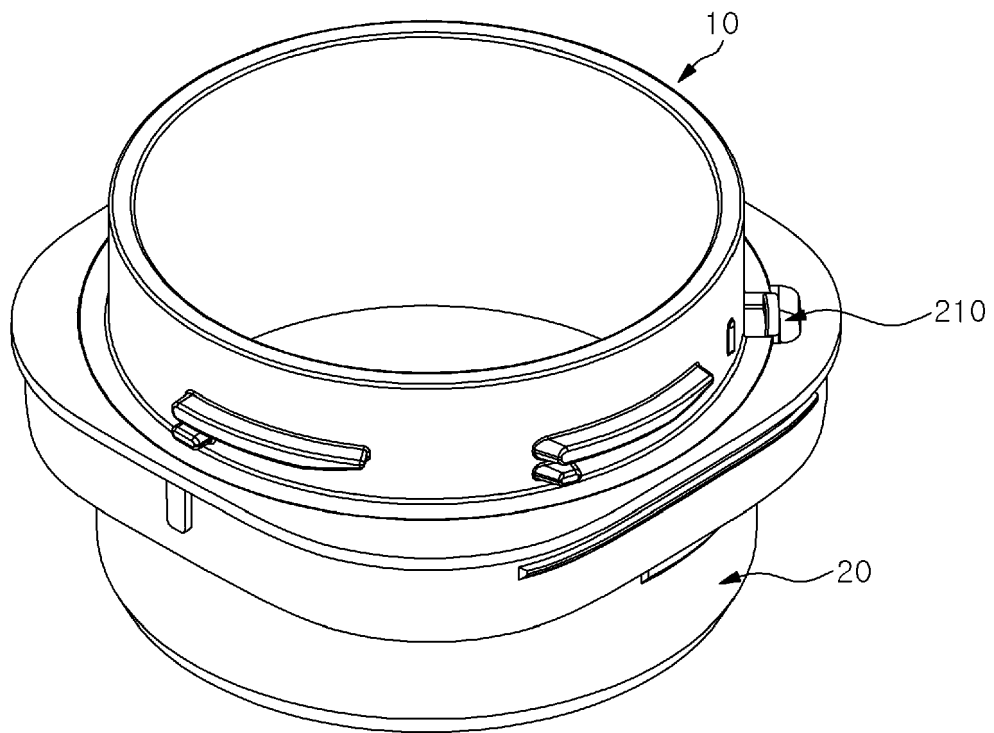
55 4. The refillable cosmetic container of claim 1, wherein in the refill container (10), a wing part (110) is formed, which is configured to be seated on the container body (20),

- wherein the wing part (110) is formed along the circumference of the refill container (10), and is provided with a non-continuous portion, and wherein the fixing groove (118) is formed by the non-continuous portion of the wing part (110). 5
5. The refillable cosmetic container of claim 2, wherein the guide groove (220) includes:
- a first guide groove (222) extending in a vertical direction and provided with an inlet (221) through which the rotation protrusion (120) is introduced; and 10
- a second guide groove (224) connected to the first guide groove (222) and extending in a circumferential direction, and 15
- wherein in one side of the second guide groove (224), an elastic protrusion (226) is provided, which is configured to fix the rotation protrusion (120). 20
6. The refillable cosmetic container of claim 5, wherein in the inner side of the container body (20), a deformation groove (250) is formed, which is located at a predetermined distance from the second guide groove (224) and allows elastic deformation of the elastic protrusion (226). 25
7. The refillable cosmetic container of claim 1, wherein the refill container (10) includes: 30
- a refill container body (101) forming a content storage space configured to store the content; and
- a wing part (110) protruding outward along the circumference of the refill container body (101). 35
8. The refillable cosmetic container of claim 7, wherein the container body (20) includes: 40
- a first inner surface (241) configured to be in contact with the refill container body (101); and
- a second inner surface (243) which has a diameter greater than that of the first inner surface (241) and is configured to surround the wing part (110). 45
9. The refillable cosmetic container of claim 1, wherein the elastic part (210) includes: 50
- a tension lever (211) which extends from the first inner surface (241) of the container body (20) configured to be in contact with the refill container (10), and which is configured to be elastically deformed in a radial direction; and 55
- a locking lever (213) which extends from the tension lever (211) and is configured to be caught in the fixing groove (118).
10. The refillable cosmetic container of claim 9, wherein the locking lever (213) includes a third inner surface (213A) protruding inward further than a second inner surface (243) configured to surround a wing part (110) of the refill container (10).
11. The refillable cosmetic container of claim 1, wherein in the container body (20), a cutout portion (230) is formed along the periphery of the elastic part (210) to allow elastic deformation of the elastic part (210).
12. The refillable cosmetic container of claim 2, wherein a first angle formed by the rotation protrusion (120) and the fixing groove (118) is greater than a second angle formed by the elastic part (210) and a first guide groove (222).
13. The refillable cosmetic container of claim 4, wherein the wing part (110) includes:
- a lower side surface (121A) forming the lower side of the wing part (110);
- an upper side surface (121B) forming the upper side of the wing part (110);
- a first support surface (113) extending downward from the upper side surface (121B); and
- a first inclined surface (112) extending slantingly from the first support surface (113) to the lower side surface (121A).

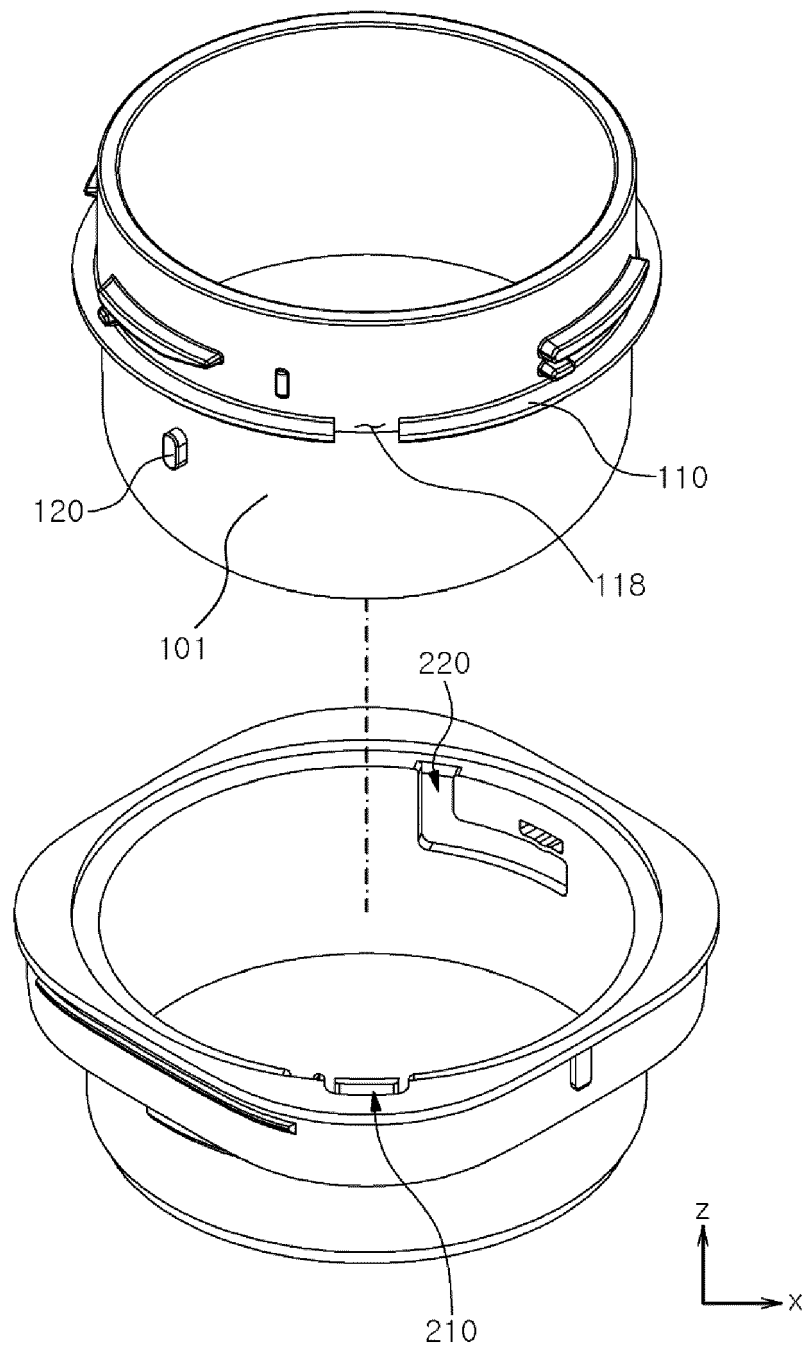
【FIG. 1】



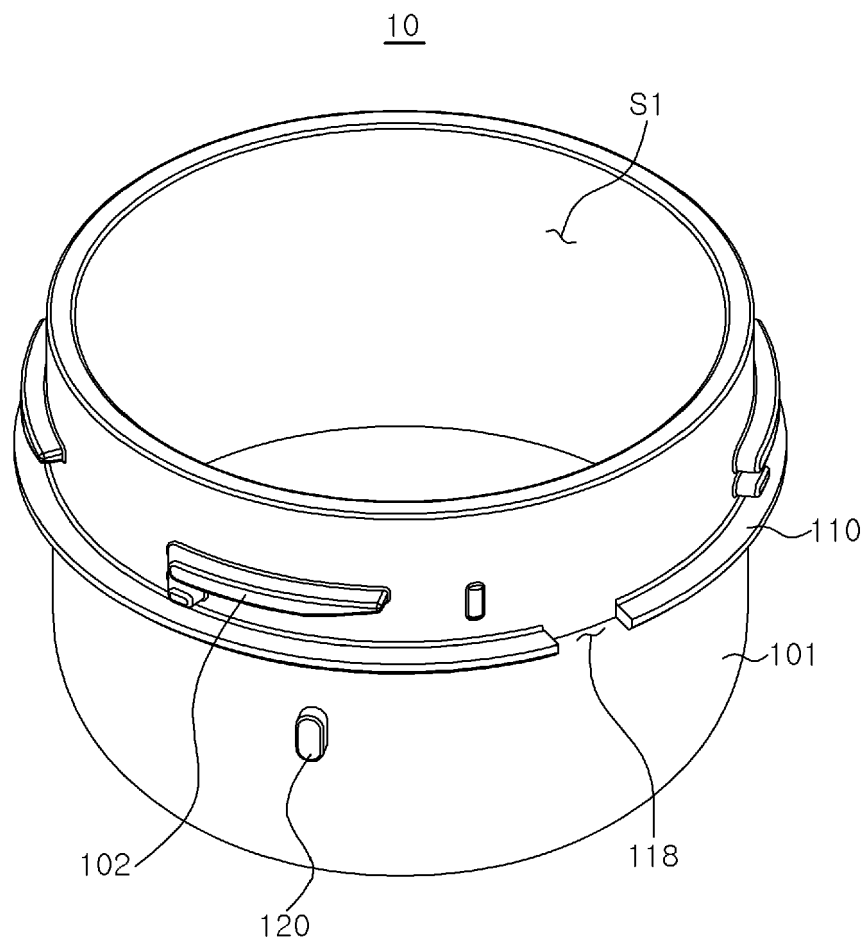
【FIG. 2】



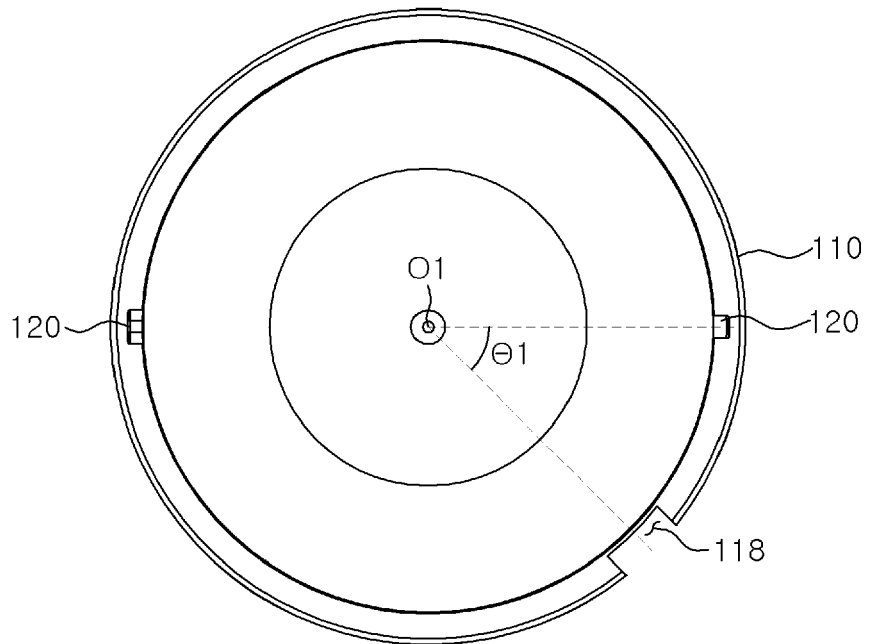
【FIG. 3】



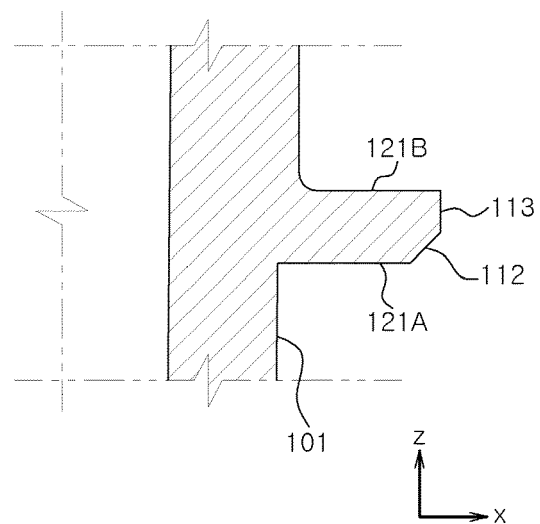
【FIG. 4】



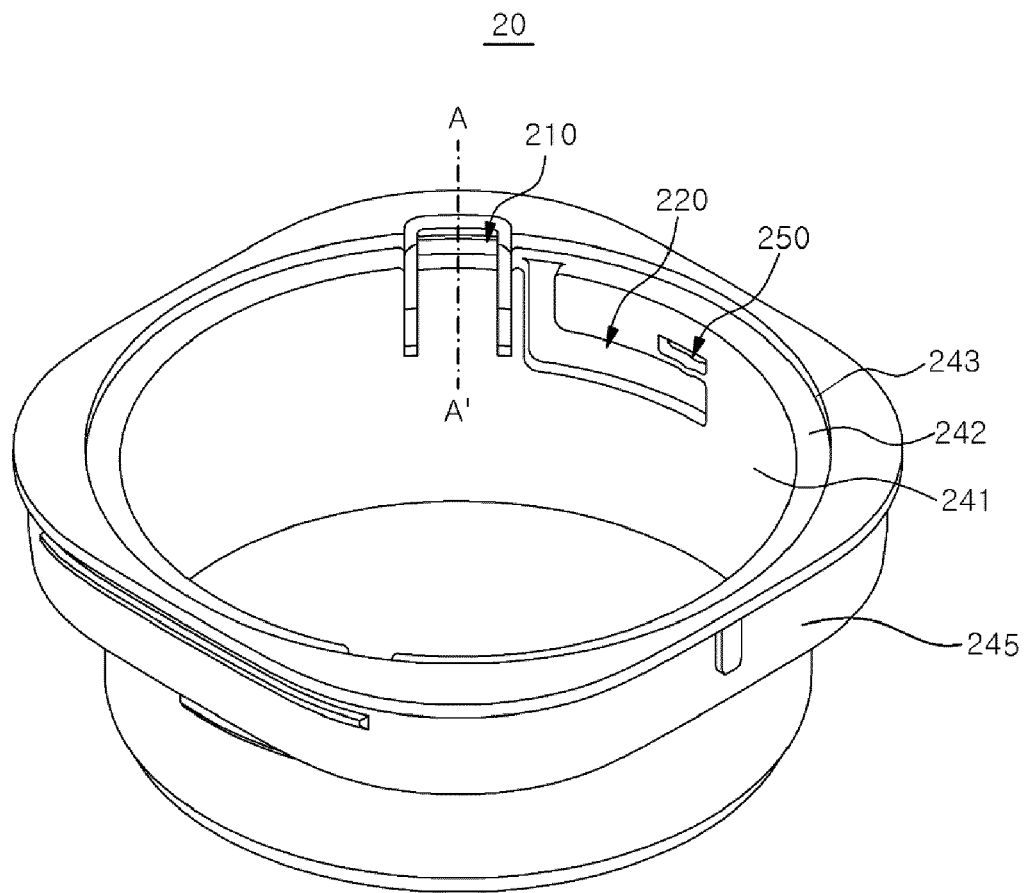
【FIG. 5】



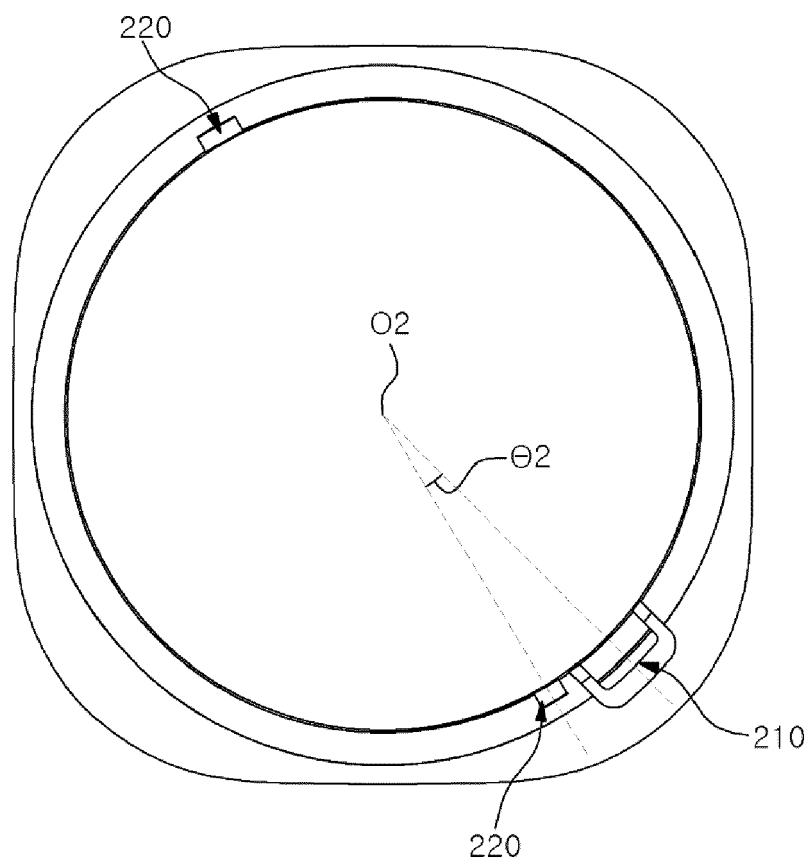
【FIG. 6】



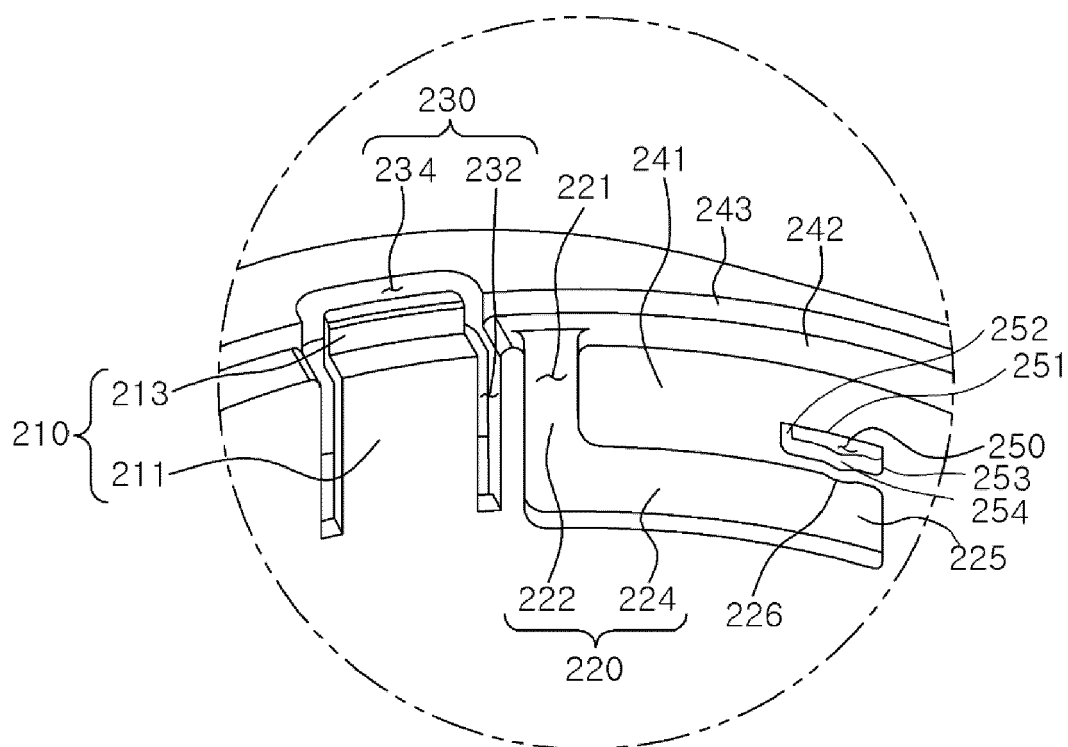
【FIG. 7】



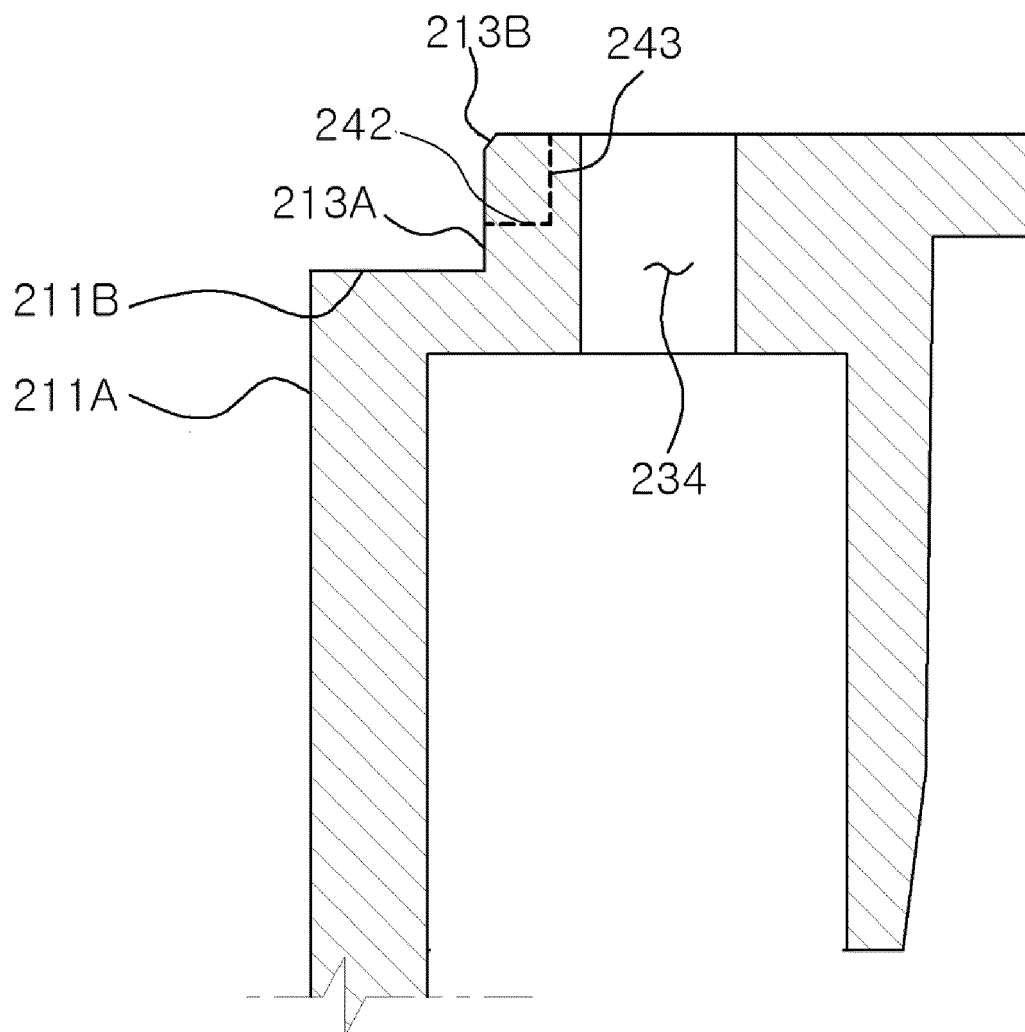
【FIG. 8】



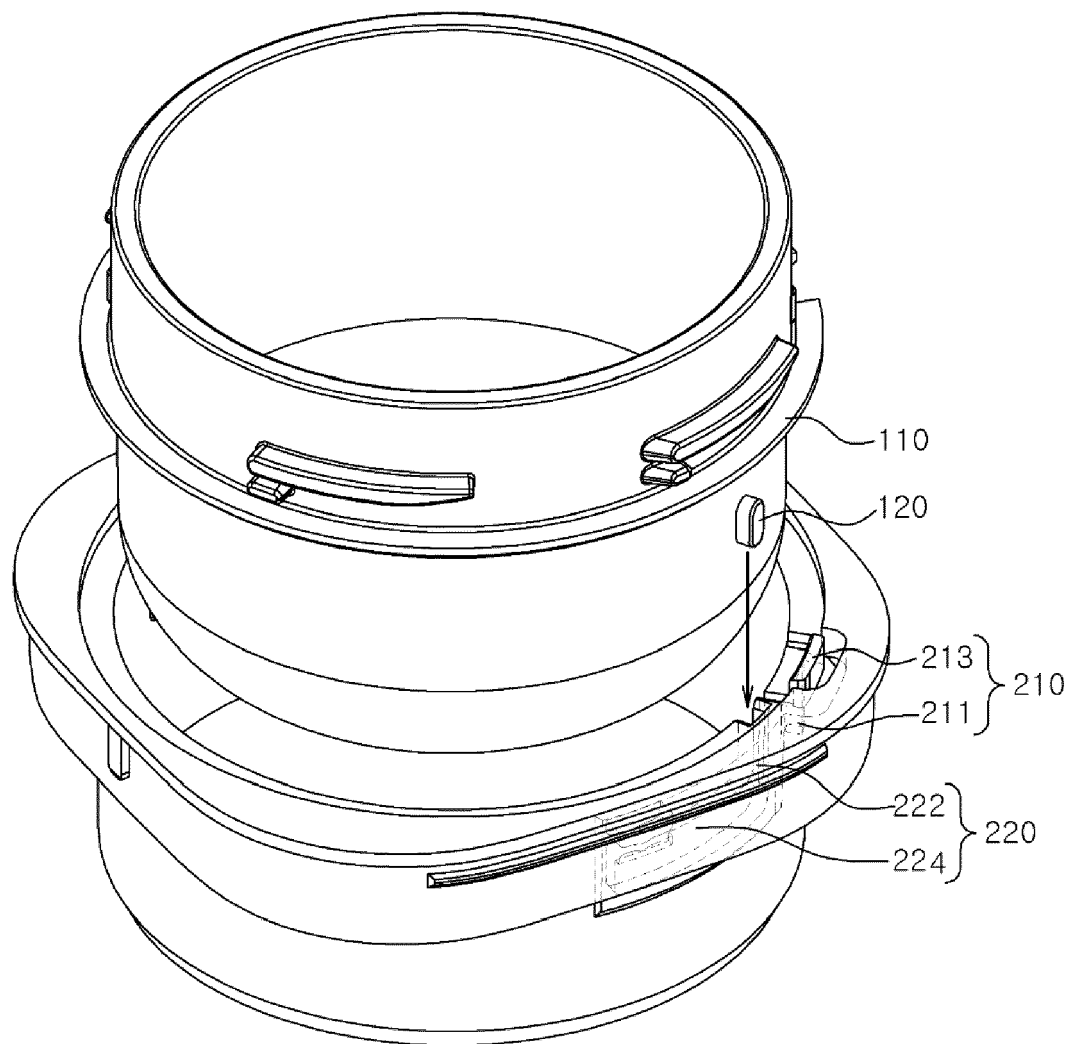
【FIG. 9】



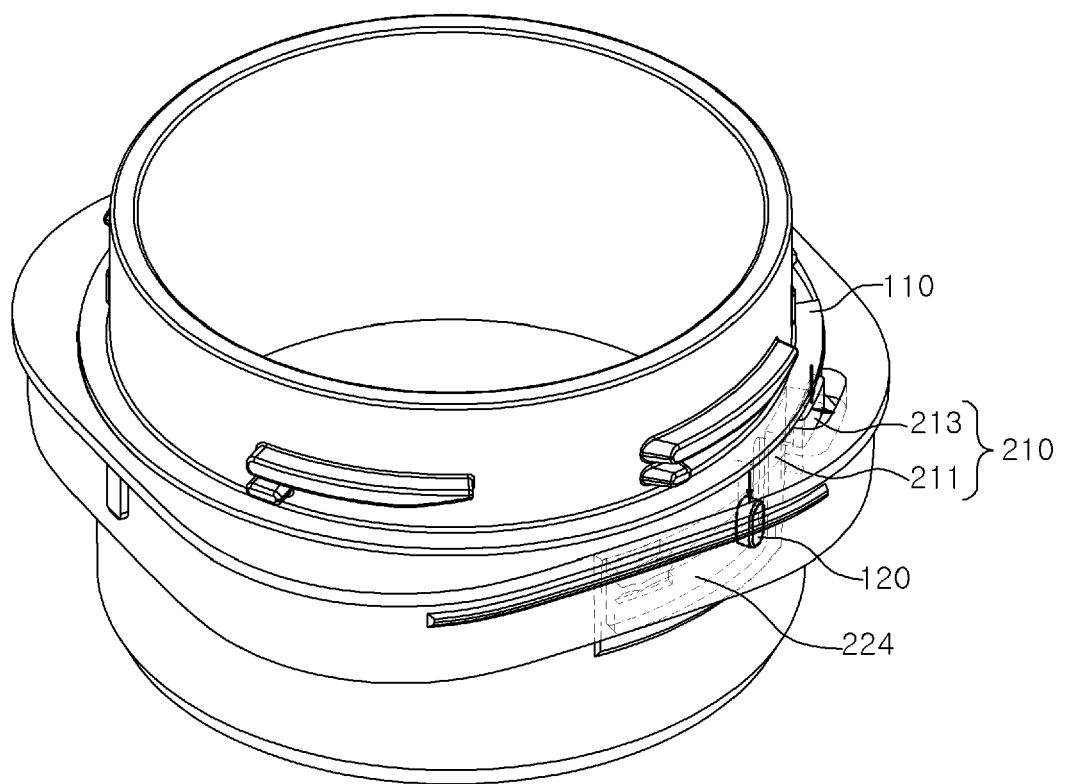
【FIG. 10】



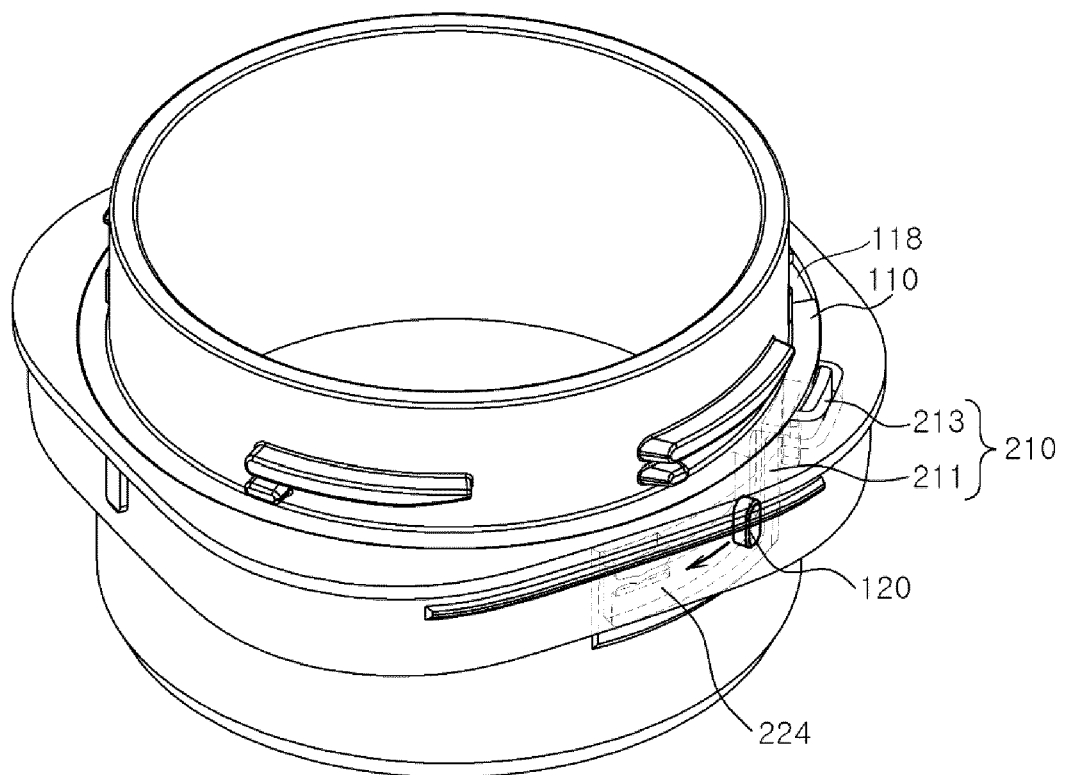
【FIG. 11】



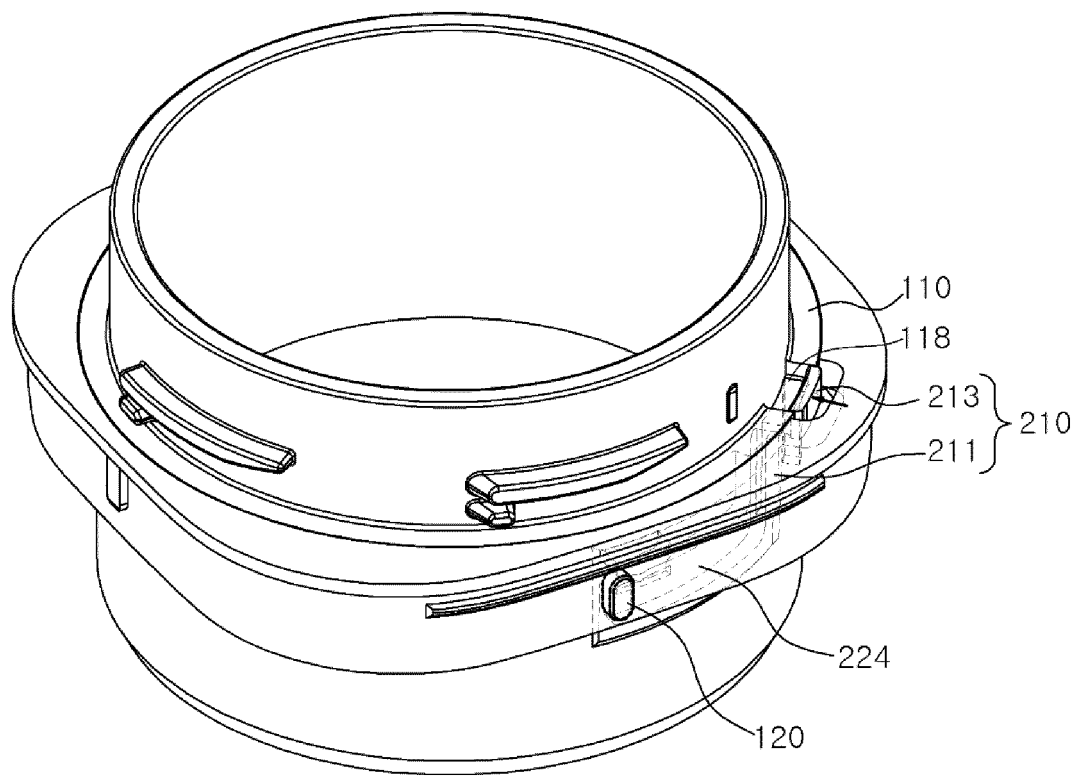
【FIG. 12】



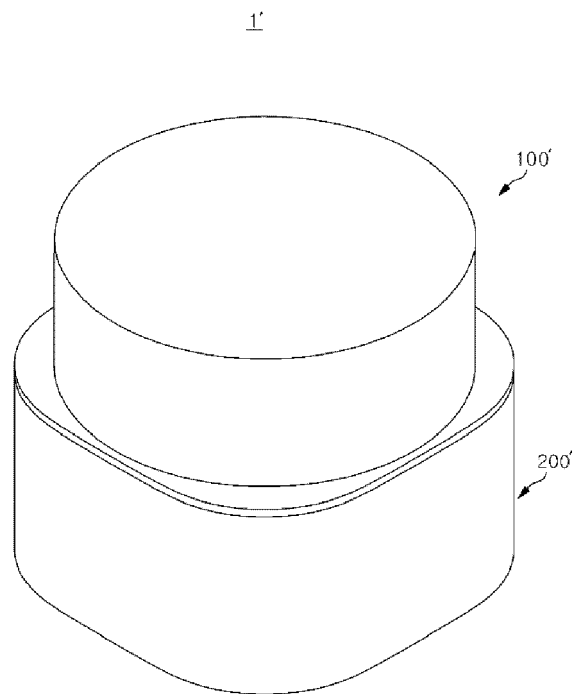
【FIG. 13】



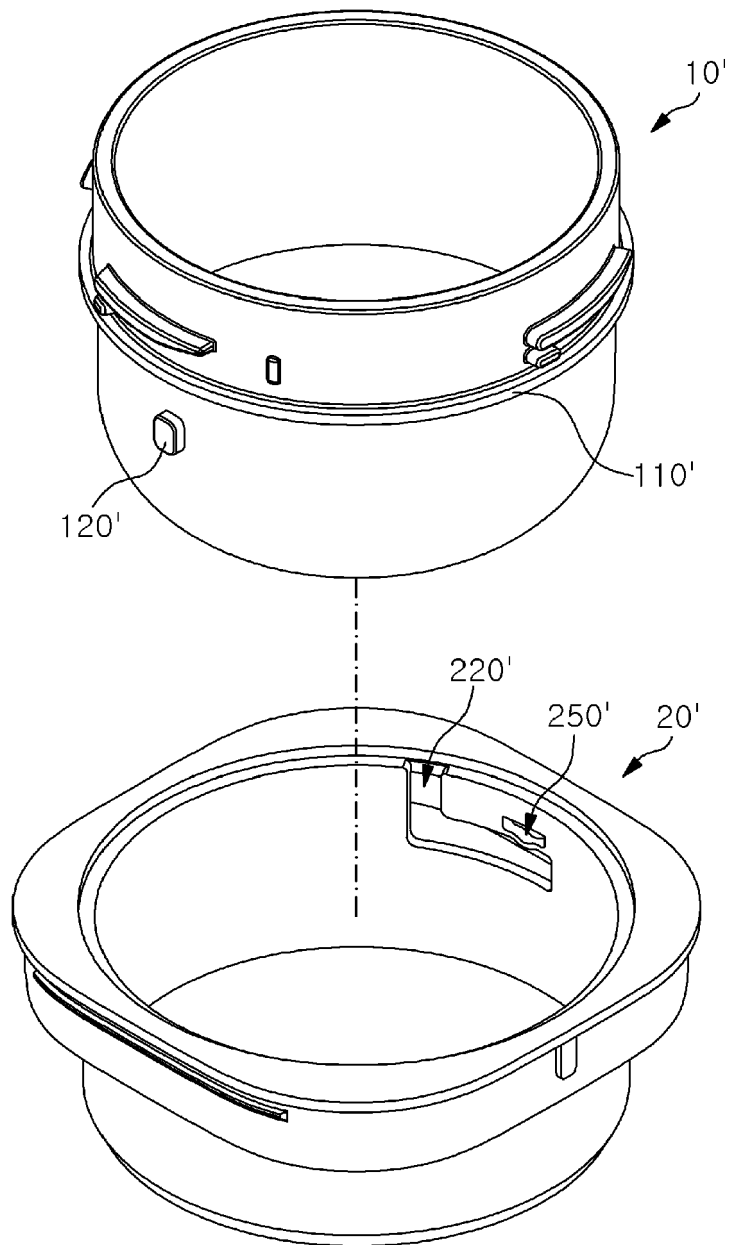
【FIG. 14】



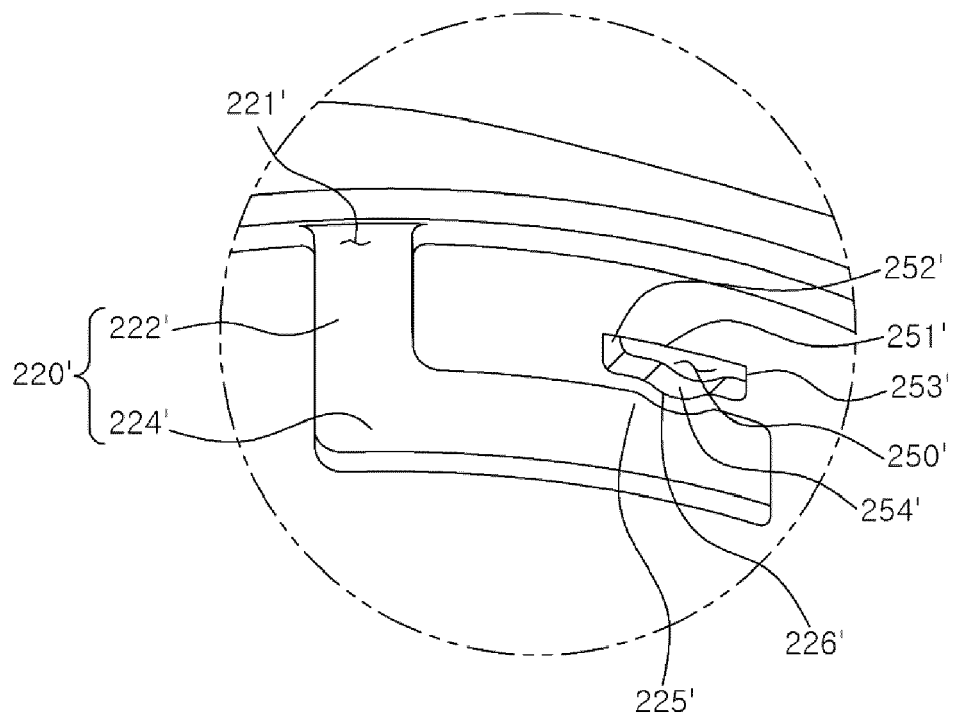
【FIG. 15】



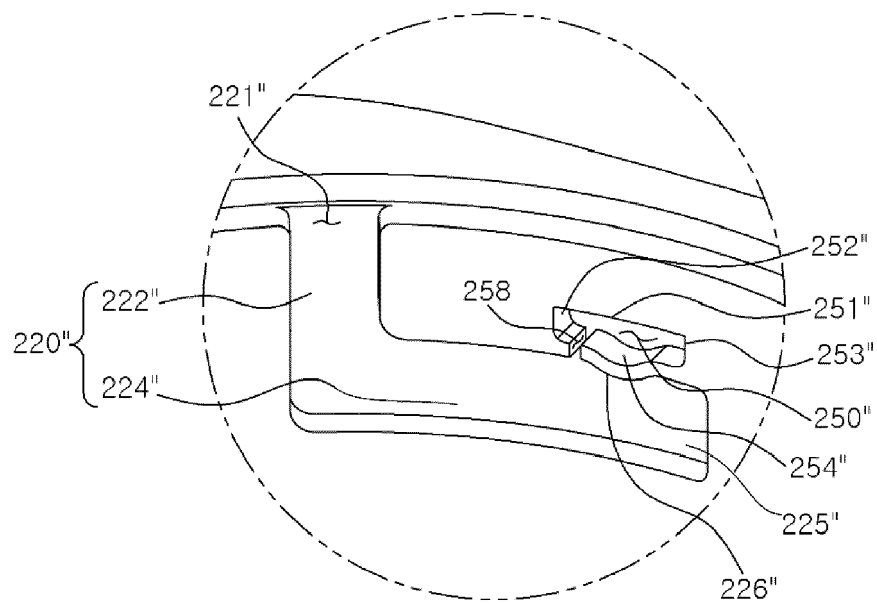
【FIG. 16】



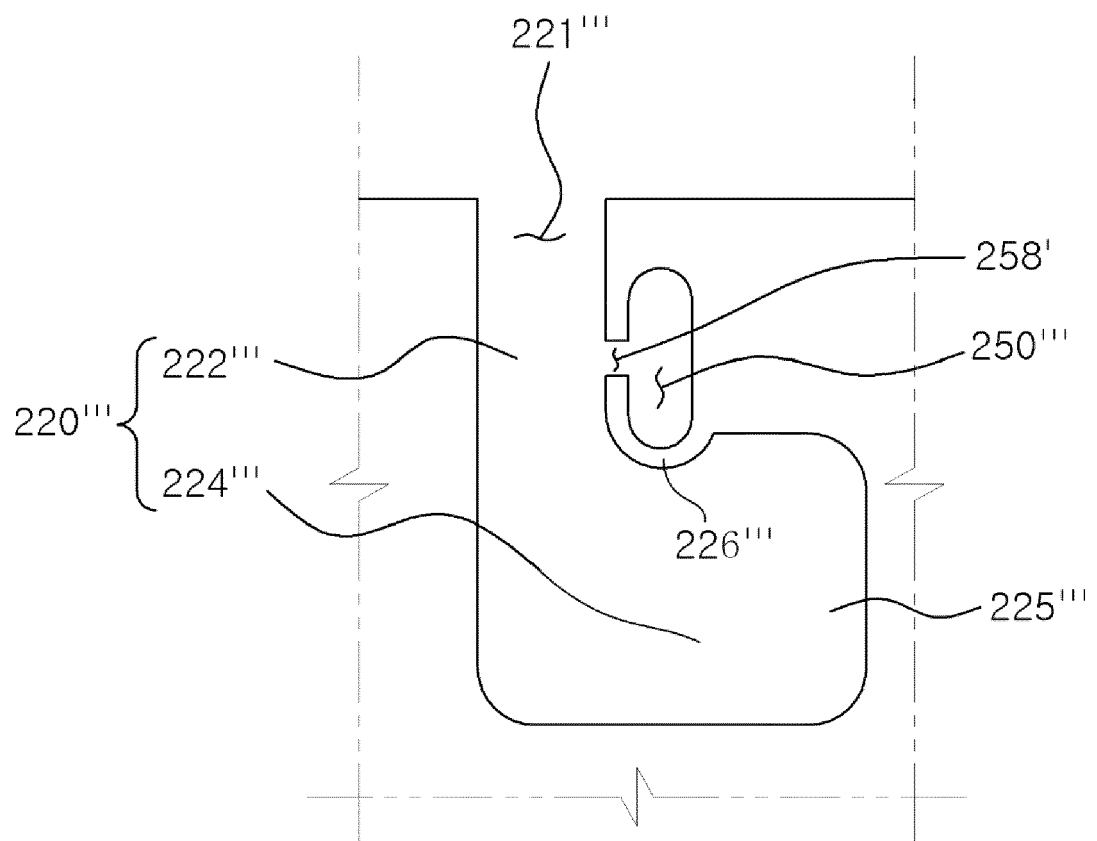
【FIG. 17】



【FIG. 18】



【FIG. 19】





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Application Number

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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 20 November 2023	Examiner van de Beek-Duijker
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