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Remarks:
Amended claims in accordance with Rule 137(2) EPC.

(54) **POWDERED FOOD CONTAINER**

(57) A container (1) for powdered foods comprising a receptacle (2), a perimeter ring (3) attached to the upper edge of the receptacle (2) and a lid (4), wherein the lid (4) is hinged with respect to the perimeter ring (3) by means of a hinge, characterised in that the opening and closing mechanism of the lid (4) comprises anti-tampering means (6 to 9).

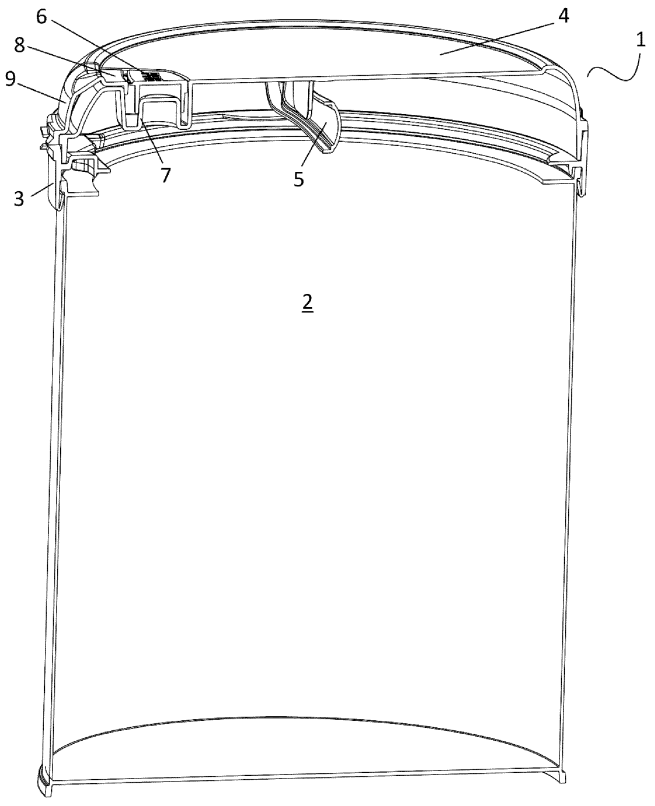

FIG.1A

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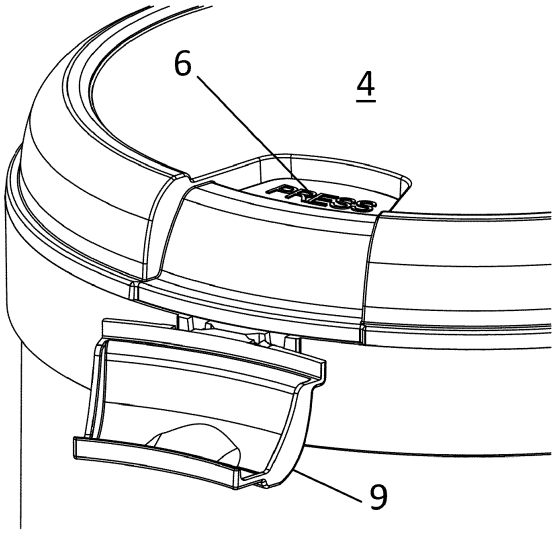

FIG.1B

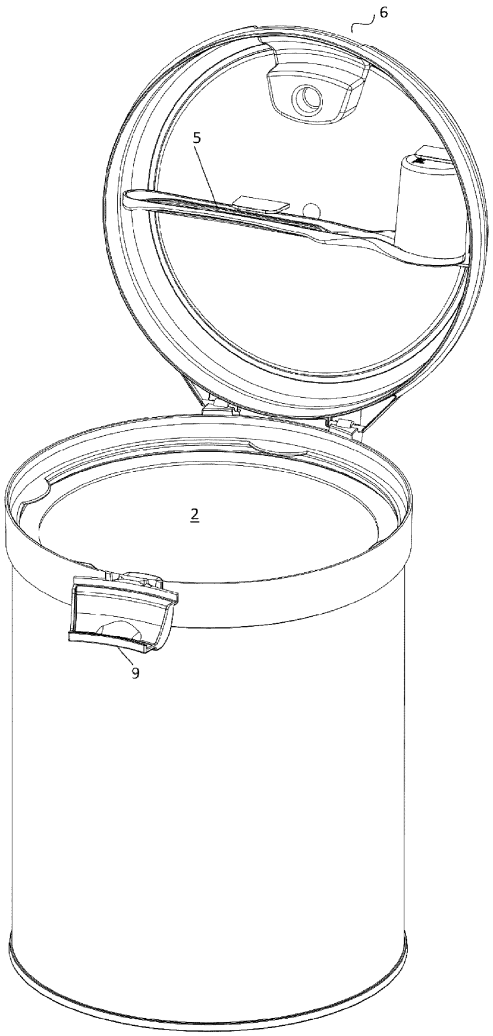

FIG.1C

Description

Technical field

[0001] This invention relates to a container for powdered food and, more preferably, for powdered baby food.

State of the prior art

[0002] For the commercialisation of powdered foods, particularly when they are intended for babies, very rigorous requirements are imposed. Generally, these containers consist of cylindrical metal or plastic cans, sealed at the top with a lid having a perimeter ring, which have to be opened for use and which can be closed easily and simply.

[0003] In addition, dosing spoons are usually incorporated in these lids, placed under the lid in various ways, for example, as defined in ES2426188. In this invention, powdered material is understood to be any granular material, in particular, spray-dried food products, as well as agglomerates of powdered particles.

Explanation of the invention

[0004] This invention purports to provide a receptacle, lid and spoon assembly, in such a way as to facilitate the opening and closing of the lid, avoiding any type of contamination. This object is achieved with the characteristics of claim 1.

[0005] More specifically, the container for powdered food comprises a receptacle, a lid and a perimeter ring attached on the upper edge of the receptacle provided with a closure hinged between two positions (a) of closure on the lid, and (b) of opening; said lid being hinged with respect to the perimeter ring through a rotating axis and characterised in that it comprises means for opening the lid provided with a tamper-proof system.

[0006] Throughout the description and claims, the word «comprises», and variants thereof are not intended to exclude other technical characteristics, additives, components or steps. To those skilled in the art, other objects, advantages and characteristics of the invention will become apparent in part from the invention and in part from putting the invention into practice. The following examples and drawings are provided by way of illustration and are not intended to restrict this invention. Furthermore, the invention covers all possible combinations of particular and preferred embodiments indicated herein.

Brief description of the drawings

[0007] The following is a very brief description of a series of drawings that help to understand the invention better and which relate expressly to one embodiment of said invention, which is illustrated as a non-limiting example thereof.

FIG.1A shows a sectional view of a container for powdered foods according to this invention in the closed position. FIG.1B shows the container of FIG. 1A with the means configured to prevent tampering with the container in the open position, while FIG.1C shows the container of FIG.1B with the lid open.

FIG.2 is a detailed view of the joint between the perimeter ring of the lid and the receptacle that forms part of the container for powdered foods according to this invention.

FIG.3 consists of three views of the lid-ring assembly of a container for powdered foods according to a second practical embodiment of the means for preventing tampering with the container, wherein FIG. 3A represents the lid closed, FIG.3B represents the lid opening process and FIG.3C represents the lid fully open.

Explanation of a detailed embodiment of the invention

[0008] As can be seen in the attached figures, the container 1 for powdered foods, preferably powdered baby food, which comprises a receptacle 2, typically cylindrical, made of plastic or metallic material, and intended to hold the powdered food inside it.

[0009] A perimeter ring 3, preferably of plastic material, is attached immovably to the mouth of the receptacle 2, which is connected to the lid 4 by means of a hinge, not shown in the appended figures, and located in a position diametrically opposed to that of the anti-tampering means 6 to 9. Thanks to the hinge, the lid 4 is hinged with respect to the perimeter ring 3 between a closed position (FIG.1A and FIG.1B) and an open position (FIG. 1C). Typically, a dosing spoon 5 can be attached to the inner side of the lid 4.

[0010] In this first practical embodiment, the opening of the lid 4 is manual. However, it is possible that the hinge comprises a coil spring, or other elastic spring, so that when the anti-tampering means 6 to 9 are released, the lid 4 is opened by the effect of the coil spring or elastic spring.

[0011] As indicated, this invention has the particularity that the mechanism for opening and closing the lid 4 with respect to the perimeter ring 3 comprises anti-tampering means 6 to 9.

[0012] These anti-tampering means comprise a button 6 which, in this particular first embodiment, is "U"-shaped. This button 6 is located in correspondence with an inverted "U"-shaped area 7 of the lid 4, such that, when a user presses the button 6, it moves vertically downwards and releases a flange 8 which enables the movement of the closure or latch 9 of the lid 4, between a closed position (as shown in FIG.1A) and an open position (as shown in FIG.1B), such that the lid 4 is released and can

be opened, as previously indicated.

[0013] When the closure or latch 9 is closed again, the flange 8 is anchored in the lid 4 and re-arms it for the next use, thereby significantly increasing the security of the contents of the container 1.

[0014] To increase the security of the contents of the container 1, the connection between the perimeter ring 3 and the receptacle 2 comprises an elastic flange 31 so that when the perimeter ring 3 is fitted over the upper edge of the receptacle 2, the ring 3 is perfectly attached with respect to the container 2, preventing it from being opened.

[0015] Finally, FIG.3 shows a second practical embodiment of the anti-tampering means, comprising a dual part (6,7) which in its version prior to use are connected by partitions, blocking the opening of the lid and ensuring that it has not been tampered with. With an initial pressure on the button 6, the connection of parts 6 and 7 is released, lowering button 6 and anchoring it in the recess over which it is located, thus releasing button 7 to be operated. By pressing button 7, a tilting movement on the pivots 8 that connect button 7 to the lid 4 is produced. The tilting movement of button 7 has the function of positioning a flange 10 located on the underside of button 7 on another harpoon-shaped anchoring flange 9, located on the ring 3, which holds the lid 4 closed on the ring 3. With the pressure on button 7, the flange 10 will push on the upper part of the anchoring flange 9, thus releasing the anchoring and opening the lid 4. After use, the lid 4 closes and the mechanism for fastening the flange 9 to the lid 4 is re-armed.

Claims

1. A container (1) for powdered foods comprising:
a receptacle (2), a perimeter ring (3) attached to the upper edge of the receptacle (2) and a lid (4), wherein the lid (4) is hinged with respect to the perimeter ring (3) by means of a hinge, **characterised in that** the opening and closing mechanism of the lid (4) comprises anti-tampering means (6 to 9).

2. The container (1) according to claim 1 wherein the anti-tampering means comprise a "U"-shaped button (6) located in correspondence with an area of the lid (4) that is in the shape of an inverted "U" (7), such that, when a user presses the button (6), it moves vertically downwards and releases a flange (8) that enables the movement of the closure or latch (9) of the lid (4), between a closed position and an open position.

3. The container (1) according to one of claims 1 or 2 wherein the opening of the lid is manual.

4. The container (1) according to any of the preceding claims, wherein the hinge comprises a coil spring or an elastic spring, such that, when the closure is released, the lid (4) opens by the effect of said coil spring or elastic spring.

5. The container (1) according to any of the preceding claims, wherein the connection between the perimeter ring (3) and the receptacle (2) comprises an elastic flange (31) such that when the perimeter ring (3) is fitted over the upper edge of the receptacle (2), the ring (3) is perfectly attached with respect to the receptacle (2), preventing it from opening.

6. The container (1) according to claim 1 wherein the anti-tampering means comprise a button (6) located on the body of the lid (4) and configured to release a latch located in the perimeter ring (3).

Amended claims in accordance with Rule 137(2) EPC.

1. A container (1) for powdered foods comprising:
a receptacle (2), a perimeter ring (3) attached to the upper edge of the receptacle (2) and a lid (4), wherein the lid (4) is hinged with respect to the perimeter ring (3) between a closed position and an open position by means of a hinge; wherein the hinge is located in a position diametrically opposed to that of an antitampering means (6 to 9), **characterised in that** the opening and closing mechanism of the lid (4) comprises antitampering means (6 to 9) further comprising:
a U-shaped button (6) which is located in correspondence with an inverted U-shaped area (7) of the lid, such that, when a user presses the button (6), said button (6) moves vertically downwards and releases a flange (8) which enables the movement of a closure or latch (9) between the closed position and an open opposition throughout the release of the lid (4); and wherein when the closure or latch (9) is closed, the flange (8) is anchored in the lid (4).

2. The container (1) according to one of claims 1 wherein the opening of the lid is manual.

3. The container (1) according to claim 1, wherein the hinge comprises a coil spring or an elastic spring, such that, when the closure is released, the lid (4) opens by the effect of said coil spring or elastic spring.

4. The container (1) according to any of the claims 1 to 3, wherein the connection between the perimeter ring (3) and the receptacle (2) comprises an elastic flange (31) such that when the perimeter ring (3) is fitted over the upper edge of the receptacle (2), the ring (3) is perfectly attached with respect to the receptacle (2), preventing it from opening.

5. A container (1) for powdered foods comprising:
a receptacle (2), a perimeter ring (3) attached to the upper edge of the receptacle (2) and a lid (4), wherein the lid (4) is hinged with respect to the perimeter ring (3) between a closed position and an open position by means of a hinge; wherein the hinge is located in a position diametrically opposed to that of an antitampering means (6 to 9), **characterised in that** the opening and closing mechanism of the lid (4) comprises antitampering means (6 to 9) further comprising:

a dual part button, comprising a first button part (6) and a second button part (7) connected by partitions prior to use and arranged to block the opening of the lid (4); and wherein when a first part of the button (6) is initially pressed, the connection of the first button part (6) and the second button part (7) is released, lowering the first button part (6) and anchoring it in a recess over which it is located thus releasing second button part (7) to be operated;
wherein by pressing the second button part (7) a tilting movement on pivots (8) that connect the second button part (7) to the lid (4) is produced, wherein the tilting movement of the second button part (7) is arranged for positioning a flange (10) located on the underside of the second button part (7) on another harpoon-shaped anchoring flange (9), located on the ring (3), which holds the lid (4) closed on the ring (3);
and wherein with the pressure on second button part (7), the flange (10) will push on the upper part of the anchoring flange (9), thus releasing the anchoring and opening the lid (4).

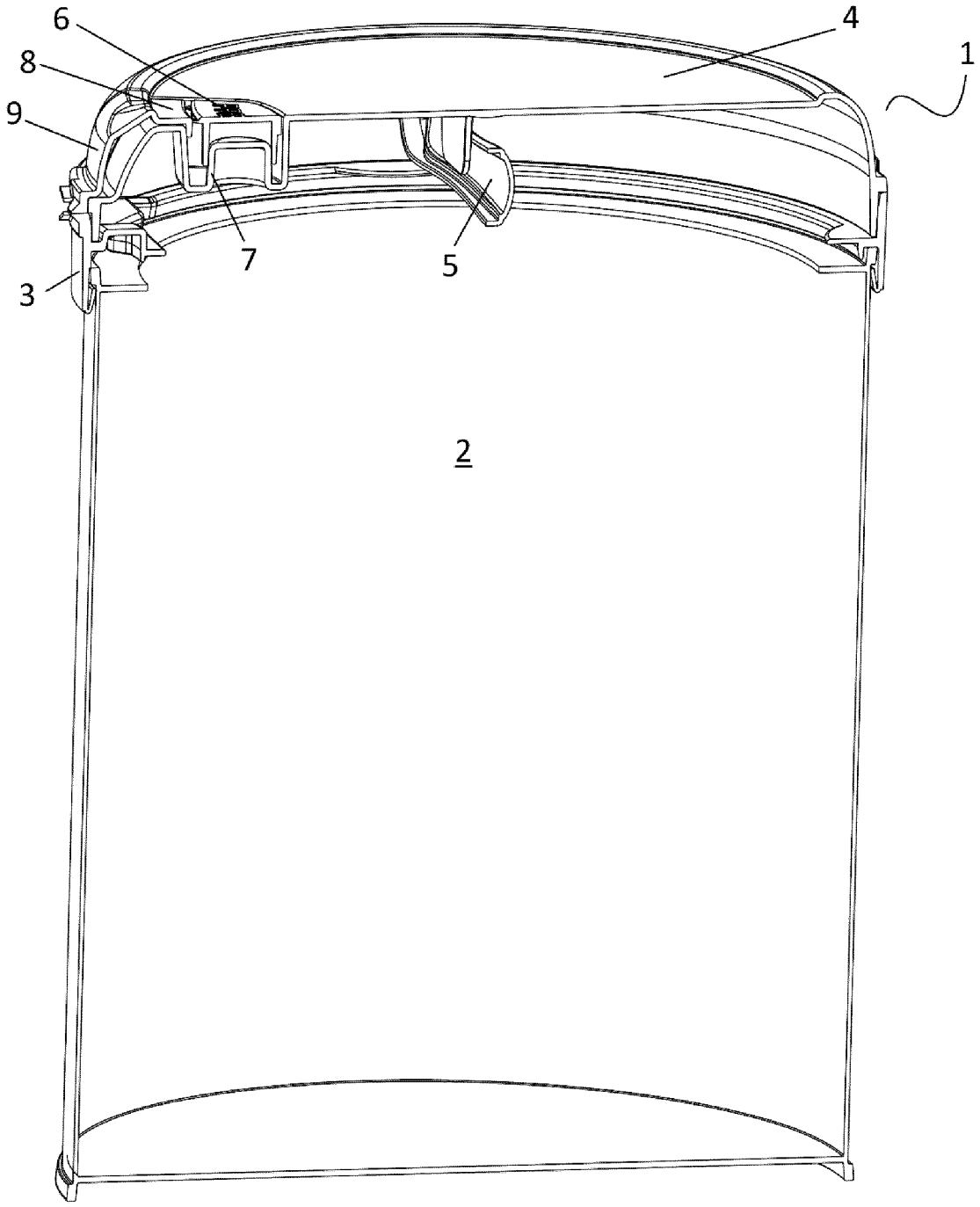

FIG.1A

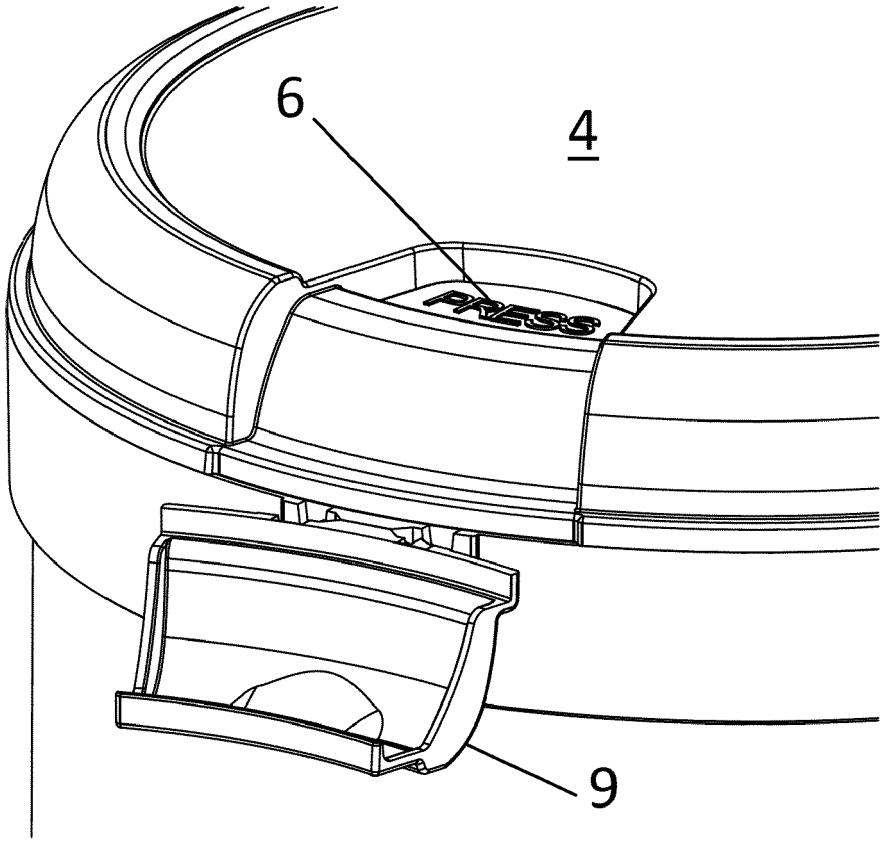

FIG.1B

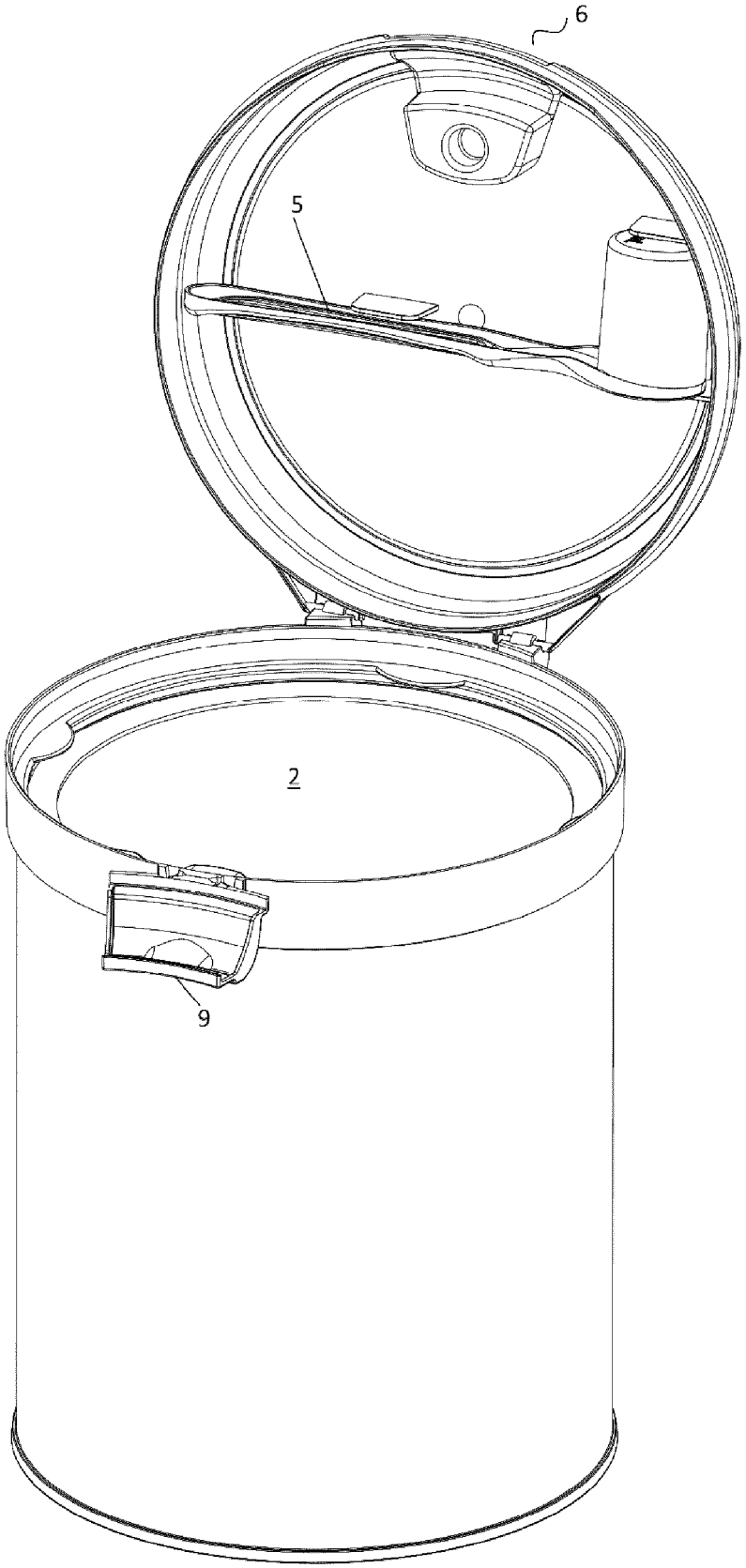

FIG.1C

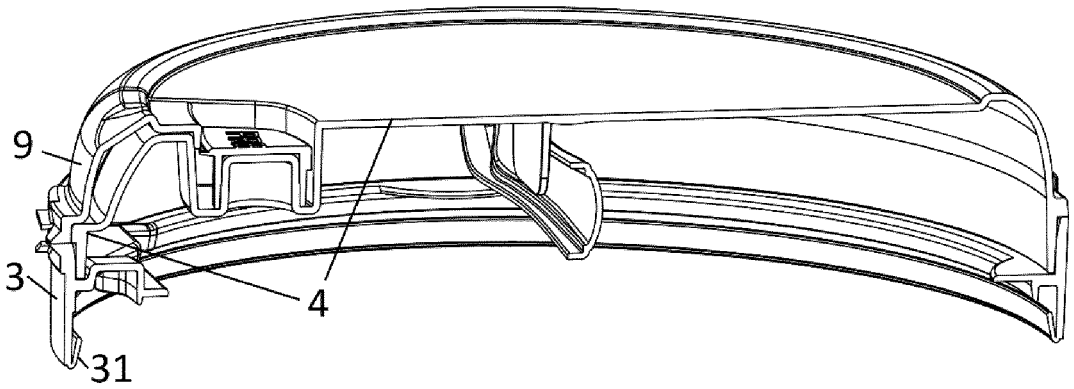

FIG.2

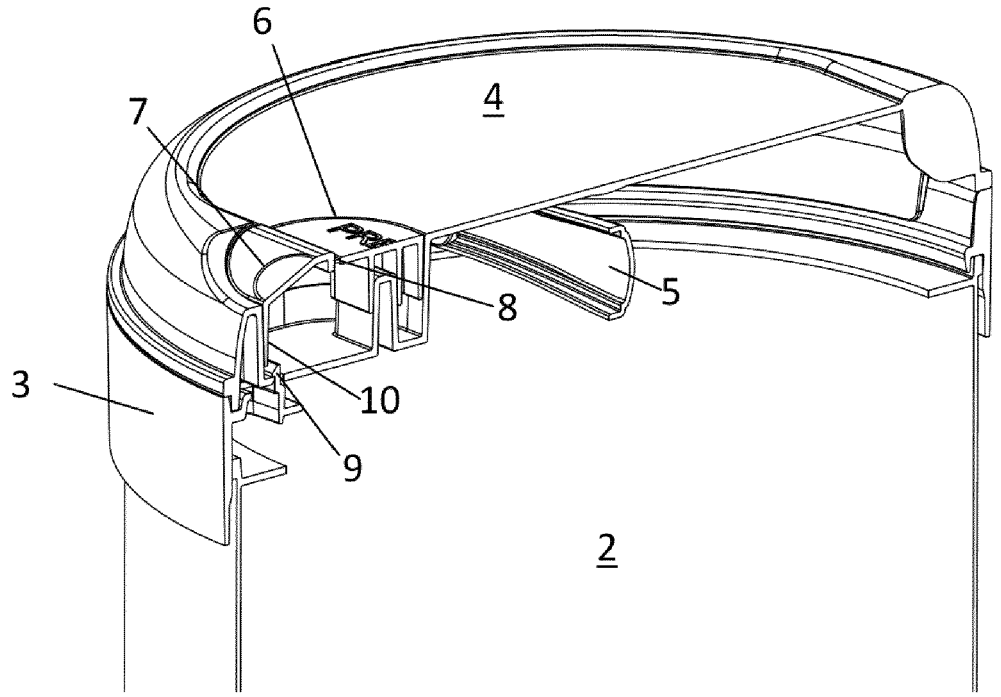

FIG.3A

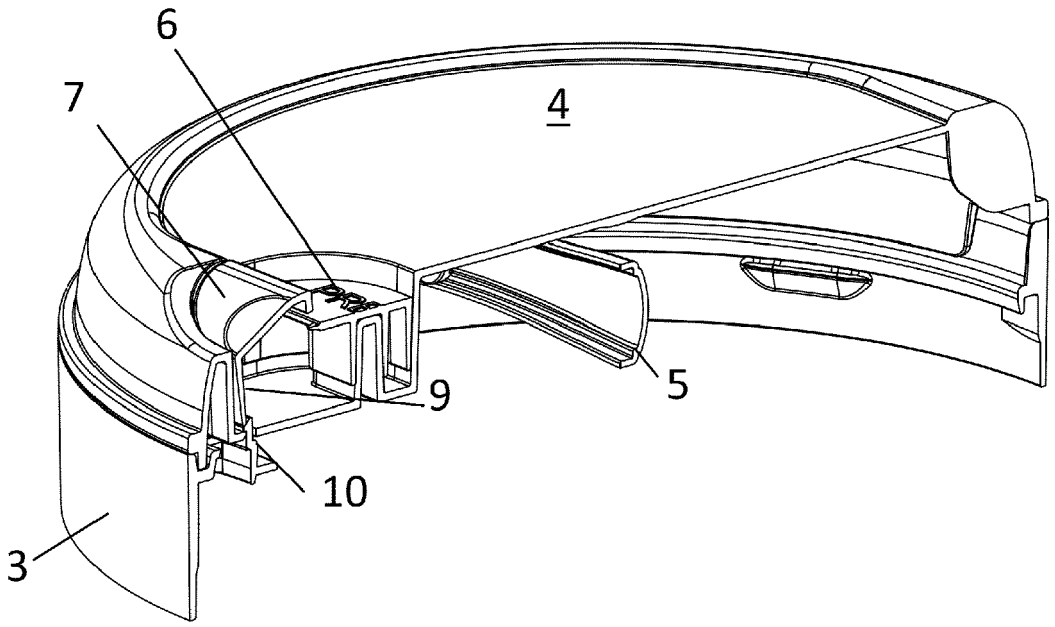

FIG.3B

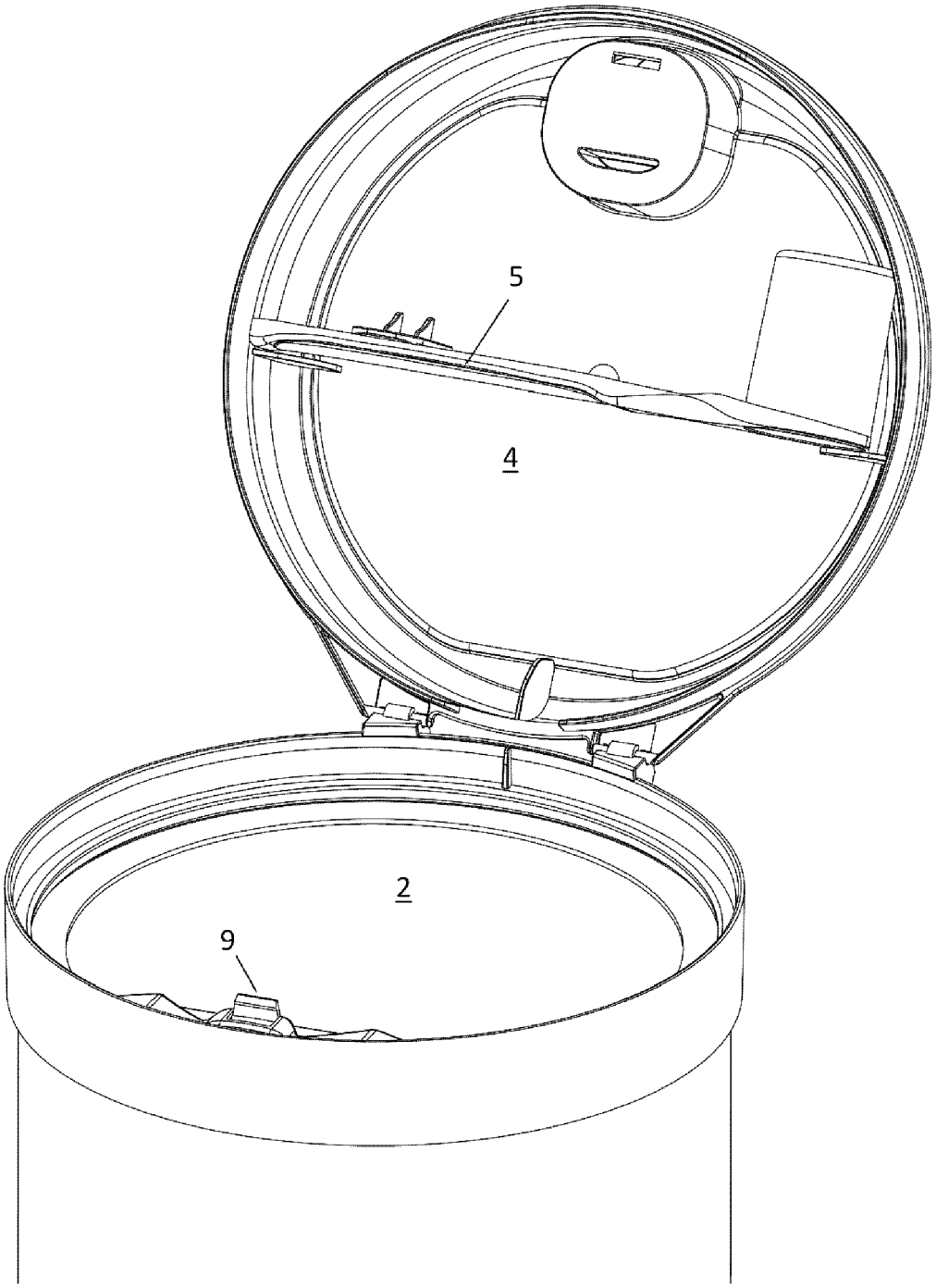

FIG.3C

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Application Number
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Munich	18 October 2022	Wimmer, Martin

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