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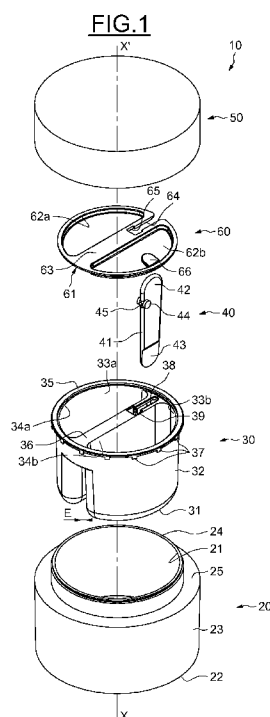
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(54) Title: ASSEMBLY FOR PACKAGING AND APPLYING A PRODUCT, NOTABLY A COSMETIC PRODUCT, COMPRISING AN APPLICATOR SWITCHING INSIDE A CONTAINER



(57) Abstract: Assembly (10) for packaging and applying a product, notably a cosmetic product, comprising a container (30) delimiting at least one cavity (33 a, 33b) containing said product, a lid (50) intended to close off said cavity, and an applicator (40) that is mounted in a removable manner on the container (30) and comprises a gripping part (42). The container (30) comprises a space (E) for receiving the applicator (40) that is separate from the cavity (33a, 33b), and an orifice (38) leading into said space (E) for the insertion of the applicator (40). The applicator (40) is rotatable in said space (E) between a first, stowed position when the lid is in the closed-off position and presses on said applicator, and a second, gripping position, in which the gripping part (42) projects from the container (30), said applicator being configured to pivot automatically into the second position when the lid (50) is removed.

**Assembly for packaging and applying a product, notably a cosmetic product,
comprising an applicator switching inside a container**

5 The present invention relates to the field of assemblies for packaging and applying a cosmetic product.

 The term “cosmetic product” is understood, notably within the meaning of the present invention, to mean a product as defined in Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 relating to
10 cosmetic products.

 More particularly, the packaging and application assembly according to the present invention is intended for the application of a cosmetic product, such as a care product, for example a cream, so that it can be applied to the epidermis of a user, or a makeup product, such as foundation or blusher, for example.

15 Such an assembly for packaging and applying a cosmetic product may, for example, be in the form of a pot that has a wide opening and is equipped with a lid or a stopper for closing it off.

 In order to pick up and apply the cosmetic product contained in the pot, the user uses his fingers as an applicator, this being neither practical nor hygienic.
20 Moreover, it is difficult to meter out the necessary quantity of product to be picked up.

 In order to remedy this drawback, pots having a housing for receiving a removable accessory are known.

 In this regard, reference may be made to the document FR 2 870 441 – A1
25 which describes a pot for a cosmetic product, comprising a side wall provided with a vertical cavity for accommodating a removable accessory.

 However, once mounted in the cavity, the accessory is unable to move and it is relatively difficult to grasp.

 In addition, the user cannot readily distinguish the accessory from the rest of
30 the pot.

 Therefore, there is a need to improve such an assembly for packaging and applying a cosmetic product in order to allow the user to find and withdraw the product application accessory easily.

The subject of the invention is a kit or assembly for packaging and applying a product, notably a cosmetic product, comprising a container delimiting at least one cavity containing said product, a lid intended to close off said cavity, and an applicator that is mounted in a removable manner on the container and comprises at least one gripping part.

The container comprises a space for receiving the applicator that is separate from the cavity, and an orifice leading into said space for the insertion of the applicator. The applicator is rotatable in said space between a first, stowed position when the lid is in the position closing off the cavity and presses on said applicator, and a second, gripping position, in which the gripping part projects from the container, said applicator being configured to pivot automatically into the second position when the lid is removed.

Thus, when the user removes the lid, the applicator switches automatically from the first, stowed position towards the second, gripping or use position, revealing the gripping part projecting vertically from the container.

It is easy and obvious for the user to grasp the applicator.

Moreover, when the user puts the lid back on in order to close off the cavity, said lid presses on the gripping part so as to transmit a force to the applicator in order to make it pivot into the first position.

A “kit” is understood to be an assembly comprising at least the container, the lid and the applicator. These elements can be packaged separately in dedicated packaging.

For example, the container has at least one free end edge that defines an opening for access to the cavity.

In one embodiment, said cavity is delimited by a peripheral side wall and a partition connected to said side wall by an upper wall. The orifice is made in the upper wall between the partition and the side wall.

In another embodiment, the container delimits two cavities, each containing a product, the two cavities being separated by two parallel partitions that are connected by a wall while leaving the space for receiving the applicator. The orifice is made in the upper wall between the partition and the side wall.

The cavities form, for example, two semicircles. Any shape could be provided for said cavities. More than two cavities could also be provided.

The space for receiving the applicator may have a bottom wall that is joined to the bottom wall of the cavity or cavities when there are several of the latter.

5 In one embodiment, the applicator comprises two pivoting studs that are situated on a single axis, said axis being offset with respect to the centre of gravity of the applicator so as to cause said applicator to pivot automatically into the second position when the lid is removed. In other words, by virtue of the pivot axis being disposed in an offset manner with respect to the centre of gravity of the applicator, a force is applied to the application part of the applicator so as to cause it to switch into the second position.

10 For example, the axis is situated closer to the gripping part than to an application part of the applicator, which is situated at the opposite end from the gripping part.

The container, and notably the upper wall of the container, may comprise a groove extending in continuation of the orifice in a manner perpendicular thereto and leading into a U-shaped retaining housing, each of which is intended to receive a pivoting stud.

In other words, the retaining housings are situated in a manner facing one another and are each intended to receive a pivoting stud of the applicator.

20 During the insertion of the applicator into the space between the cavity and the side wall of the container via the through-orifice, the pivoting studs come into abutment in the corresponding retaining housing via the groove of the container. In other words, the applicator is mounted so as to rotate in the retaining housings of the container and pivots about the axis of the pivoting studs between the first position and the second position.

25 In another embodiment, the container has a pivot in the form of a pin that extends between the partition and the side wall in the case of a single cavity or between two partitions in the case of two cavities, and is for example moulded with the container, and the applicator comprises, on one of its sides, a groove that is intended to engage with said pin, said groove being offset with respect to the centre of gravity of the applicator so as to cause said applicator to pivot into the second position when the lid is removed.

30 For example, said groove is situated closer to the gripping part than to the application part.

Generally, once mounted in the container, the applicator is connected to the container by a pivot connection, the axis of this pivot connection being off-centre with respect to the centre of gravity of the applicator in order to allow it to return into the second position under the effect of the force of gravity.

5 Advantageously, the assembly comprises a protective element that is disposed in a removable manner on the container, notably on the end edge thereof, and is configured to cover the cavity/cavities of the container in a leaktight manner, the protective element comprising a notch that leads into the space of the container.

10 For example, when the applicator comprises two pivoting studs, the protective element comprises a slot that extends in continuation of said notch in a manner perpendicular to the latter and leads into the groove of the container.

15 The protective element comprises a substantially flat body that is intended to rest on the upper end edge of the container, and two indentations that protrude from the lower surface of the body and are each intended to be inserted into an upper part of a corresponding cavity. The two indentations leave a middle part of the body that presses on the upper part of the container.

 The notch and the slot are made in the thickness of said middle part so as to lead into the space E between the partitions of the container.

20 Thus, the applicator is mounted in the space of the container via the notch and the recess of the protective element that lead into the orifice and the groove of the container, respectively.

 The protective element may also comprise a flexible gripping tab that allows the user to separate said element from the container in order to use the product contained in said container.

25 According to one embodiment, the applicator comprises elements for transmitting an attractive force of the application part or a repulsive force of the gripping part, said elements being configured to switch the applicator into the second position when the lid is removed.

30 For example, said elements for transmitting an attractive force comprise a first magnet disposed on the applicator close to the application part, and a second magnet disposed in the container, said magnets being configured to switch the applicator into the second position when the lid is removed.

 Thus, a second magnet, of opposite polarity to the polarity of the first magnet, could be provided, disposed close to the bottom of the container so as to

transmit an attractive force of the applicator, or a second magnet, of identical polarity to the polarity of the first magnet, could be provided, disposed close to the upper wall of the container so as to transmit a repulsive force to the applicator. The magnets improve the pivoting of the applicator into the second position.

5 The application part of the applicator may have a rounded or rectangular shape, and the end of the application part may also be thinner than the rest of the applicator.

 According to another embodiment, the application part of the applicator comprises at least one row of at least one application element protruding in the longitudinal direction of the applicator.

10 Advantageously, the assembly comprises a pot delimiting an internal volume for receiving the container.

 The body of the pot comprises a closed bottom, a side wall, and an open end part that allows access to the internal volume and is connected to said side wall by a shoulder against which the lid bears once fitted on the pot.

15 To this end, the end part can have, on its periphery, a thread that is intended to engage with a corresponding thread made in the lid. In a variant, provision could be made for the lid to be fastened to the pot in a removable manner by any other means, for example by clip-fastening.

20 The end edge of the container may comprise a plurality of fastening means in the form of protruding lugs that are intended to be snap-fastened onto the pot.

 In a variant, fastening by screwing the container onto the pot or any other means that allows the container to be separated from the pot, notably in order to be replaced when the product contained in said insert has been used, may be provided.

25 The container thus acts as a refill.

 Further aims, features and advantages of the invention will become apparent from reading the following description, which is given only by way of non-limiting example and with reference to the appended drawings, in which:

- 30 - Figure 1 shows an exploded perspective view of an assembly for packaging and applying a product, according to one embodiment of the invention;
- Figure 2 is a top view of an insert of the assembly in Figure 1;
 - Figure 3 is a cross-sectional view on the axis III-III in Figure 2;
 - Figure 4 is a perspective cross-sectional view of Figure 2;

- Figure 5 is a perspective view of the assembly for packaging and applying a product in Figure 1, partially assembled;

- Figures 6 and 7 show, in cross section, the movement of the applicator of the assembly in Figure 1; and

5 - Figures 8 and 9 illustrate further embodiments of an applicator.

An assembly for packaging and applying a product or kit 10 is illustrated in Figure 1 and comprises an enclosing external shell or pot 20, an insert or container 30 fastened in a removable manner in the pot 20, and an application member or applicator 40 that is intended to pick up product contained in the insert 30 and to
10 apply said product. Said assembly 10 also comprises a lid or stopper 50 that is intended to be fastened removably to said pot 20.

A “product” is understood to be a cosmetic product, such as a care product, for example a cream, so that it can be applied to the epidermis of a user, or a makeup product, such as foundation or blusher, for example. However, the invention is not
15 limited to a cosmetic product. Other types of products, such as paint, or food products, of the yoghurt type, for example, could also be provided. In the case of food products, the applicator acts as a kitchen utensil, in the form, for example, of a spoon.

The pot 20 comprises a body of cylindrical overall shape extending along an axis X-X' that is presumed to be vertical in the figures. The body of the pot 20
20 comprises an internal volume 21 delimited by a substantially flat bottom 22 and a side wall 23. The pot 20 also comprises an open end part 24 that allows access to the internal volume 21 and is connected to said side wall 23 by a shoulder 25 against which the lid 50 is intended to bear once fitted on the pot 20.

25 To this end, the end part 24 can have, on its periphery, a thread (not shown) that is intended to engage with a corresponding thread (not shown) made in the lid 50. In a variant, provision could be made for the lid 50 to be fastened to the pot 20 in a removable manner by any other means, for example by clip-fastening.

30 The insert 30 is intended to be inserted into the internal volume 21 of the pot 20. By way of variant, the insert 30 may form the pot.

As illustrated in Figures 1 to 4, the insert 30 comprises a body of cylindrical overall shape extending along the vertical axis X-X'. The body of the insert 30 has a lower closed bottom 31, and a side wall 32 delimiting two cavities 33a, 33b that are each intended to contain a product. The two cavities 33a, 33b are separated by two

parallel partitions 34a, 34b extending between the bottom 31 and an upper end edge 35, on the opposite side from said bottom 31, that allows access to said cavities 33a, 33b. The two partitions 34a, 34b are connected by a substantially flat front upper part 36, while leaving a space E between said partitions 34a, 34b.

5 In a variant, provision could be made for the insert 30 to have only one cavity containing a product, or a number of cavities greater than two.

In the case in which the insert 30 has only one cavity, one of the partitions of said cavity is connected to a part of the side wall 32 of the body of the insert by an upper part, while leaving a space E between said partition and said side wall.

10 The space E for receiving the applicator has a bottom wall (not shown) that is joined to the bottom wall of the cavities 33a, 33b or the single cavity when there is only one thereof.

As illustrated, the body of the insert 30 has a cylindrical shape, of substantially circular cross section. In the case in which the insert 30 has only one
15 cavity, provision could be made for the cross section of the body of the insert to be in the form of a semicircle.

In the exemplary embodiment illustrated, the cavities 33a, 33b form two semicircles. Any shape could be provided for said cavities.

20 The side wall 32 of the insert 30 comprises, at its end edge 35, a plurality of fastening means 37 in the form of protruding lugs that are joined to the side wall 32 and extend in the vertical direction X-X'. The fastening lugs 37 are intended to be snap-fastened onto the pot 20.

In a variant, fastening by screwing the insert 30 onto the pot 20 or any other means that allows the insert to be separated from the pot, notably in order to be
25 replaced when the product contained in said insert has been used, may be provided. The insert thus acts as a refill. Provision could also be made to fasten the insert 30 to the pot 20 by clip-fastening, for example by rotation or by a system comprising bayonets.

30 As illustrated in detail in Figures 2 to 4, a through-orifice 38 is made in the thickness of the upper part 36 so as to lead into the space E between the partitions 34a, 34b separating the two cavities 33a, 33b.

The upper part 36 also comprises a groove 39 that extends in continuation of the orifice 38 in a manner perpendicular thereto 38 and does not lead into the space

E. The groove 39 leads into a U-shaped retaining housing 39a, 39b situated respectively on the partitions 34a, 34b.

The retaining housings 39a, 39b are situated in a manner facing one another and are each intended to receive a pivoting stud of the applicator, which will be described below.

As illustrated, the applicator 40 comprises a substantially elongate body 41 that has a gripping part 42 and an application part 43 intended to pick up the product contained in the cavities 33a, 33b of the insert 30 and apply it to the user. In the example illustrated, the application part 43 has a substantially rounded shape.

The applicator 40 also comprises two protruding pivoting studs 44, 45 that are situated on a single axis and are connected to either side of the body 41. The axis of the pivoting studs 44, 45 is off-centre with respect to the centre of gravity of the applicator 40. As illustrated, the axis of the pivoting studs 44, 45 is closer to the gripping part 42 than to the application part 43.

During the insertion of the applicator 40 into the space E between the two cavities 33a, 33b of the insert 30 via the orifice 38, the pivoting studs 44, 45 are intended to come into abutment in the corresponding retaining housing 39a, 39b via the groove 39 of the container 30.

In other words, the applicator 40 is mounted so as to rotate in the retaining housings 39a, 39b of the insert 30 and pivots about the axis of the pivoting studs 44, 45.

Thus, when the lid 50 is mounted on the pot 20, the inner surface of the lid presses on the gripping part 42 of the applicator 40 so as to exert a force which tends to switch said applicator into a first position, referred to as stowing position, visible in Figure 6.

When the user removes the lid 50, the applicator 40 switches by gravity, along the arrow F illustrated in Figure 7, about its pivot axis into a second position, referred to as gripping or use position. In this second position, the gripping part 42 of the applicator 40 protrudes from the upper part 36 of the insert 30. Thus, the user can easily take hold of the applicator by its gripping part 42.

In a variant, provision could be made for the insert 30 to have a pivot in the form of a pin that extends between the two partitions 34a, 34b and is, for example, moulded with the insert, and for the applicator to comprise, on one of its sides, a groove intended to engage with said pin. Generally, once mounted in the insert, the

applicator is connected to the insert by a pivot connection, the axis of this pivot connection being off-centre with respect to the centre of gravity of the applicator in order to allow it to return into the second position under the effect of the force of gravity.

5 Elements for transmitting an attractive force of the application part or a repulsive force of the gripping part could also be provided, said elements being configured to switch the applicator into the second position when the lid is removed.

 Thus, a first magnet could be disposed close to the application part of the applicator, and a second magnet, of opposite polarity to the polarity of the first magnet, close to the bottom 31 of the insert 30, in order to improve the pivoting of
10 the applicator into the second position by attracting the application part towards the bottom of the insert. Nor is it excluded to dispose a second magnet, of identical polarity to the polarity of the first magnet, close to the upper wall 36 of the insert 30, so as to push the application part down towards the bottom of the insert.

15 Said assembly 10 may also have, by way of non-limiting example, a protective element 60 intended to cover the insert 30.

 The protective element 60 is disposed in a removable manner pressing on the upper end edge 35 of the insert 30. Such a protective element 60 is generally referred to as “sealing disc” and protects the lid 50 from the product contained in the
20 insert 30.

 The protective element 60 is configured to cover the cavities 33a, 33b of the insert in a leaktight manner. To this end, the protective element 60 comprises a substantially flat body 61 that is intended to rest on the upper end edge 35 of the insert 30, and two indentations 62a, 62b that protrude from the lower surface of the
25 body 61 and are each intended to be inserted into an upper part of a corresponding cavity 33a, 33b. The two indentations 62a, 62b leave a middle part 63 of the body that presses on the upper part 36 of the insert.

 The middle part 63 also comprises a notch 64 made in the thickness of said middle part 63 so as to lead into the space E between the partitions 34a, 34b of the insert 30, and a slot or recess 65 that extends in continuation of the notch 64,
30 perpendicularly thereto, and is made in the thickness of said middle part 63 so as to lead into the groove 39 in the insert 30. Thus, the applicator 40 is mounted in the space E via the notch 64 and the recess 65 of the protective element 60 that lead into the orifice 38 and the groove 39 of the insert 30, respectively.

The protective element 60 also comprises a flexible gripping tab 66 that allows the user to separate said element 60 from the insert 30 in order to use the product contained in said insert 30.

5 The applicator 40 illustrated in Figures 8 and 9, in which the same elements bear the same references, differs from the previous embodiment by the shape of the applicator part.

As illustrated in Figure 8, the application part 46 of the applicator 40 comprises two rows of application elements protruding in the longitudinal direction of the applicator, forming a brush. A different number of rows of application
10 elements, for example equal to one or greater than two, could be provided.

As illustrated in Figure 9, the application part 47 of the applicator 40 is in the form of a spatula having a thinner end compared with the body 41 of the applicator 40.

By virtue of the packaging and application assembly according to the
15 invention, it is easy and obvious for the user to grasp the applicator. Specifically, when the user removes the lid, the applicator switches automatically from the first, stowed position towards the second, gripping position, revealing the gripping part projecting vertically from the insert and from the protective element, if there is one.

CLAIMS

1. Assembly (10) for packaging and applying a product, notably a cosmetic product, comprising a container (30) delimiting at least one cavity (33a, 33b) containing said product, a lid (50) designed to close off said cavity, and an applicator (40) that is mounted in a removable manner on the container (30) and comprising a gripping part (42), the container (30) comprising a space (E) for receiving the applicator (40) distinct from the cavity (33a, 33b), and an orifice (38) opening into said space (E) for the insertion of the applicator (40), and the applicator (40) being rotatable in said space (E) between a first stowed position in which the lid is in the closed-off position and presses on said applicator, and a second gripping position in which the gripping part (42) projects from the container (30), characterized in that the applicator (40) comprises two pivoting studs (44, 45) that are located on a single common axis, said axis being offset with respect to the centre of gravity of the applicator (40) so as to cause said applicator to pivot automatically into the second position when the lid (50) is removed.

2. Assembly according to Claim 1, wherein said cavity (33a, 33b) is delimited by a peripheral side wall (32) and a partition (34a, 34b) connected to said side wall (32) by an upper wall (36) while leaving the space (E) for receiving the applicator (40), and wherein the orifice (38) is made in the thickness of said upper wall (36) between the partition (34a, 34b) and the side wall (32).

3. Assembly according to Claim 1, wherein the container (30) delimits two cavities (33a, 33b), each containing a product, the two cavities (33a, 33b) being separated by two parallel partitions (34a, 34b) that are connected by an upper wall (36) while leaving the space (E) for receiving the applicator (40), and wherein the orifice (38) is made in the thickness of the upper wall (36) between the partition (34a, 34b) and the side wall (32).

4. Assembly according to any one of the preceding claims, wherein the container (30) comprises a groove (39) extending in continuation of the orifice (38) in a manner perpendicular thereto (38) and leading into a U-shaped retaining housing (39a, 39b), each of which is intended to receive a pivoting stud (44, 45).

5. Assembly according to any one of Claims 1 to 4, comprising a protective element (60) that is disposed in a removable manner on the container (30) and is configured to cover the cavity/cavities (33a, 33b) of the container (30) in a leak tight

manner, the protective element (60) comprising a notch (64) that leads into the space (E) of the container (30).

5 6. Assembly according to any one of the preceding claims, comprising elements for transmitting an attractive force of the application part (43, 46, 47) or a repulsive force of the gripping part (42), said elements being configured to switch the applicator into the second position when the lid (50) is removed.

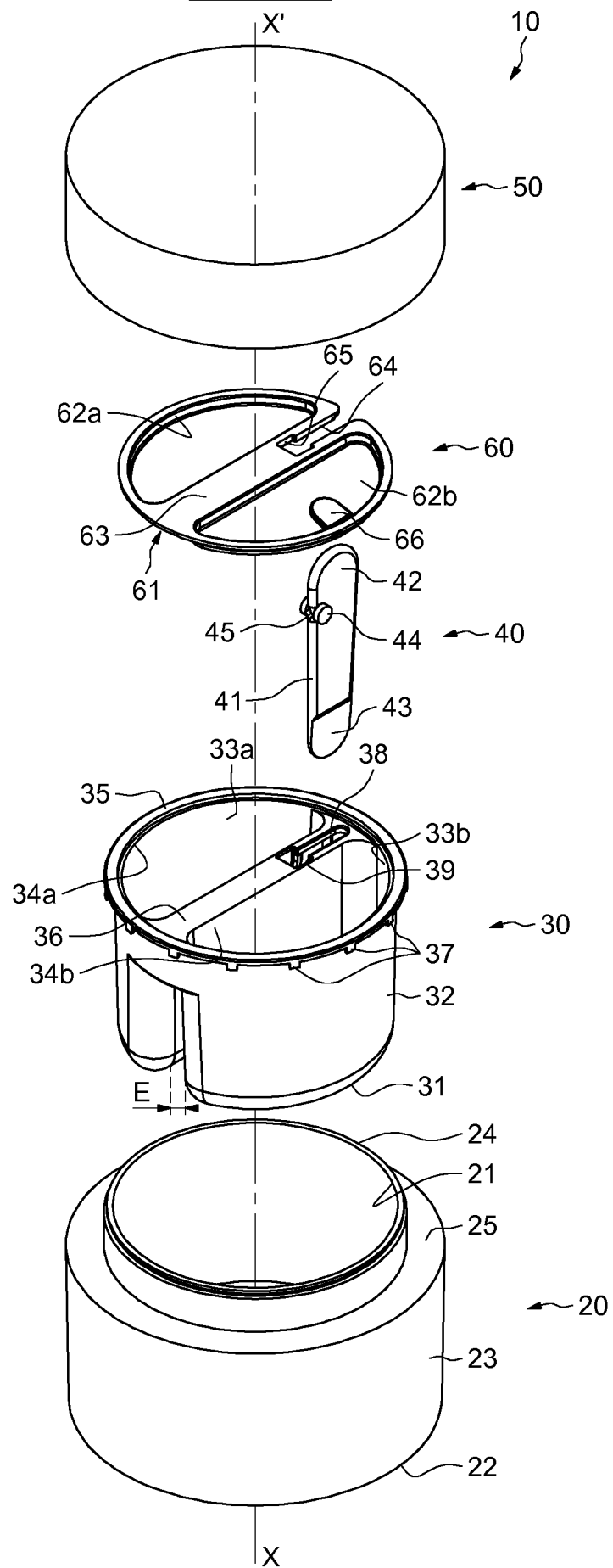
10 7. Assembly according to Claim 6, wherein said elements for transmitting an attractive force comprise a first magnet disposed on the applicator (40) close to the application part (43, 46, 47), and a second magnet disposed in the container, said magnets being configured to switch the applicator into the second position when the lid (50) is removed.

8. Assembly according to any one of the preceding claims, wherein the application part (43, 47) of the applicator (40) has a rounded or rectangular shape.

15 9. Assembly according to any one of Claims 1 to 8, wherein the application part (46) of the applicator (40) comprises at least one row of at least one application element protruding in the longitudinal direction of the applicator.

10. Assembly according to any one of the preceding claims, comprising a pot (20) delimiting an internal volume (21) for receiving the container (30).

1/5
FIG.1



2/5
FIG.2

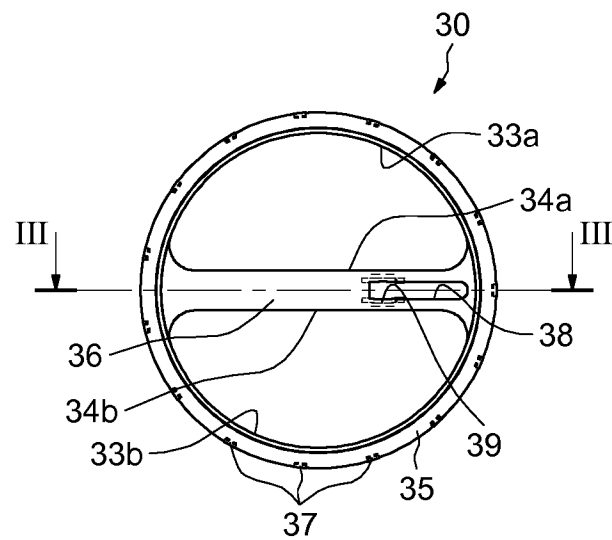
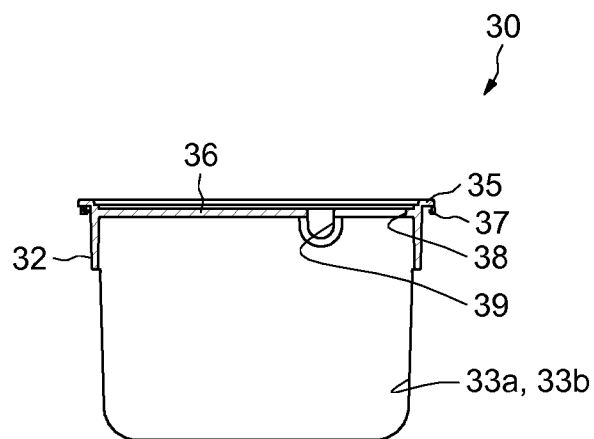


FIG.3



3/5
FIG.4

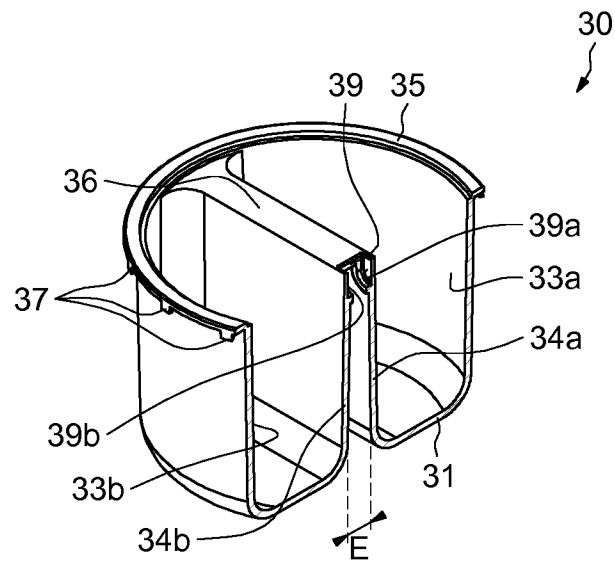
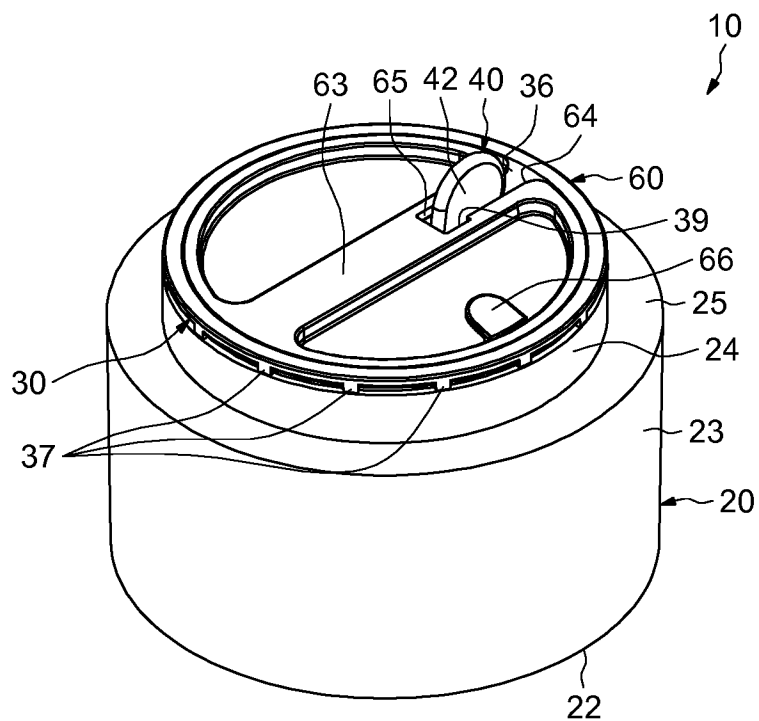


FIG.5



4/5
FIG.6

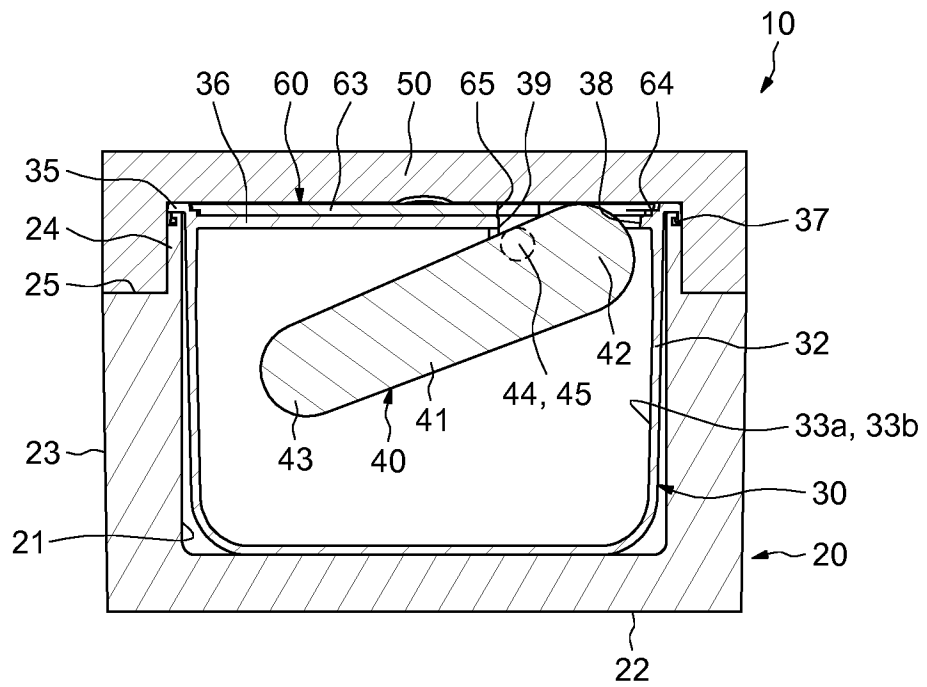
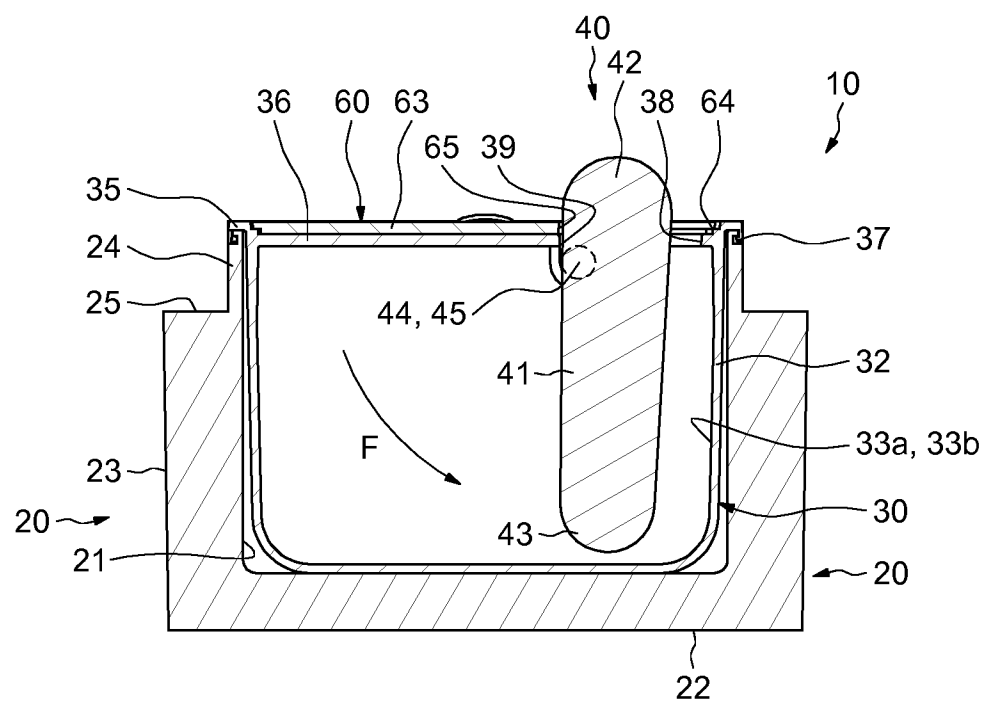


FIG.7



5/5
FIG.8

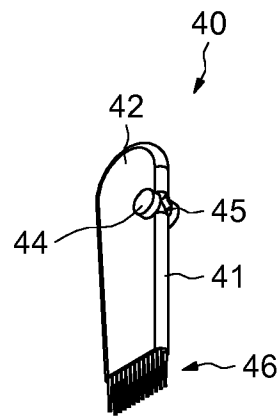
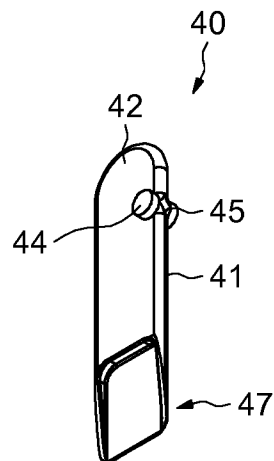


FIG.9



INTERNATIONAL SEARCH REPORT

International application No

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A. CLASSIFICATION OF SUBJECT MATTER
 INV. A45D40/00 A45D40/24 B65D77/24
 ADD.

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 B65D

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

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

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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