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(54) **Title:** COSMETIC PRODUCT DISPENSING HEAD INTENDED TO BE MOUNTED ON A RECEPTACLE, ASSOCIATED DISPENSING DEVICE AND METHOD

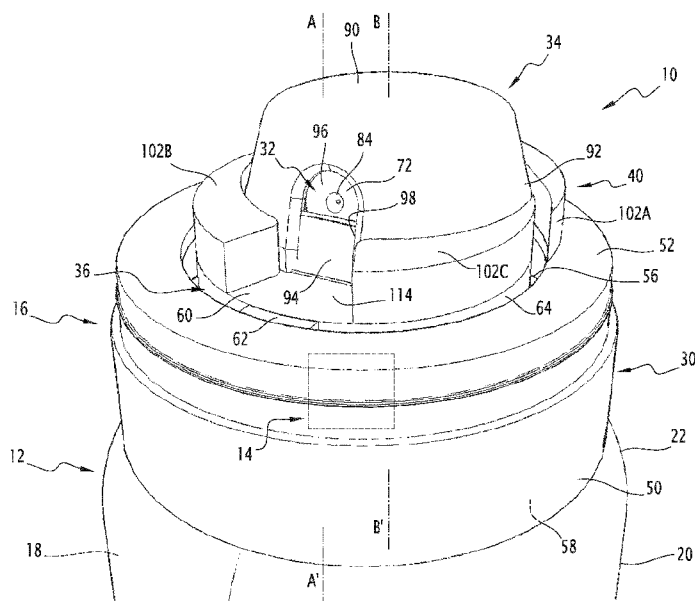


FIG.1

(57) **Abstract:** This head comprises a band (30), mounted on the receptacle (12), around a product dispensing member (14). It comprises a product dispensing nozzle (32), the nozzle (32) comprising an upstream part (70) extending along an upstream axis (A-A'), the upstream part (70) being intended to be connected to the dispensing member (14), and a downstream part (72) for guiding the product out. The head comprises a push-button (34), movably mounted between an idle position and a product dispensing position via the nozzle (32). The push-button (34) is rotatably mounted in relation to the band (30) about an offset axis (B-B') in relation to the upstream axis (A-A'), between a storage position preventing the product from being dispensed, and the idle position.

**Cosmetic product dispensing head intended to be mounted on a receptacle,
associated dispensing device and method**

The present invention relates to a cosmetic product dispensing head, intended to be mounted on a receptacle, comprising:

5 - a band, intended to be mounted on the receptacle, around a product dispensing member;

 - a product dispensing nozzle, the nozzle comprising an upstream part extending along an upstream axis, the upstream part being intended to be connected to the dispensing member, and a downstream part for guiding the product out,

10 - a push-button, movably mounted between an idle position and a product dispensing position via the nozzle.

This head is intended to be mounted on a receptacle containing a cosmetic product, in order to dispense the product in spray or aerosol form. The head is intended to selectively enable or disable dispensing of the product.

15 The cosmetic product is, for example, a gel, cream or powder.

"Cosmetic product" means in particular, in the sense of this invention, a product such as defined in EC Regulation no. 1223/2009 of the European Parliament and of the Council of November 30, 2009 relating to cosmetic products.

20 The cosmetic product will be applied onto a surface of a user's body, such as the user's skin or keratin fibers.

The head is generally mounted on a receptacle comprising, at the upper end thereof, a product dispensing member such as a valve or pump. In this case, the band on the head, covered by the push-button, is engaged about the neck of the receptacle, and the dispensing nozzle is positioned in contact with the dispensing member.

25 Moving the push-button from an idle position to a dispensing position causes the product to be dispensed.

Examples of dispensing heads are known from EP 1 029 808, FR 2 865 463, US 4 024 988 and US 2003/0038146. WO 2009/063517 describes a head comprising a rotatable dispensing member.

30 In some cases, the receptacle wherein the head is mounted is a receptacle pressurized with a compressed gas.

In this case, the dispensing head is not always satisfactory. Indeed, the nozzle is frequently blocked at the interface thereof with air, since the formula is not diluted with a dissolved gas and the dry solid polymer concentration is high.

Moreover, in some cases, a small spray of formula is liable to form after closing the valve, given that the pressure in the dead volumes in the head falls, as the compressed gas escapes.

One aim of the invention is thus that of providing a device eliminating any blockage of the nozzle orifice and minimizing the leakage of formula after filling.

The invention thus relates to a head such as that mentioned above, characterized in that the push-button is rotatably mounted in relation to the band about an offset axis in relation to the upstream axis, between a storage position preventing the product from being dispensed, and the idle position.

The head according to the invention may comprise one or several of the following characteristics taken in isolation or in any technically possible combination:

- the push-button defines a sealing flap, and a product dispensing slot, arranged at an angle facing the flap, the flap being positioned facing the nozzle to seal a nozzle dispensing orifice in the idle position, the slot being positioned facing the nozzle in the dispensing position;

- the push-button comprises a skirt defining a notch, the flap being integral with or molded onto the skirt in the notch;

- it comprises an elastic member for actuating the push-button to the idle position thereof;

- it comprises a member for guiding the push-button, suitable for being moved in conjunction with the push-button, the guiding member comprising a securing head suitable for locking the push-button in the idle position;

- the push button is movably mounted in relation to the nozzle during the movement thereof between the idle position and the dispensing position;

- it comprises a nozzle support holding the nozzle, the nozzle support and the nozzle being non-rotatable about the offset axis during the rotation of the push-button about the offset axis, the nozzle support being advantageously connected to the band;

- at least one of the nozzle support and the band comprises an abutment for guiding the push-button in rotation about the offset axis;

- either the nozzle support or the band bears a first projection for locking the push-button in rotation in the idle position thereof, the push-button bearing a second projection for locking in rotation, suitable for engaging with the first projection in the idle position;

- the nozzle defines a rod for reducing the dead volume intended to be inserted into the dispensing member, the rod having at least one dispensing channel, the dispensing channel advantageously consisting of a side recess provided in the rod;

- the band defines a push-button locking surface preventing the push-button from changing to the dispensing position, when the push-button is set to the storage position and allowing the push-button to change to the dispensing position when the push-button is in the idle position.

5 The invention also relates to a cosmetic product dispensing device comprising:

- a receptacle defining an inner volume for receiving cosmetic product;
- a member for dispensing product mounted on the receptacle; and
- a dispensing head as defined above.

10 The device according to the invention may comprise one or several of the following characteristics taken in isolation or in any technically possible combination:

- the nozzle defines a rod for reducing the dead volume inserted into the dispensing member.

The invention also relates to a cosmetic product dispensing method, comprising the following steps:

15 - providing a device as defined above, wherein the push-button is in the storage position thereof;

- rotating the push-button about an offset axis in relation to the upstream axis between the storage position and the idle position.

The method according to the invention may have the following feature:

20 - it comprises a step for dispensing cosmetic product, including moving the push-button at least partially along the offset axis between the idle position and the dispensing position.

25 The invention will be better understood after reading the following description given solely as an example with reference to the appended drawings in which:

- figure 1 is a partial perspective view of a cosmetic product dispensing device, equipped with a first head according to the invention;

- figure 2 is a top view of the head in figure 1;

- figure 3 is a bottom view of the head in figure 1;

30 - figure 4 is a perspective three-quarters front view of the head in figure 1, with the push-button removed;

- figure 5 is a perspective three-quarters front view of the push-button; and

- figure 6 is a bottom view of the push-button.

35 Below, the terms "upstream" and "downstream" generally refer to the normal direction of circulation of a fluid.

A first dispensing device 10 according to the invention is illustrated in figure 1. The first device 10 is intended to dispense a cosmetic product in spray or aerosol form. The cosmetic product is for example a liquid, cream, gel or solid.

The device 10 comprises a receptacle 12 containing the cosmetic product, a product dispensing member 14 mounted on the receptacle 12, and a dispensing head 16 according to the invention, mounted on the receptacle 12 and connected to the dispensing member 14.

The receptacle 12 extends along an elongated axis A-A' shown as vertical in figure 1. It defines an inner volume 18 for receiving cosmetic product. In this example, it comprises a side wall 20 and a neck 22.

The dispensing member 14 is for example a valve or pump. The dispensing member 14 is advantageously mounted on the neck 22. It seals the inner volume 18 externally. It extends along an axis which, in this example, is coaxial with the axis A-A'.

The dispensing member 14 is suitable for being actuated by means of the dispensing head 16 between an idle configuration for sealing the inner volume 18 and an active configuration for dispensing the product from the inner volume 18, wherein the dispensing head 16 is connected to the inner volume 18.

As illustrated in figures 1 to 6, the dispensing head 16 comprises an outer band 30, a product dispensing nozzle 32, connected to the dispensing member 14, and a push button 34 for actuating the dispensing member 14 with a view to dispensing product through the nozzle 32.

According to the invention, the push-button 34 is rotatably mounted in relation to the band 30 about an offset axis B-B' between a storage position and an idle position, shown in Figure 2.

Furthermore, the push-button 34 is movably mounted along the offset axis B-B' in relation to the band 30, and, in this example, in relation to the nozzle 32, between the idle position and a product dispensing position, shown in figure 1.

With reference to figure 4, the device 10 further comprises a nozzle support 36 connected to the band 30, at least one elastic member 38 for actuating the push-button 34 to the idle position thereof, and an assembly 40 for guiding the push-button 34 in rotation and translation in relation to the band 30 and in relation to the nozzle 32.

As illustrated in figures 1, 3 and 4, the band 30 comprises an outer peripheral wall 50 and a top wall 52, the walls 50, 52 revolving about the axis A-A'.

The band 30 defines, between the walls 50, 52, a volume 54 for inserting the dispensing member 14. The volume 54 opens outward (at the top of the figures), via an

opening 56 for the push-button 34 and inward (at the bottom of the figures), via an opening 58 for inserting the receptacle 12.

The top wall 52 forms an inner rim projecting radially toward the axis A-A'. It defines the contour of the outer opening 56.

5 As illustrated in figure 4, the nozzle support 36 is arranged in the insertion volume 54, advantageously at the outer opening 56. It comprises a plate 60 for supporting the nozzle 32 and at least one linking member 62 between the band 30 and the support 36.

10 In this example, the plate 60 is substantially plane. It extends transversely in relation to the axis A-A'. It has an outer contour having a smaller cross-section than the inner contour of the upper opening 56.

The plate 60 defines, with the top wall 52, an annular intermediate space 64 wherein the linking member 62 is inserted. In this example, the nozzle support 36 comprises a single linking member 62 consisting of a film hinge.

15 The plate 60 further defines a through hole 66 for inserting a member for guiding the push-button 34, offset in relation to the axis A-A', and advantageously passages 67 for molding the elastic members 38.

20 The nozzle 32 is suitable for moving in conjunction with the nozzle support 36. It passes through the nozzle support 36. It comprises an axial upstream part 70 projecting along an upstream axis A-A' through the nozzle support 36, and a downstream part 72 projecting transversely above the nozzle support 36.

In this example with reference to figure 3, the upstream part 70 is housed in an outer sleeve 74 to be engaged around the dispensing member 14. It comprises an upstream rod 76 to be inserted into the dispensing member 14 to limit dead volumes.

25 The upstream rod 76 extends advantageously along the axis A-A'. It defines an upstream channel 78 for the product, having a smaller cross-section than the cross-section of the rod 76. In this example, the upstream channel 78 is offset in relation to the axis of the upstream rod 76. It consists of an axial recess opening transversely in relation to the rod 36.

30 The downstream part 72 is housed in an outer cap 80 projecting on the nozzle support 36. It comprises a downstream rod 82 extending transversely in relation to the upstream rod 76. The cap 80 opens transversely in relation to the axis A-A' via a side product dispensing orifice 84.

35 The downstream rod 82 extends into the cap 80. It has a free end facing the orifice 84. It defines a downstream channel 86 for the product, having a smaller cross-section than the cross-section of the rod 82. In this example, the downstream channel 86 is offset

in relation to the axis of the downstream rod 82. It consists of a recess opening laterally in relation to the axis of the rod 82.

As seen hereinafter, due to the offset of the axis B-B', the transverse dimension of the downstream part 72, perpendicular to the axis A-A', is small. It is considerably less than the length of the upstream part 70, measured along the axis A-A'. It is for example less than 7 mm. This reduces the risk of blocking the nozzle 32.

In this example, the outer band 30 and the nozzle support 36 consist of a single piece, formed by molding for example. They are for example made using a thermoplastic material, such as polypropylene, polyethylene, ABS, polycarbonate, polyamide, etc. The nozzle 32, for example molded in polyacetal, is inserted during assembly in the nozzle support 36.

In this example, the device 10 comprises two elastic members 38 for actuating the push-button 34.

The members 38 consist of elastic tabs projecting outward and away from the axis A-A' in relation to the cap 80.

Each elastic member 38 is integral and made in one piece with the nozzle support 36. It is elastically deformable between an extended position advantageously above the top plane of the nozzle support 36 and an elastically actuated position, at the top plane of the nozzle support 36.

The push-button 34 is illustrated in detail in figures 5 and 6. In this example, it has an elongated truncated cylindrical shape, along an axis C-C' perpendicular to the axis of rotation B-B' thereof.

The push-button 34 comprises an outer sealing wall 90 and a peripheral skirt 92. It further comprises a flap 94 for sealing the nozzle 32 integral with the skirt 92, or molded in a more flexible material, such as a thermoplastic polymer, such as Hytrel, EPDM, Santoprene, Silicone, etc.

The height of the flap 94 is substantially equivalent to that of the nozzle 32, and the length thereof is such that it can cover the nozzle 32 between the storage position of the push-button 34, and the idle position of said push-button.

The button 34 further comprises a product dispensing slot 96, situated above the flap 94.

In this example, the peripheral skirt 92 defines a notch 98 opening at the bottom. The sealing flap 94 extends through the notch 98 and defines the slot 96 at the bottom. The slot 96 is defined at the top by the bottom of the notch 98.

As seen hereinafter, the push-button 34 is rotatably mounted about an offset axis B-B' in relation to the axis A-A' of the dispensing member 14. It is further suitable for

moving along the offset axis B-B' between the idle position thereof and the product dispensing position thereof. In this case, the offset axis B-B' is substantially parallel to the axis A-A'.

The guiding assembly 40 comprises a member 100 for guiding the push-button 36 in translation along the axis B-B' in relation to the nozzle support 36, at least one abutment 102A to 102C for guiding the push-button 36 in rotation about the offset axis B-B', and at least one projection 104A, 104B for locking the rotation of the push-button 36 about the axis B-B'.

The guiding member 100 is rigidly connected to the push-button 36 so as to be suitable for moving in conjunction with same. It comprises a guiding axis 106, and a lower securing end 108 projecting at the free end of the axis 106, to lock the push-button 36 in relation to the support 34.

In this example, the guiding member 100 is substantially arranged at the center of the push-button 36 along the axis B-B'. It is advantageously integral with the push-button 36.

The axis 106 projects inward from the top wall 90. It extends opposite the skirt 92. The axis 106 has a transverse dimension less than or equal to that of the offset opening 66.

The head 108 comprises at least one attachment tab 110 projecting laterally in relation to the axis 106. The head 108 thus has a transverse dimension greater than that of the offset opening 66.

When the push-button 36 is mounted on the head 16, the axis 106 is inserted through the offset opening 66. The head 108 projects below the support 36 about the opening 66. The axis 106 is suitable for sliding along the axis B-B' to guide the movement of the push-button 34 between the idle position thereof and the dispensing position thereof.

The head 108 prevents the outward movement of the push-button 34 beyond the idle position thereof, by engagement between the head 108 and the nozzle support 36.

In the example shown in figure 4, the guiding assembly 40 comprises at least one rear guiding abutment 102A rigidly connected to the band 30, and at least one front guiding abutment 102B, 102C rigidly connected to the guiding support 36.

In this example, the abutment 102A is integral with the band 30.

The rear guiding abutment 102A projects from the top wall 52 of the band 30. It has a curved, substantially crescent shape. It defines a guiding surface 112 wherein the contour is centered on the axis B-B'. The surface 112 is intended to engage with the outer skirt 92 of the push-button 34.

The top wall 52 of the band 30 and the abutment 102A further define, at the axis B-B', a transverse rim 113 for retaining the push-button 34 arranged between the intermediate space 64 and the surface 112.

The retaining rim 113 is suitable for engaging with the inner edge of the push-button 34 when the push-button is in the storage position thereof. It is suitable for allowing unimpeded transition of the push-button 36 from the idle position thereof to the dispensing position thereof when the push-button 36 is in the idle position thereof.

In this example, the guiding assembly 40 comprises two opposite front guiding abutments 102B, 102C rigidly connected to the nozzle support 36.

The guiding abutments 102B, 102C for example each have a half-crescent shape.

Together, they define a central passage 114 extending opposite the orifice 84 of the nozzle 32 for dispensing product.

Each abutment 102B, 102C defines an inner guiding surface 115 centered on the axis B-B'.

The surfaces 115 are intended to engage with the outer skirt 92 during the rotation of the push-button 34.

The abutments 102B, 102C are advantageously integral with the nozzle support 36.

In this example, the guiding assembly 40 comprises at least one first locking projection 104A, rigidly connected to the push-button 34, and at least one second locking projection 104B for engaging with the first locking projection 104A, the second projection 104B being rigidly connected to the band 30 or the nozzle support 36.

In this example, the second locking projection 104B is rigidly connected to the nozzle support 36. It extends advantageously between the rear abutment 102A and one of the front abutments 102B.

The first projection 104A projects radially inward from the skirt 92.

The device 10 is assembled as described hereinafter.

Initially, the band 30 bearing the nozzle support 36 and the push-button 34 are provided. The nozzle 32 is provided and is inserted in the nozzle support 36.

The push-button 34 is then mounted on the nozzle support 36 by inserting the guiding member 100 through the opening 66.

The push-button 36 is set to the storage position thereof. In this position, the slot 96 provided in the push-button 34 is situated at an angle away from the dispensing orifice 84 of the nozzle 32. The slot 96 is situated at an angle facing one of the front abutments 102A, 102B.

It is sealed away from the axis B-B' by the surface 116 of one of the front abutments 102A, 102B.

The elastic actuation members 38 push the push-button outward. The head 108 for securing the guiding member 100 is arranged bearing against the nozzle support 36.

5 The receptacle 12 is filled with cosmetic product and is pressurized using a known protocol, such as breaking the valve and crimping, or crimping the valve and filling via the valve rod.

10 The dispensing head 16 is then mounted on the receptacle 12. For this purpose, the upstream part 70 of the nozzle 32 is inserted into the dispensing member 14. The upstream rod 76 is inserted into this member, to minimize the dead volumes.

15 Since the length of the downstream part 72 is minimal and the volume of the upstream part 70 is also reduced, the dead volumes found inside the nozzle 32 are minimized, reducing the risk of forming a spray of formula after closing the dispensing member 14. The part of the sealing flap 94 situated facing the nozzle 32 seals the orifice 84 thereof, thus limiting the possibility of the orifice being blocked, when a user resets the push-button 34 to the storage position after use.

In this position, the inner edge of the skirt 92 of the push-button 34 is situated facing the retaining rim 113 defined on the band 30.

20 The push-button 34 is thus locked in translation during the storage thereof, without requiring a cap over the push-button 34.

A user can then dispense product by switching the push-button from the storage position thereof to the idle position thereof.

25 During this movement, the push-button 34 rotates about the offset axis B-B', guided externally by the surfaces 115 of the front abutments 102C, 102B. Rotating the push-button 34 about the offset axis positions the inner edge of the push-button 34 away from the rim 113.

Moreover, the flap 94 of the push-button 34 is positioned facing the dispensing orifice 84 situated on the nozzle 32. The flap 94 thus seals the dispensing orifice 84.

30 The user can then dispense product by moving the push-button 34 inward along the axis B-B'.

This movement is guided by the guiding member 100. It is carried out against the elastic actuation force generated by the elastic members 38.

35 During this movement, the slot 96 on the push-button is positioned facing the dispensing orifice 84 of the nozzle 32. The push-button 34 abuts the nozzle 32, advantageously by engagement between the outer wall 90 and the cap 80.

The inward movement of the push-button 34 continues and gives rise to the joint movement of the nozzle 32, and subsequently the actuation of the dispensing member 14.

In this way, as illustrated in figure 1, in the dispensing position, the orifice 84 is positioned facing the slot 96. The cosmetic product flow from the receptacle 12 through the upstream channel 78 and the downstream channel 86.

When the user releases the push-button 34, said push-button returns to the idle position under the effect of the thrust force generated by the elastic members 38.

The dispensing head 16 according to the invention is thus simple to use and inexpensive to produce. It has reduced dead volumes, particularly using an offset push-button 34 restricting the maximum transverse dimension of the nozzle 32 and enabling effective locking of the push-button 34 in the storage position.

The presence of a sealing flap 94 on the push-button seals the nozzle 32 in the closed position thereof and makes it possible to clear the dispensing slot 84 of the nozzle 32 by lowering the push-button 34 along the axis A-A' of the receptacle 12.

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CLAIMS

1.- Cosmetic product dispensing head (16), intended to be mounted on a receptacle (12), comprising:

5 - a band (30), intended to be mounted on the receptacle (12), around a product dispensing member (14);

10 - a product dispensing nozzle (32), the nozzle (32) comprising an upstream part (70) extending along an upstream axis (A-A'), the upstream part (70) being intended to be connected to the dispensing member (14), and a downstream part (72) for guiding the product out,

 - a push-button (34), movably mounted between an idle position and a product dispensing position via the nozzle (32).

15 characterized in that the push-button (34) is rotatably mounted in relation to the band (30) about an offset axis (B-B') in relation to the upstream axis (A-A'), between a storage position preventing the product from being dispensed, and the idle position and in that it comprises a nozzle support (36) bearing the nozzle (32), the nozzle support (36) and the nozzle (36) being non-rotatable about the offset axis (B-B') during the rotation of the push-button (34) about the offset axis (B-B'), the nozzle support (36) being advantageously connected to the band (30).

20 2. - Head (16) according to claim 1, characterized in that the push-button (34) defines a sealing flap (94), and a product dispensing slot (96), arranged at an angle facing the flap (94), the flap (94) being positioned facing the nozzle (32) to seal a nozzle (32) dispensing orifice in the idle position, the slot (96) being positioned facing the nozzle (32) in the dispensing position.

25 3.- Head (16) according to claim 2, characterized in that the push-button (34) comprises a skirt (92) defining a notch (98), the flap (94) being integral with or molded onto the skirt (92) in the notch (98).

30 4.- Head (16) according to any of the above claims, characterized in that it comprises an elastic member (38) for actuating the push-button (34) to the idle position thereof.

5.- Head (16) according to any of the above claims, characterized in that it comprises a member (100) for guiding the push-button (34), suitable for being moved in conjunction with the push-button (34), the guiding member (100) comprising a securing head (108) suitable for locking the push-button (34) in the idle position.

6.- Head (16) according to any of the above claims, characterized in that the push-button (34) is movably mounted in relation to the nozzle (32) during the movement thereof between the idle position and the dispensing position.

7.- Head (16) according to any of the above claims, characterized in that at least one of the nozzle support (36) and the band (30) comprises an abutment (102A to 102C) for guiding the push-button (34) in rotation about the offset axis (B-B').

8.- Head (16) according to any of the above claims, characterized in that either the nozzle support (36) or the band (30) bears a first projection (104A) for locking the push-button (34) in rotation in the idle position thereof, the push-button (34) bearing a second projection (104B) for locking in rotation, suitable for engaging with the first projection (104A) in the idle position.

9.- Head (16) according to any of the above claims, characterized in that the nozzle (32) defines a rod (76) for reducing the dead volume intended to be inserted into the dispensing member (14), the rod (76) having at least one dispensing channel (78), the dispensing channel (78) advantageously consisting of a side recess provided in the rod (76).

10.- Head (16) according to any of the above claims, characterized in that the band (30) defines a surface (113) for locking the push-button (34) preventing the push-button (34) from changing to the dispensing position, when the push-button is set to the storage position and allowing the push-button (34) to change to the dispensing position when the push-button (34) is in the idle position.

11.- Cosmetic product dispensing device (10) comprising:

- a receptacle (12) defining an inner volume for receiving cosmetic product;
- a member (14) for dispensing product mounted on the receptacle (12); and
- a dispensing head (16) according to any of the above claims.

12.- Device (10) according to claim 11, characterized in that the nozzle (32) defines a rod (76) for reducing the dead volume inserted into the dispensing member (14).

13.- Cosmetic product dispensing method, comprising the following steps:

- providing a device (10) according to any of claims 11 or 12, wherein the push-button (34) is in the storage position thereof;
- rotating the push-button (34) about an offset axis (B-B') in relation to the upstream axis (A-A') between the storage position and the idle position.

14.- Method according to claim 13, characterized in that it comprises a step for dispensing cosmetic product, including moving the push-button (34) at least partially along the offset axis (B-B') between the idle position and the dispensing position.

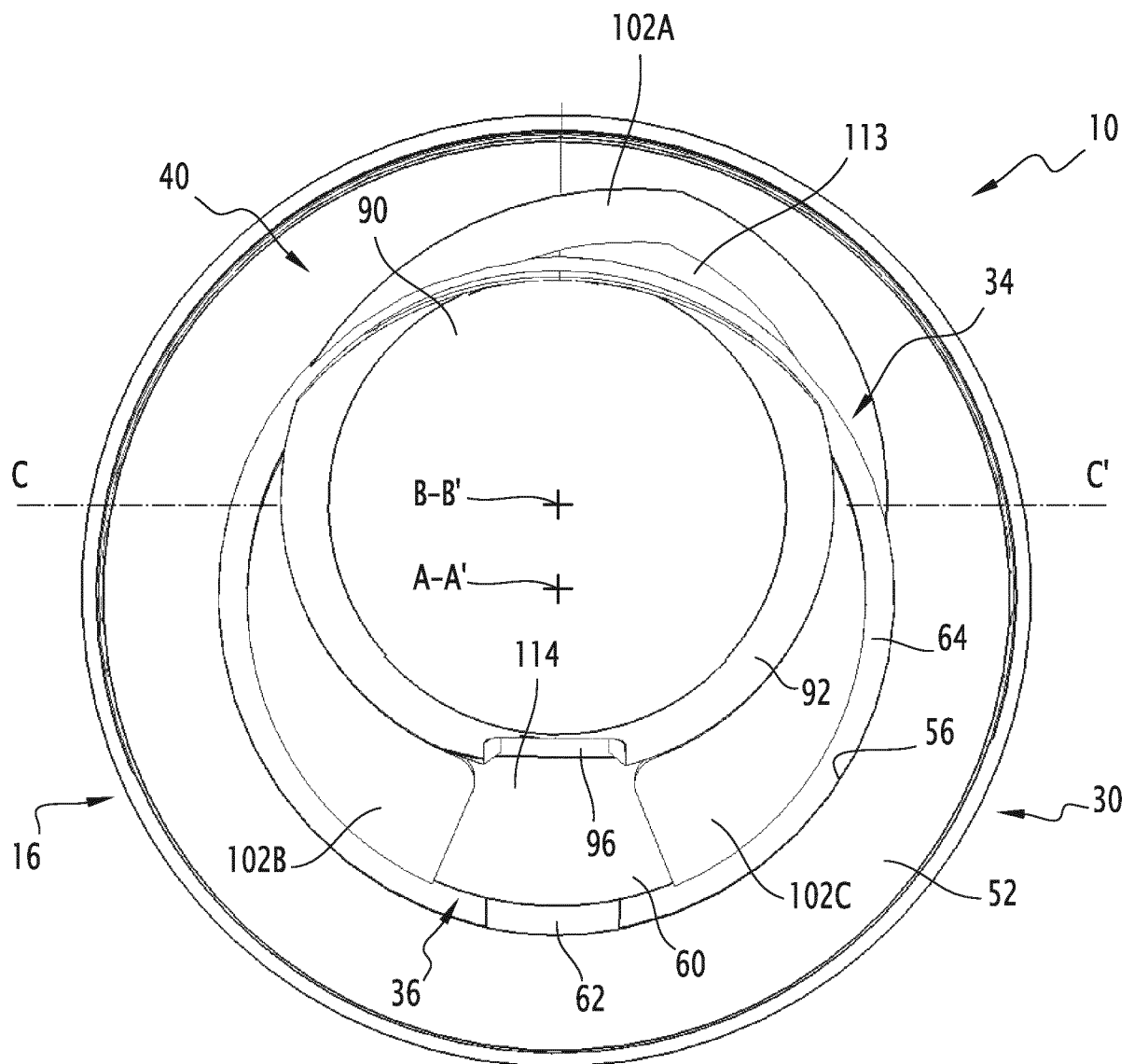


FIG.2

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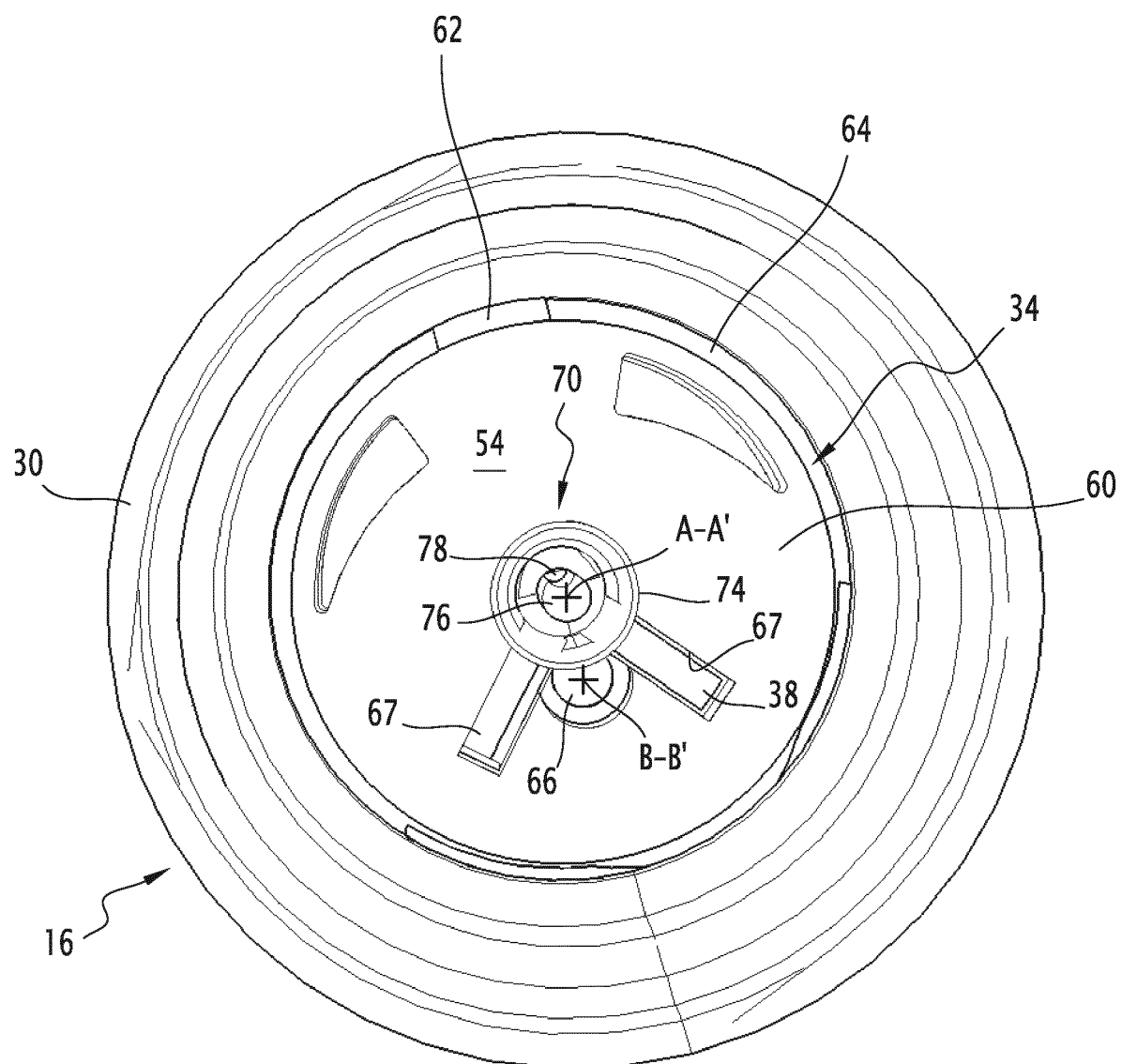


FIG.3

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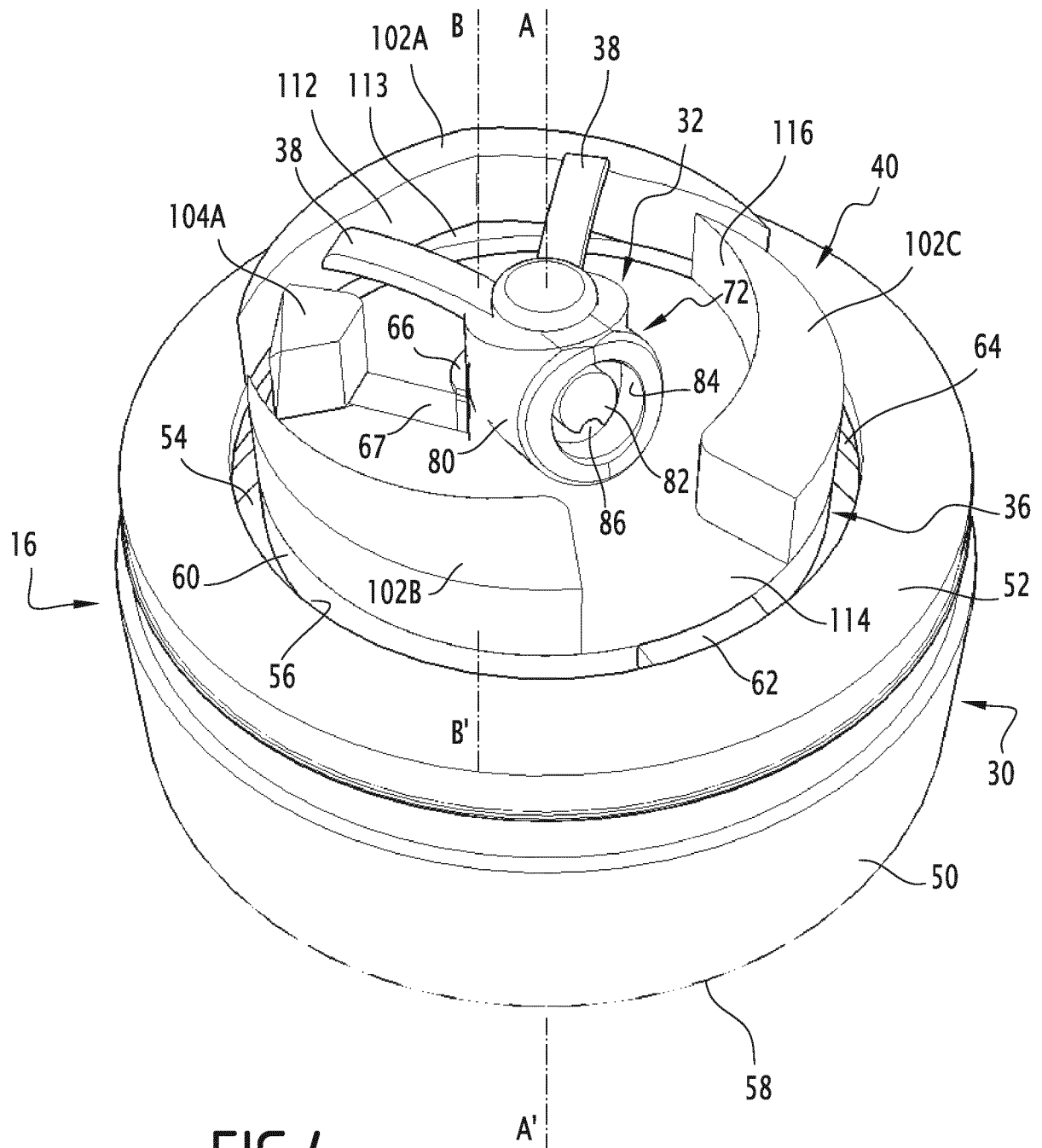


FIG.4

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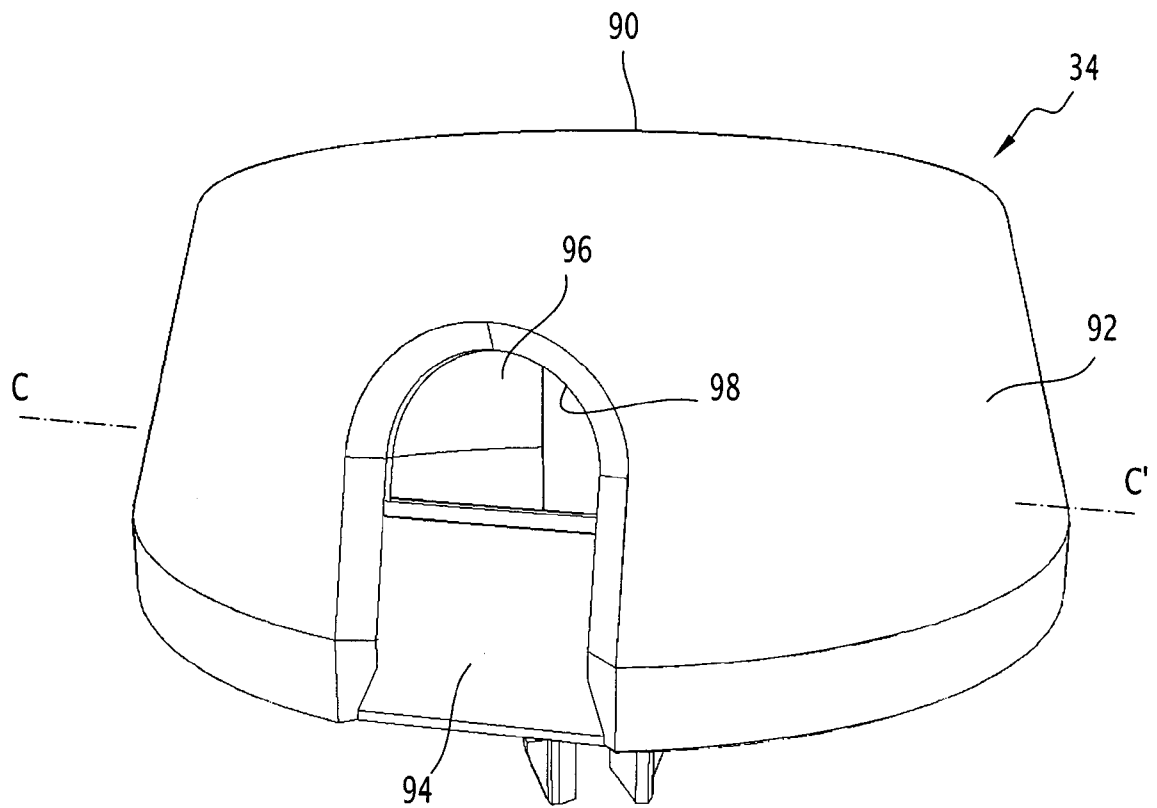


FIG. 5

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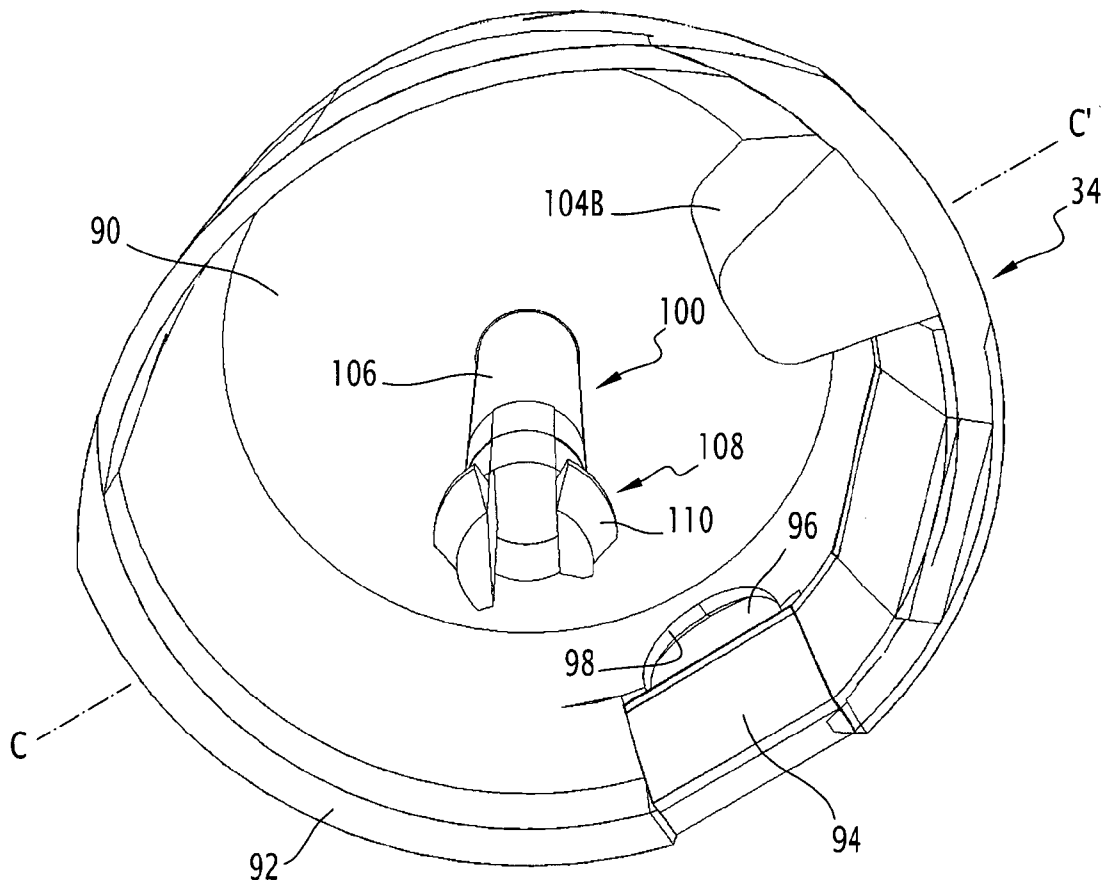


FIG. 6

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2013/062815

A. CLASSIFICATION OF SUBJECT MATTER

INV. B65D83/22 B05B15/02 B05B11/00
ADD. B65D83/20

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)
B05B 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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A	US 5 085 347 A (HAYES THOMAS H [US] ET AL) 4 February 1992 (1992-02-04) column 3, line 48 - column 4, line 22 column 6, line 46 - column 7, line 22 figures 1-6,10 -----	1,13
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Further documents are listed in the continuation of Box C.



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INTERNATIONAL SEARCH REPORT

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