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(54) **PACKAGING DEVICE WITH IMPROVED OPENING**

VERPACKUNG MIT VERBESSERTER ÖFFNUNG

DISPOSITIF DE CONDITIONNEMENT A OUVERTURE AMELIOREE

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(73) Proprietor: **L'Oréal**

75008 Paris (FR)

(72) Inventor: **RENAULT, Philippe**

92370 Chaville (FR)

(74) Representative: **L'Oreal**

Service D.I.P.I.

9, rue Pierre Dreyfus

92110 Clichy (FR)

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EP 3 188 977 B1

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Description

[0001] The present invention relates to a packaging device, in particular for a cosmetic product, having a dispensing head attached to a container.

[0002] The expression "cosmetic product" is understood to mean any product as defined in Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products.

[0003] Packaging devices are being continually improved in order to arrive at an improved appearance while preserving practical hand movements in use. The improvement is found in particular in compact dispensing heads, for example dispensing heads having a reduced height.

[0004] By way of example, dispensing heads comprising a base and a lid hinged on the base, wherein a tab projects outwards from the lid in order to allow easy opening of the dispensing head, are known. However, when the device is stored in a restricted space, for example in a vanity case with other accessories, there is a risk of accidental opening of the device on account of random contact between the objects while the case is being transported. The same goes during the transport of the devices from the packaging factory to the sales location. In order to remedy this problem, the connection between the lid and the base is reinforced so as to have a greater opening force. However, this causes difficulty for the user on opening, particularly on opening for the first time.

[0005] An alternative solution for securing the opening of the dispensing head of packaging devices is the subject of the invention in Patent EP1260451. That document describes a dispensing head having a base and a lid hinged on the base with the aid of a pivot of axis Y. An elastically deformable portion is formed on the base of the cap, diametrically opposite the pivot of axis Y. When the elastic portion is deformed, it allows a finger to access a free portion of the lid in order to tilt the lid about the axis Y by actuating this free portion. Thus, the dispensing head passes from a closed position to an open position. Consequently, the user has to carry out two different movements in order to open the cap, firstly deforming the elastic portion and then pushing the accessible portion of the lid upward. The cap is thus not very ergonomic. Moreover, the height of the cap remains significant, resulting in a shape that is not very compact and not very attractive.

[0006] Document BE 517 239 A discloses a closure cap having a small height has a very small depression zone formed in the base part of the cap. Consequently, it is difficult to insert one's finger into the depression zone and thus to correctly lift the lid of the closure cap.

[0007] One of the objects of the invention is to produce a packaging device which does not have the drawbacks of the prior art.

[0008] In particular, it is an object of the invention to provide a packaging device which limits accidental opening while being easy to open by the user.

[0009] Another object of the invention is to provide a packaging device that is more compact compared with conventional devices. Besides the aesthetic aspect, a compact device uses fewer raw materials, and so the impact on the environment is reduced.

[0010] To this end, the invention, which is defined by the appended claims, proposes a packaging device having a container comprising a neck, defining an opening of axis X, extending from a shoulder of the container, and a dispensing head intended to be mounted on the container, said dispensing head comprising:

- a base comprising a transverse wall provided with an orifice, an external skirt extending from the peripheral edge of the transverse wall and a fastening means, and
- a lid hinged to the base about a pivot of axis Y perpendicular to the axis X having a side wall with a free lower edge which faces the shoulder in the closed position.

[0011] According to the invention, a depression zone is formed in the region of the shoulder of the container, and leaves a part of the free edge of the lid accessible so as to allow the lid to be pivoted by actuation of the part of the free edge that is accessible from the depression zone.

[0012] Advantageously, this packaging device does not have any part that projects outwards, and in particular it does not have a tab, thereby avoiding uncontrolled opening during contact with other objects in a limited space.

[0013] According to other features of the invention, the depression zone is positioned diametrically opposite the pivot of axis Y. The depression zone may be a hollow that opens onto the shoulder and onto the side wall of the container.

[0014] The depression zone defines a window in the side wall of the container. This window may have a height, measured along the axis X, of between 5 mm and 20 mm, preferably between 5 and 15 mm.

[0015] The window may have a width, extending radially about the axis X, of between 10 mm and 30 mm, preferably between 10 mm and 25 mm, or better still between 15 and 20 mm.

[0016] The window may have a thickness, measured perpendicularly to the axis X, of between 3 mm and 15 mm, preferably between 3 mm and 12 mm, or better still between 3 mm and 9 mm.

[0017] The window according to the invention allows the user to readily locate the depression zone and easily insert his finger into it.

[0018] The container according to the invention may be a bottle, a jar or a tube. It may be made in one piece by injection blow moulding or extrusion blow moulding. The container may be made of thermoplastic materials such as polyethylene, polypropylene or polyethylene

terephthalate.

[0019] According to the invention, in the closed position, the dispensing head does not have any free surface facing in the direction of the shoulder apart from the free edge of the lid. Still in the closed position, the lid can completely cover the base, which is therefore not visible from the outside. Thus, the height h of the dispensing head is defined by the height of the lid. The height h may be between 5 mm and 12 mm, or better still between 6 and 9 mm. The packaging device according to the invention has a more compact shape compared with conventional devices.

[0020] According to other features of the invention, the base may have a set-back zone situated diametrically opposite the pivot of axis Y. In this way, the set-back zone is situated above the depression zone when the dispensing head is mounted on the container.

[0021] The base may have a sealing skirt formed around the dispensing orifice. When the dispensing head is mounted on the neck of the container, the sealing skirt is inserted in a sealed manner into the neck of the container.

[0022] The means for fastening the base to the container may be a cooperating skirt which is fastened to the neck by screw-fastening or snap-fastening.

[0023] The base is connected to the lid by a hinge system. The latter may comprise an elastic hinge which may be of the "film" type, "butterfly" type or "toggle" type, allowing the lid to pivot about the base, the pivot axis Y being the axis of bending of the elastic hinge.

[0024] The lid may be provided with a tubular spike, which is intended to plug the dispensing orifice in a sealed manner in the closed position of the dispensing head.

[0025] The dispensing head may be obtained by injection moulding a thermoplastic material chosen in particular from polypropylenes or polyethylenes.

[0026] A method for using the above-described packaging device is also described. This method comprises the following steps:

- Introduction of a fingertip into the depression zone of the container,
- Application of an upwardly directed force on a part of the free edge of the lid that is accessible from the depression zone such that the lid disengages from the base.

[0027] Advantageously, this use method is easy to carry out and requires little effort on the part of the user.

[0028] The invention will be understood better from reading the following description of non-limiting implementation examples thereof with reference to the appended drawings, in which:

- Figures 1 and 2 show a perspective view of a packaging device produced in accordance with the invention, having a dispensing head fastened to a container, in an open position and a closed position, respectively.

spectively.

- Figure 3 shows a view in longitudinal section of the container of the device from Figure 1, exposing a depression zone of the container.
- Figures 4 and 5 show a view in longitudinal section of the dispensing head of the device from Figure 1, in a closed position and an open position, respectively.
- Figure 6 shows a view in longitudinal section of the dispensing head fastened to the neck of the container.
- Figure 7 shows a top view of the container of the device from Figure 1.

[0029] In all the figures, the relative proportions of the various elements have not always been respected, in order to make the drawing clearer.

[0030] With reference to Figures 1 and 2, a device 1 in accordance with one embodiment of the invention can be seen, having a container 10, in particular a bottle, on which a dispensing head 2 is mounted.

[0031] With reference to Figures 1, 2 and 3, the bottle 10 has an end closed by an end wall 11. A side wall 12 extends upwards from the end wall 11, in the direction away from the end wall 11. The side wall 12 may have a circular or oval cross section or a cross section of some other geometry, without departing from the scope of the invention.

[0032] The upper portion of the wall forms a shoulder 13. A neck 14, the free edge of which defines an opening 15 of axis X, extends from the shoulder 13. Thus, the neck 14 defines a passage from the inside to the outside of the container along the axis X of the opening 15, through which the product contained in the bottle can flow. The outer wall of the neck 14 has a fastening means, in particular an annular recess 141 provided to hold the dispensing head 2 when it is mounted on the bottle. Alternatively, the neck 14 may be provided at its outer wall with some other fastening means, in particular a thread that is able to cooperate with a corresponding thread on the dispensing head.

[0033] In the immediate vicinity of the shoulder 13, a depression zone 16 forms a hollow that opens onto the shoulder 13 and onto the side wall 12.

[0034] Thus, the depression zone 16 defines an open window 161 in the side wall of the bottle 10. This window has a thickness e measured perpendicularly to the axis X, a height b measured along the axis X, and a width c extending radially about the axis X. It is formed in the bottle so as to provide a housing suitable for the introduction of a fingertip.

[0035] The thickness e of the window 161 is between 3 mm and 15 mm, preferably between 3 mm and 12 mm, or better still between 3 mm and 9 mm.

[0036] The height *b* of the window 161 is between 5 mm and 20 mm, and preferably it is between 5 mm and 15 mm.

[0037] The width *c* is measured between 10 mm and 30 mm, preferably between 10 mm and 25 mm, or better still between 15 mm and 20 mm.

[0038] The angular extent Ω of the window 161 is illustrated in Figure 7. In order to measure this angle, a centre *O* that belongs to the axis *X* and is situated in a plane *w*, perpendicular to the axis *X*, containing the shoulder 13 or is parallel to a plane containing the shoulder 13 is defined. Thus, the angular extent Ω is the angle measured between two radii that connect the centre *O* and two radial ends of the window 161 in the plane *w*, the centre *O* and the two ends being in one and the same plane. The angular extent Ω is strictly less than 90°. It may be between 15° and 80°, preferably between 20° and 50°. In one embodiment, the angular extent Ω is around 30°.

[0039] In a preferred manner, the depression zone 16 may bear a position indicator so as to allow the user to identify it more readily.

[0040] The indicator can be visual, in particular a different colour from that of the container, and produced by methods known to a person skilled in the art. For example, the colour may be printed on a heat shrink film stuck to the container by at least partial heating of the side wall 12 of the container 10. Alternatively, the colour may be printed directly onto the depression zone 16. According to this embodiment, the whole container 10 may for example be obtained by bi-injection-moulding of the material forming the depression zone 16 and the material forming the rest of the container 10. The indicator may also be tactile, the surface 162 of the depression zone 16 having reliefs for increasing the roughness of the surface.

[0041] The roughness of the surface 162 ensures better adherence of the finger to the depression zone 16, even in a wet environment, in particular under the shower.

[0042] The bottle 10 may have a circular or oval cross section or a cross section of some other geometry, without departing from the scope of the invention.

[0043] The bottle 10 may be made in one piece, for example by extrusion blow moulding or injection blow moulding of a thermoplastic material such as polyethylene (PE), polypropylene (PP) or polyethylene terephthalate (PET).

[0044] The bottle 10 is for example intended to contain a cosmetic product. The product may be in the form of a liquid, cream, gel or paste. For example, it may be a product used for the body, the face and/or the hair, such as a shampoo, conditioner, shower gel or moisturizing cream.

[0045] Figures 1, 2, 4 and 5 show the dispensing head 2 in accordance with the invention. The dispensing head has a base part 20 designed to be snap-fastened on the annular recess 141 in the neck 14, and a lid 30 hinged to the base about a pivot of axis *Y* which is perpendicular to the axis *X* of the opening 15.

[0046] If appropriate, the base 20 can be designed to

be screw-fastened to the neck 14.

[0047] The base 20 of the dispensing head 2 has a transverse wall 21 and an external skirt 23 extending from the peripheral edge of the transverse wall. The transverse wall 21 is provided with a dispensing orifice 22 formed substantially in the axis *X* of the opening 15 in the bottle.

[0048] A fastening means 24 integral with the transverse wall 21 is formed around the dispensing orifice 22. Illustrated in Figures 4 and 5, the fastening means 24 is a downwardly oriented cylindrical skirt intended to be mounted on the neck 14 of the bottle. The fastening skirt is provided, at its free edge, with a complementary fastening means, in particular an annular bulge 241 intended to be housed in the annular recess 141 in the neck 14 so as to hold the dispensing head 2 on the bottle 10.

[0049] Alternatively, the fastening means may have two fastening tabs, each being in the form of an arc of a circle. They are provided, close to their lower end, with reliefs that are intended to fit in the recess 141 in the neck 14. These fastening means are described in Patent FR1614635.

[0050] A sealing skirt 25 is formed around the orifice 22 and is located between the fastening means 24 and the orifice 22. The sealing skirt 25 is cylindrical in shape and intended to be inserted into the neck 14 of the bottle 10. Thus, the longitudinal axis of the sealing skirt 25 is coincident with the axis *X* of the opening 15 when the dispensing head 2 is in position on the bottle 10.

[0051] A hinge system 26 is formed from the base 20 in order to connect the base 20 to the lid 30, the latter being hinged on the base 20. The hinge system 26 comprises an elastic hinge 261 of the "film" type, "toggle" type or "butterfly" type, the pivot axis *Y* being the axis of bending of the elastic hinge 261.

[0052] In this embodiment, the lid 30 has a flat transverse wall 31 and an outer skirt 32 extending from the edge of the transverse wall. In the closed position of the dispensing head, the free edge 321 of the outer skirt 32 faces the shoulder 13. Furthermore, still in the closed position, the lid 30 does not have any other free surface facing the shoulder 13 apart from the free edge 321. In particular, the lid does not have a notch acting as a catching surface to which the user applies a force in order to lift the lid.

[0053] Advantageously, when the dispensing head 2 in the closed position is mounted on the bottle 10, all of the dispensing head is comprised in the continuation of the side wall. Thus, the side wall 23 of the base 20 is set back with respect to the side wall 12.

[0054] Moreover, the base 20 has a set-back zone 27 situated diametrically opposite the pivot of axis *Y* to make it easier to lift the lid. In this way, the set-back zone 27 is situated above the depression zone 16 of the bottle 10. The surface 271 of the set-back zone 27 is formed substantially in the continuation of the surface 161 of the depression zone 16.

[0055] Alternatively, the lid may be in the form of a cap

provided with a free edge facing the shoulder 13.

[0056] Advantageously, the above-described device, illustrated in Figure 2, does not have any outwardly projecting parts, thereby making it possible to avoid uncontrolled opening when the device is in direct contact with other objects in a limited space, in particular in a vanity case. An "outwardly projecting part" is understood to mean any physical part protruding from the peripheral contour of the shoulder 13 by more than 1 mm when viewed from above.

[0057] The lid has a tubular spike 33 intended to plug the dispensing orifice 22 in a sealed manner in the closed position. The spike 33 has a slight annular bulge 331 at its free end which holds the lid 30 on the base 20. Advantageously, the spike 33 is configured such that its passage into the closed position of the dispensing orifice 22 is accompanied by an audible click sound. Other catching systems can be envisaged, for example a lug that is formed on the inner wall in the immediate vicinity of the free edge of the lid 30 and is able to fit into a corresponding recess situated on the outer surface of the external skirt 23 of the base 20.

[0058] Figures 2 and 4 show the dispensing head 2 in a closed position in which the base 20 is entirely covered by the lid 30, no part of the base 20 being visible from the outside. Thus, the free edge 321 of the lid 30 and the lower edge of the base 20 are in one and the same plane, the height of the lid defining the height h of the dispensing head 2.

[0059] In another embodiment, the lid 30 can partially cover the base, leaving the lower part of the base visible from the outside. In this case, the height h of the dispensing head is the sum of the height of the lid and that of the lower part of the base.

[0060] The height h is between 5 mm and 12 mm, preferably between 6 mm and 9 mm.

[0061] The dispensing head as defined is made in one piece by injection-moulding a rigid thermoplastic material, in particular polyethylene or polypropylene.

[0062] With reference to Figure 6, the dispensing head 2 in the closed position is fastened to the bottle 10, the depression zone being positioned diametrically opposite the film hinge 261 of axis Y. In this way, the depression zone leaves a portion 322 of the free edge 321 of the lid accessible.

[0063] In another variant, in particular when the dispensing head and the container are cylindrical, the fastening means 24 can have an angular indexing element, such as a notch or a rib that fits into a corresponding housing in the shoulder 13 of the bottle, in order to prevent the two elements from rotating. In addition, the angular indexing element is disposed such that the hinge system 26 is situated diametrically opposite the depression zone 16.

[0064] In order to pass the dispensing head 2 from its closed position shown in Figure 4 to its open position shown in Figure 5, the user introduces his fingertip into the depression zone so as to touch the freely accessible

portion 322.

[0065] The user then applies to the free portion 322 an upward force, illustrated by the arrow F1 in Figure 6, in order to disengage the lid from the base by pivoting the lid about the elastic hinge 261 connecting the base 20 and the lid 30. The spike 33 then frees the dispensing orifice 22 and the product contained in the bottle can be dispensed from the bottle via the orifice 22 in response for example to a pressure on the side wall 12 of the bottle 10. This movement can easily be effected by a thumb, for example by holding the bottle in the other fingers.

[0066] The invention also makes it possible, in a closed position, for the height of the dispensing head to be defined mainly by the height of the lid. This thus results in a dispensing head having a low height for a more compact shape. From an environmental point of view, the raw material of which the dispensing head is made is less significant, the smaller the size of the latter. Thus, the impact on the environment decreases, as does the cost of the dispensing head.

[0067] Of course, the invention is not limited to the exemplary embodiment which has just been described. It is clear that variations can be made thereto without departing from the scope of the appended claims.

[0068] The expression "having a" should be understood as meaning "having at least one", unless specified to the contrary.

Claims

1. Packaging device (1) having:

- a container (10) comprising an end wall (11), a side wall (12) extending from the end wall (11), the upper portion of the side wall forming a shoulder (13), a neck (14), defining an opening (15) of axis X, extending from the shoulder (13), and
- a dispensing head (2) intended to be mounted on the neck (14) of the container (10) comprising:

- a base (20) comprising a transverse wall (21) provided with a dispensing orifice (22), an external skirt (23) extending from the peripheral edge of the transverse wall (21) and a fastening means (24), and
- a lid (30) hinged to the base about a pivot (26) of axis Y perpendicular to the axis X having a free lower edge (321) which faces the shoulder (13) in the closed position of the dispensing head (2),

characterized in that a depression zone (16) formed in the container and constituting a hollow that opens onto the shoulder (13) and onto the side wall (10) of the container, leaves a part (322) of the free edge (321) of the lid accessible so as to allow the lid

- (30) to be pivoted by actuation of the part (322) of the free edge (321) that is accessible from the depression zone (16).
2. Packaging device according to Claim 1, wherein the depression zone (16) is positioned diametrically opposite the pivot (26) of axis Y.
 3. Packaging device according to any one of the preceding claims, wherein the depression zone (16) defines a window (161) in the side wall (12) of the container (10), the window having a height b, measured along the axis X, between 5 mm and 20 mm, preferably between 5 mm and 15 mm.
 4. Packaging device according to any one of the preceding claims, wherein the depression zone (16) defines a window (161) in the side wall (12) of the container (10), the window having a thickness e, measured perpendicularly to the axis X, between 3 mm and 15 mm, preferably between 3 mm and 12 mm, or better still between 3 mm and 9 mm.
 5. Packaging device according to any one of the preceding claims, wherein the depression zone (16) defines a window (161) in the side wall (12) of the container (10), the window having a width c, extending radially about the axis X, between 10 mm and 30 mm, preferably between 10 mm and 25 mm, or better still between 15 mm and 20 mm.
 6. Packaging device according to any one of the preceding claims, wherein the depression zone (16) defines a window (161) in the side wall (12) of the container (10), the window having an angular extent Ω measured about the axis X, that is strictly less than 90°, preferably between 15° and 80°, most preferably between 20° and 50°.
 7. Packaging device according to Claim 1, wherein, apart from the free edge 321, the lid (30) does not comprise any free surface facing in the direction of the shoulder (13) when the packaging device is in the closed position.
 8. Packaging device according to Claim 1, wherein the base (20) has a set-back zone (27) situated diametrically opposite the pivot of axis Y, the set-back zone (27) being above the depression zone (16) when the dispensing head (2) is mounted on the container (10).
 9. Packaging device according to one of the preceding claims, wherein the lid (30) is provided with a tubular spike (33) intended to plug the orifice (22) in the base (20) in a sealed manner in the closed position of the dispensing head (2).
 10. Packaging device according to any one of the preceding claims, wherein the pivot of axis Y is formed by a film hinge.
 11. Packaging device according to one of the preceding claims, wherein, in a closed position of the dispensing head (2), the base (20) is covered entirely by the lid (30).
 12. Packaging device according to one of the preceding claims, wherein, in a closed position, the dispensing head (2) has a height h of between 5 and 12 mm, better still between 6 and 9 mm.
 13. Packaging device according to Claim 1, wherein a sealing skirt (25) of the base (20) is inserted into the neck (14) of the bottle.
 14. Packaging device according to one of the preceding claims, wherein the fastening means (24) is a cooperating skirt that is fastened to the neck (14) by screw-fastening or by snap-fastening.

25 Patentansprüche

1. Verpackungsvorrichtung (1), aufweisend:

- einen Behälter (10), umfassend einen Boden (11), eine sich von dem Boden (11) erstreckende Seitenwand (12), wobei der obere Abschnitt der Seitenwand eine Schulter (13) bildet, wobei sich ein Hals (14), der eine Öffnung (15) mit einer Achse X definiert, von der Schulter (13) erstreckt,
- einen Ausgabekopf (2), der dazu bestimmt ist, an dem Hals (14) des Behälters (10) montiert zu werden, umfassend

- eine Basis (20), die eine mit einer Ausgaböffnung (22) versehene Querwand (21), eine äußere Schürze (23), die sich von dem Umfangsrand der Querwand (21) erstreckt, und ein Befestigungsmittel (24) umfasst,
- einen Deckel (30), der um einen Anlenkpunkt (26) mit einer Achse Y, die senkrecht zu der Achse X verläuft, an der Basis angelenkt ist und einen freien unteren Rand (321) aufweist, der in der Schließposition des Ausgabekopfs (2) der Schulter (13) zugewandt ist,

dadurch gekennzeichnet, dass ein Vertiefungsbereich (16), der in dem Behälter ausgeführt ist und einen an der Schulter (13) und an der Seitenwand des Behälters (10) mündenden Hohlraum darstellt, Zugang zu einem Teil (322) des freien Rands (321) des Deckels gewährt, um ein Schwenken des De-

ckels (30) zu gestatten, indem der von dem Vertiefungsbereich (16) aus zugängliche Teil (322) des freien Rands (321) betätigt wird.

2. Verpackungsvorrichtung nach Anspruch 1, wobei der Vertiefungsbereich (16) dem Anlenkpunkt (26) mit der Achse Y diametral gegenüber positioniert ist. 5
3. Verpackungsvorrichtung nach einem der vorhergehenden Ansprüche, wobei der Vertiefungsbereich (16) ein Fenster (161) in der Seitenwand (12) des Behälters (10) definiert, wobei das Fenster eine entlang der Achse X gemessene Höhe b zwischen 5 mm und 20 mm, vorzugsweise zwischen 5 mm und 15 mm, hat. 10
4. Verpackungsvorrichtung nach einem der vorhergehenden Ansprüche, wobei der Vertiefungsbereich (16) ein Fenster (161) in der Seitenwand (12) des Behälters (10) definiert, wobei das Fenster eine senkrecht zu der Achse X gemessene Dicke e zwischen 3 mm und 15 mm, vorzugsweise zwischen 3 mm und 12 mm oder besonders bevorzugt zwischen 3 mm und 9 mm, hat. 20
5. Verpackungsvorrichtung nach einem der vorhergehenden Ansprüche, wobei der Vertiefungsbereich (16) ein Fenster (161) in der Seitenwand (12) des Behälters (10) definiert, wobei das Fenster eine sich radial um die Achse X erstreckende Breite c zwischen 10 mm und 30 mm, vorzugsweise zwischen 10 mm und 25 mm oder besonders bevorzugt zwischen 15 mm und 20 mm, hat. 30
6. Verpackungsvorrichtung nach einem der vorhergehenden Ansprüche, wobei der Vertiefungsbereich (16) ein Fenster (161) in der Seitenwand (12) des Behälters (10) definiert, wobei das Fenster ein um die Achse X gemessenes Winkelmaß Ω hat, das streng kleiner als 90° ist und vorzugsweise zwischen 15° und 80° und besonders bevorzugt zwischen 20° und 50° liegt. 40
7. Verpackungsvorrichtung nach Anspruch 1, wobei der Deckel (30), abgesehen von dem freien Rand (321), keine in die Richtung der Schulter (13) weisende freie Fläche umfasst, wenn die Verpackungsvorrichtung in der geschlossenen Position ist. 45
8. Verpackungsvorrichtung nach Anspruch 1, wobei die Basis (20) einen zurückversetzten Bereich (27) hat, der dem Anlenkpunkt mit der Achse Y diametral gegenüber angeordnet ist, wobei der zurückversetzte Bereich (27) über dem Vertiefungsbereich (16) liegt, wenn der Ausgabekopf (2) auf dem Behälter (10) montiert ist. 50
9. Verpackungsvorrichtung nach einem der vorherge-

henden Ansprüche, wobei der Deckel (30) mit einem röhrenförmigen Dorn (33) versehen ist, der dazu bestimmt ist, die Öffnung (22) in der Basis (20) in der geschlossenen Position des Ausgabekopfs (2) dichtend zu verschließen.

10. Verpackungsvorrichtung nach einem der vorhergehenden Ansprüche, wobei der Anlenkpunkt mit der Achse Y durch ein Filmscharnier gebildet ist.
11. Verpackungsvorrichtung nach einem der vorhergehenden Ansprüche, wobei die Basis (20) in einer geschlossenen Position des Ausgabekopfs (2) vollständig durch den Deckel (30) abgedeckt ist.
12. Verpackungsvorrichtung nach einem der vorhergehenden Ansprüche, wobei der Ausgabekopf (2) in einer geschlossenen Position eine Höhe h von zwischen 5 und 12 mm und bevorzugt zwischen 6 und 9 mm hat.
13. Verpackungsvorrichtung nach Anspruch 1, wobei eine Dichtschräge (25) der Basis (20) in den Hals (14) der Flasche eingeführt ist.
14. Verpackungsvorrichtung nach einem der vorhergehenden Ansprüche, wobei das Befestigungsmittel (24) eine zusammenwirkende Schräge ist, die durch Anschrauben oder durch Einschnappen an dem Hals (14) befestigt ist.

Revendications

1. Dispositif de conditionnement (1) présentant :

- un contenant (10) comprenant une paroi d'extrémité (11), une paroi latérale (12) s'étendant depuis la paroi d'extrémité (11), la partie supérieure de la paroi d'extrémité formant un épaulement (13), un col (14), définissant une ouverture (15) d'axe X, s'étendant depuis l'épaulement (13), et
- une tête de distribution (2) destinée à être montée sur le col (14) du contenant (10) comprenant :

- une base (20) comprenant une paroi transversale (21) dotée d'un orifice de distribution (22), une jupe externe (23) s'étendant depuis le bord périphérique de la paroi transversale (21) et un moyen de fixation (24), et
- un couvercle (30) articulé sur la base autour d'un pivot (26) d'axe Y perpendiculaire à l'axe X présentant un bord inférieur libre (321) qui fait face à l'épaulement (13) dans la position fermée de la tête de distri-

bution (2),

caractérisé en ce qu'une zone de dépression (16) formée dans le contenant et constituant un creux qui s'ouvre sur l'épaule (13) et sur la paroi latérale (10) du contenant laisse une partie (322) du bord libre (321) du couvercle accessible de façon à permettre que le couvercle (30) pivote sous l'effet de l'actionnement de la partie (322) du bord libre (321) qui est accessible depuis la zone de dépression (16).

2. Dispositif de conditionnement selon la revendication 1, dans lequel la zone de dépression (16) est positionnée diamétralement à l'opposé du pivot (26) de l'axe Y. 10
3. Dispositif de conditionnement selon l'une quelconque des revendications précédentes, dans lequel la zone de dépression (16) définit une fenêtre (161) dans la paroi latérale (12) du contenant (10), la fenêtre ayant une hauteur b, mesurée le long de l'axe X, entre 5 mm et 20 mm, de préférence entre 5 mm et 15 mm. 20
4. Dispositif de conditionnement selon l'une quelconque des revendications précédentes, dans lequel la zone de dépression (16) définit une fenêtre (161) dans la paroi latérale (12) du contenant (10), la fenêtre ayant une épaisseur e, mesurée perpendiculairement à l'axe X, entre 3 mm et 15 mm, de préférence entre 3 mm et 12 mm, ou mieux encore entre 3 mm et 9 mm. 25 30
5. Dispositif de conditionnement selon l'une quelconque des revendications précédentes, dans lequel la zone de dépression (16) définit une fenêtre (161) dans la paroi latérale (12) du contenant (10), la fenêtre ayant une largeur c, s'étendant radialement autour de l'axe X, entre 10 mm et 30 mm, de préférence entre 10 mm et 25 mm, ou mieux encore entre 15 mm et 20 mm. 35 40
6. Dispositif de conditionnement selon l'une quelconque des revendications précédentes, dans lequel la zone de dépression (16) définit une fenêtre (161) dans la paroi latérale (12) du contenant (10), la fenêtre ayant une étendue angulaire Ω mesurée autour de l'axe X, qui est strictement inférieure à 90° , de préférence entre 15° et 80° , idéalement entre 20° et 50° . 45 50
7. Dispositif de conditionnement selon la revendication 1, dans lequel, à part le bord libre (321), le couvercle (30) ne comprend pas de surface libre tournée dans la direction de l'épaule (13) lorsque le dispositif de conditionnement est dans la position fermée. 55
8. Dispositif de conditionnement selon la revendication

1, dans lequel la base (20) a une zone en retrait (27) située diamétralement à l'opposé du pivot de l'axe Y, la zone en retrait (27) étant au-dessus de la zone de dépression (16) lorsque la tête de distribution (2) est montée sur le contenant (10).

9. Dispositif de conditionnement selon l'une des revendications précédentes, dans lequel le couvercle (30) est doté d'une pointe tubulaire (33) destinée à obturer l'orifice (22) dans la base (20) de manière hermétique dans la position fermée de la tête de distribution (2).
10. Dispositif de conditionnement selon l'une quelconque des revendications précédentes, dans lequel le pivot d'axe Y est formé par une articulation de type film.
11. Dispositif de conditionnement selon l'une des revendications précédentes, dans lequel, dans une position fermée de la tête de distribution (2), la base (20) est entièrement recouverte par le couvercle (30).
12. Dispositif de conditionnement selon l'une des revendications précédentes, dans lequel, dans une position fermée, la tête de distribution (2) a une hauteur h d'entre 5 et 12 mm, mieux encore entre 6 et 9 mm.
13. Dispositif de conditionnement selon la revendication 1, dans lequel une jupe d'étanchéité (25) de la base (20) est insérée dans le col (14) de la bouteille.
14. Dispositif de conditionnement selon l'une des revendications précédentes, dans lequel le moyen de fixation (24) est une jupe de coopération qui est fixée au col (14) par vissage ou encliquetage.

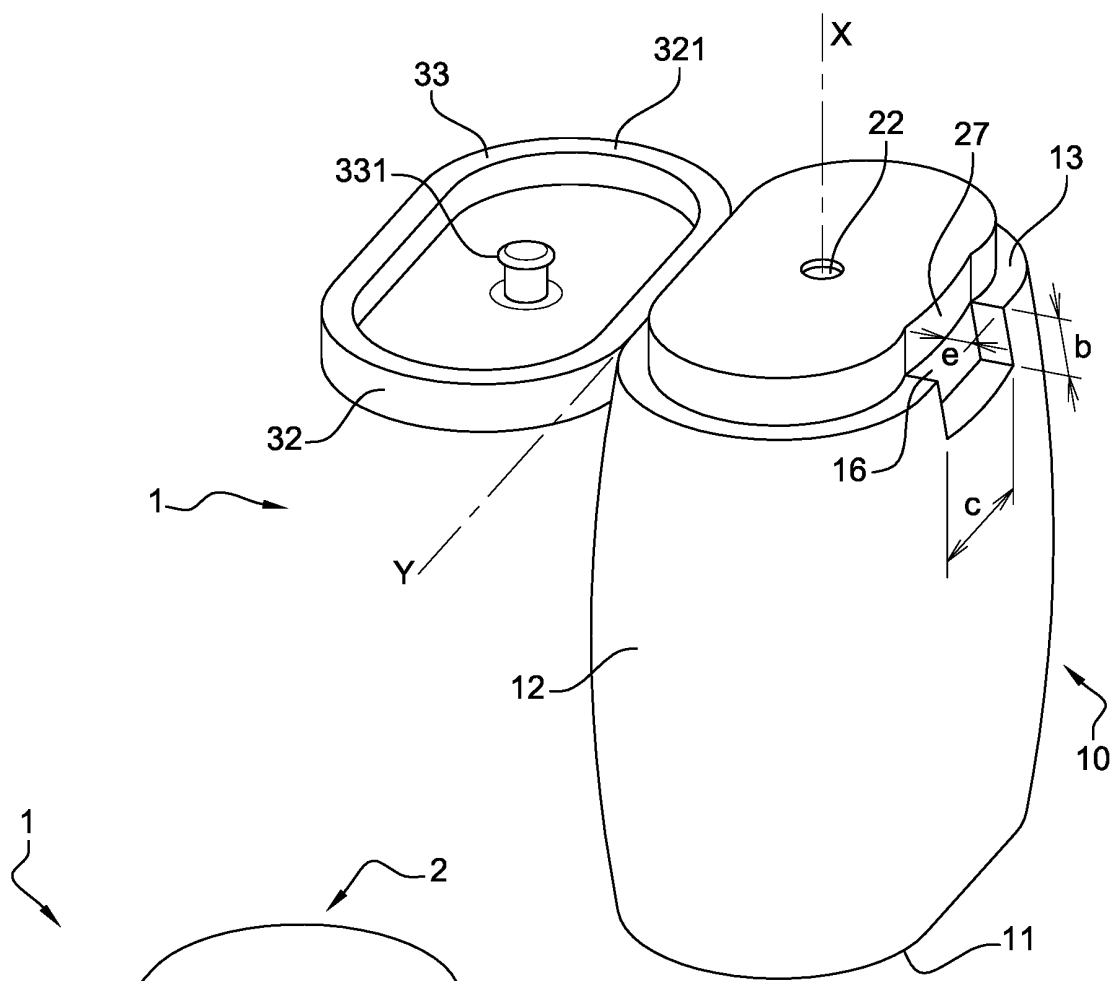


Fig. 1

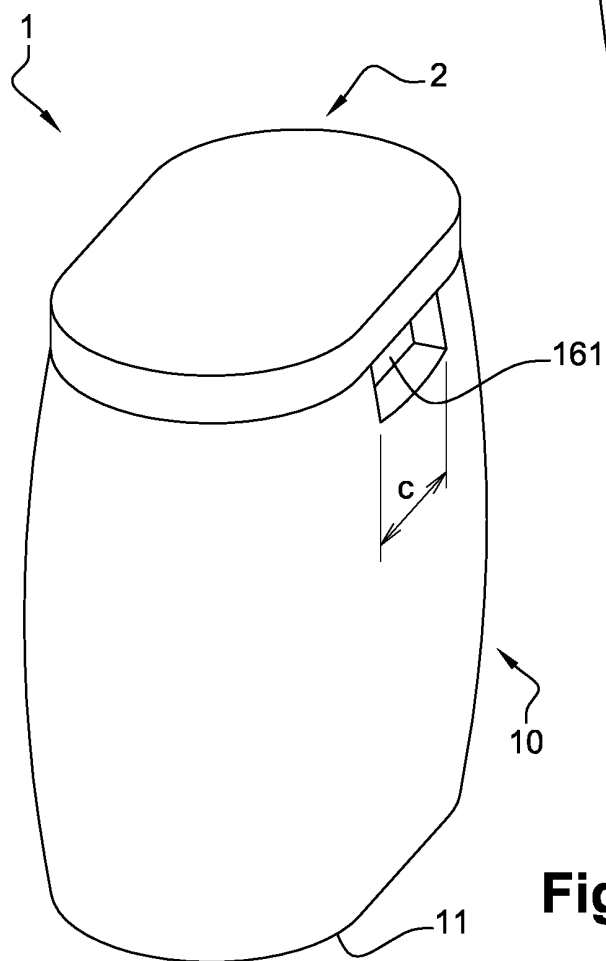


Fig. 2

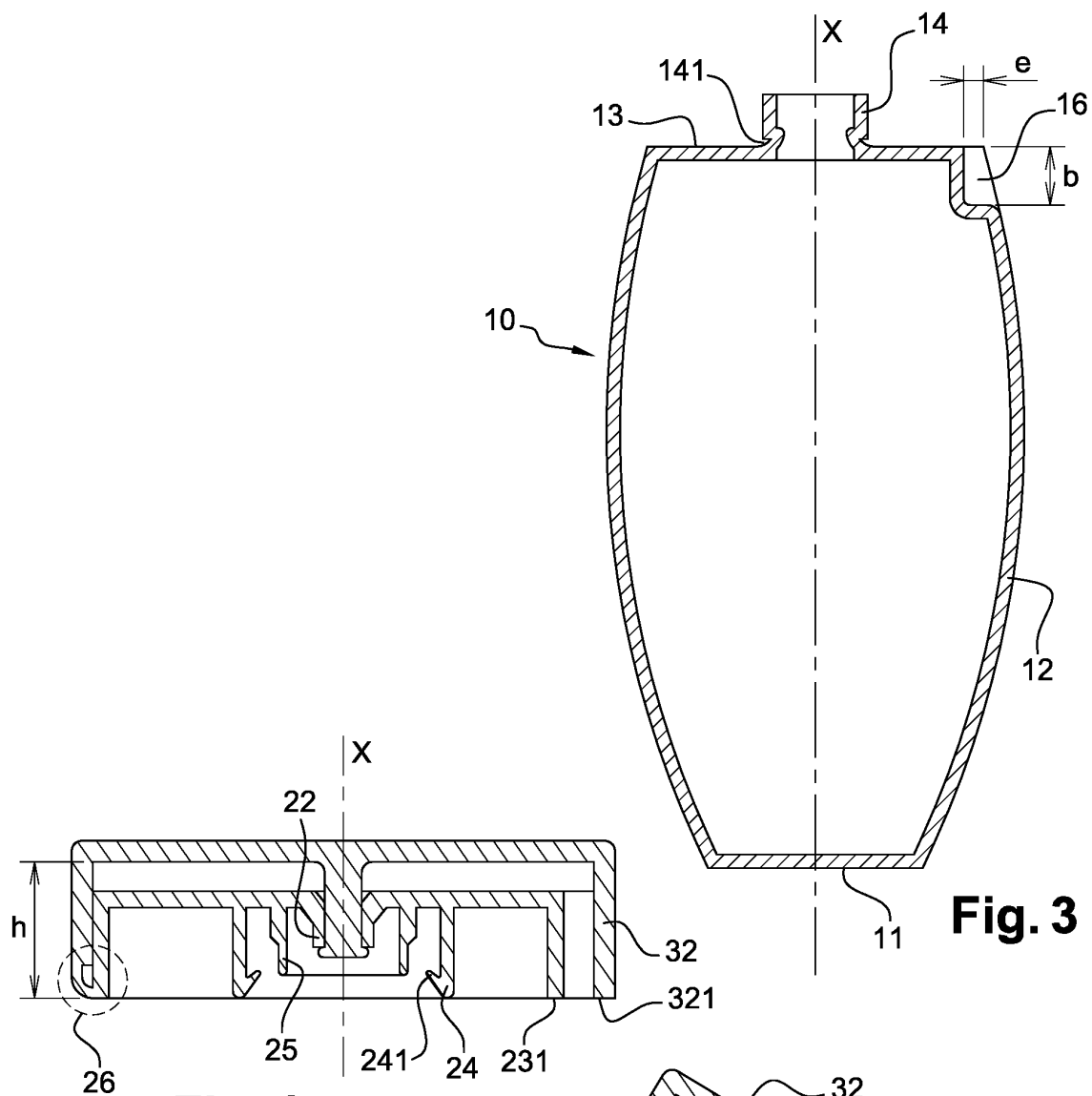


Fig. 3

Fig. 4

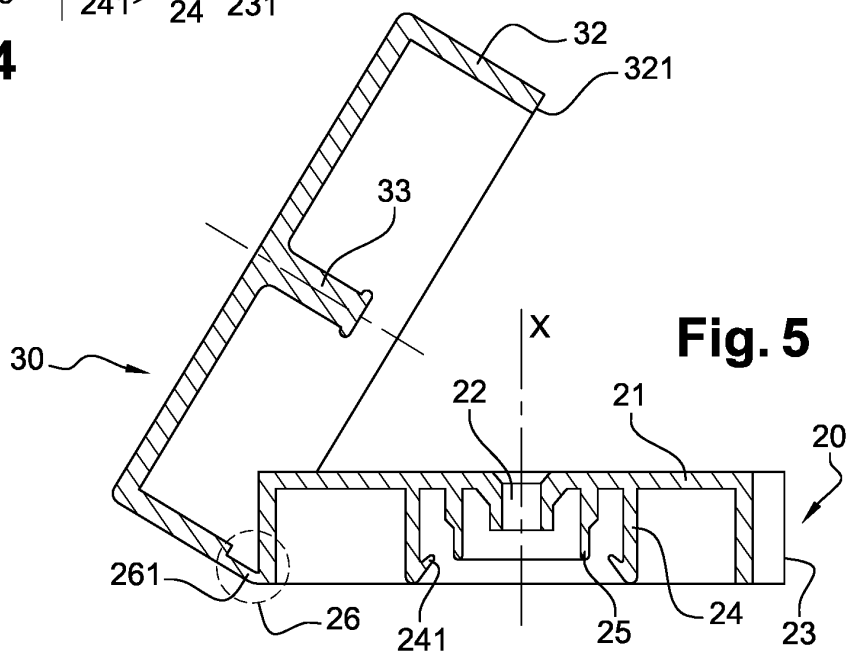


Fig. 5

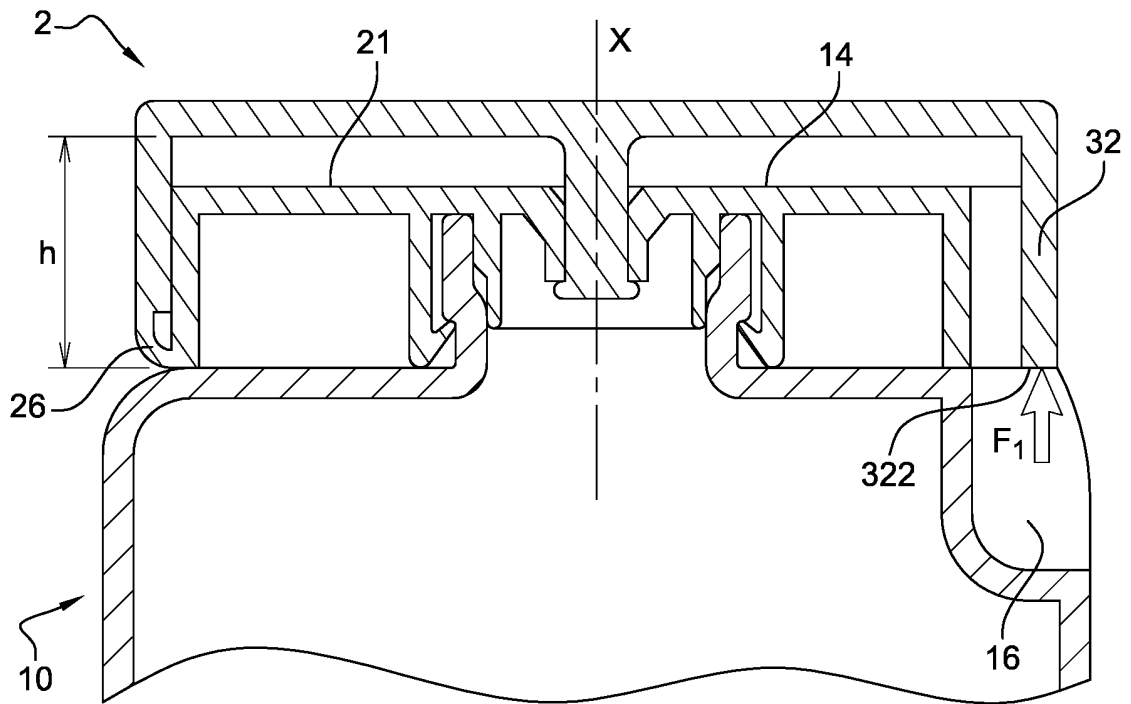


Fig. 6

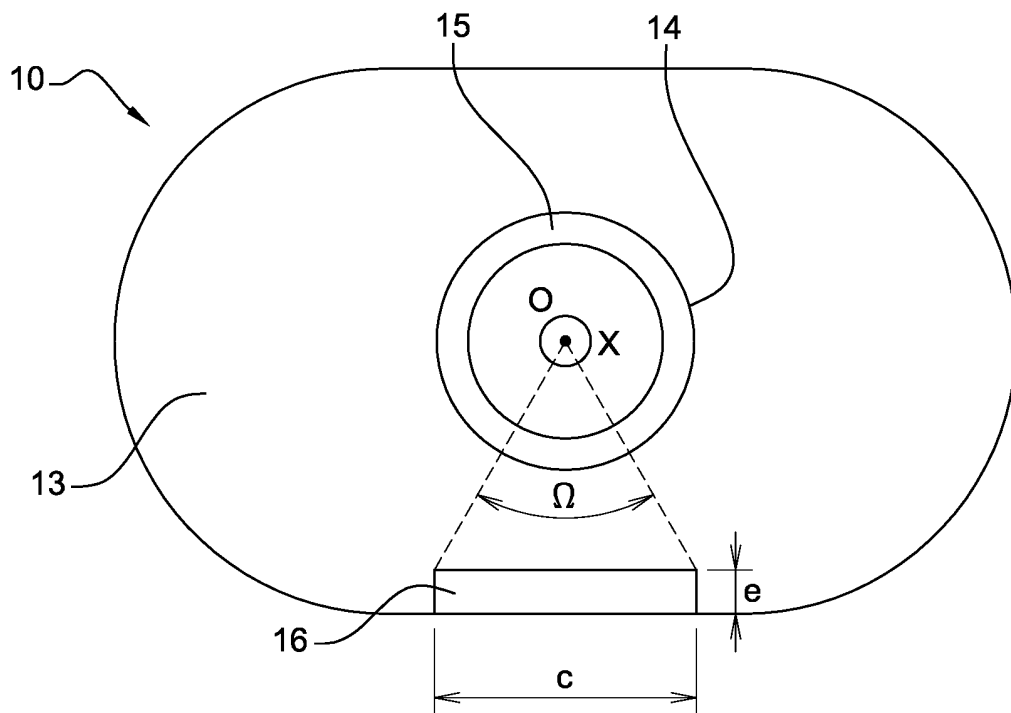


Fig. 7

REFERENCES CITED IN THE DESCRIPTION

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