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(54) **Receptacle for cosmetic product having an opening button for separating the cap from the container**

(57) The invention relates to a receptacle (1) for cosmetic product, said receptacle (1) including a container (3) provided with an internal volume intended to receive the cosmetic product, the receptacle (1) including a cap (4) closing the container (3), the receptacle (1) including connection means (8) configured to maintain the cap (4) and the container (3) together according to a maintaining strength, the receptacle (1) furthermore including an opening button (6) configured to apply a strength according to a first direction (12) to overcome said maintaining strength in order to separate the cap (4) from the container (3), the button being actionable by a pressure applied according to a second direction (13) substantially transversal to the first direction (12).

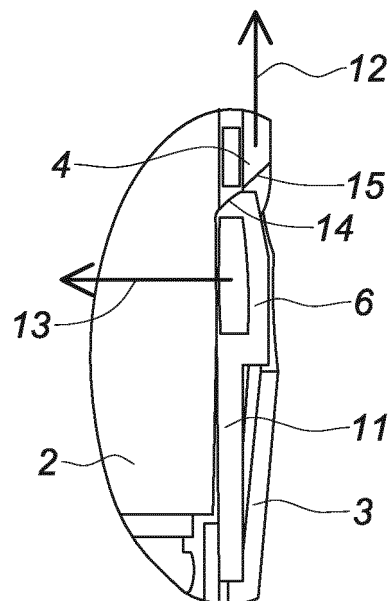


Fig. 5

Description

[0001] The invention relates to a receptacle for cosmetic product having an opening button for separating the cap from the container.

[0002] The cosmetic field is a competitive domain that needs to create and invent innovative and original products in order to differentiate from competition and to be attractive, as well as to answer to rapidly changing fashions.

[0003] More precisely, the invention relates in particular to lipsticks. Usually, a lipstick is a receptacle containing a colored stick arranged inside a container. The container can generally be closed by a cap. The cap and the container can be assembled in order to protect the stick or can be separated when a user wants to apply the stick. When the cap and the container are put together, they are maintained by connection means like press fitting, magnets or the like.

[0004] The connection means maintain the cap on the container according to a maintaining strength. To overcome said maintaining strength, the user has to strongly hold the cap while removing it from the container. Such kind of actuation is not attractive.

[0005] Another example relates to lipsticks having a locking mechanism of the cap onto the container, said locking mechanism comprising retaining means. The lipstick is provided with a button able to inactivate the retaining means in order to allow the cap to be separated from the container by the user. But this kind of opening system is still not attractive as the actuation of the button is mandatory to open the lipstick.

[0006] Consequently, the goal of the invention is to conceive removable fixation means easy to use and that often an attractive kind of actuation.

[0007] For this purpose, the invention relates to a receptacle for cosmetic product, said receptacle including a container provided with an internal volume intended to receive the cosmetic product, the receptacle including a cap closing the container, the receptacle including connection means configured to maintain the cap and the container together according to a maintaining strength, the receptacle furthermore including an opening button configured to apply a strength according to a first direction to overcome said maintaining strength in order to separate the cap from the container, the button being actionable by a pressure applied according to a second direction substantially transversal, especially orthogonal, to the first direction.

[0008] Thanks to this invention, the cap and the container are firmly maintained together before actuation of the button but without being locked. Furthermore, the button arranged on the receptacle is able to disassemble the connection means, the cap being consequently removable from the container. A user just need to push the button to trigger the opening of the lipstick, the actuation of the button inducing a separation strength applied on the cap and the container. If needed, he can also remove

the cap from the container without from the container with actuating the button.

[0009] According to various embodiments of the invention that could be put together or separately :

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- said button is arranged substantially at an interface area between said container and said cap, said interface area being provided remotely from longitudinal extremities of said receptacle,

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- said button is fixed to the container through flexible attaching means,

- said attaching means include a spring arm fixed on one hand into the container and on the other end to the button,

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- said spring arm and said button are integral,

- said button has a first rim able to be in contact with a second rim of the cap, said first rim acting on said second rim when the button is actuated,

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- said first and second rims have an angle of inclination relating to the second direction,

- the angle of inclination is 45°,

- said receptacle comprises a collar fixed to the container, and comprising one part of the connection means, another part of the connection means being arranged on the cap,

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- said receptacle comprises an aperture allowing the button to cross through a side of the receptacle,

- a first portion of the aperture is arranged on the container, and a second portion of the aperture on the cap,

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- an internal part of said receptacle is provided with an opening in which said button is introduced when said button is actuated through said aperture,

- said internal part is defined by said collar

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- said receptacle is provided with an axis parallel to the first direction, said container and said cap being assembled according to this axis,

- said container comprises a mobile element configured to receive the product, said container being configured so that the mobile element is movable between two positions along said axis, a retracted position allowing to put the cap on the container, and an application position allowing to apply the cosmetic product,

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- said mobile element is adapted to move along the axis of the container,

- the container comprises moving means configured to control the mobile element.

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[0010] The invention also relates to an assembly of a receptacle as described above and said cosmetic product.

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[0011] The invention will be better understood, and other objects, details, features and advantages of the latter will appear more clearly, during the detailed explanatory description that follows of one embodiment of the invention given as an example that is purely illustrative and not limiting, with reference to the appended schematic

drawings.

- Figure 1 illustrates a simplified longitudinal cut view of a receptacle, in particular a lipstick in a closed manner, having all his externally visible elements assembled,
- Figure 2 illustrates the lipstick of figure 1 in exploded view,
- Figure 3 is a view in perspective from top of the container and the button of the lipstick of figure 1 and 2,
- Figure 4 is a longitudinal cut view illustrating a focus from figure 1 before actuation of the button,
- Figure 5 is a longitudinal cut view illustrating a focus from figure 4 illustrating the opening of the lipstick when the button is actuated,
- Figure 6 illustrates a side view of the container, the collar and the button of the lipstick of figure 1 and 2.

[0012] In the following description, same numerical references are used to designate same elements.

[0013] Figure 1 shows a receptacle 1 for cosmetic product, in particular a lipstick, including a container 3 and a cap 4 closing the container 3. The lipstick is provided with an opening button 6 configured to trigger the separation of the cap 4 from the container 3 in order to open the lipstick. The button is arranged substantially at an interface area between said container 3 and said cap 4, said interface area being provided remotely from longitudinal extremities of said receptacle 1.

[0014] The separated elements forming the lipstick are shown on figure 2. The container 3 is provided with an internal volume intended to receive a cosmetic product. As usual for some lipsticks, the shape is cylindrical and provided with a main axis parallel to a first direction. Said container 3 and said cap 4 can be assembled or disassembled according to this axis.

[0015] For maintaining the cap 4 and the container 3 together, the lipstick includes connection means configured to apply a maintaining strength between the cap 4 and the container 3 when the lipstick is closed, said strength being parallel to the axis. In that way, the lipstick is here provided with a collar 5 at the interface area between said container 3 and said cap 4. The collar 5 is annular shaped and is placed in the same axis than the container 3 and the cap 4. The collar 5 has one lower portion that can be inserted in the container 3 in order to be permanently fixed, and an upper portion configured to be inserted in the cap 5.

[0016] The collar 5 comprises one part of said connection means said part being arranged on the upper portion of the collar. Here, this part is at least one excrescence 8 arranged on the external side of the collar 5 upper portion. The other part of the connection means are set inside the cap 4 and consist in a groove carved on the interior side of the cap 4 close to a longitudinal opening end thereof. The groove and excrescence 5 are configured to cooperate in order to apply said maintaining strength between the cap 4 and the container 3. A press

fit adjustment or magnets could also be used.

[0017] As shown on figure 3, the button 6 is permanently fixed to the container 3 through flexible attaching means. The attaching means include a spring arm 11 fixed on one hand into the container 3 and on the other end to the button 6. In that way, the container 3 is provided with a housing 17 able to grip the bottom of the spring arm 11 into the container 3. Furthermore, the spring arm 11 and the button 6 are integral. The spring arm 11 is configured to keep the button 6 back in a rest position after a pressure.

[0018] On figure 2, the container 3 comprises a mobile element 2, here is a cupule shown on figure 2, configured to receive the cosmetic product. The cosmetic product is a colored stick stored in the cupule that is slotted into the container 3. The container 3 is configured so that the mobile element 16 is movable between two positions, a retracted position allowing to put the cap 4 on the container 3, and an application position allowing to apply the cosmetic product. For that goal, the container 3 comprises moving means 16 configured to control the mobile element 2. Said cupule is adapted to move along the axis of the container.

[0019] The moving means 16 is a gliding mechanism comprising a screw arranged at the container base. When the cap is kept away from the container, the screw is actuated by rotation of the container 3 in order to make the stick gliding out of the container 3, the stick being then usable. After the application, the stick is glided into the container 3 by a reverse rotation of the container 3.

[0020] Figure 4 and 5 represent the operating process of the opening button when it is used. The button 6 is pushed with a pressure applied according to a second direction 13 substantially transversal, especially orthogonal, to the first direction 12. The second direction 13 is here directed radially to the center of the lipstick.

[0021] The opening button 6 is configured to apply a strength between the cap 4 and the container 3, the strength being applied according to the first direction 12 in order to overcome said maintaining strength, and consequently to trigger the separation of the cap 4 and the container 3. Advantageously, the separation is only triggered and the user may finish the separation by holding the cap and removing it from the container.

[0022] The button 6 has here circular shape and has a first outlying rim 14 directly in contact with the cap 4, especially with a second rim 15 of a cap base. So, when the button 6 is actuated with a finger of the user, the first rim 14 push said second rim 15 according to the first direction 12 by applying a strength on the second rim 15. The first 14 and second 15 rims faced each other and are oriented in the same direction in order to insure the contact between them.

[0023] The first 14 and second 15 rims present an angle of inclination relating to the second direction 13 in order to transform the strength applied on the button 6 according to the second direction 13 into a strength applied to the cap 4 according to the first direction 12. Pref-

erably, the angle of inclination is 45°, so that the strength needed to push the button is minimized.

[0024] To allow the button 6 to move toward the interior of the receptacle, the receptacle 1 comprises an aperture facing the button 6 in order to allow the button to cross through a side of the receptacle 1. As shown on figure 2, the button 6 is at the interface area of the container 3 and the cap 4. A first portion 9 of the aperture is arranged on the container 3 and a second portion 7 of the aperture is arranged on the cap 4. The second portion 7 of the aperture hosts the upper portion of the button when the cap 4 is set on the container 3 and when the button is not pushed.

[0025] In a same manner, as the collar 5 is at the interface area, the collar 5 is provided with an opening 10 facing the aperture and inside which said button 6 is inserted when the button 6 is pushed through the aperture.

[0026] The figure 6 shows the container 3 of the receptacle 1 without the cap 4 and the cupule 2. Between the collar 5 and the first rim 14 of the button 6, is set a space allowing the cap 6 to be inserted when the button is in rest position. More precisely, when the cap 4 is set on the container 3, the second rim 15 of the cap 4 is in a closed position to the first rim 14 of the button 6.

Claims

1. Receptacle (1) for cosmetic product, said receptacle (1) including a container (3) provided with an internal volume intended to receive the cosmetic product, the receptacle (1) including a cap (4) closing the container (3), the receptacle (1) including connection means (8) configured to maintain the cap (4) and the container (3) together according to a maintaining strength, the receptacle (1) furthermore including an opening button (6) configured to apply a strength according to a first direction (12) to overcome said maintaining strength in order to separate the cap (4) from the container (3), the button being actionable by a pressure applied according to a second direction (13) substantially transversal to the first direction (12).
2. Receptacle according to claim 1, wherein said button (6) is arranged substantially at an interface area between said container (3) and said cap (4), said interface area being provided remotely from longitudinal extremities of said receptacle (1).
3. Receptacle according to any of claims 1 or 2, wherein said button (6) is fixed to the container (3) through flexible attaching means.
4. Receptacle according to claim 3, wherein said attaching means include a spring arm (11) fixed on one hand into the container (3) and on the other end to the button (6).

5. Receptacle according to claim 4, wherein said spring arm (11) and said button (6) are integral.
6. Receptacle according to any of preceding claims, wherein said button (6) has a first rim (14) able to be in contact with a second rim (15) of the cap (4), said first rim (14) acting on said second rim (15) when the button (6) is actuated.
7. Receptacle according to claim 6, wherein said first (14) and second (15) rims have an angle of inclination relating to the second direction (13).
8. Receptacle according to claim 7, wherein the angle of inclination is 45°.
9. Receptacle according to any of preceding claims, comprising a collar (5) fixed to the container (3), and comprising one part of the connection means (8), another part of the connection means being arranged on the cap (4).
10. Receptacle according to any of preceding claims, comprising an aperture allowing the button to cross through a side of the receptacle (1).
11. Receptacle according to claim 10, wherein a first portion (9) of the aperture is arranged on the container (3), and a second portion (7) of the aperture on the cap (4).
12. Receptacle according to claim 11, wherein an internal part of said receptacle (1) is provided with an opening (10) in which said button (6) is introduced when said button (6) is actuated through said aperture.
13. Receptacle according to any of preceding claims, provided with an axis parallel to the first direction (12), said container (3) and said cap (4) being assembled according to this axis.
14. Receptacle according to claim 13, wherein said container (3) comprises a mobile element (2) configured to receive the product, said container (4) being configured so that the mobile element (2) is movable between two positions along said axis, a retracted position allowing to put the cap (4) on the container (3), and an application position allowing to apply the cosmetic product.
15. Assembly of a receptacle according to any of preceding claims and said cosmetic product.

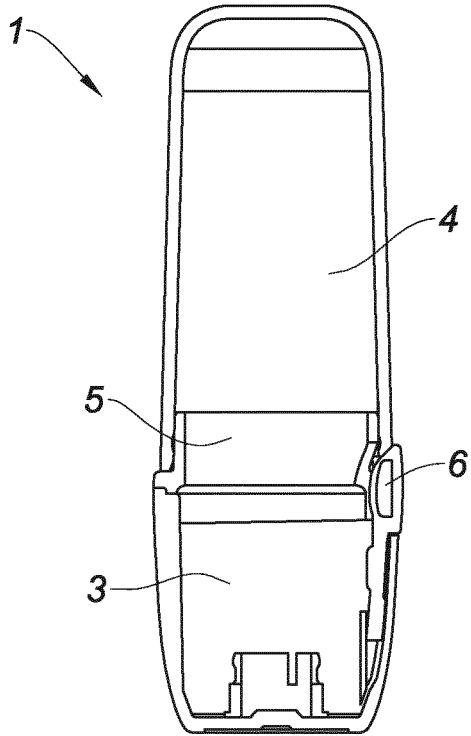


Fig. 1

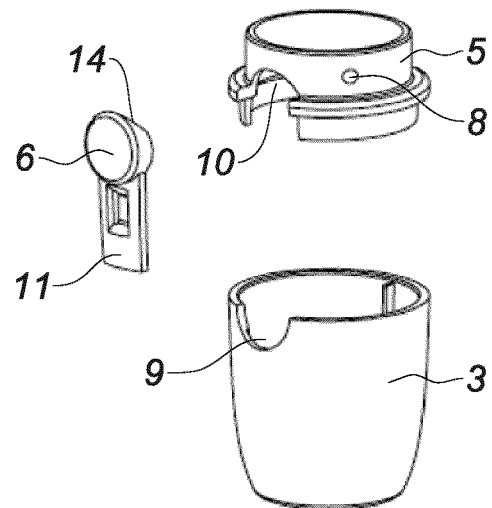
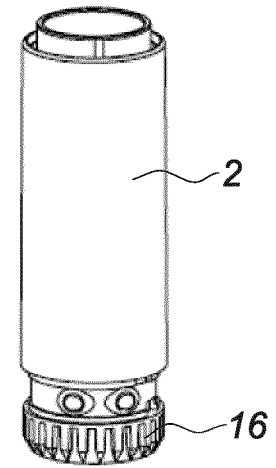
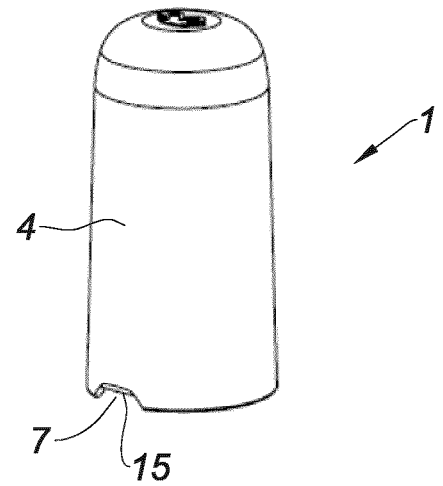


Fig. 2

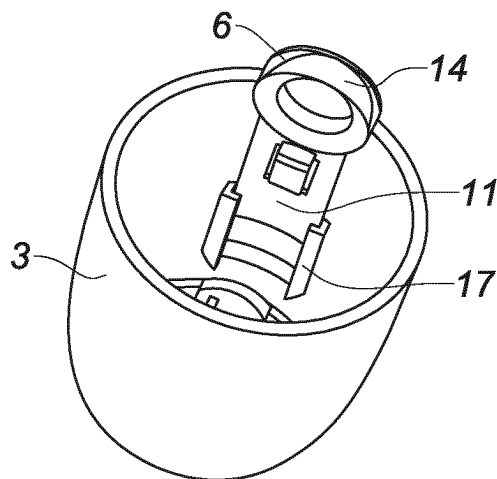


Fig. 3

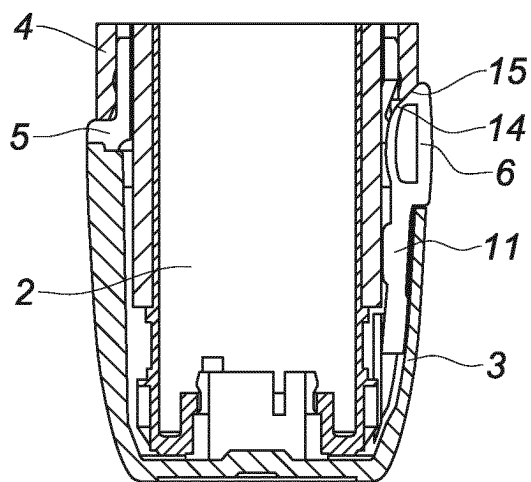


Fig. 4

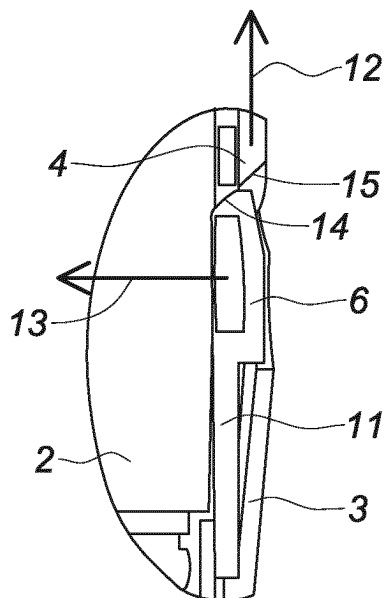


Fig. 5

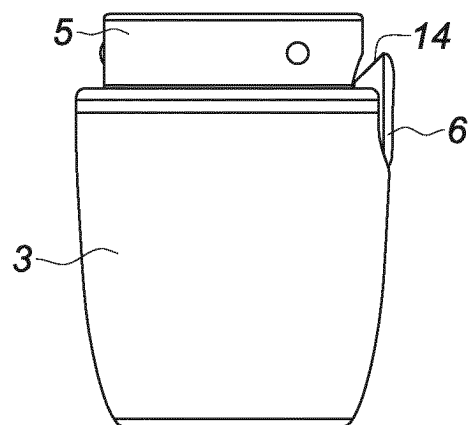


Fig. 6



EUROPEAN SEARCH REPORT

Application Number
EP 14 18 6491

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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			TECHNICAL FIELDS SEARCHED (IPC)
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 29 January 2015	Examiner Ionescu, C
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 14 18 6491

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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