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(54) **COSMETIC DROPPER WITH CLEAN DESIGN**

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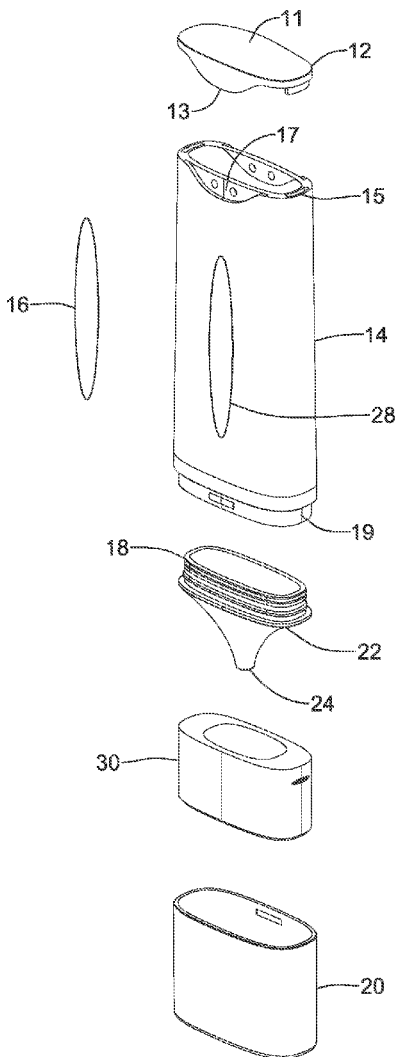
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(57) **ABSTRACT**

Dispensers are provided for cosmetic products using a squeezable element for dispensing the product. An example includes a body for containing a cosmetic product, the body comprising a window, a squeezable element sealed to a first end of the body, a collar sealed to a second end of the body opposing the first end of the body, and a cap designed to snap fit with the collar.

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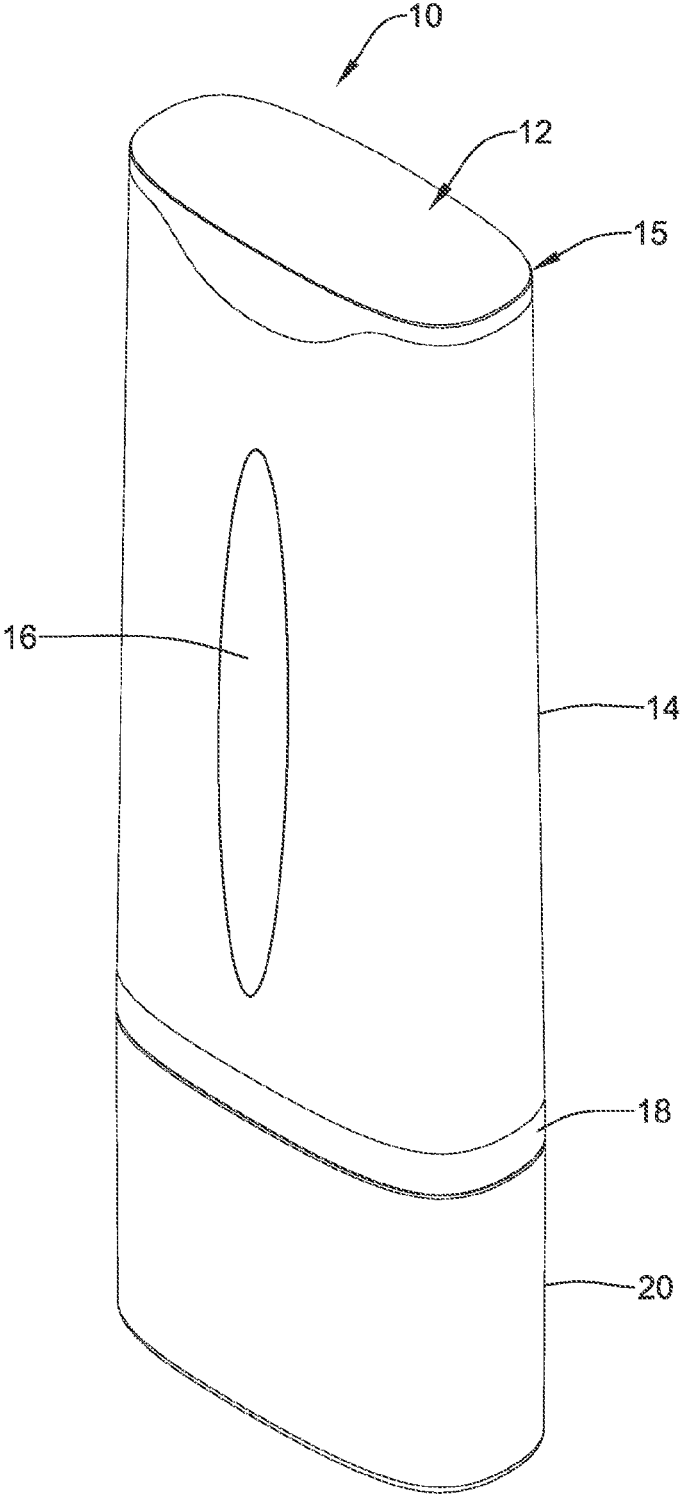


Figure 1

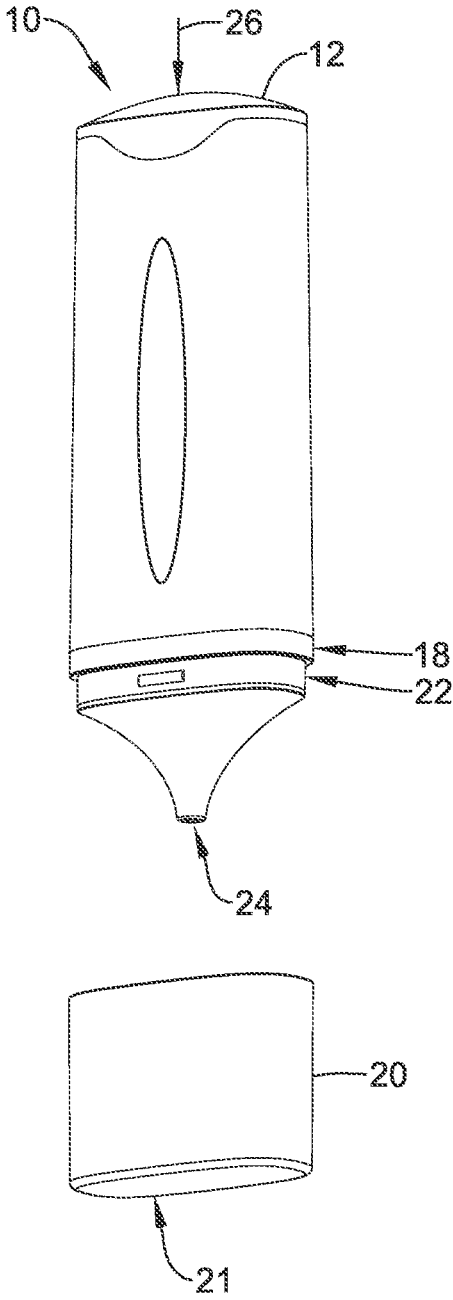


Figure 2

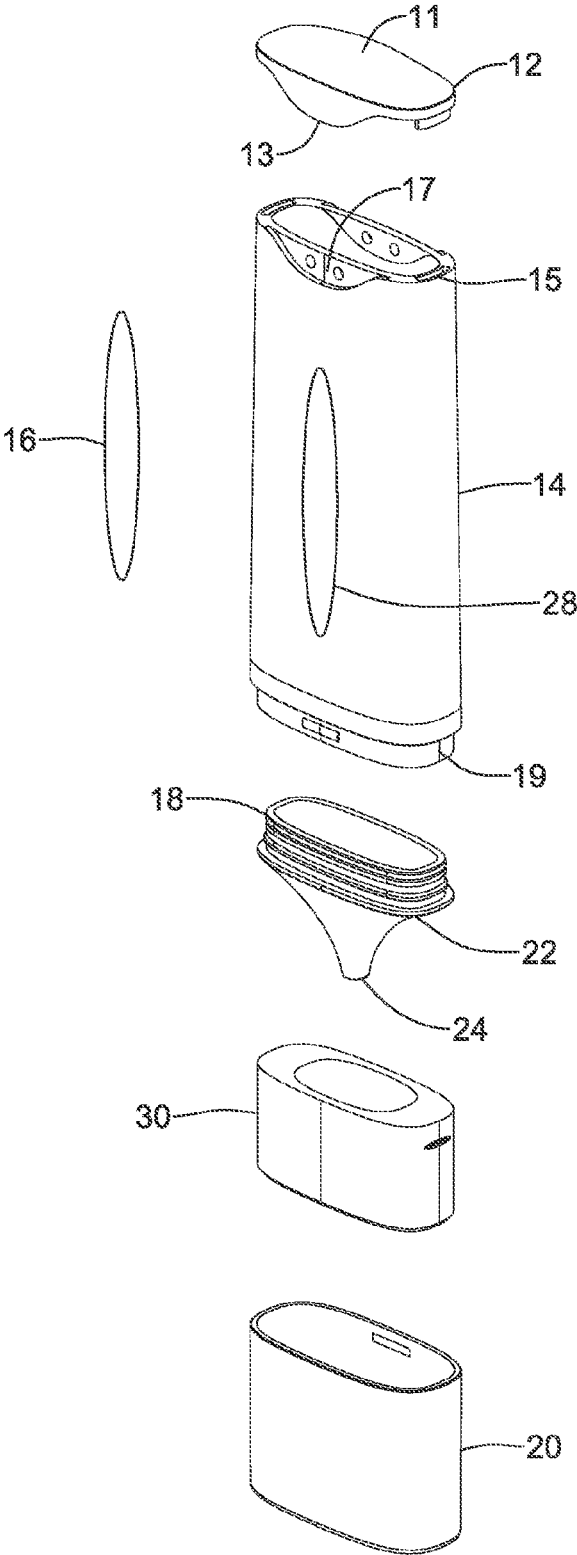


Figure 3

COSMETIC DROPPER WITH CLEAN DESIGN

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] The present application claims the benefit of and priority to U.S. Provisional Patent Application Ser. No. 62,191,247, filed Jul. 10, 2015 and titled COSMETIC DROPPER WITH CLEAN DESIGN, the disclosure of which is incorporated herein by reference.

FIELD

[0002] The present application relates to the field of apparatuses for dispensing cosmetic products.

BACKGROUND

[0003] There are numerous designs for containing and dispensing cosmetic products. Some such products include a reservoir and an expelling apparatus such as a push button or the like to dispense product from the reservoir through an outlet. New and alternative approaches to such devices are desired.

OVERVIEW

[0004] An illustrative example includes a body for containing cosmetic product, a squeezable element sealed to the first end of the body, a collar secured to the second end of the body opposite the first end of the body, and a cap designed to snap fit with the collar.

[0005] In another example, the squeezable element extends beyond the first end of the body in a relaxed state.

[0006] In another example, the cap has a flat end configured to hold the dispenser in an upright position while resting on the cap.

[0007] In another example, the body comprises a window.

[0008] In a further example, the window is clear, allowing a user to view a level of product within the body.

[0009] In another example, the squeezable element includes a curved upper surface that extends above the first end of the body when the squeezable element is in the relaxed state.

[0010] In a further example, the squeezable element includes a pair of opposed curved lower sidewalls that mate with a U-shaped cutout in the first end of the body.

[0011] In another example, the squeezable element is permanently sealed to the first end of the body and does not allow air to enter the body through or around the squeezable element when the squeezable element is depressed and released.

[0012] In another example, the body is non-refillable with the squeezable element and the collar permanently sealed to the body.

[0013] In another illustrative example, a dispenser for a cosmetic product comprises a body for containing cosmetic product, the body including a window, a squeezable element sealed to a first end of the body, wherein the squeezable element extends beyond the first end of the body in a relaxed state, a collar sealed to a second end of the body opposite the first end of the body, and a cap designed to snap fit with the collar, the cap having a flat end configured to hold the dispenser in an upright position while resting on the cap.

[0014] In a further example, the window is clear, allowing a user to view a level of product within the body.

[0015] In another example, the squeezable element includes a curved upper surface that extends above the first end of the body when the squeezable element is in the relaxed state.

[0016] In another example, the squeezable element includes a pair of opposed curved lower sidewalls that mate with a U-shaped cutout in the first end of the body.

[0017] In another example, the squeezable element is permanently sealed to the first end of the body and does not allow air to enter the body through or around the squeezable element when the squeezable element is depressed and released.

[0018] In another example, the body is non-refillable with the squeezable element and the collar permanently sealed to the body.

[0019] In a further illustrative example, a dispenser for a cosmetic product comprises a body for containing cosmetic product, a squeezable element sealed to a first end of the body, wherein the squeezable element includes a curved upper surface that extends beyond the first end of the body in a relaxed state, and a pair of opposed curved lower sidewalls that mate with a U-shaped cutout in the first end of the body, a collar sealed to a second end of the body opposite the first end of the body, and a cap designed to snap fit with the collar.

[0020] In another example, the cap has a flat end configured to hold the dispenser in an upright position while resting on the cap.

[0021] In another example, the body comprises a window.

[0022] In a further example, the window is clear, allowing a user to view a level of product within the body.

[0023] In another example, the squeezable element is permanently sealed to the first end of the body and does not allow air to enter the body through or around the squeezable element when the squeezable element is depressed and released.

[0024] In another example, the body is non-refillable with the squeezable element and the collar permanently sealed to the body.

[0025] This overview is intended to provide an overview of subject matter of the present patent application. It is not intended to provide an exclusive or exhaustive explanation of the invention. The detailed description is included to provide further information about the present patent application.

BRIEF DESCRIPTION OF THE DRAWINGS

[0026] In the drawings, which are not necessarily drawn to scale, like numerals may describe similar components in different views. Like numerals having different letter suffixes may represent different instances of similar components. The drawings illustrate generally, by way of example, but not by way of limitation, various embodiments discussed in the present document.

[0027] FIG. 1 shows an illustrative dropper with the cap on;

[0028] FIG. 2 shows an illustrative dropper with the cap off; and

[0029] FIG. 3 is an exploded view of an illustrative dropper.

DETAILED DESCRIPTION

[0030] FIG. 1 shows an illustrative dropper with the cap on. The dropper 10 includes a squeezable element 12 attached and sealed onto a first end 15 of a body 14 having a window 16. The window 16 may be a clear acrylic, for example, allowing the user to view the level of product. Alternatively, the window 16 may be coated/painted as desired. A collar 18 is attached and sealed onto the second end 19 of the body 14. The collar allows a snap fit to a cap 20. The body 14 may be adapted for containing a cosmetic product by, for example, using a non-reactive metal or polymer material, and or providing one or more coatings therein.

[0031] FIG. 2 shows an illustrative dropper with the cap off. The cap 20 is removed to illustrate additional details of the collar 18. In particular, the receiver 22 for the snap fit cap 20 is shown, as is the outlet 24, which may be a narrowed opening or nozzle, for example. The product contained by the dropper 10 may be dispensed in controlled amounts by depressing the squeezable element 12 as shown at arrow 26. The cap may have a flat end 21 configured to hold the dropper in an upright position while resting on the cap, as shown in FIG. 1. The flat end 21 on the cap 20 allows the dropper to be stored with the product collecting near the outlet 24. This provides the advantage of easily dispensing the product and allowing more of the total product to be dispensed, compared to conventional containers which are designed to sit on their bottom, with the outlet facing upwards.

[0032] In an example, the squeezable element 12 is formed of a silicone material sealed to the body 14. Other flexible materials may be used. The squeezable element 12 may be configured and permanently sealed to the body 14 in a manner so as to prevent air from entering the body 14 through or around the squeezable element 12 as the squeezable element is depressed to dispense product, and allowed to return to a relaxed state. The body 14 is generally a non-refillable container with the squeezable element 12 and collar 18 permanently sealed to the body 14. However, in some examples, the body 14 may be refilled if the collar 18 is removable. A collar 18 with a snap fit onto the body 14 may allow the body 14 to be re-filled with product.

[0033] The window 16 may be clear acrylic, or other material. The body 14 is shown in FIG. 3 as including a slot 28 for receiving the window 16. The collar 18 may be formed of any suitable material, and may be polymeric or metal. In one example, a vacuum metalized silver is used for the collar 18.

[0034] FIG. 3 is an exploded view of an illustrative dropper. As can be seen the squeezable element 12 is provided with a curved upper surface 11, which may extend beyond the first end 15 of the body 14 in the relaxed state, as shown in FIG. 2. In an alternative example, the squeezable element 12 may be flush with the first end of the body. In addition, the squeezable element 12 may have two opposed curved lower sidewalls 13 that match and mate with U-shaped cutouts 17 on opposite sides of the body 14, to allow for depressing the squeezable element 12. The dropper is used by depressing the squeezable element 12, which dispenses product through the outlet 24. When the squeezable element 12 is released, it returns to the relaxed state, shown in FIGS. 1 and 2, drawing air into the body 14 through the outlet 24. After use, the cap 20 is secured to the

collar 18 and the dropper rests on the cap 20, allowing the product to collect at the bottom of the body 14 near the outlet 24.

[0035] In another example, the squeezable element 12 may be movable through the body 14. The squeezable element 12 may provide a seal against the inner wall of the body 14 as the squeezable element 12 moves down the body 14 from the first end 15 towards the second end 19. In this example, the product is dispensed as the squeezable element 12 is pushed towards the second end 19 of the body 14, with no air being introduced into the body 14.

[0036] The collar 18 is shown in still greater detail as including a receiving/sealing portion for insertion into the second end 19 of the body 14. An adhesive or snap fit may be used to secure and seal the collar 18 relative to the body 14. As noted above, the collar 18 also includes a receiver 22 for receiving the cap 20 in a snap fit relationship and an outlet 24 allowing product to be dispensed when the squeezable element 12 is depressed. The cap 20 and collar 18 may be sized and configured such that when the cap 20 is snapped onto the collar 18, the outlet 24 is in contact with an inside end surface of the cap 20. As shown in FIG. 3, the cap 20 may include an inner member 30 which is fixed within the cap 20. The inner member 30 may have an inner surface that matches the curved contour of the outlet 24 so that when the cap 20 is snapped onto the collar, the outlet 24 is sealed. The inner surface of the inner member 30 may include a flexible membrane that covers the outlet 24 to provide an air-tight seal. The configuration of the cap 20 and outlet 24 prevents product from being dispensed unintentionally.

[0037] Each of these non-limiting examples can stand on its own, or can be combined in various permutations or combinations with one or more of the other examples.

[0038] The above detailed description includes references to the accompanying drawings, which form a part of the detailed description. The drawings show, by way of illustration, specific embodiments in which the invention can be practiced. These embodiments are also referred to herein as "examples." Such examples can include elements in addition to those shown or described. However, the present inventors also contemplate examples in which only those elements shown or described are provided. Moreover, the present inventors also contemplate examples using any combination or permutation of those elements shown or described (or one or more aspects thereof), either with respect to a particular example (or one or more aspects thereof), or with respect to other examples (or one or more aspects thereof) shown or described herein.

[0039] In the event of inconsistent usages between this document and any documents so incorporated by reference, the usage in this document controls.

[0040] In this document, the terms "a" or "an" are used, as is common in patent documents, to include one or more than one, independent of any other instances or usages of "at least one" or "one or more." Moreover, in the following claims, the terms "first," "second," and "third," etc. are used merely as labels, and are not intended to impose numerical requirements on their objects.

[0041] The above description is intended to be illustrative, and not restrictive. For example, the above-described examples (or one or more aspects thereof) may be used in combination with each other. Other embodiments can be used, such as by one of ordinary skill in the art upon reviewing the above description.

[0042] The Abstract is provided to comply with 37 C.F.R. §1.72(b), to allow the reader to quickly ascertain the nature of the technical disclosure. It is submitted with the understanding that it will not be used to interpret or limit the scope or meaning of the claims.

[0043] Also, in the above Detailed Description, various features may be grouped together to streamline the disclosure. This should not be interpreted as intending that an unclaimed disclosed feature is essential to any claim. Rather, inventive subject matter may lie in less than all features of a particular disclosed embodiment. Thus, the following claims are hereby incorporated into the Detailed Description as examples or embodiments, with each claim standing on its own as a separate embodiment, and it is contemplated that such embodiments can be combined with each other in various combinations or permutations. The scope of the invention should be determined with reference to the appended claims, along with the full scope of equivalents to which such claims are entitled.

The claimed invention is:

1. A dispenser for a cosmetic product comprising:
 - a body for containing cosmetic product;
 - a squeezable element sealed to a first end of the body;
 - a collar sealed to a second end of the body opposite the first end of the body; and
 - a cap designed to snap fit with the collar.
2. The dispenser of claim 1, wherein the cap has a flat end configured to hold the dispenser in an upright position while resting on the cap.
3. The dispenser of claim 1, wherein the squeezable element extends beyond the first end of the body in a relaxed state.
4. The dispenser of claim 1, wherein the body comprises a clear window, allowing a user to view a level of product within the body.
5. The dispenser of claim 1, wherein the squeezable element includes a curved upper surface that extends above the first end of the body when the squeezable element is in the relaxed state.
6. The dispenser of claim 5, wherein the squeezable element includes a pair of opposed curved lower sidewalls that mate with a U-shaped cutout in the first end of the body.
7. The dispenser of claim 1, wherein the squeezable element is permanently sealed to the first end of the body and does not allow air to enter the body through or around the squeezable element when the squeezable element is depressed and released.
8. The dispenser of claim 1, wherein the body is non-refillable with the squeezable element and the collar permanently sealed to the body.

9. A dispenser for a cosmetic product comprising:
 - a body for containing cosmetic product;
 - a squeezable element sealed to a first end of the body;
 - a collar sealed to a second end of the body opposite the first end of the body; and
 - a cap designed to snap fit with the collar, the cap having a flat end configured to hold the dispenser in an upright position while resting on the cap.
10. The dispenser of claim 9, wherein the squeezable element extends beyond the first end of the body in a relaxed state.
11. The dispenser of claim 9, wherein the squeezable element includes a curved upper surface that extends above the first end of the body when the squeezable element is in the relaxed state.
12. The dispenser of claim 11, wherein the squeezable element includes a pair of opposed curved lower sidewalls that mate with a U-shaped cutout in the first end of the body.
13. The dispenser of claim 9, wherein the squeezable element is permanently sealed to the first end of the body and does not allow air to enter the body through or around the squeezable element when the squeezable element is depressed and released.
14. The dispenser of claim 9, wherein the body is non-refillable with the squeezable element and the collar permanently sealed to the body.
15. A dispenser for a cosmetic product comprising:
 - a body for containing cosmetic product;
 - a squeezable element sealed to a first end of the body, wherein the squeezable element includes a curved upper surface that extends beyond the first end of the body in a relaxed state, and a pair of opposed curved lower sidewalls that mate with a U-shaped cutout in the first end of the body;
 - a collar sealed to a second end of the body opposite the first end of the body; and
 - a cap designed to snap fit with the collar.
16. The dispenser of claim 15, wherein the cap has a flat end configured to hold the dispenser in an upright position while resting on the cap.
17. The dispenser of claim 15, wherein the body comprises a window.
18. The dispenser of claim 17, wherein the window is clear, allowing a user to view a level of product within the body.
19. The dispenser of claim 15, wherein the squeezable element is permanently sealed to the first end of the body and does not allow air to enter the body through or around the squeezable element when the squeezable element is depressed and released.
20. The dispenser of claim 15, wherein the body is non-refillable with the squeezable element and the collar permanently sealed to the body.

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