



(19)

(21) Aanvraagnummer: **2034651**

(22) Aanvraag ingediend: **21 april 2023**

(62)

(51) Int. Cl.:

A45D 34/04 (2023.01) **A45D 40/26** (2023.01) **A45D 29/00** (2023.01) **A46B 11/00** (2023.01) **B65D 47/42** (2023.01)

(30) Voorrang:
21 april 2022 US 63/333317

(41) Aanvraag ingeschreven:
10 november 2023

(43) Aanvraag gepubliceerd:
10 november 2023

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(54) **SQUEEZE NAIL ENAMEL BOTTLE**

(57) Various embodiments disclosed relate to a cosmetics bottle with a dipping mode and a squeeze-bottle mode. The present disclosure includes a cosmetics kit having a receptacle for cosmetics fluid, an applicator for the cosmetic fluid, and a connector detachably coupling the applicator to the receptacle. In a first mode of operation, the connector can secure the applicator at least partially into the receptacle. In a second mode of operation, the connector can secure the applicator to the receptacle such that the applicator extends from the receptacle, and cosmetic fluid can flow from the receptacle to the applicator.

SQUEEZE NAIL ENAMEL BOTTLE

FIELD

[0001] Examples discussed herein relate to cosmetics containers, and specifically nail
5 enamel bottles.

BACKGROUND

[0002] Liquid cosmetics, such as nail enamel, foundation, concealer, and others, are used worldwide on a daily basis by a large number of consumers. The nail enamel business, including
10 liquid nail polish and gel nail polish, makes up a multi-billion-dollar industry. Nail enamel is a lacquer that can be applied to fingernails or toenails for protection and decoration of the nail plates. Many nail enamels can include organic polymers and other components that allow for various textures and colors. Application of nail enamel can be time consuming and may require drying time. Moreover, nail enamel bottles typically are set on a separate surface while the nail
15 enamel is applied, such as by dipping a brush in the bottle. But conventional liquid nail enamel can be subject to chipping, cracking, or wearing off during the course of daily life. Thus, consumers can desire to re-apply or fix nail enamel during their daily life.

SUMMARY OF THE DISCLOSURE

20 [0003] The present disclosure provides a cosmetics bottle system, such as a nail enamel bottle, with two modes of operation: a first mode of operation in which an applicator can be dipped into the bottle to retain cosmetic fluid for application, and a second mode of operation in which the same applicator can be attached to an opening of the bottle, and cosmetic fluid can flow from the cosmetics bottle, through a connector, to the applicator.
25 [0004] Many cosmetics, such as nail enamel, generally used bottle (or other receptacles) to hold products. Often, a consumer using the product must either pour the product out for use with an applicator such as a sponge or brush, or dip such an applicator into the bottle. For example, with nail color, brushes are conventionally attached to a cap via a rod, and easily dippable into a nail color bottle. However, this type of application of cosmetics generally

requires two hands and a surface on which to place the bottle while the applicator is being used to apply the cosmetics. This is not ideal for travel or on-the-go application of cosmetics.

[0005] For this reason, proposed herein is a cosmetic receptacle that can be used in two modes: a more typical “dipping” mode where a brush can be dipped and used to apply cosmetic fluid, and a more versatile “squeezing” mode, where the same brush can be secured to the bottle in an outgoing fashion to allow flow of the cosmetic fluid from the bottle into the brush. This second mode of operation can also allow for single handed application of the cosmetic fluid, such as on-the-go application. For example, when travelling, commuting, or in public, application of cosmetics, such as nail enamel, can be simplified. This is particularly useful with quick dry formulation nail enamels for a touch-up.

[0006] In a first example, cosmetics kit can include a receptacle, an applicator, and a connector. The receptacle can be for holding a cosmetic fluid and can have an opening for retrieval of cosmetic fluid therethrough. The applicator can be for the cosmetic fluid and have an application end and a handle end. The connector can detachably couple the applicator to the receptacle. The connector can extend from the handle end of the applicator and have at least one channel aligned with the applicator to allow cosmetic fluid through the at least one channel. In a first mode of operation, the connector can be actuatable for securing the application end of the applicator at least partially into the receptacle, and in a second mode of operation, the connector can be actuatable for securing the handle end of the applicator to the receptacle to allow flow of cosmetic fluid from the receptacle through the at least one channel to the applicator.

[0007] In a second example, nail enamel device can include a bottle for holding nail enamel, the bottle having an inner cavity and a cap assembly. The cap can include a brush and a cap. The brush can have an application end, a connecting end with a fluid channel, and a rod extending therebetween. The application end can be configured for dipping into the bottle, and the connecting end can be configured for releasable attachment to the bottle. The connecting end can have a first configuration where the application end of the brush extends at least partially into the inner cavity of the bottle, and a second configuration where the application end of the brush extends away from the bottle. In the second configuration, the fluid channel can be aligned with the inner cavity of the bottle to allow nail enamel flow therethrough. The cap can be

configured to overlay the brush in the first configuration, the cap can be for closing the bottle and creating a fluid tight seal.

[0008] In a third example, a method of applying nail enamel can include securing a brush onto a nail enamel bottle with a connector comprising a fluid channel, wherein the nail enamel bottle is squeezable, squeezing the nail enamel bottle to move nail enamel through the fluid channel to the brush, and applying the nail enamel.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] 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.

[0010] FIGS. 1A to 1B depict perspective views of a nail enamel bottle system in an example.

[0011]

[0012] FIGS. 2A to 2E depict perspective views of a nail enamel bottle system in an example.

[0013] FIGS. 3A to 3E depict schematic cross-sectional views of a nail enamel bottle system in an example.

[0014] FIG. 4 depicts a schematic cross-sectional view of a nail enamel bottle system in an example.

[0015] FIG. 5 depicts a zoomed in portion of the schematic cross-sectional view of FIG. 4 in an example.

[0016] FIG. 6 depicts a method of painting nails with a nail enamel bottle system in an example.

[0017] FIGS. 7A-7C depict a perspective and cross-sectional views of a stackable a nail enamel bottle system in an example.

DETAILED DESCRIPTION

[0018] The present disclosure describes, among other things, is a cosmetics bottle and brush configuration that allows for on-the-go cosmetic application. The cosmetics bottle can be transitioned between a dip-and-paint mode and a squeeze-bottle mode. The dip-and-paint mode can be similar to conventional cosmetics applications. The squeeze-bottle mode can allow for a continuous flow of cosmetic fluid from the bottle to the brush, such as can be applied with one hand or on-the-go.

[0019] FIGS. 1A to 1B depict perspective views of a nail enamel bottle system 100 in an example, and FIGS. 2A to 2E depict additional perspective views of the nail enamel bottle system 100 in an example. FIGS. 1A to 2E will be discussed together. The nail enamel bottle system 100 can be used for storage and application of the nail enamel 150.

[0020] The nail enamel bottle system 100 can include a bottle 110 with an opening 112, and a cavity 114, a cap 120, a connector 130, and an applicator 140 with an application end 142 and a handle end 144. The nail enamel bottle system 100 can be used to hold nail enamel 150.

[0021] In the nail enamel bottle system 100, the nail enamel 150 can reside in the cavity 114 of the bottle 110. The connector 130 with the attached applicator 140 can be attached to the bottle 110 at the opening 112. In FIG. 1A, the applicator 140 can point inwards to the cavity 114 of the bottle 110, and the cap 120 can cover the connector 130 and the applicator 140. In FIG. 2B, the cap 120 can be disconnected, and the connector 130 can be attached to the bottle 110 at the opening 112 such that the applicator 140 and the application end 142 can extend outwards away from the bottle 110 cavity 114.

[0022] FIG. 1A depicts the nail enamel bottle system 100 in a first mode of operation 100A. In the first mode of operation, the cap 120 and the connector 130 can be detached from the bottle 110 opening 112. The applicator 140 can then be used to dip into the cavity 114 of the bottle 110, using the application end 142 to retrieve the nail enamel 150. In the first mode of operation 100A, the connector 130 can be actuatable for securing the application end 142 of the applicator 140 at least partially into the bottle 110.

[0023] FIG. 1B depicts the nail enamel bottle system 100 in a second mode of operation 100B. In the second mode of operation, the cap 120 can be removed. The connector 130 can be

flipped vertically and secured to the opening 112 such that the application end 142 of the applicator 140 extends away from the bottle 110. In this second mode of operation, the nail enamel 150 can be dispensed by squeezing the bottle 110 and allowing flow of the nail enamel 150 from the cavity 114 to the application end 142 of the applicator 140. In the second mode of 5 operation 100B, the connector 130 can be actuatable for securing the handle end 144 of the applicator 140 to the bottle 110 to allow flow of the nail enamel 150 from the bottle 110 through the at least one channel to the applicator 140.

[0024] The bottle 110 can be a receptacle for receipt, holding, and application, or combinations thereof, of a cosmetics fluid. The bottle 110 can be a plastic bottle that is 10 squeezable. For example, the bottle 110 can be a polyethylene or a polypropylene, or other plastic resins with similar flexibility and compatibility properties. The bottle 110 can be a material compatible with the cosmetics fluid therein, such as to avoid chemical reaction in the bottle 110 and avoid degradation.

[0025] In the example of system 100, the bottle 110 can be sized and shaped to allow 15 holding or receipt of the nail enamel 150. Nail enamel can include nail color, nail coating materials, gel nail color, acrylic nail materials, nail oils, or other cosmetic fluid for application to fingernails or toenails. “Nail enamel” can be alternatively referred to as “nail polish” or nail varnish”. In other examples, a different type of cosmetic fluid can be held in the bottle 110, such as, but not limited to, foundation, concealer, liquid blush, liquid bronzer, liquid highlighter, or 20 other cosmetic products. In some cases, skin care products can be held in the bottle 110, such as oil, serums, cleansers, make-up removers, brush cleaners, or other cosmetic fluids.

[0026] The cavity 114 can be sized and shaped to hold the nail enamel 150. The opening 112 of the bottle 110 can be used for retrieval of the cosmetics fluid, such as when a user desires 25 to apply the cosmetics fluid. For example, when a consumer desires to paint their nails, they can use the applicator 140 to retrieve the nail enamel 150 from the bottle 110 via the opening 112. In the case of the system 100, the consumer may alternatively secure the connector 130 in the second mode of operation and retrieve the nail enamel 150 through squeezing the bottle. The bottle 110 can be made of a monolithic piece of material, such as a plastic.

[0027] The cap 120 can be sized and shaped to fit over the connector 130 and the 30 applicator 140, to secure the applicator 140 and connector 130 to the bottle 110 opening 112

when in a closed configuration. The cap 120 can allow for closing of the nail enamel bottle system 100 in the first mode of operation 100A. The cap 120 can provide a fluid tight seal to protect the nail enamel 150, such as preventing drying out of the nail enamel 150. The cap 120 can be sized and shape to securely fit with the connector 130 and applicator 140.

5 [0028] The connector 130 can be detachably coupled to the bottle 110. The connector 130 and the applicator 140 can be, for example, a single piece or multiple pieces assembled together. The applicator 140 can extend from a central portion of the connector 130. The connector 130 can include a channel 132 (shown and discussed with reference to FIGS. 3A to 5 below) that is aligned with the applicator 140 handle end 144.

10 [0029] The applicator 140 can include the application end 142 and the handle end 144. The handle end 144 can be an extension piece securing the application end 142 to the connector 130. In some cases, the handle end 144 can be a rod, a cylindrical piece, or other component attaching the application end 142 to the connector 130.

15 [0030] The application end 142 can be formed to distribute the nail enamel 150. For example, the application end 142 can be a brush for painting fingernails or toenails. In some cases, the application end 142 can be a standard nail brush, such as a natural hair brush or a synthetic material brush. In some cases, the application end 142 can be a nail art sized brush for fine details. In some cases, the application end 142 can be a synthetic brush such as a polymer or plastic material. In some cases, the application end 142 can be an alternative type of applicator, 20 such as a pad, sponge, spatula, or other applicator type. In some cases, the application end 142 can include a flocked material, or a foam material. For example, such an application end can be a doe foot applicator.

25 [0031] FIGS. 2A to 2E depict a transition of the nail enamel bottle system 100 between the first mode of operation 100A to the second mode of operation 100B. In FIG. 2A, the nail enamel bottle system 100 is closed in the first mode of operation 100A. Here, the cap 120 is secured over the connector 130 and the applicator 140. The connector 130 is in a first vertical position where the applicator 140 application end 142 extends inward to the cavity 114 with the nail enamel 150.

30 [0032] In FIG. 2B, the nail enamel bottle system 100 is opened in the first mode of operation 100A. Here, the applicator 140 and the connector 130 remain in the same vertical

position, connected to the cap 120. In this first mode of operation 100A, a consumer can use the applicator 140 to dip into the opening 112 and the cavity 114 of the bottle 110 to uptake the nail enamel 150. The consumer can then use the applicator 140 application end 142 to apply the nail enamel 150 to fingernails, toenails, or alternative surfaces.

5 [0033] In FIG. 2C, the nail enamel bottle system 100 is being transitioned between the first mode of operation 100A and the second mode of operation 100B. First, the cap 120 is separated from the connector 130 and the applicator 140, and the cap 120 is set aside. Next, in FIG. 2D, the connector 130 with the attached applicator 140 is disconnected from the bottle 110. For example, if threading is used to attach the connector 130 to the bottle 110, the connector 130
10 can be unthreaded and detached.

[0034] Finally, in FIG. 2E, the connector 130 with the attached applicator 140 is vertically flipped such that the applicator 140 extends outward from the bottle 110. The connector 130 is then secured to the opening 112 opening of the bottle 110 with the applicator 140 extending outward. The nail enamel bottle system 100 can now be used in the second mode
15 of operation 100B.

[0035] FIGS. 3A to 3E depict schematic cross-sectional views of the nail enamel bottle system 100 in an example. The nail enamel bottle system 100 can include the bottle 110 with the opening 112, the cavity 114, and threads 113, the cap 120, the connector 130 with a channel 132 and threads 133 and 134, and the applicator 140 with the application end 142 and the handle end
20 144. In FIGS. 3A to 3E, which depict schematic cross-sections, the threads 113 on the bottle 110, the channel 132 in the connector 130, and the threads 134 on the connector 130 can be seen.

[0036] The threads 113 can be a mating feature on the bottle 110 to allow for attachment of the connector 130 with the corresponding threads 133 in the first mode of operation 100A. In some cases, other attachment mechanisms can be used. The threads 113 can create a fluid-tight
25 seal to prevent leaking of the nail enamel 150, in addition to reducing or minimizing the nail enamel 150 drying out or becoming contaminated.

[0037] The threads 134 on the connector 130 can be on an opposing end of the connector 130 from the corresponding threads 133. The threads 134 can be configured to also mate with the threads 113 on the bottle 110, in the second mode of operation 100B.

[0038] The channel 132 can extend through the connector 130. When the connector 130 is attached in the second mode of operation 100B, the channel 132 can extend between the opening 112 and the application end 142 of the applicator 140. This can allow for flow of the nail enamel 150 from the cavity 114 in the bottle 110 down the channel 132 to the application end 142 for application of the nail enamel 150 on fingernails, toenails, or another surface.

[0039] In FIG. 3A, the system 100 is closed in a first mode of operation 100A. In FIG. 3B, the bottle 110 is opened in the first mode of operation 100A by unscrewing the cap 120 from the opening 112 of the bottle 110. The connector 130 and the applicator 140 can stay attached to the cap 120 at FIG. 3B until the cap 120 is twisted off the connector 130. At FIG. 3C, the cap 10 120 is pulled off of the connector 130. At FIG. 3D, the connector 130 and the applicator 140 are removed from the bottle 110 opening 112. At FIG. 3E, the connector 130 is flipped vertically and attached to the bottle 110 in the second mode of operation 100B.

[0040] FIG. 4 depicts a schematic cross-sectional view of the nail enamel bottle system 100. FIG. 5 depicts a zoomed in portion X of the schematic cross-sectional view of the nail enamel bottle system 100 shown in FIG. 4. FIGS. 4 and 5 will be discussed together.

[0041] The nail enamel bottle system 100 can include the bottle 110 with the opening 112, the threads 113, and the cavity 114, the cap 120, the connector 130 with the channel 132 and the threads 134, and the applicator 140 with the application end 142 and the handle end 144. The flow of the nail enamel 150 in FIGS. 4 and 5 is depicted by arrows Y. The squeezing action 20 of the consumer is indicated with arrows Z.

[0042] In FIG. 4 and 5, the nail enamel bottle system 100 is in the second mode of operation 100B, for on-the-go, one-handed, or simplified dispensing of the nail enamel 150. Here, the consumer can squeeze the bottle 110 at the arrows Z. This can push the nail enamel 150 out of the cavity 114 through the opening 112 to the channel 132 of the connector 130. The 25 nail enamel 150 can flow along the arrows Y towards the application end 142. When the nail enamel 150 meets the applicator 140, the nail enamel 150 can exit the channel 132 and flow around the handle end 144 towards the application end 142, until the nail enamel 150 reaches the application end 142. The nail enamel 150 can settle on the application end 142 external surfaces, such as on both sides of the application end 142, mimicking what occurs when the 30 application end 142 is dipped into the bottle 110 cavity 112 in the first mode of operation 100A.

In this way, the nail enamel 150 can be delivered to the application end 142 and used for painting toenails, fingernails, or other surfaces.

[0043] Here, the bottle 110 can be of a high or medium density polyethylene, such that the bottle does not chemically react with the nail enamel 150 but is still squeezable. The connector 130 can be a polypropylene, a high-density polyethylene, a medium density polyethylene, or other plastic resins with similar flexibility and compatibility properties, such that the connector can fit snuggly within the cap 120 in the first mode of operation 120.

[0044] FIG. 6 depicts a method 600 of painting nails with a nail enamel bottle system. The method 600 can include operations 610 to 630. In operation 610, a brush can be secured onto a nail enamel bottle with a connector having a fluid channel. In some cases, securing the brush onto the nail enamel bottle can include screwing the connector onto an opening of the nail enamel bottle to make a fluid tight connection. The bottle can be squeezable. In operation 620, the nail bottle can be squeezed to move nail enamel through the fluid channel to the brush. In operation 630, the nail enamel can be applied to a surface, such as toenails or fingernails.

[0045] FIGS. 7A-7C depict a perspective and cross-sectional views of a stackable a nail enamel bottle system 700 in an example. The system 700 can include multiple nail enamel bottles. For example, in FIGS. 7A to 7C, two nail enamel bottles 710 and 720 are stacked. The nail enamel bottles 710 and 720 can be similar to those bottles described above with reference to FIGS. 1A to 5.

[0046] Each of the nail enamel bottles 710, 720, can include a bottom portion 712, 722, attached to the bottom itself and a top indentation 714, 724 on the cap, which are shaped for snapping into place with each other. For example, the bottom portion 722 of the second nail enamel bottle 720 can be snapped on to the top indentation 714 of the first enamel bottle 710, creating a stack of nail enamel bottles. This can be useful for storage.

25

Various Notes & Examples

[0047] Example 1 is a cosmetics kit comprising: a receptacle for holding a cosmetic fluid, the receptacle having an opening for retrieval of cosmetic fluid therethrough; an applicator for the cosmetic fluid, the applicator having an application end and a handle end; a connector detachably coupling the applicator to the receptacle, the connector extending from the handle end

of the applicator and comprising at least one channel aligned with the applicator to allow cosmetic fluid through the at least one channel, wherein in a first mode of operation, the connector is actuatable for securing the application end of the applicator at least partially into the receptacle, and wherein in a second mode of operation, the connector is actuatable for securing the handle end of the applicator to the receptacle to allow flow of cosmetic fluid from the receptacle through the at least one channel to the applicator.

5 [0048] In Example 2, the subject matter of Example 1 optionally includes a cap attachable to the connector when in the first mode of operation, wherein the cap is configurable for creating a fluid tight seal over the brush and the connector to the bottle.

10 [0049] In Example 3, the subject matter of any one or more of Examples 1–2 optionally include wherein the receptacle is squeezable, such that the cosmetics fluid can flow out of the receptacle when squeezed.

[0050] In Example 4, the subject matter of any one or more of Examples 1–3 optionally include wherein the receptacle is a bottle.

15 [0051] In Example 5, the subject matter of any one or more of Examples 1–4 optionally include wherein the applicator is a brush.

[0052] In Example 6, the subject matter of any one or more of Examples 1–5 optionally include wherein the applicator is a sponge, a foam, or a flocked material.

20 [0053] In Example 7, the subject matter of any one or more of Examples 1–6 optionally include wherein the opening on the receptacle comprises a set of threads, and the connector comprises a corresponding set of mating threads for attaching the applicator and connector to the receptacle in the first mode of operation or the second mode of operation.

[0054] In Example 8, the subject matter of any one or more of Examples 1–7 optionally include wherein the corresponding set of mating threads is reversable.

25 [0055] In Example 9, the subject matter of any one or more of Examples 1–8 optionally include wherein the first mode of operation allows dipping of the applicator end in the cosmetic fluid in the receptacle through the opening.

[0056] In Example 10, the subject matter of any one or more of Examples 1–9 optionally include wherein the first mode of operation allows for closing the kit in a fluid-tight fashion.

- [0057] In Example 11, the subject matter of any one or more of Examples 1–10 optionally include wherein the second mode of operation allows for flow of fluid from the receptacle through the connector channel to the application end of the applicator.
- [0058] In Example 12, the subject matter of any one or more of Examples 1–11 5 optionally include wherein the cosmetics fluid is nail enamel.
- [0059] Example 13 is a device comprising: a bottle for holding nail enamel, the bottle having an inner cavity; a cap assembly comprising: a brush having an application end, a connecting end with a fluid channel, and a rod extending therebetween, wherein the application end is configured for dipping into the bottle, and the connecting end is configured for releasable 10 attachment to the bottle, the connecting end having a first configuration where the application end of the brush extends at least partially into the inner cavity of the bottle, and a second configuration where the application end of the brush extends away from the bottle wherein, in the second configuration, the fluid channel is aligned with the inner cavity of the bottle to allow nail enamel flow therethrough; and a cap configured to overlay the brush in the first 15 configuration, the cap for closing the bottle and creating a fluid tight seal.
- [0060] In Example 14, the subject matter of Example 13 optionally includes wherein the connecting end comprises an attachment feature actuatable for securing the brush to the bottle in the first configuration or the second configuration.
- [0061] In Example 15, the subject matter of any one or more of Examples 13–14 20 optionally include wherein the fluid channel extends from the connecting end through the brush and terminates prior to the application end, such that nail enamel exiting the fluid channel flows onto the application end.
- [0062] In Example 16, the subject matter of any one or more of Examples 13–15 optionally include wherein the bottle comprises a polyethylene or polypropylene.
- [0063] In Example 17, the subject matter of Example 16 optionally includes wherein the 25 bottle is actuatable for conducting movement of nail enamel from the inner cavity through the fluid channel to the application end.
- [0064] In Example 18, the subject matter of Example 17 optionally includes wherein the bottle is squeezable.

- [0065] Example 19 is a method of applying nail enamel, comprising: securing a brush onto a nail enamel bottle with a connector comprising a fluid channel, wherein the nail enamel bottle is squeezable; squeezing the nail enamel bottle to move nail enamel through the fluid channel to the brush; and applying the nail enamel.
- 5 [0066] In Example 20, the subject matter of Example 19 optionally includes wherein securing a brush onto a nail enamel bottle comprises screwing the connector on to an opening of the nail enamel bottle to make a fluid tight connection.
- [0067] 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.
- 10 [0068] 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 15 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.
- 20 [0069] In the event of inconsistent usages between this document and any documents so incorporated by reference, the usage in this document controls.
- [0070] 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.” In this document, the term “or” is used to refer to a nonexclusive 25 or, such that “A or B” includes “A but not B,” “B but not A,” and “A and B,” unless otherwise indicated. In this document, the terms “including” and “in which” are used as the plain-English equivalents of the respective terms “comprising” and “wherein.” Also, in the following claims, the terms “including” and “comprising” are open-ended, that is, a system, device, article, composition, formulation, or process that includes elements in addition to those listed after such 30 a term in a claim are still deemed to fall within the scope of that claim. 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.

[0071] Method examples described herein can be machine or computer-implemented at least in part. Some examples can include a computer-readable medium or machine-readable medium encoded with instructions operable to configure an electronic device to perform methods as described in the above examples. An implementation of such methods can include code, such as microcode, assembly language code, a higher-level language code, or the like. Such code can include computer readable instructions for performing various methods. The code may form portions of computer program products. Further, in an example, the code can be tangibly stored on one or more volatile, non-transitory, or non-volatile tangible computer-readable media, such as during execution or at other times. Examples of these tangible computer-readable media can include, but are not limited to, hard disks, removable magnetic disks, removable optical disks (e.g., compact disks and digital video disks), magnetic cassettes, memory cards or sticks, random access memories (RAMs), read only memories (ROMs), and the like.

[0072] 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. 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. 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.

CONCLUSIES

1. Cosmetische set, omvattende:
 - een container voor het bevatten van een cosmetisch fluïdum, waarbij de container een opening heeft voor het terughalen van cosmetisch fluïdum daardoor;
 - 5 een applicator voor het cosmetische fluïdum, waarbij de applicator een aanbrenguiteinde en een handgreetuiteinde heeft;
 - een connector die de applicator op losneembare wijze koppelt aan de container, waarbij de connector zich uitstrekt vanaf het handgreetuiteinde van de applicator en ten minste 10 een kanaal definieert dat uitgelijnd is met de applicator om het mogelijk te maken voor cosmetisch fluïdum om door het ten minste ene kanaal te stromen,
 - waarbij de connector in een eerste werkingsmodus geactiveerd kan worden voor het ten minste gedeeltelijk vastzetten van het aanbrenguiteinde van de applicator in de container, en
 - 15 waarbij de connector in een tweede werkingsmodus geactiveerd kan worden voor het vastzetten van het handgreetuiteinde van de applicator op de container om het mogelijk te maken voor cosmetisch fluïdum om uit de container te stromen door het ten minste ene kanaal naar de applicator.
- 20 2. Cosmetische set volgens conclusie 1, verder omvattend een dop die bevestigd kan worden op de connector wanneer in de eerste werkingsmodus, waarbij de dop geconfigureerd kan worden voor het creëren van een fluïdumdichte afdichting over de borstel en de connector ten opzichte van de fles.
- 25 3. Cosmetische set volgens conclusie 1, waarbij de container inkrijpbaar is, zodanig dat het cosmetische fluïdum uit de container kan stromen wanneer deze ingeknepen wordt.
4. Cosmetische set volgens conclusie 1, waarbij de container een fles is.
- 30 5. Cosmetische set volgens conclusie 1, waarbij de applicator een borstel is.
6. Cosmetische set volgens conclusie 1, waarbij de applicator een spons, een schuim of een gevoluteerd materiaal is.
- 35 7. Cosmetische set volgens conclusie 1, waarbij de opening op de container een schroefdraadset omvat, en de connector een bijbehorende corresponderende schroefdraadset omvat voor het bevestigen van de applicator en connector op de container in de eerste werkingsmodus of de tweede werkingsmodus.

8. Cosmetische set volgens conclusie 1, waarbij de bijbehorende set corresponderende schroefdraad omkeerbaar is.
9. Cosmetische set volgens conclusie 1, waarbij de eerste werkingsmodus het openen van het applicatoruiteinde in het cosmetisch fluïdum in de container mogelijk maakt via de opening.
10. Cosmetische set volgens conclusie 1, waarbij de eerste werkingsmodus het mogelijk maakt de set op een vloeistofdichte manier af te sluiten.
11. Cosmetische set volgens conclusie 1, waarbij de tweede werkingsmodus het mogelijk maakt voor vloeistofstroom om uit de container door het connectorkanaal naar het aanbrenguiteinde van de applicator te stromen.
12. Cosmetische set volgens conclusie 1, waarbij het cosmetisch fluïdum nagellak is.
13. Inrichting, omvattende:
een fles voor het bevatten van nagellak, waarbij de fles een binnenste holte definieert; een dopsamenstel, omvattend:
 - 20 een borstel met een aanbrenguiteinde, een verbindingsuiteinde dat een fluïdumkanaal definieert, en een stang die zich daartussen uitstrekkt, waarbij het aanbrenguiteinde geconfigureerd is om in de fles te dopen, en waarbij het verbindingsuiteinde geconfigureerd is voor het op losneembare wijze bevestigen aan de fles,
 - 25 waarbij het verbindingsuiteinde een eerste configuratie heeft waarbij het aanbrenguiteinde van de borstel zich ten minste gedeeltelijk uitstrekkt in de binnenste holte van de fles, en een tweede configuratie waarbij het aanbrenguiteinde van de borstel zich van de fles af uitstrekkt, waarbij het fluïdumkanaal, in de tweede configuratie, uitgelijnd is met de binnenste holte van de fles om het mogelijk te maken voor nagellak om daardoor te stromen; en
 - 30 een dop die geconfigureerd is om in de eerste configuratie de borstel te bedekken, waarbij de dop dient voor het afsluiten van de fles en het creëren van een fluïdumdichte afdichting.
- 35 14. Inrichting volgens conclusie 13, waarbij het verbindingsuiteinde een bevestigingskenmerk omvat dat geactiveerd kan worden voor het vastzetten van de borstel op de fles in de eerste configuratie of de tweede configuratie.

15. Inrichting volgens conclusie 13, waarbij het fluïdumkanaal zich uitstrekt vanaf het verbindingsuiteinde door de borstel en eindigt voor het aanbrenguiteinde, zodanig dat nagellak die het fluïdumkanaal verlaat, op het aanbrenguiteinde stroomt.

5 16. Inrichting volgens conclusie 13, waarbij de fles een polyethyleen of polypropyleen omvat.

10 17. Inrichting volgens conclusie 16, waarbij de fles geactiveerd kan worden voor het doen verplaatsen van nagellak uit de binnenste holte door het fluïdumkanaal naar het aanbrenguiteinde.

18. Inrichting volgens conclusie 17, waarbij de fles inkrijpbaar is.

19. Werkwijze voor het aanbrengen van nagellak, omvattende:

15 het vastzetten van een borstel op een nagellakfles met een connector die een fluïdumkanaal definieert, waarbij de nagellakfles inkrijpbaar is;
 het inkrijpen van de nagellakfles om nagellak door het fluïdumkanaal naar de borstel te verplaatsen; en
 het aanbrengen van de nagellak.

20

20. Werkwijze volgens conclusie 19, waarbij het vastzetten van een borstel op een nagellakfles het vastdraaien van de connector op een opening van de nagellakfles omvat om een fluïdumdichte verbinding te maken.

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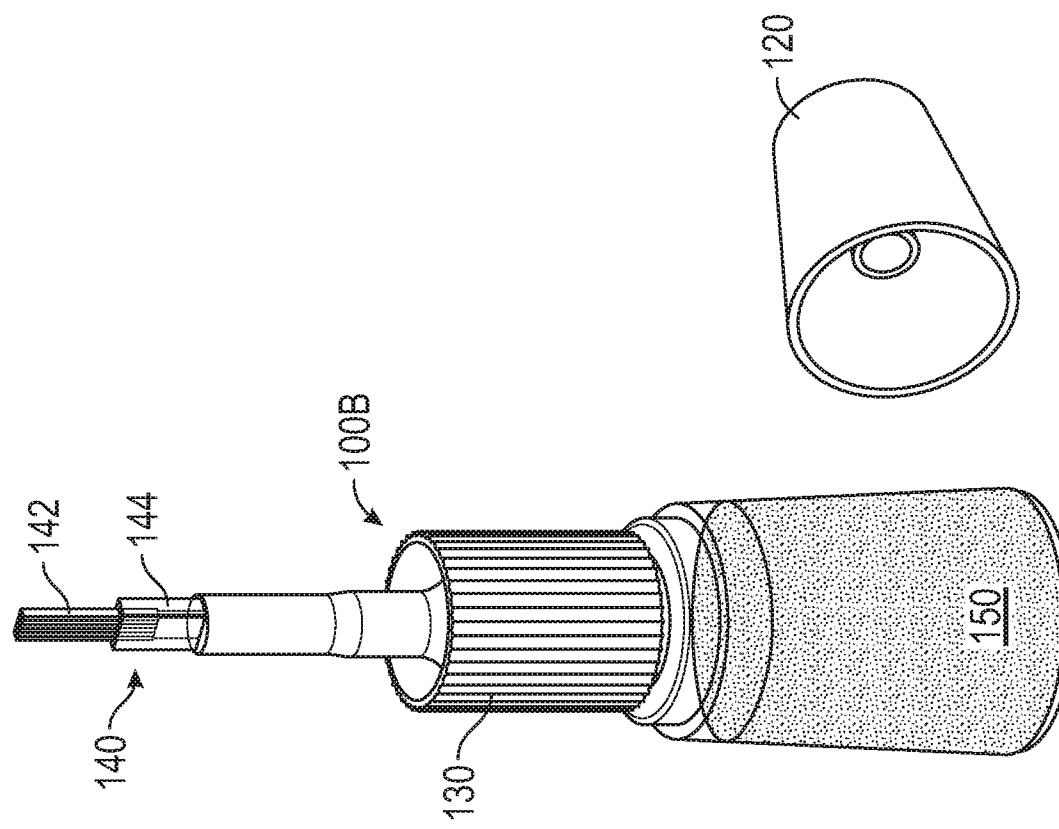


FIG. 1B

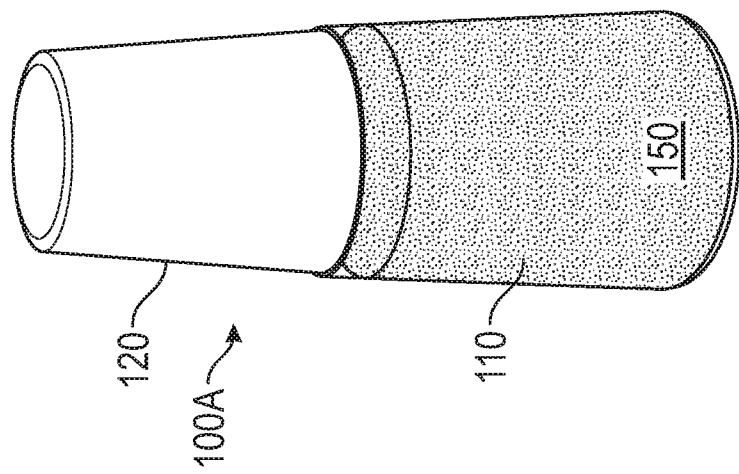


FIG. 1A

FIG. 2A

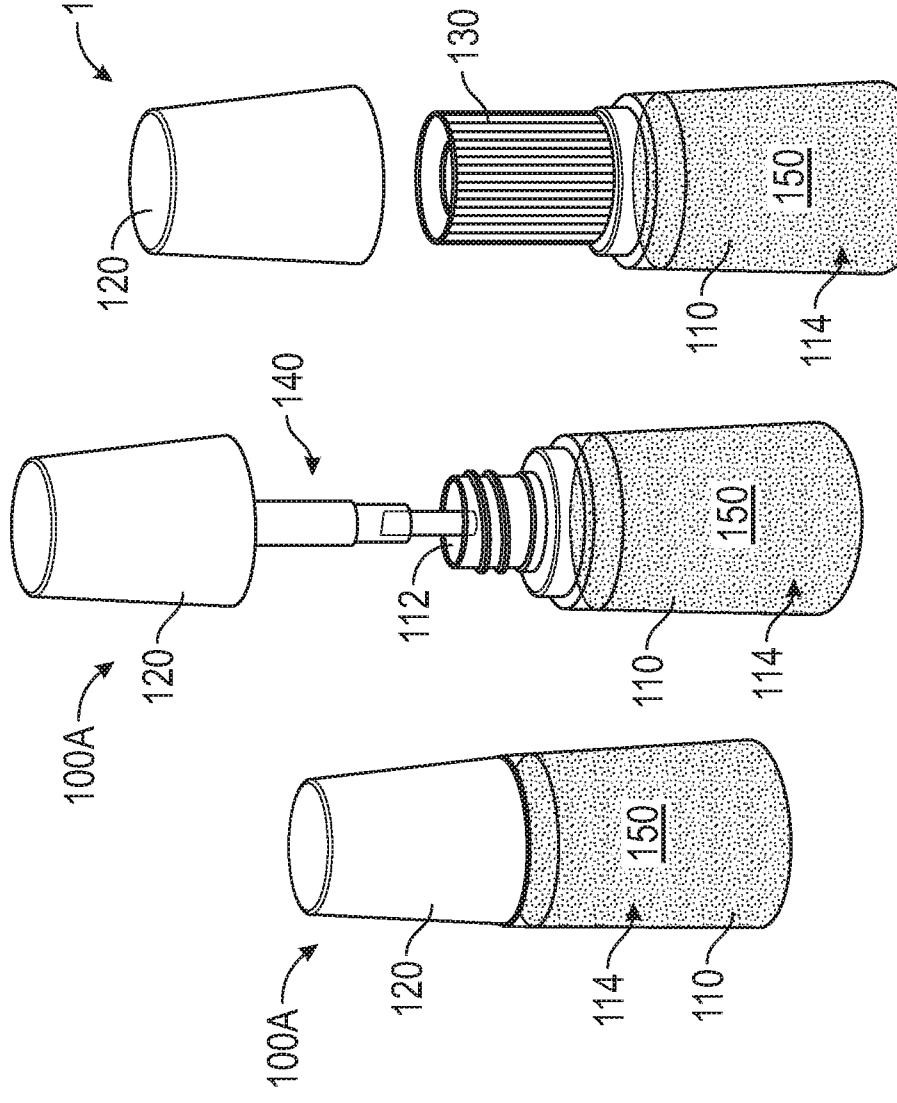


FIG. 2B

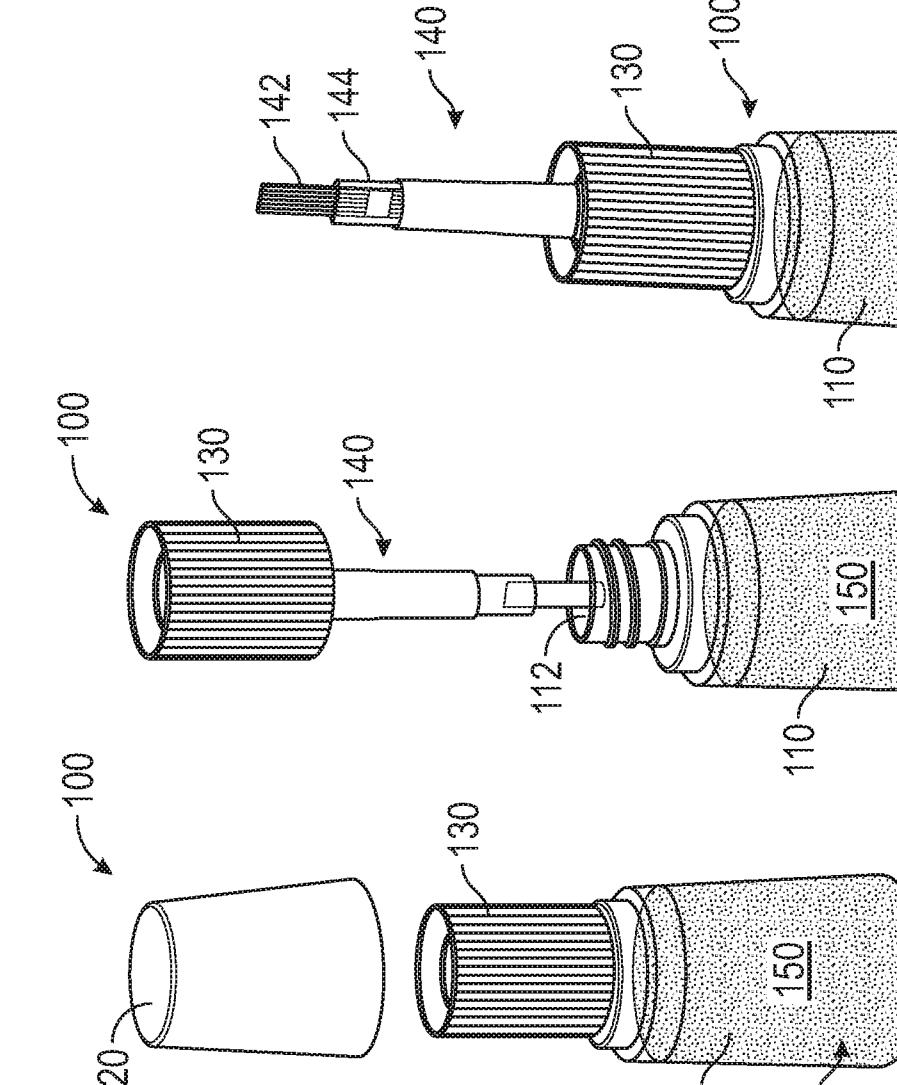


FIG. 2C

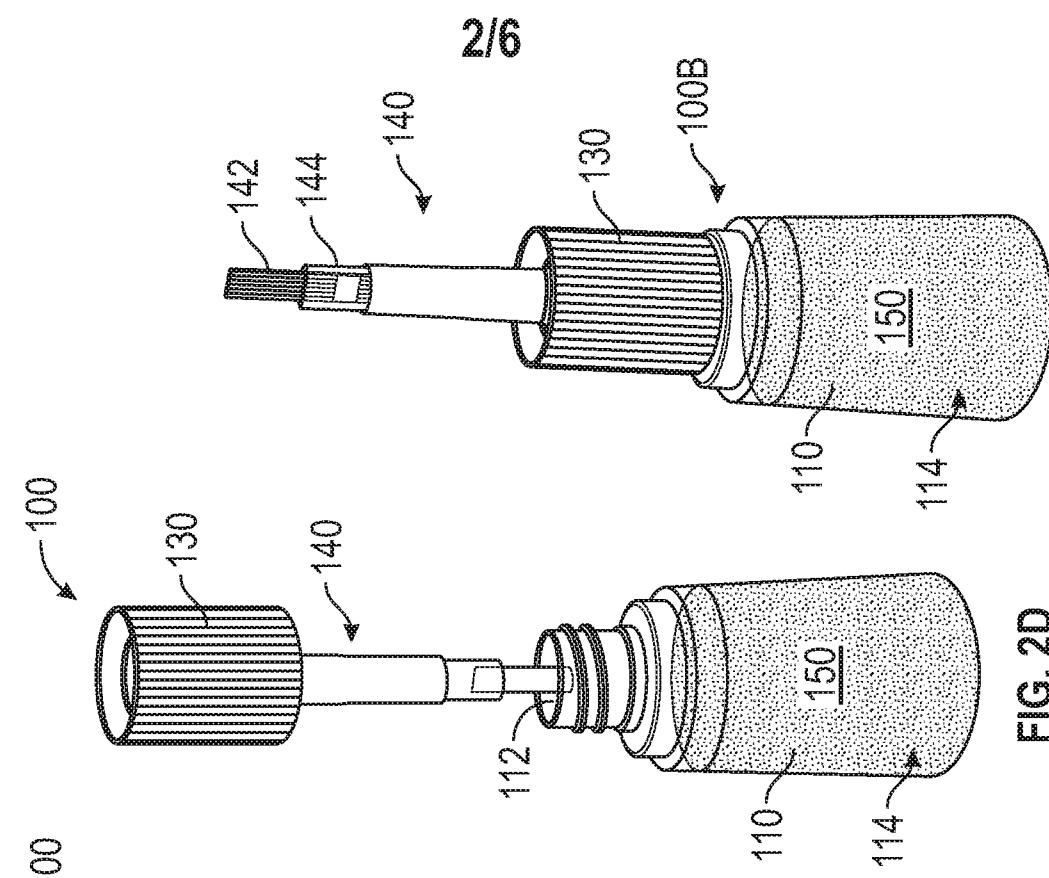


FIG. 2D

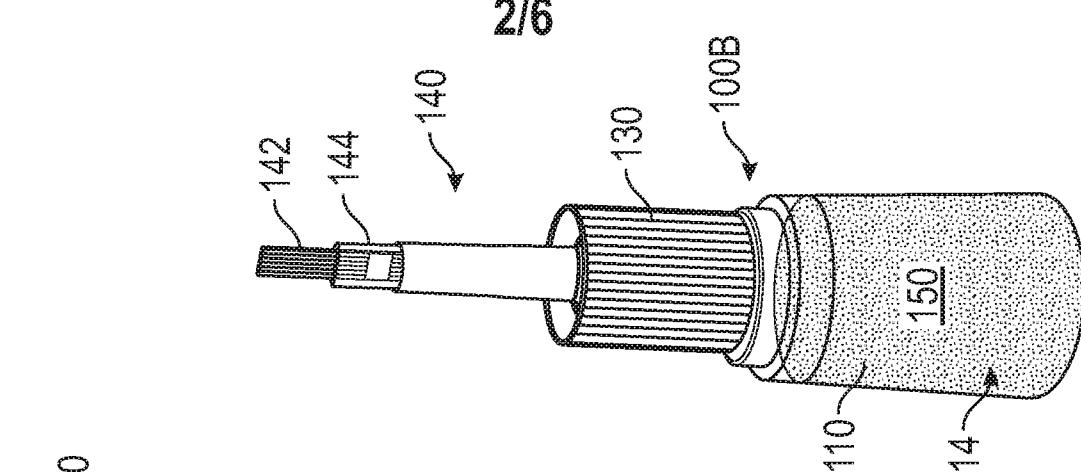


FIG. 2E

FIG. 3E

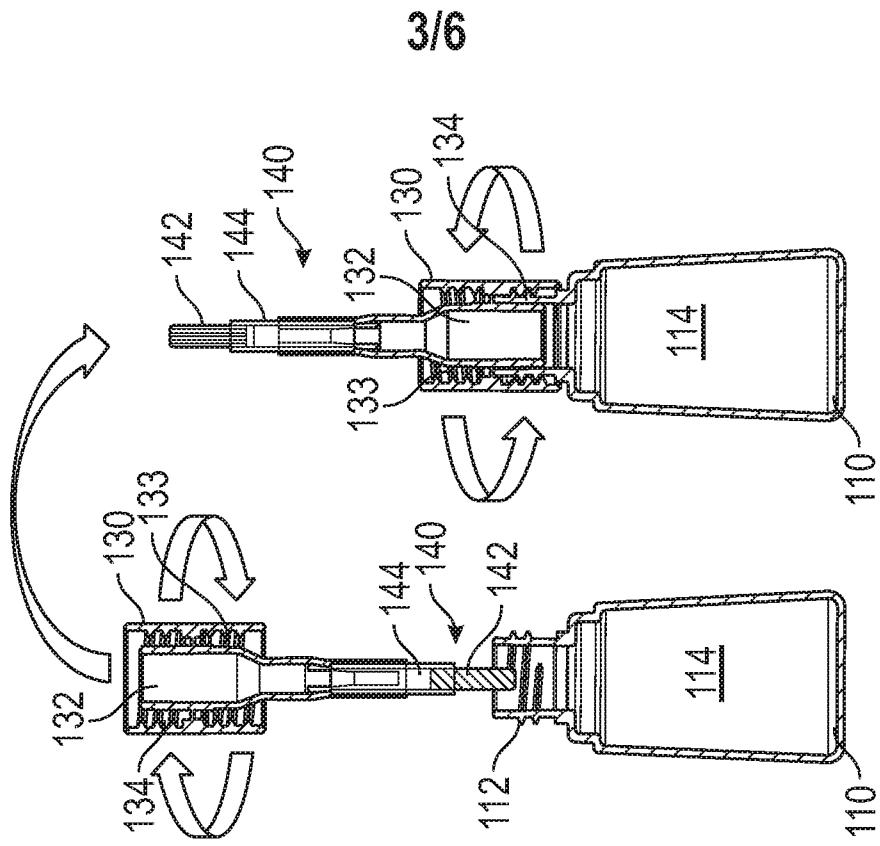
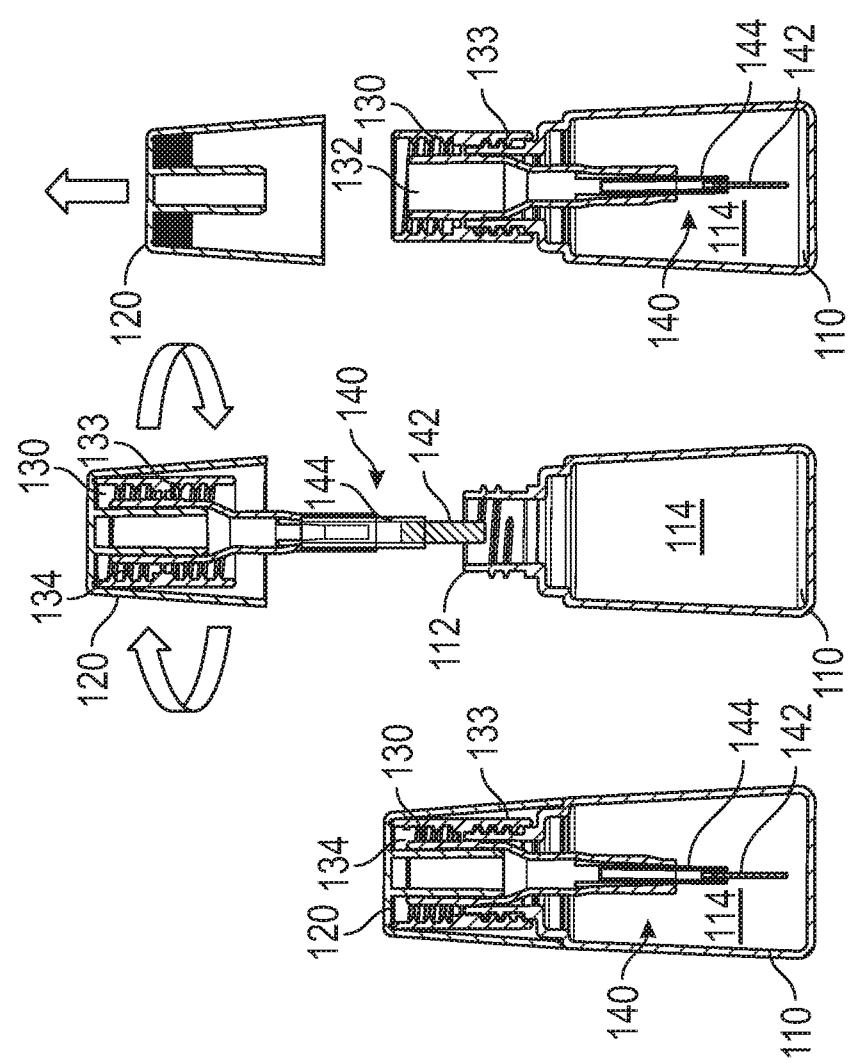


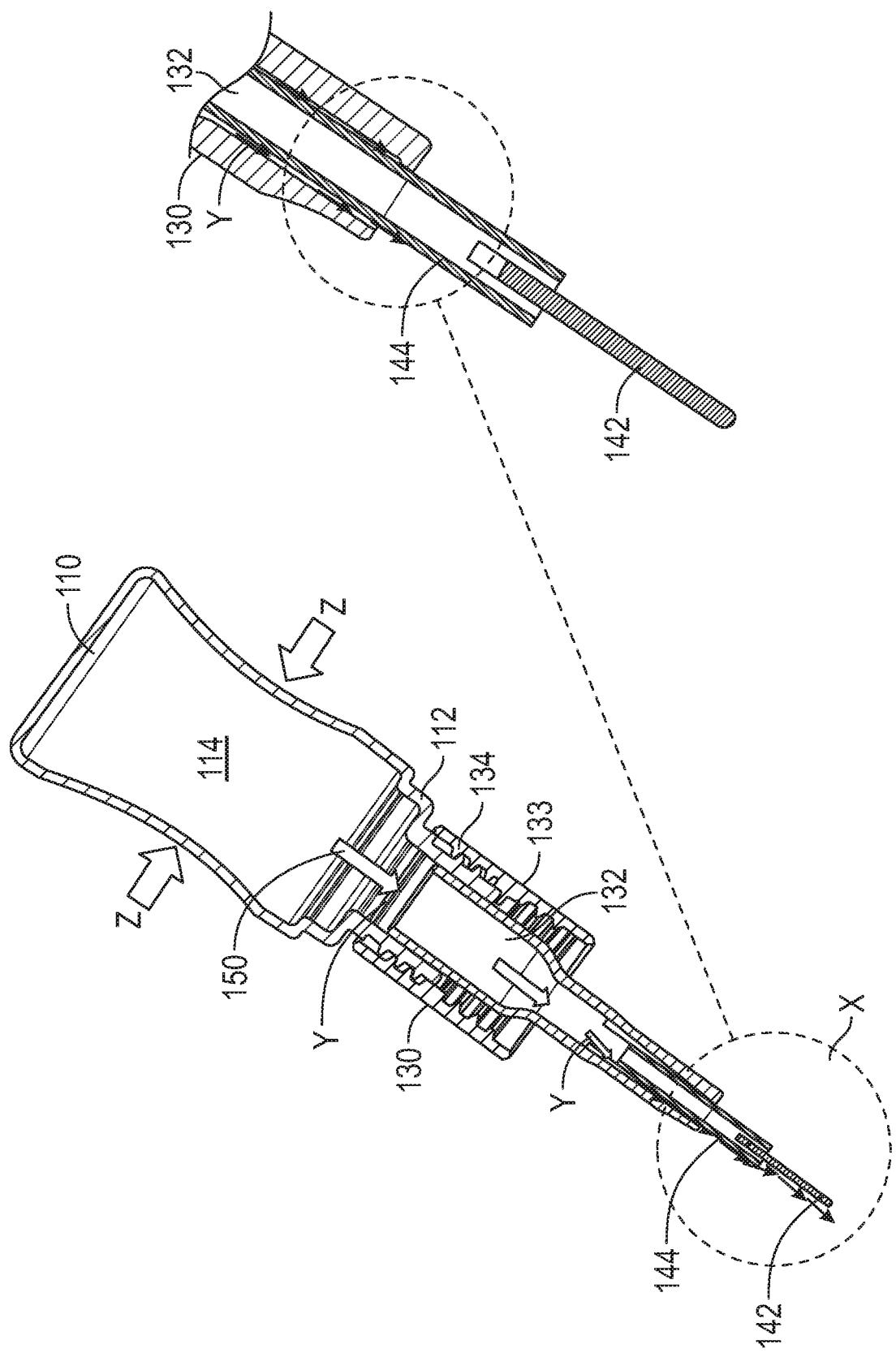
FIG. 3D

FIG. 3C

FIG. 3B

FIG. 3A





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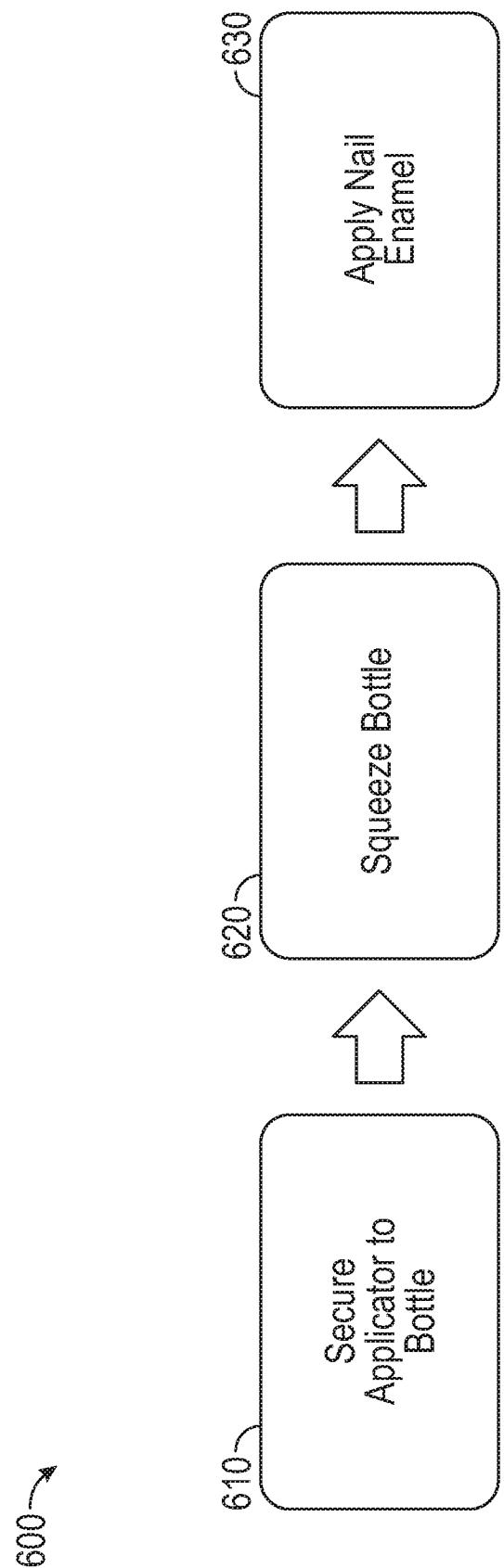


FIG. 6

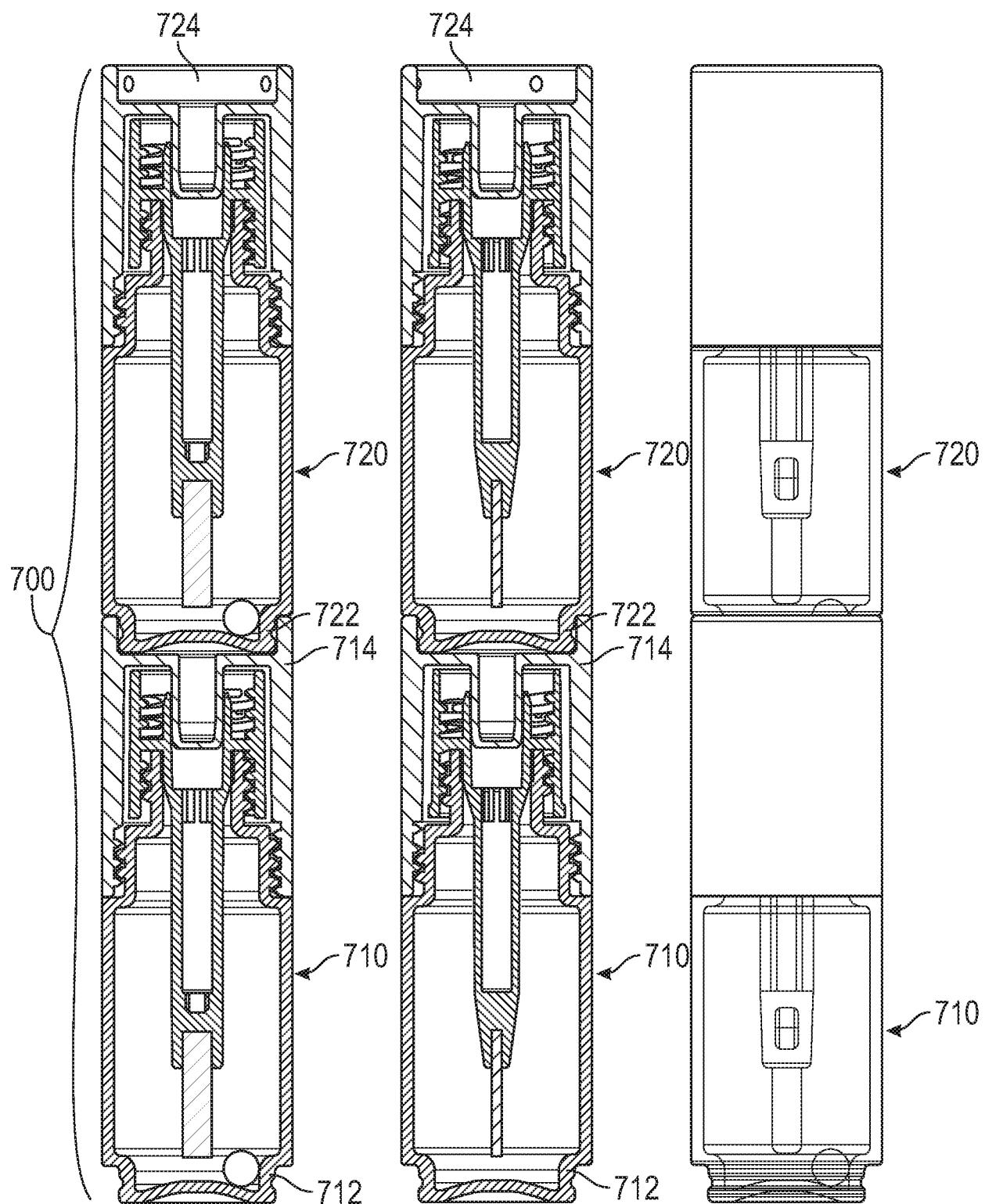


FIG. 7A

FIG. 7B

FIG. 7C

SAMENWERKINGSVERDRAG (PCT)

RAPPORT BETREFFENDE NIEUWHEIDSONDERZOEK VAN INTERNATIONAAL TYPE

IDENTIFICATIE VAN DE NATIONALE AANVRAGE	KENMERK VAN DE AANVRAGER OF VAN DE GEMACHTIGDE
Nederlands aanvraag nr. 2034651	Indieningsdatum 21-04-2023
	Ingeroepen voorrangsdatum 21-04-2022
Aanvrager (Naam) COTY INC.	
Datum van het verzoek voor een onderzoek van internationaal type 22-07-2023	Door de Instantie voor Internationaal Onderzoek aan het verzoek voor een onderzoek van internationaal type toegekend nr. SN84299
I. CLASSIFICATIE VAN HET ONDERWERP (bij toepassing van verschillende classificaties, alle classificatiesymbolen opgeven) Volgens de internationale classificatie (IPC) Zie onderzoeksrapport	
II. ONDERZOCHE GEBIEDEN VAN DE TECHNIEK Onderzochte minimumdocumentatie	
Classificatiesysteem IPC	Classificatiesymbolen Zie onderzoeksrapport
Onderzochte andere documentatie dan de minimum documentatie, voor zover dergelijke documenten in de onderzochte gebieden zijn opgenomen	
III.	GEEN ONDERZOEK MOGELIJK VOOR BEPAALDE CONCLUSIES (opmerkingen op aanvullingsblad)
IV.	GEBREK AAN EENHEID VAN UITVINDING (opmerkingen op aanvullingsblad)

**ONDERZOEKSRAPPORT BETREFFENDE HET
RESULTAAT VAN HET ONDERZOEK NAAR DE STAND
VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Nummer van het verzoek om een onderzoek naar
de stand van de techniek
NL 2034651

A. CLASSIFICATIE VAN HET ONDERWERP INV. A45D34/04	A45D40/26	A45D29/00	A46B11/00	B65D47/42
ADD.				

Volgens de Internationale Classificatie van octrooien (IPC) of zowel volgens de nationale classificatie als volgens de IPC.

B. ONDERZOCHE GEBIEDEN VAN DE TECHNIEK

Onderzochte minimum documentatie (classificatie gevolgd door classificatiesymbolen)

A45D A46B B65D

Onderzochte andere documentatie dan de minimum documentatie, voor dergelijke documenten, voor zover dergelijke documenten in de onderzochte gebieden zijn opgenomen

Tijdens het onderzoek geraadpleegde elektronische gegevensbestanden (naam van de gegevensbestanden en, waar uitvoerbaar, gebruikte trefwoorden)

EPO-Internal, WPI Data

C. VAN BELANG GEACHTE DOCUMENTEN

Categorie °	Geciteerde documenten, eventueel met aanduiding van speciaal van belang zijnde passages	Van belang voor conclusie nr.
X	US 4 710 048 A (VARTOUGHIAN VICTOR [US]) 1 december 1987 (1987-12-01) * het gehele document * -----	1-5, 9-15, 17-19
X	US 2 832 981 A (ERNST BREUHAN FRITZ) 6 mei 1958 (1958-05-06) * het gehele document * -----	1-5, 7-20
X	US 2 168 179 A (EDSON TOBEY SAM) 1 augustus 1939 (1939-08-01) * het gehele document * -----	1-20
X	GB 785 134 A (PERCY JOHN HANNEY) 23 oktober 1957 (1957-10-23) * het gehele document * ----- -/-	1-5, 7-20

Verdere documenten worden vermeld in het vervolg van vak C.

Leden van dezelfde octrooifamilie zijn vermeld in een bijlage

° Speciale categorieën van aangehaalde documenten

"A" niet tot de categorie X of Y behorende literatuur die de stand van de techniek beschrijft

"D" in de octrooiaanvraag vermeld

"E" eerdere octrooi(aanvraag), gepubliceerd op of na de indieningsdatum, waarin dezelfde uitvinding wordt beschreven

"L" om andere redenen vermelde literatuur

"O" niet-schriftelijke stand van de techniek

"P" tussen de voorrangsdatum en de indieningsdatum gepubliceerde literatuur "&" lid van dezelfde octrooifamilie of overeenkomstige octrooipublicatie

"T" na de indieningsdatum of de voorrangsdatum gepubliceerde literatuur die niet bezwarend is voor de octrooiaanvraag, maar wordt vermeld ter verheldering van de theorie of het principe dat ten grondslag ligt aan de uitvinding

"X" de conclusie wordt als niet nieuw of niet inventief beschouwd ten opzichte van deze literatuur

"Y" de conclusie wordt als niet inventief beschouwd ten opzichte van de combinatie van deze literatuur met andere geciteerde literatuur van dezelfde categorie, waarbij de combinatie voor de vakman voor de hand liggend wordt geacht

Datum waarop het onderzoek naar de stand van de techniek van internationaal type werd voltooid

Verzenddatum van het rapport van het onderzoek naar de stand van de techniek van internationaal type

26 september 2023

Naam en adres van de instantie

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

De bevoegde ambtenaar

Nicolás, Carlos

**ONDERZOEKSRAPPORT BETREFFENDE HET
RESULTAAT VAN HET ONDERZOEK NAAR DE STAND
VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Nummer van het verzoek om een onderzoek naar
de stand van de techniek
NL 2034651

C.(Vervolg). VAN BELANG GEACHTE DOCUMENTEN

Categorie °	Geciteerde documenten, eventueel met aanduiding van speciaal van belang zijnde passages	Van belang voor conclusie nr.
X	<p>US 6 174 099 B1 (PATEL MANHAR KANTIBHAI [US] ET AL) 16 januari 2001 (2001-01-16) * het gehele document *</p> <p>-----</p>	1-5, 7-20

**ONDERZOEKSRAPPORT BETREFFENDE HET
RESULTAAT VAN HET ONDERZOEK NAAR DE STAND
VAN DE TECHNIEK VAN HET INTERNATIONALE TYPE**

Informatie over leden van dezelfde octrooifamilie

Nummer van het verzoek om een onderzoek naar
de stand van de techniek

NL 2034651

In het rapport genoemd octrooigeschrift	Datum van publicatie	Overeenkomend(e) geschrift(en)	Datum van publicatie
US 4710048	A	01-12-1987	GEEN
US 2832981	A	06-05-1958	GEEN
US 2168179	A	01-08-1939	GEEN
GB 785134	A	23-10-1957	GEEN
US 6174099	B1	16-01-2001	GEEN

WRITTEN OPINION

File No. SN84299	Filing date (<i>day/month/year</i>) 21.04.2023	Priority date (<i>day/month/year</i>) 21.04.2022	Application No. NL2034651
International Patent Classification (IPC) INV. A45D34/04 A45D40/26 A45D29/00 A46B11/00 B65D47/42			
Applicant COTY INC.			

This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the application
- Box No. VIII Certain observations on the application

	Examiner Nicolás, Carlos
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WRITTEN OPINION**Box No. I Basis of this opinion**

1. This opinion has been established on the basis of the latest set of claims filed before the start of the search.
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the application, this opinion has been established on the basis of a sequence listing:
 - a. forming part of the application as filed.
 - b. furnished subsequent to the filing date for the purposes of search,
 accompanied by a statement to the effect that the sequence listing does not go beyond the disclosure in the application as filed.
3. With regard to any nucleotide and/or amino acid sequence disclosed in the application, this opinion has been established to the extent that a meaningful opinion could be formed without a WIPO Standard ST.26 compliant sequence listing.
4. Additional comments:

Box No. V Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty	Yes: Claims	
	No: Claims	1-20
Inventive step	Yes: Claims	
	No: Claims	1-20
Industrial applicability	Yes: Claims	1-20
	No: Claims	

2. Citations and explanations

see separate sheet**Box No. VII Certain defects in the application****see separate sheet****Box No. VIII Certain observations on the application****see separate sheet**

Re Box V

Prior art

1. Reference is made to the following documents:

- D1 US 4 710 048 A (VARTOUGHIAN VICTOR [US]) 1 December 1987 (1987-12-01)
- D2 US 2 832 981 A (ERNST BREUHAN FRITZ) 6 May 1958 (1958-05-06)
- D3 US 2 168 179 A (EDSON TOBEY SAM) 1 August 1939 (1939-08-01)

Novelty & inventive step

2. The present application does not meet the criteria of patentability, because the subject-matter of claim 1 is not new:

Document D1 discloses (the references in parentheses applying to this document):

Cosmetische set, omvattende:

een container (11) voor het bevatten van een cosmetisch fluïdum (nail polish), waarbij de container een opening (see neck 17) heeft voor het terughalen van cosmetisch fluïdum daardoor;

een applicator (12) voor het cosmetische fluïdum, waarbij de applicator een aanbrenguiteinde (23) en een handgreetuiteinde (27, 28, 29) heeft;

een connector (24) die de applicator op losneembare wijze koppelt aan de container, waarbij de connector zich uitstrekt vanaf het handgreetuiteinde van de applicator (figure 1) en ten minste een kanaal (30) definieert dat uitgelijnd is met de applicator (figure 1) om het mogelijk te maken voor cosmetisch fluïdum om door het ten minste een kanaal te stromen,

waarbij de connector in een eerste werkingsmodus geactiveerd kan worden voor het ten minste gedeeltelijk vastzetten van het aanbrenguiteinde van de applicator in de container (figure 7), en

waarbij de connector in een tweede werkingsmodus geactiveerd kan worden voor het vastzetten van het handgreetuiteinde van de applicator op de container om het mogelijk te maken voor cosmetisch fluïdum om uit de container te stromen door het ten minste een kanaal naar de applicator (figure 4; column 2, lines 11-30).

3. D1 also discloses the subject-matters of claims 2 (cap 13: column 3, lines 25-34), 3 (column 2, lines 24-25), 4 (bottle 10), 5 (bristles 23), 9 (figure 7), 10 (column 3, lines 29-32), 11 (column 3, lines 10-11), 12 (column 2, lines 21-24), and therefore they are not new.
4. D2 discloses the subject-matters of claims 7 (see figures 1, 2; the device is suitable for a cosmetic fluid; see threads 7 and 8; column 1, line 63 - column 2, line 3), 8 (both threads 7 and 8 can be attached to threaded neck 4 --> reversable set of mating threads has been interpreted this way; see also point 14), and therefore they are not new.
5. D3 discloses the subject-matter of claim 6 (see figures 1-4; sponge 7), and therefore it is not new.
6. The present application does not meet the criteria of patentability, because the subject-matter of claim 13 is not new:
- Document D1 discloses (the references in parentheses applying to this document):
- Inrichting, omvattende:
een fles (10) voor het bevatten van nagellak (column 2, lines 21-24), waarbij de fles een binneste holte definiert;
een dopsamenstel (12 + 13), omvattend:
een borstel (12) met een aanbrenguiteinde (23), een verbindingsuiteinde (28, 29) dat een fluïdumkanaal (30) definiert, en een stang (27) die zich daartussen uitstrekt, waarbij het aanbrenguiteinde geconfigureerd is om in de fles te dopen (figure 7), en waarbij het verbindingsuiteinde geconfigureerd is voor het op losneembare wijze bevestigen aan de fles (figure 4), waarbij het verbindingsuiteinde een eerste configuratie heeft waarbij het aanbrenguiteinde van de borstel zich ten minste gedeeltelijk uitstrekt in de binneste holte van de fles (figure 7), en een tweede configuratie waarbij het aanbrenguiteinde van de borstel zich van de fles af uitstrekt (figure 4),
waarbij het fluïdumkanaal, in de tweede configuratie, uitgelijnd is met de binneste holte van de fles om het mogelijk te maken voor nagellak om daardoor te stromen (figure 4); en
een dop (13) die geconfigureerd is om in de eerste configuratie de borstel te bedekken, waarbij de dop dient voor het afsluiten van de fles en het creëren van een fluïdumdichte afdichting (column 3, lines 29-32).

7. D1 also discloses the subject-matters of claims 14 (see bulbous portions 26 and 28), 15 (figure 1), 17-18 (bottle is squeezable; D1, claim 1), and therefore they are not new.

8. D2 discloses the subject-matter of claim 16 (column 1, lines 33-34), and therefore it is not new.

9. The present application does not meet the criteria of patentability, because the subject-matter of claim 19 is not new:

Document D1 discloses (the references in parentheses applying to this document):

Werkwijze voor het aanbrengen van nagellak (column 2, lines 21-24), omvattende:
het vastzetten van een borstel (12, 23) op een nagellakfles (11) met een connector (26, 27, 28, 29) die een fluïdumkanaal (30) definieert, waarbij de nagellakfles inkrijpbaar is (D1, claim 1);

het inkrijpen van de nagellakfles om nagellak door het fluïdumkanaal naar de borstel te verplaatsen (column 3, lines 10-11); en

het aanbrengen van de nagellak.

10. D2 discloses the subject-matter of claim 20 (the bottle is suitable for holding enamel; see threads 7, 8, 4), and therefore it is not new.

Re Box VII

11. The features of the claims are not provided with reference signs placed in parentheses.

12. Claim 8 cannot depend on claim 1, because the set of mating threads is firstly introduced in claim 7. It has been considered that claim 8 depends on claim 7.

Re Box VIII

13. Although claims 1 and 13 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and/or in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness.

14. Claim 8 is not clear: It is not clear what a "set corresponderende schroefdraadreversable" is. It has been interpreted that the connector has threads on both ends.

15. The attention of the Applicant is drawn to the fact that the method of claim 19 can be carried out with a kit or device different from the kit of claim 1 and the device of claim 13. This means that there is no unity of invention between claims 1-18 and claims 19-20. The objection has not yet been raised, because it can be easily overcome by introducing in claim 19 a reference to the kit of claim 1 or the device of claim 13.