(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) **EP 3 320 800 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
16.05.2018 Bulletin 2018/20

(51) Int Cl.:
A45D 34/04 *(2006.01)* ***A45D 40/26*** *(2006.01)*
A46B 7/02 *(2006.01)*

(21) Application number: **17152835.9**

(22) Date of filing: **24.01.2017**

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA ME
Designated Validation States:
MA MD

(30) Priority: **14.11.2016 US 201662421540 P**

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(54) TWIST TO BEND COSMETICS APPLICATOR

(57) Cosmetics applicators and combination products using the cosmetics applicators. In an example a cosmetics applicator comprises upper and lower caps that can be twisted relative to one another to cause a stem associated with the upper and lower caps to extend or retract. A cosmetics applicator on a distal end of the stem is thereby caused to assume curved or straight configurations.

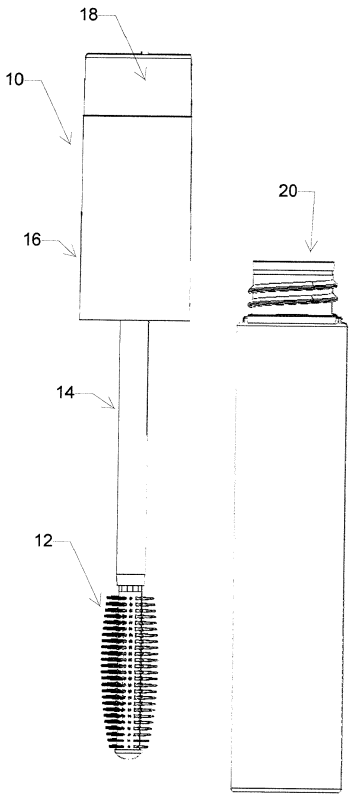

Figure 1

EP 3 320 800 A1

Description

BACKGROUND

[0001] Conventional mascara brushes typically take the form of a cylindrical straight brush on the end of a stem. It may be desirable for some users to have the option to use a brush, or other applicator, in either straight or curved configurations. New and alternative designs are desired.

OVERVIEW

[0002] The present inventors have recognized, among other things, that a problem to be solved is a need for new and alternative designs that allow a user to manipulate a mascara brush shape while preventing the brush from damage during storage and/or withdrawal from a cosmetics container. In an illustrative, non-limiting example, a cosmetics applicator comprises upper and lower caps that can be twisted relative to one another to cause a stem associated with the upper and lower caps to extend or retract. Further in the illustrative, non-limiting example, a cosmetics applicator on a distal end of the stem is thereby caused to assume curved or straight configurations.

[0003] This overview is intended to provide an introduction to the 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

[0004] 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.

Figure 1 shows an illustrative cosmetics applicator and container;
Figure 2 shows an illustrative cosmetics applicator and container in partly exploded view;
Figures 3-5 show parts of an illustrative cosmetics container in isolation;
Figure 6 shows a partial section view of a lower cap of an illustrative example;
Figure 7 shows a section view of a combination cosmetics applicator and container;
Figure 8 shows a partial section / exploded view of a cosmetics applicator; and
Figure 9 shows a cosmetics applicator with the applicator element in a curved configuration.

DETAILED DESCRIPTION

[0005] Conventional mascara brushes typically take the form of a cylindrical straight brush on the end of a stem. It may be desirable for some users to have the option to use a brush in either straight or curved configurations. Some such devices are known in the art, such as US Patent 8,141,561, and/or US Patent 8,881,745, the disclosures of which are incorporated herein by reference. The devices of these disclosures generally work by manipulating a filament to pull on a brush located at the distal end of a stem. Some examples allow the filament to be pushed instead, such as by using a biased filament that can be pulled into a stem to maintain a straight configuration, and when the filament is extended into the brush, the brush adopts a curved configuration.

[0006] The devices have their shortcomings, such as complexity and potential for incorrect usage. For example, it is desirable that the brush be withdrawn from the cosmetics container while in a straight configuration. This prevents the wiper of the container from damaging the brush and/or loading the brush with tension during withdrawal that can be released when the brush fully exits the wiper, causing splatter of the mascara and creating a mess. The present inventors have identified a new and different design that prevents the brush from being placed in a curled configuration while the applicator is secured to a bottle.

[0007] Figure 1 shows an illustrative cosmetics applicator and container. The cosmetics applicator 10 includes an applicator element 12 at the distal end of a stem 14. The proximal end of the stem 14 is secured within a cap section that includes a lower cap 16 and an upper cap 18. The applicator element 12 is shown as a mascara brush, though other applicator elements may be used instead as noted below.

[0008] The lower cap 16 and upper cap 18 are rotatable relative to one another to extend or retract the stem 14, imparting curvature on the applicator element 12 when the stem 14 is extended, and allowing the applicator element 12 to hold a straight position as shown when the stem 14 is retracted. The cosmetics applicator 10 includes threading associated with the cap section that mates with threading on a bottle 20. Other designs for securing the cosmetics applicator 10 to the bottle 20 may be used instead. The bottle 20 may contain a cosmetic product such as a mascara or other products noted below, and may include a wiper at the top portion thereof to control a quantity of product that can be removed on the applicator 12.

[0009] Figure 2 shows an illustrative cosmetics applicator and container in partly exploded view. The cosmetics applicator includes a cap section 100 that includes an upper cap 102, an elevator 104, and a lower cap 106. The upper cap and elevator cooperate with one another to be rotationally fixed to one another, and may be twisted relative to the lower cap. In some embodiments the upper cap 102 and elevator 104 may be formed as a single

piece, although in the example shown the two snap-fit together. The upper and lower caps 102, 106 may also snap fit together. Additional O-rings and seals (not shown) may be included as desire to obtain suitable sealing and fit among the pieces.

[0010] A stem assembly is shown at 110 and includes the stem itself including a proximal end 112 and a distal end 114. The distal end 114 may be necked down in circumference to receive a proximal end of an applicator element 116. A filament 118 is included as well and has a distal end (not shown) that extends to the distal tip of the applicator element 116 and prevents the applicator element 116 from moving axially off of the stem 114. When fully assembled, an enlargement of the filament 118 is captured in a slot of the elevator 104, axially connecting the upper cap (comprising upper cap 102 and elevator 104) and the lower cap 106 to the distal tip of the applicator element 116. In use, the stem is allowed to move axially relative to the upper cap 102, elevator 104, and lower cap 106, and is allowed to move rotationally relative to the lower cap 106, but not relative to the upper cap and elevator 104, as further illustrated below.

[0011] In some examples, the applicator element 116 is secured on its proximal end against rotational motion relative to the stem 114, but is not secured at its distal end against rotational movement relative to the filament 118. In other examples, the applicator element 116 is secured at its distal end against rotational movement relative to the filament 118, but is not secured at its proximal end against rotational motion relative to the stem 114. In still other examples, the applicator element 116 is secured against rotation relative to each of the stem 114 and the filament 118. Finally, in another alternative, the applicator element 116 is not secured against rotational movement at either of its ends. In examples where the applicator element is not secured on one end, the other, or both, against rotational movement, this may prevent the applicator element 116 from being stressed, strained, damaged or misshapen by relative twisting motion between the filament 118 and the stem, which may be effected in examples shown below to impart a curvature on the applicator element 116. In other examples, securing the applicator element 116 on each end may be useful to allow a user to impart a change in shape (flattening, for example) of the applicator element 116 in addition to curvature. In some examples, the applicator element 116 is secured on one end or the other, or both, against rotation in order to prevent movement of the applicator during use. Such securing may be by friction fit, heat adhesion, bi-injection, or application of an adhesive, for example.

[0012] The bottle 120 is also shown, with a lower portion 124 for receiving a cosmetic product such as mascara or other products noted below. The upper end 122 of the bottle 120 includes an opening into which the cosmetic applicator may be placed. The opening may also include a wiper to control the amount of product that may be removed on the applicator element 116. The upper end 122 of the bottle 120 is shown with threads for securing to the cap assembly 100, which may include corresponding threads (see Figure 6, below) on the lower cap 106.

[0013] Figures 3-5 show parts of an illustrative cosmetics container in isolation. Figure 3 shows an illustrative filament 200 and elevator 220. The filament 200 has a distal end 202 that acts as a stopper against axial movement of an applicator element (not shown). An optional support member 204 is included near the distal end 202 to provide stiffness to the applicator element such that, when in a relaxed state the applicator element (not shown) will return to a straight configuration from being bent or curved.

[0014] Near the proximal end of the filament 200 is an enlargement 206 that is captured in a filament slot of the elevator 220. A better view of the filament slot is shown in Figure 4, below. The lower slots 222 allow axial movement between the elevator 220 and the stem (not shown), but not rotational motion. The elevator 220 also includes upper slots at 224 for engagement with tabs on the interior of the upper cap (not shown), again preventing rotational movement therebetween. As noted above, the elevator 220 may be formed as a single piece along with the upper cap, though in the embodiment shown here the elevator 220 is a separate piece. Thus slots 222, 224 fix the stem, rotationally, relative to the upper cap. The upper cap can be twisted relative to the lower cap, which is useful as further described below to cause axial motion of the stem relative to the elevator 220.

[0015] Figure 4 shows the elevator 220 in isolation, this view being from below. The lower slots 222 are thus on the front of the image, and the upper slots 224 now face away. A filament slot is provided at 230 to receive the filament from a gap 232. The filament slot 230 is sized such that the enlargement 206 (Figure 3) cannot move axially therethrough. For assembly purposes, the filament would be passed into the gap and then moved laterally into the filament slot 230. If desired, adhesive or melt bonding may be used to further secure the filament in the filament slot 230.

[0016] Figure 5 shows the stem 250 in isolation. The stem 250 includes a proximal end 252 having an inner surface with tabs 254 for sliding engagement with the lower slots 222 (Figure 4) of the elevator, preventing rotational motion therebetween but allowing axial movement. The outer surface of the proximal end 252 includes a pair of channels 256, 258 which wrap around the proximal end at an angle. The channels 256, 258 provide inclined surfaces relative to the main axis of the stem 250 that force axial motion of the stem 250 relative to the lower cap (not shown) in response to twisting motion therebetween. The stem 250 also includes a main shaft 260 having a lumen through it. The stem 250 may include, optionally, a distal neck 262 for receiving the proximal end of an applicator element.

[0017] Figure 6 shows a partial section view of a lower cap of an illustrative example. The lower cap 280 includes

threading at 282 for securing to a cosmetics container such as a mascara bottle. At an upper end is a snap fit region 284 adapted to receive and snap fit with an upper cap (not shown). In-between is a post shown at 286. The post is sized and shaped to fit in one of the channels 256, 258 (Figure 5) so that twisting movement of the lower cap 280 relative to the stem 250 is converted to axial motion.

[0018] Figure 7 shows a section view of a combination cosmetics applicator and container. The combination device 300 includes an upper cap 310 and lower cap 312. As shown above, the lower cap 312 includes a post 314 for engagement with a channel in a stem 320, an engagement highlighted more in Figure 8, below. An elevator is shown at 316 in grey shading to highlight the separate element for this figure. The elevator 316 engages a filament 318 at an enlargement thereof. The stem 320 extends away into the bottle 330 with an elongated shaft 322, terminating in an optional neck at 324. An applicator element 326, shown as a mascara brush, extends from over the neck 324 to a distal end adjacent a distal stopper 328 on the filament 318. The bottle 330 includes a wiper shown at 332 to wipe excess product off of the applicator element 326 as it is withdrawn. A cosmetic product 334 is shown in the bottle 330 for illustrative purposes and may be a mascara product or other material as noted below.

[0019] The bracket at 340 illustrates a feature of some embodiments of the invention. The stem includes a stopper edge (highlighted below in Figure 8) that abuts the top of the bottle/wiper 332, preventing the stem from moving out of the fully retracted position that is shown. As a result, this feature prevents the user from extending the stem and causing the applicator element 326 to be curved/bent while in the bottle. This in turn prevents damage to the applicator element 326 and/or wiper 332 during withdrawal and/or may prevent the applicator element 326 from becoming loaded with tension during withdrawal from the bottle/wiper in a curved configuration which can cause the applicator element 326 to "snap" and spray product 334 undesirably, creating a mess.

[0020] Figure 8 shows a partial section / exploded view of a cosmetics applicator of Figure 7. The lower cap is shown at 312, with the post shown at 314. It can be seen that there are, in this example, two posts on opposing sides of the inner surface 370 of the lower cap 312. The threading for placement on a product bottle is shown at 372.

[0021] The upper portion a stem 320 is shown as well as the elevator 316 and filament 318. The filament 318 has an enlargement at 362 to engage the elevator 316. The elevator 316 is shown with a snap fit ring at 360 for snap fit engagement with an upper cap (not shown). The stem 320 includes a tab 364 that resides in a slot of the elevator 316, preventing rotation therebetween but allowing axial movement.

[0022] The outer surface of the proximal end of the want as shown includes the channels highlighted above in Figure 5. Two channels are included in this example, with upper ends at 350a, 352a, and lower ends at 350b, 352b, the channels being adapted to receive the posts 314 of the lower cap 312. For the retracted position of the stem (as shown for example, in Figure 7), the posts 314 reside in the lower ends 350b, 352b of the channels on the stem. Twisting the lower cap 312 relative to the upper cap (which is rotationally fixed relative to the stem 320) causes the posts 314 to slide within their respective channels toward the upper ends 350a, 352a of the channels, causing the stem to move relative to the elevator 316 in the direction shown by arrow 380. Such movement then causes the filament 318 to pull against the distal end of the applicator element, imparting curvature to the applicator element. The amount of motion may be fairly limited, such as in the range of about 1 to about 20 millimeters, for example, as the purpose is to create enough compression on the applicator element to generate a curvature such as shown below in Figure 9. In some examples the range is about 1 mm to about 10 mm.

[0023] As noted above, the stem 320 includes a stopper edge at 342 configured to abut the upper end of a bottle/wiper when inserted therein, in order to prevent the user from causing the stem to be in the extended position while it is secured to the bottle.

[0024] In some examples, a spring may be included to bias against such movement by, for example, providing a spring in a cut-out ring of the lower cap 312 with a tab on the spring for entering a tab slot on the stem. However, such a spring is not necessary and is omitted from the embodiment shown.

[0025] Figure 9 shows a cosmetics applicator with the applicator element in a curved configuration. The cosmetics applicator has an applicator element 402, shown as a sponge element, in a curved configuration at the distal end of the stem 404. The proximal end of the stem 404 enters the lower cover 406, which is shown adjacent the outer cover 408. To achieve the configuration shown, the lower cover 406 and outer cover 408 will have been twisted relative to one another, pushing the stem 404 to an extended position relative to the cap assembly 406, 408 and thus placing the applicator element 402 under compressive pressure, which will cause it to curve. To achieve a preferential curve (that is, a predictable curvature), the filament inside the stem 404 may be as shown above to include a stiffening member on one side thereof, which will tend to cause the applicator element to have one direction of easier curvature than any other. The filament may have a non-circular profile to mate with a non-circular shape within the applicator, as another way of preventing rotation between the applicator and stem, if desired..

Various Notes & Examples

[0026] A mascara brush as shown and described above may be made of any suitable material such as, for example, thermoplastic elastomer (TPE), low density

polyethylene (LDPE), synthetic polymer, partially of a resin such as, for example, acrylonitrile butadiene styrene (ABS), styrene acrylonitrile (SAN), pentachlorothioanisole (PCTA), polypropylene (PP), polyethylene (PE), polyurethane, rubber, silicone, ceramic, glass, metal, or composite material, and/or combinations thereof.

[0027] Other elements such as the upper and lower caps, bottle, stem, wiper, elevator, etc. may be made of any suitable materials including, for example and without limitation, glass, metal, wood, plastics, polymers, composites thereof, or the like. For example, the caps and bottle may be made of one or more resins such as, for example, acrylonitrile butadiene styrene (ABS), styrene acrylonitrile (SAN), pentachlorothioanisole (PCTA), polypropylene (PP), polyethylene (PE), polyurethane, combinations thereof, or the like. Moreover, various elements may be made of any combination of substantially clear, substantially opaque, and/or translucent materials.

[0028] While several examples focus on a mascara brush, the present invention may also be used with a sponge, a flocked applicator, a doefoot applicator, or any other applicator for which multiple shapes may be desirable. Mascara is one cosmetic product that may be used; in other examples, other products such as lip gloss, eye liner, concealer, eye primer, lash primer, lip stain, and other products applied via brushes, sponges, or the like.

[0029] A first illustrative and non-limiting example takes the form of a cosmetics applicator comprising: an upper cap; a lower cap, the lower and upper caps twistable relative to one another, the lower cap having an outer surface and an inner surface, the inner surface of the lower cap including at least one post protruding therefrom; a stem having a proximal end with at least one channel configured to interact with the one or more posts of the lower cap and a distal end; a filament secured relative to the upper cap and extending through the stem; and an applicator element at the distal end of the stem and axially secured to the filament; wherein the stem is axially moveable relative to the upper and lower caps in response to twisting of the upper cap relative to the lower cap to define a retracted position and an extended position; and wherein: when the stem is in the extended position, the applicator assumes a curved configuration; and when the stem is in the retracted position, the applicator assumes a straight configuration.

[0030] Additionally or alternatively, the at least one channel and the at least one post may be configured such that axial movement can be achieved by twisting of the upper cap relative to the lower cap to cause the at least one post to slide within the at least one channel.

[0031] Additionally or alternatively, the applicator may further comrpise an elevator, the elevator configured to couple to the proximal end of the stem to prevent rotational movement therebetween while allowing axial movement therebetween, the elevator being rotationally fixed relative to the upper cap.

[0032] Additionally or alternatively, the applicator element may take the form of a mascara brush.

[0033] Additionally or alternatively, the applicator element may take the form of a doefoot applicator.

[0034] Additionally or alternatively, the applicator element may take the form of a sponge.

[0035] Additionally or alternatively, the cosmetics applicator may further comprise a spring to bias the stem in the retracted position.

[0036] Additionally or alternatively, the applicator element may be fixed to the distal end of the stem, preventing rotational movement therebetween, and the applicator element is rotatable relative to the distal end of the filament.

[0037] Additionally or alternatively, the applicator element may be fixed to the distal end of the filament, preventing rotational movement therebetween, and the applicator element is rotatable relative to the distal end of the stem.

[0038] Additionally or alternatively, the applicator element may be prevented from axial movement relative to the distal ends of the stem and the filament, and free to rotate relative to the distal ends of the stem and the filament.

[0039] Additionally or alternatively, the applicator element may comprise a non-circular interior and the filament may include a non-circular distal portion adapted to mate with the applicator element to prevent rotational movement of the applicator element relative to the filament.

[0040] Additionally or alternatively, the lower cap may be configured to secure to a cosmetics bottle, and, when the lower cap is secured to a cosmetics bottle, the stem is forced into the retracted position; and when the lower cap is not secured to a cosmetics bottle, the stem is allowed to transition between retracted and extended positions in response to twisting motion between the upper and lower caps.

[0041] Additionally or alternatively, the lower cap comprises threading to secure to a cosmetics bottle.

[0042] A second illustrative and non-limiting example takes the form of a combination cosmetics applicator and cosmetics container comprising a cosmetics applicator as in any of the previous illustrative and non-limiting examples, and a bottle to contain a cosmetic product that is adapted to secure to the cosmetics applicator.

[0043] A third illustrative and non-limiting example takes the form of a combination cosmetics applicator and cosmetics container comprising a cosmetics applicator as in the first illustrative and non-limiting example, or any of the above variants thereof, and a bottle having an opening at one end with a wiper therein and threading adjacent to the opening for securing to the cosmetics applicator.

[0044] A fourth illustrative and non-limiting example takes the form of a combination cosmetic product, applicator and container comprising: a cosmetics applicator as in the first illustrative and non-limiting example, or any of the above variants thereof; a bottle to contain a cosmetic product that is adapted to secure to the cosmetics

applicator; and a cosmetic product contained in the bottle for use by a user of the cosmetics applicator.

[0045] A fifth illustrative and non-limiting example comprises a method of applying a cosmetic material using a cosmetic applicator as in any of the first to fourth non-limiting examples, or any variant thereof.

[0046] A sixth illustrative and non-limiting example takes the form of a method of applying a cosmetic material using a cosmetics applicator as in the first illustrative and non-limiting example and any of the above variants thereof, comprising: withdrawing the applicator element from a bottle containing a cosmetic product; twisting the upper cap relative ot the lower cap to force the stem into the extended position, thereby imparting a curvature to the applicator element; and using the applicator element to apply the cosmetic material.

[0047] 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.

[0048] 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.

[0049] In the event of inconsistent usages between this document and any documents so incorporated by reference, the usage in this document controls. 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. 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.

[0050] 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.

Claims

1. A cosmetics applicator comprising:

an upper cap;
a lower cap, the lower and upper caps twistable relative to one another, the lower cap having an outer surface and an inner surface, the inner surface of the lower cap including at least one post protruding therefrom;
a stem having a proximal end with at least one channel configured to interact with the one or more posts of the lower cap and a distal end;
a filament secured relative to the upper cap and extending through the stem; and
an applicator element at the distal end of the stem and axially secured to the filament;
wherein the stem is axially moveable relative to the upper and lower caps in response to twisting of the upper cap relative to the lower cap to define a retracted position and an extended position; and
wherein:

when the stem is in the extended position, the applicator assumes a curved configuration; and
when the stem is in the retracted position, the applicator assumes a straight configuration.

2. The cosmetics applicator of claim 1 wherein the at least one channel and the at least one post are configured such that axial movement can be achieved by twisting of the upper cap relative to the lower cap to cause the at least one post to slide within the at least one channel.

3. The cosmetics applicator of any of the preceding claims further comprising an elevator, the elevator configured to couple to the proximal end of the stem to prevent rotational movement therebetween while allowing axial movement therebetween, the elevator being rotationally fixed relative to the upper cap.

4. The cosmetics applicator of any of the preceding claims wherein the applicator element takes the form of a mascara brush.

5. The cosmetics applicator of any of claims 1-4 wherein the applicator element takes the form of a doefoot applicator or the form of a sponge.

6. The cosmetics applicator of any of the preceding claims further comprising a spring to bias the stem in the retracted position.

7. The cosmetics applicator of any of the preceding claims wherein:

the applicator element is fixed to the distal end of the stem, preventing rotational movement therebetween, and the applicator element is rotatable relative to the distal end of the filament, or
the applicator element is fixed to the distal end of the filament, preventing rotational movement therebetween, and the applicator element is rotatable relative to the distal end of the stem, or
the applicator element is prevented from axial movement relative to the distal ends of the stem and the filament, and free to rotate relative to the distal ends of the stem and the filament.

8. A cosmetics applicator as in any of the preceding claims wherein the applicator element comprises a non-circular interior and the filament includes a non-circular distal portion adapted to mate with the applicator element to prevent rotational movement of the applicator element relative to the filament.

9. The cosmetics applicator of any of the preceding claims wherein the lower cap is configured to secure to a cosmetics bottle, and:

when the lower cap is secured to a cosmetics bottle, the stem is forced into the retracted position; and
when the lower cap is not secured to a cosmetics bottle, the stem is allowed to transition between retracted and extended positions in response to twisting motion between the upper and lower caps.

10. A cosmetics applicator as in any of claims 1-9 wherein the lower cap comprises threading to secure to a cosmetics bottle.

11. A combination cosmetics applicator and cosmetics container comprising a cosmetics applicator as in any of claims 1-10, and a bottle to contain a cosmetic product that is adapted to secure to the cosmetics applicator.

12. A combination cosmetics applicator and cosmetics container comprising a cosmetics applicator as in any of claims 1-10, and a bottle having an opening at one end with a wiper therein and threading adjacent to the opening for securing to the cosmetics applicator.

13. A combination cosmetic product, applicator and container comprising:

a cosmetics applicator as in any of claims 1-10;
a bottle to contain a cosmetic product that is adapted to secure to the cosmetics applicator; and
a cosmetic product contained in the bottle for use by a user of the cosmetics applicator.

14. A method of applying a cosmetic material using a cosmetics applicator as in any of claims 1-10, comprising:

withdrawing the applicator element from a bottle containing a cosmetic product;
twisting the upper cap relative ot the lower cap to force the stem into the extended position, thereby imparting a curvature to the applicator element; and
using the applicator element to apply the cosmetic material.

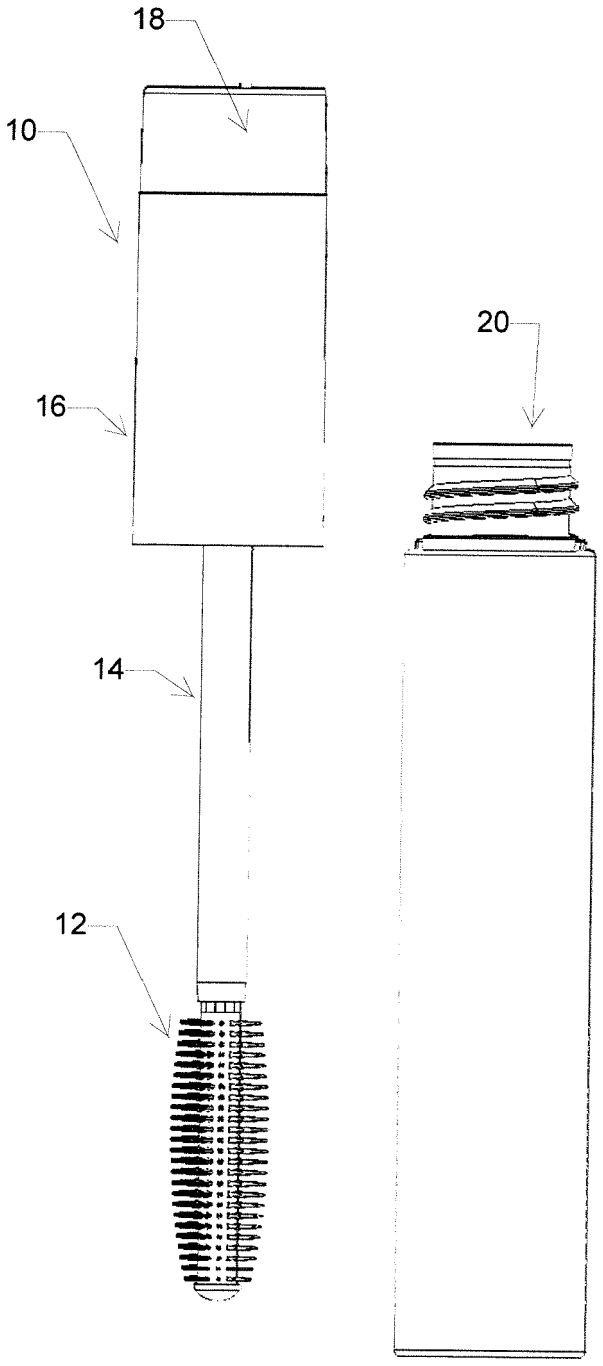

Figure 1

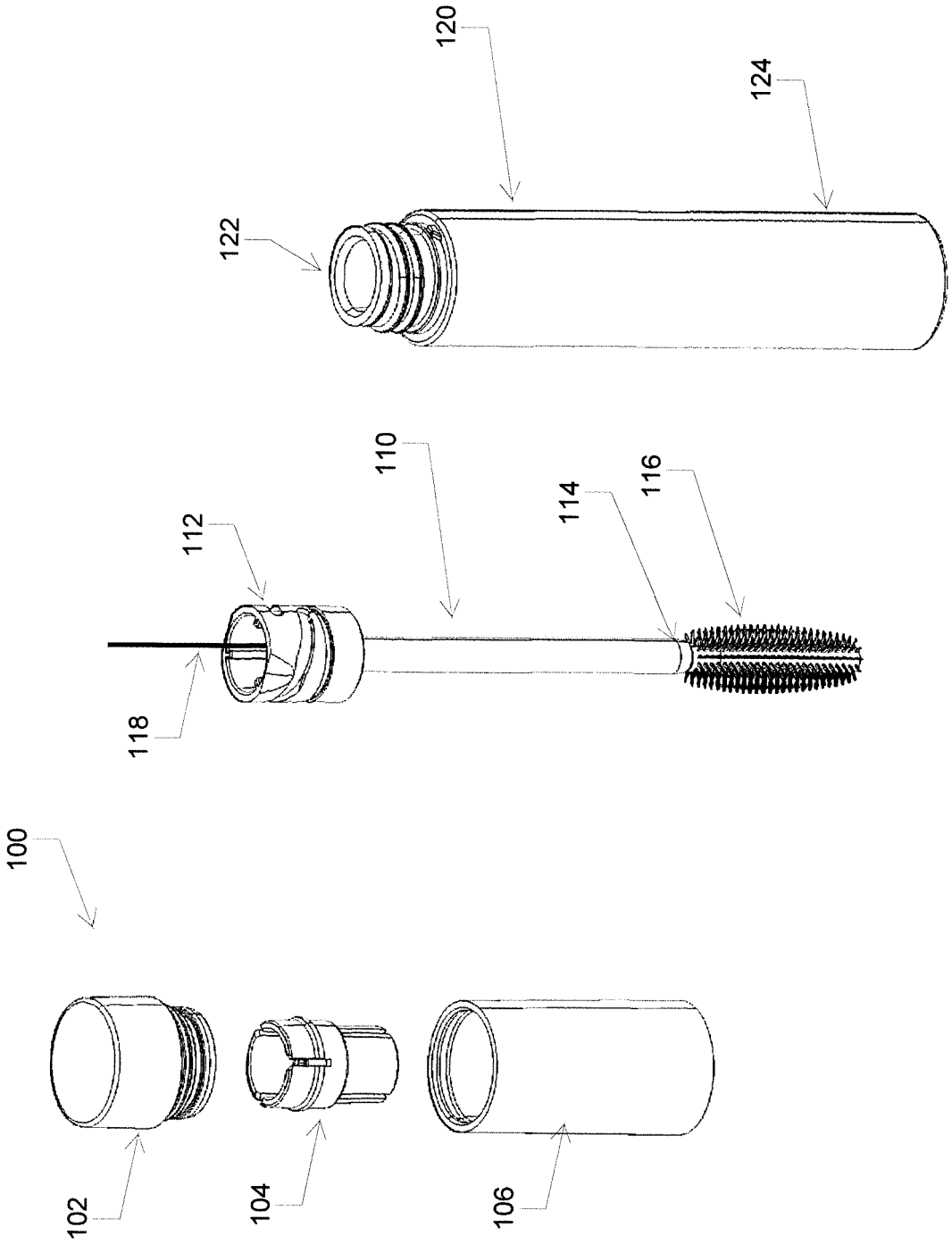

Figure 2

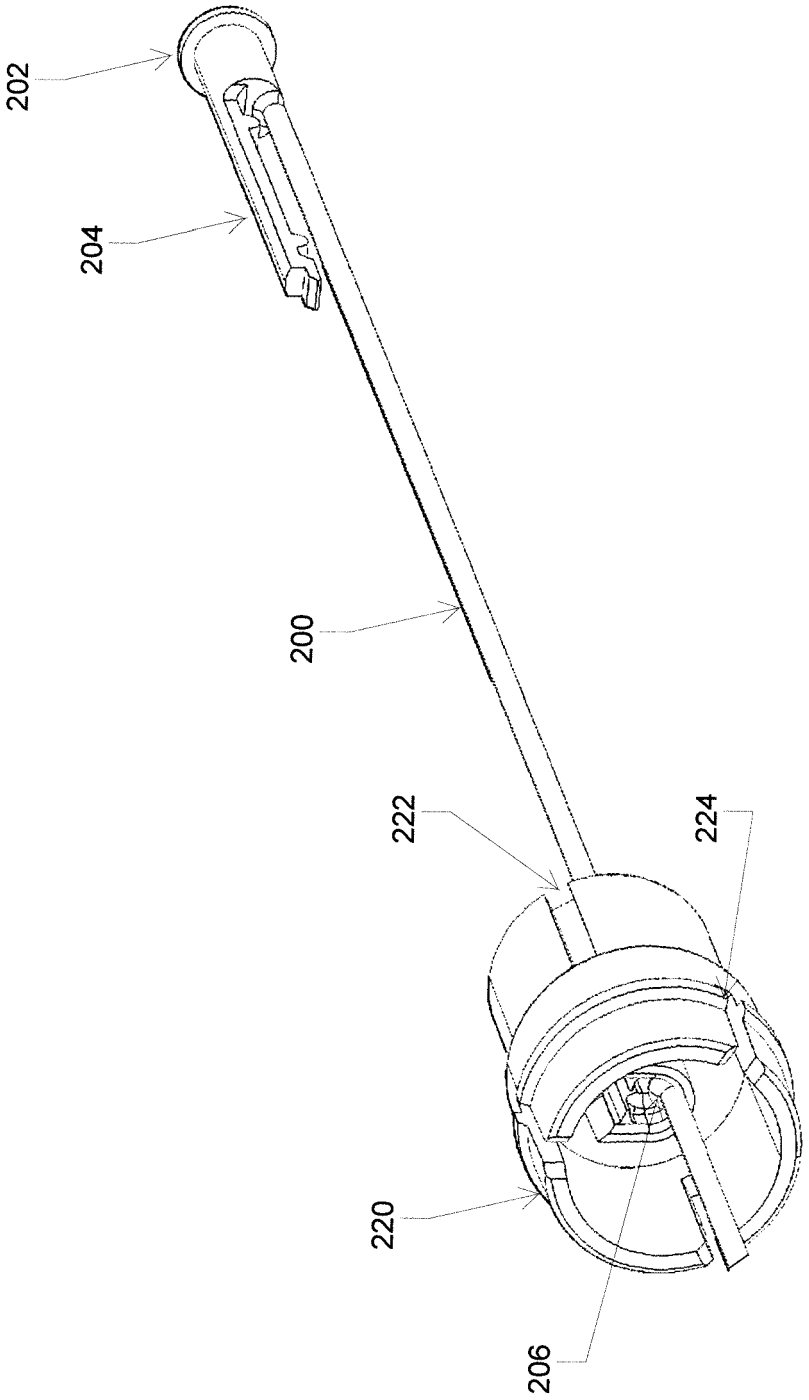

Figure 3

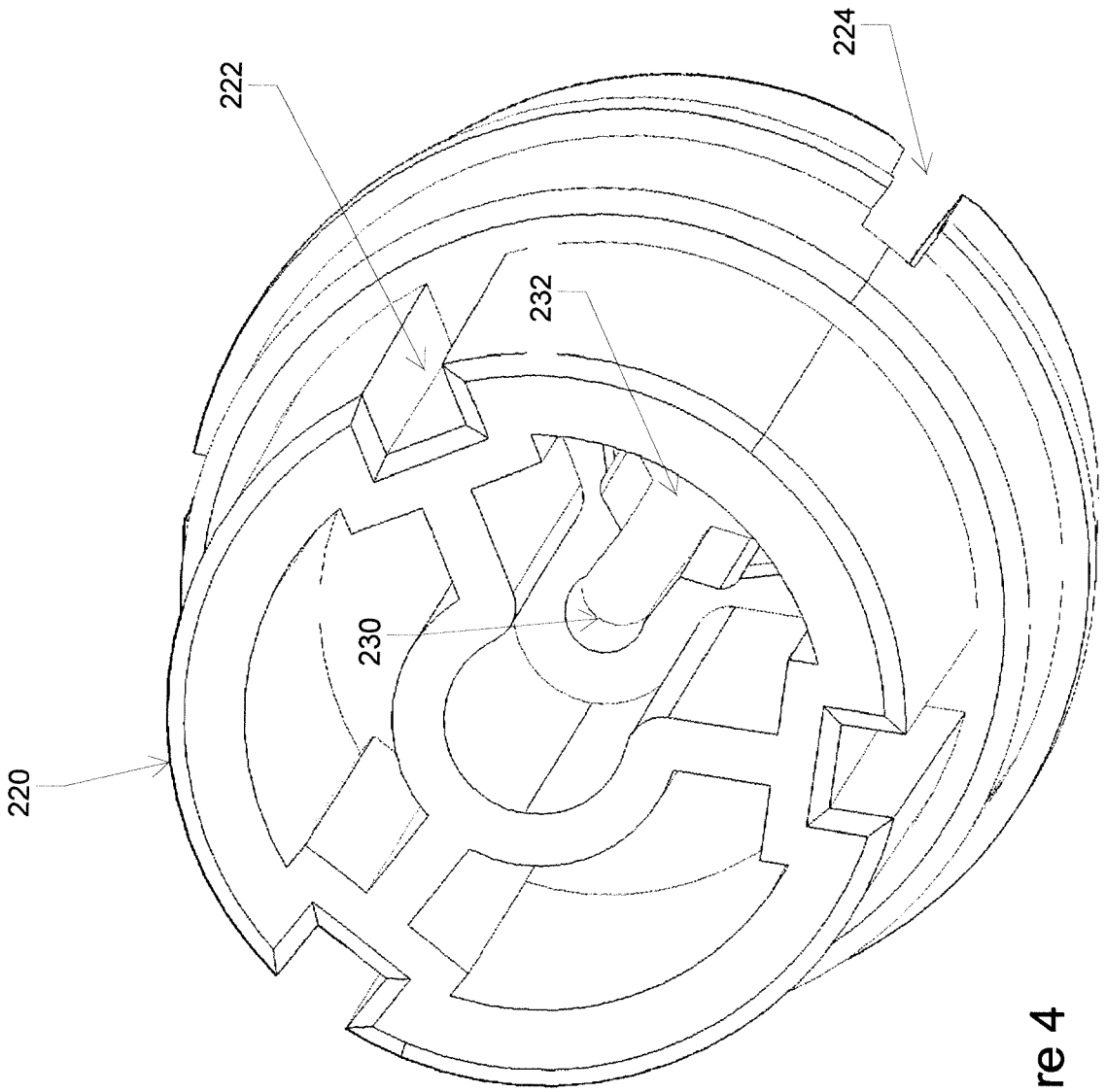

Figure 4

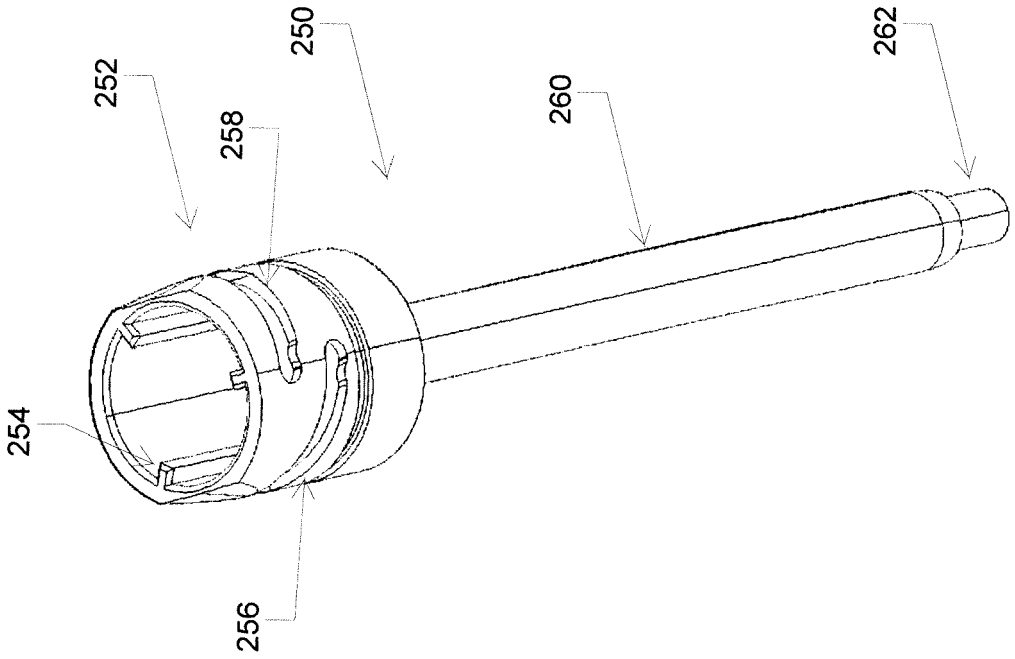

Figure 5

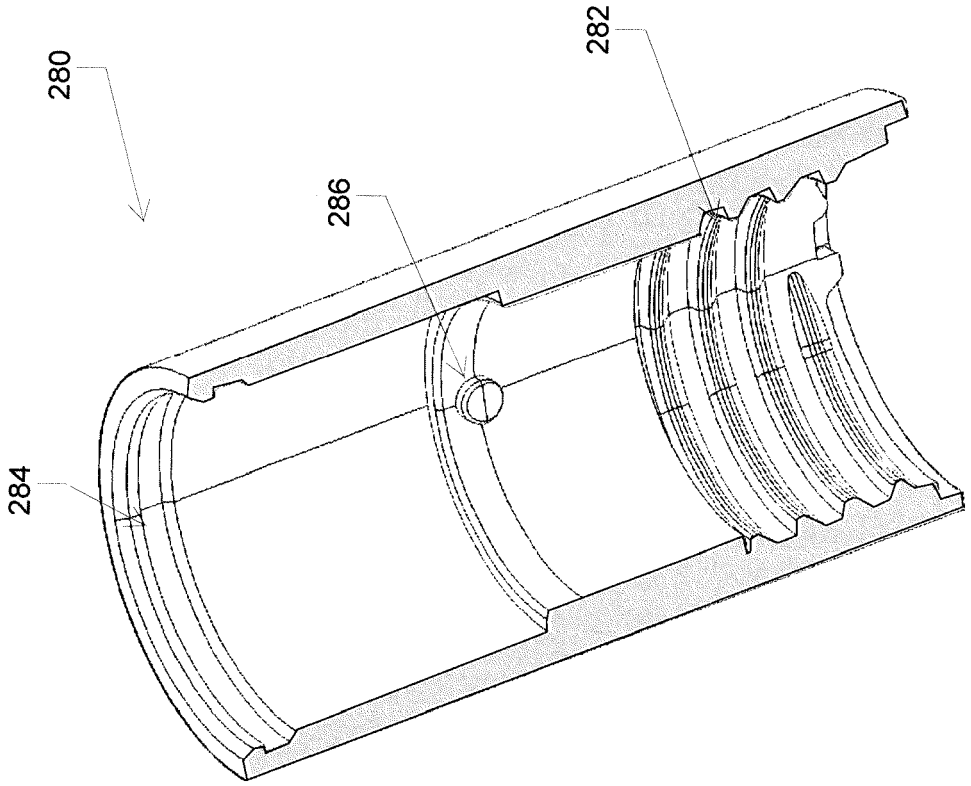

Figure 6

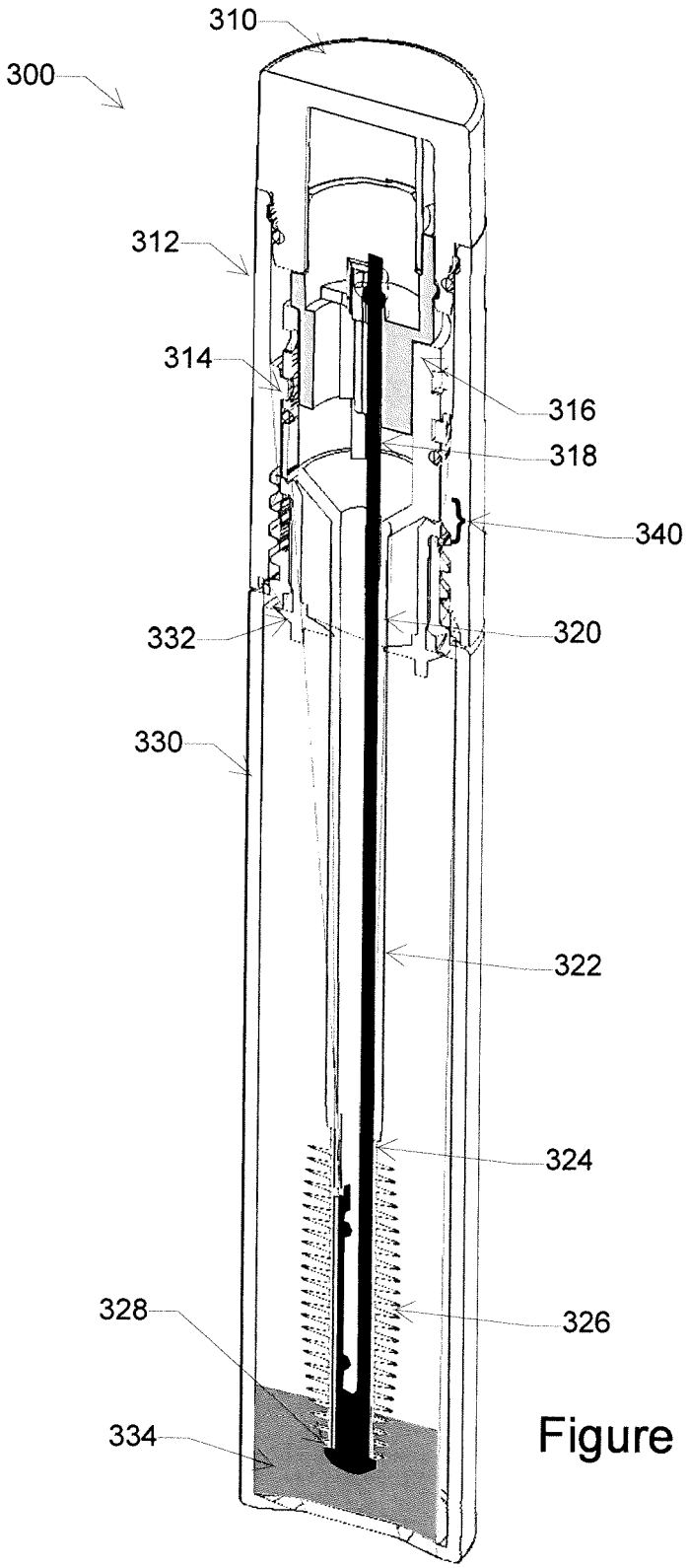

Figure 7

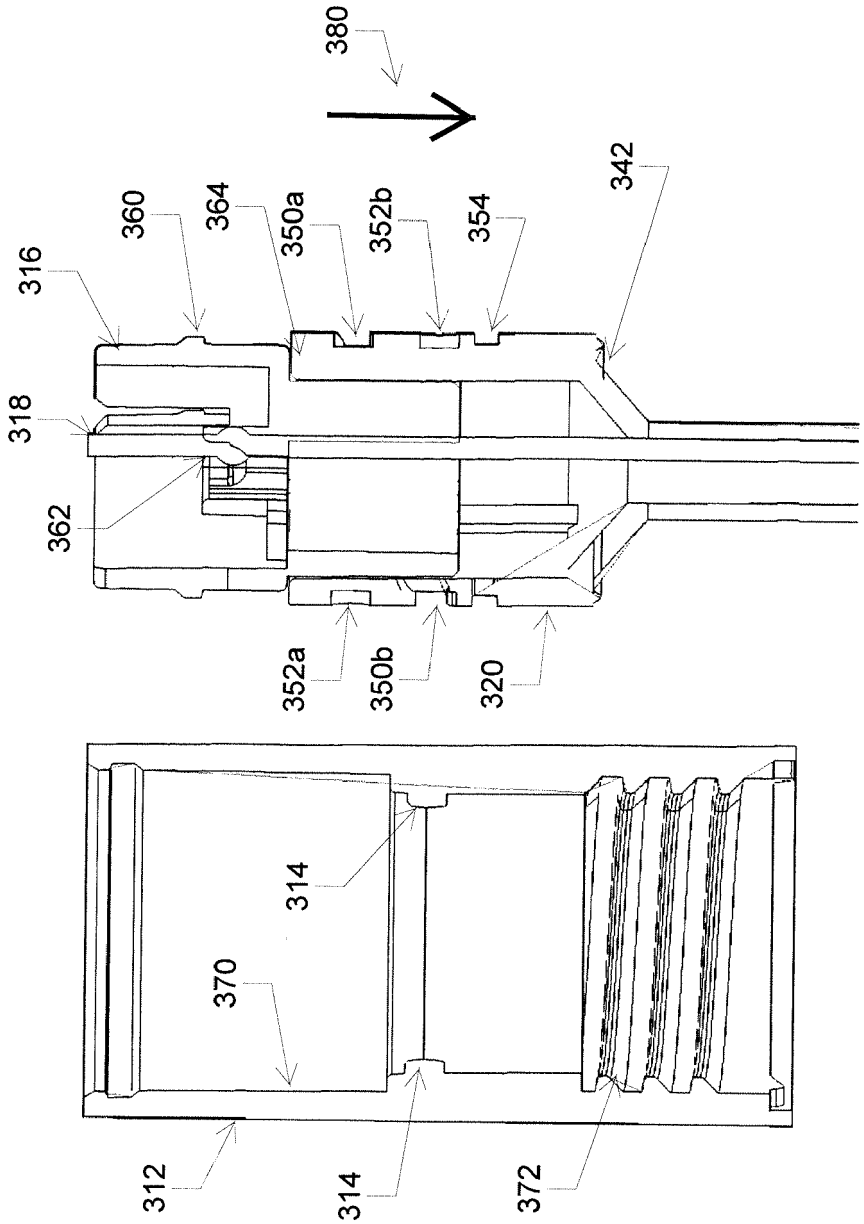
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Figure 8

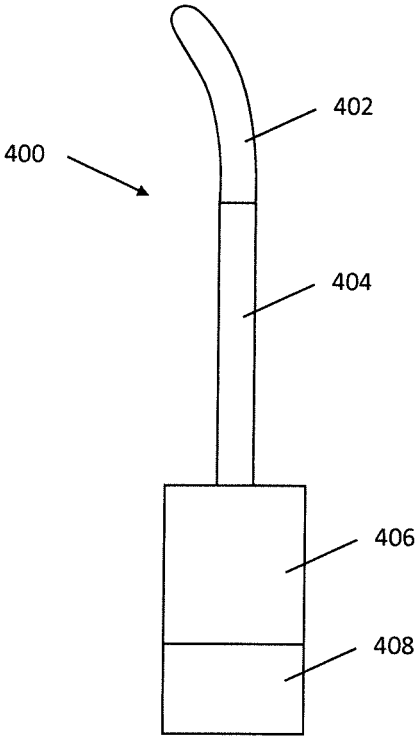

Figure 9

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EUROPEAN SEARCH REPORT

Application Number
EP 17 15 2835

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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)

A45D
A46B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	30 June 2017	Dinescu, Daniela

CATEGORY OF CITED DOCUMENTS

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