



US 20140147189A1

(19) **United States**

(12) **Patent Application Publication**
Wightman

(10) **Pub. No.: US 2014/0147189 A1**

(43) **Pub. Date: May 29, 2014**

(54) **APPLICATOR**

Publication Classification

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(51) **Int. Cl.**
A45D 34/04 (2006.01)

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(52) **U.S. Cl.**
CPC **A45D 34/046** (2013.01)
USPC **401/122**

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(21) Appl. No.: **14/090,741**

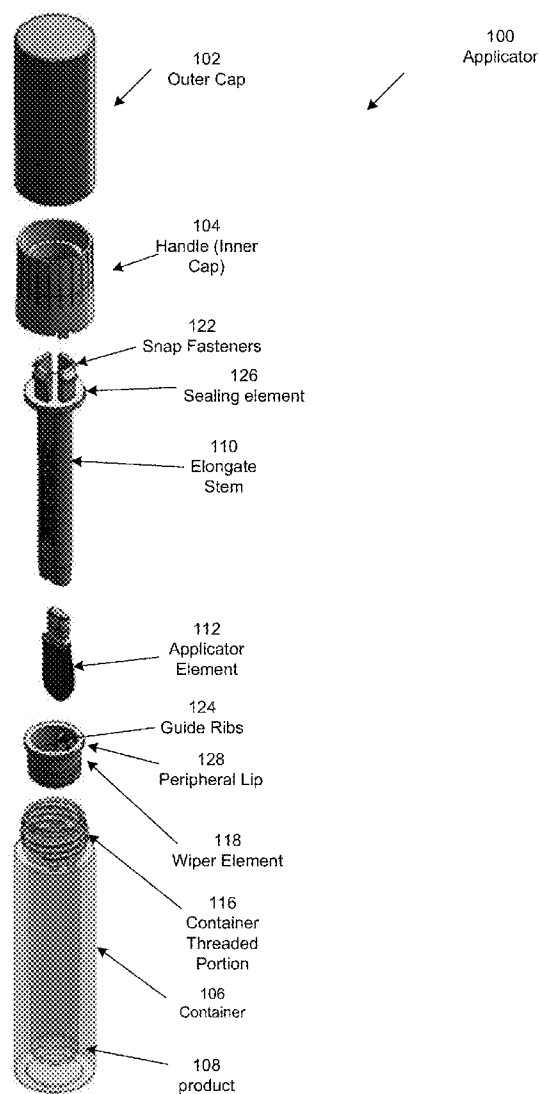
(22) Filed: **Nov. 26, 2013**

Related U.S. Application Data

(60) Provisional application No. 61/729,914, filed on Nov. 26, 2012.

(57) **ABSTRACT**

An applicator apparatus comprising a container comprising an opening, a wiper element coupled to the container, the wiper element comprising a passage, a non-circular applicator stem removably coupled to the container, the applicator stem configured to be slidably engaged in the passage of the wiper element such that rotational movement of the applicator stem is minimized.



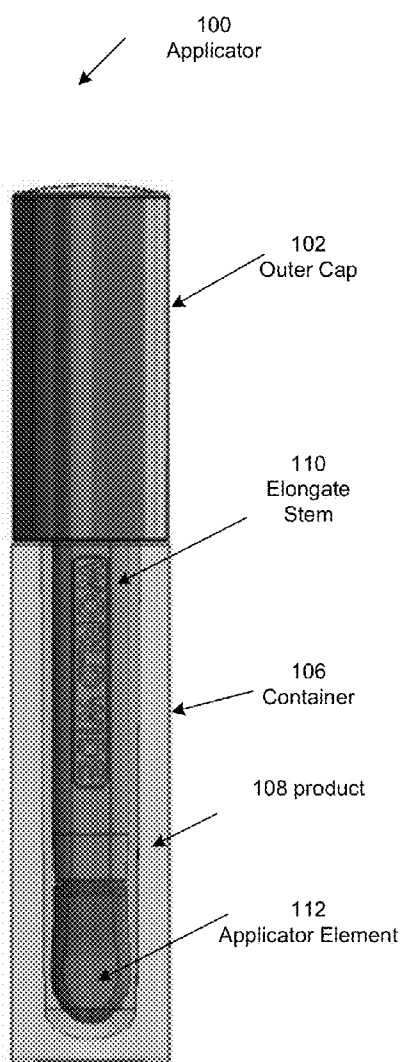


FIG. 1

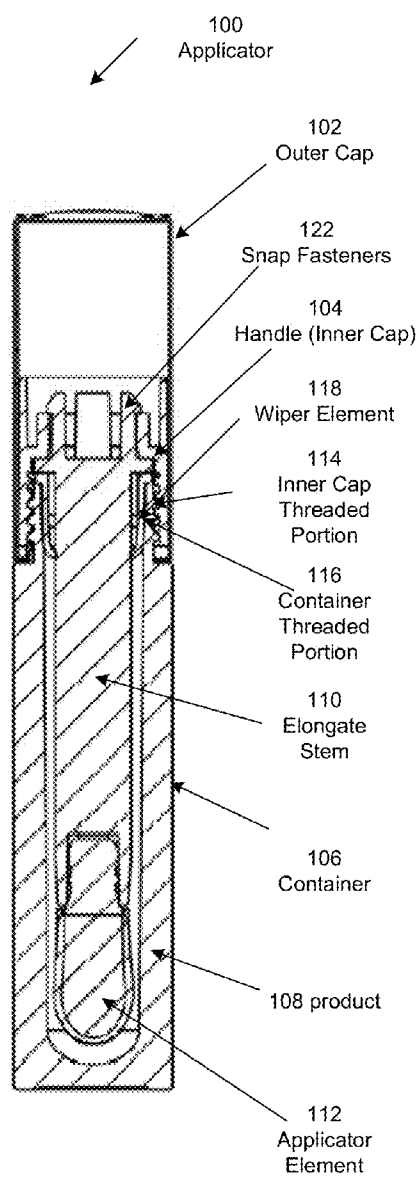


FIG. 2

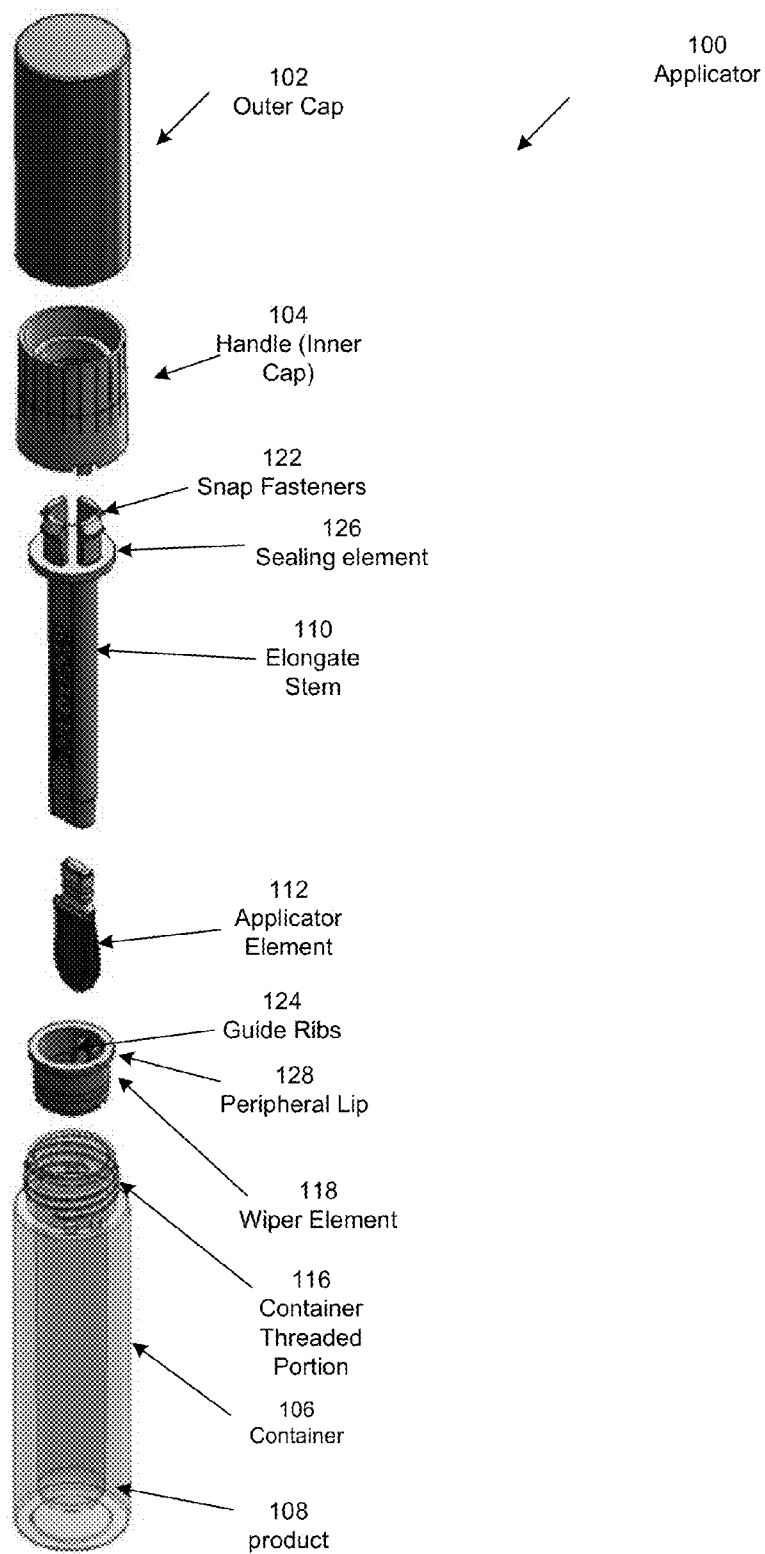


FIG. 3

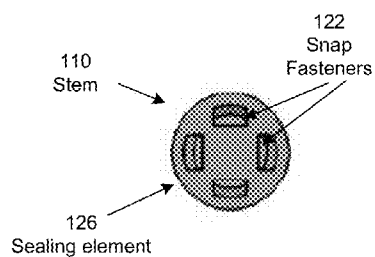


FIG. 4

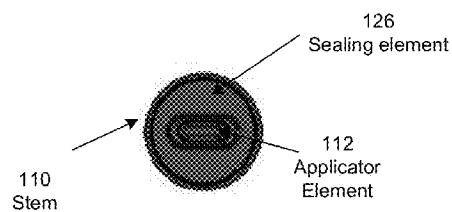


FIG. 5

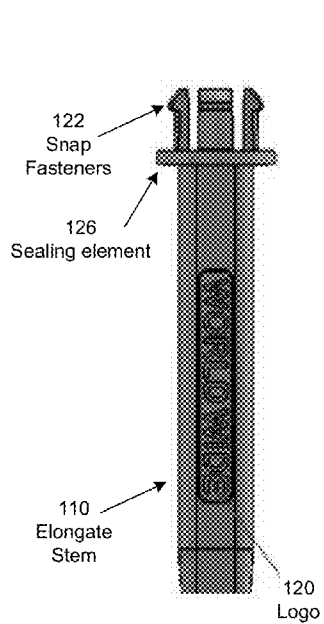


FIG. 6

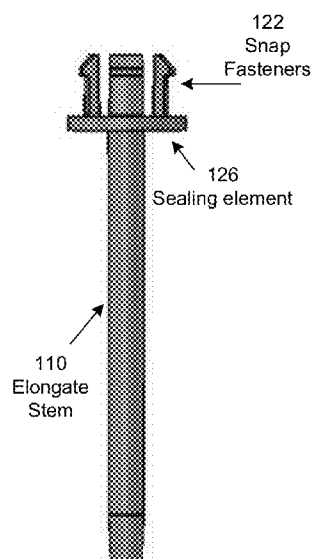


FIG. 7

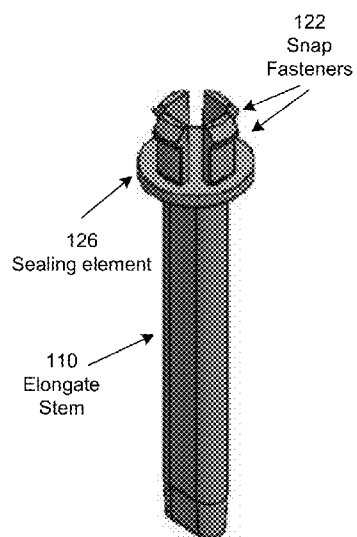


FIG. 8

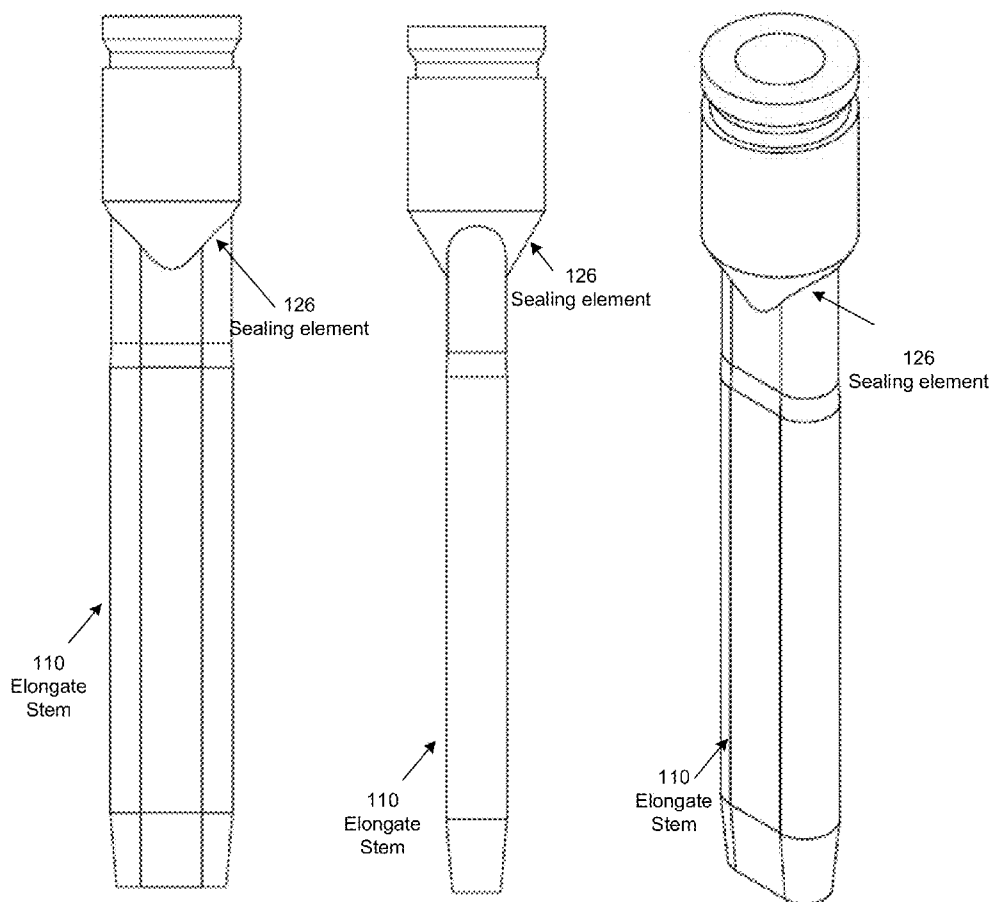


FIG. 7A

FIG. 7B

FIG. 7C

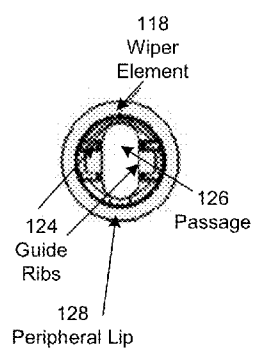


FIG. 9

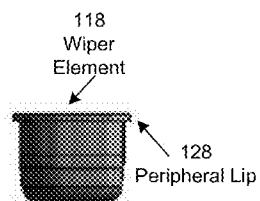


FIG. 10

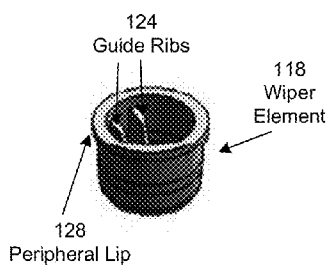


FIG. 11

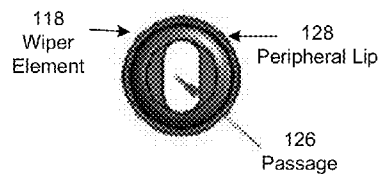


FIG. 12

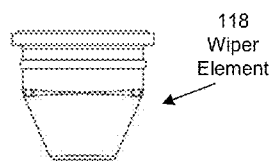


FIG. 12A

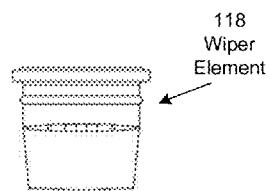
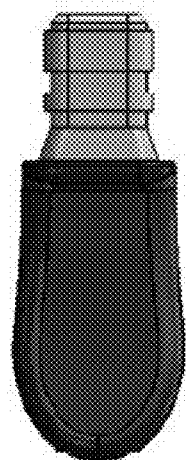
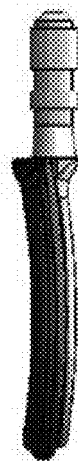


FIG. 12B



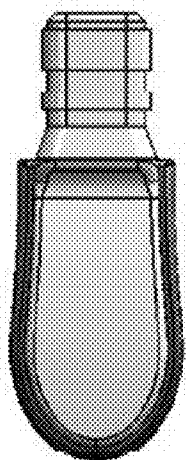
112
Applicator
Element

FIG. 13



112
Applicator
Element

FIG. 14



112
Applicator
Element

FIG. 15



112
Applicator
Element

FIG. 16

APPLICATOR

RELATED APPLICATION

[0001] This application claims priority to U.S. Provisional Application No. 61/729,914, filed Nov. 26, 2012, titled “Cosmetic Applicator,” the content of which is hereby incorporated by reference in its entirety.

FIELD

[0002] The present disclosure relates generally to a product dispensing apparatus and, more particularly, to a product dispensing apparatus comprising a container, a cap, an elongate stem, and a wiper element configured to prevent a rotational movement of the elongate stem when cap is screwed onto the container.

BACKGROUND

[0003] It is important in the cosmetic industry to provide an applicator for products which not only applies the product easily, but also avoids excess product from being dispensed onto the applicator prior to application.

[0004] Prior art applicators typically have a stem that has a cross-sectional shape that is round or circular, so that when the cap to which the applicator stem is attached is unthreaded or unscrewed from the vial or container containing the product, the stem will twist through a wiper in the vial, wiping excess product off from the stem.

[0005] However, the rounded styles of the stems of such applicators are not desirable. There remains a need in the art for an applicator which has more flexibility in size and style.

SUMMARY

[0006] The present disclosure is directed to an applicator having an elongate stem that does not twist or rotate when the applicator is unscrewed from its container. In certain embodiments the applicator stem of the present disclosure is orientated such that the wiper in the vial holds the stem in place, while the inner cap or handle can spin about the stem when the inner cap is being unscrewed from or screwed onto the container. The inner cap or handle enables the stem to be axially pushed or pulled through a wiper element.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] The present disclosure will be more readily understood from the detailed description of examples presented below considered in conjunction with the attached drawings, of which:

[0008] FIG. 1 shows a front view of an example applicator.

[0009] FIG. 2 shows a cross-section view of an example applicator.

[0010] FIG. 3 shows an exploded view of an example applicator.

[0011] FIG. 4 shows a top view of an embodiment an applicator.

[0012] FIG. 5 shows a bottom view of an embodiment of an applicator.

[0013] FIG. 6 shows a front view of an embodiment of an applicator.

[0014] FIG. 7 shows a side view of an embodiment of an applicator.

[0015] FIG. 7A shows a front view of an embodiment of an applicator

[0016] FIG. 7B shows a side view of an embodiment of an applicator.

[0017] FIG. 7C shows a perspective view of an embodiment of an applicator.

[0018] FIG. 8 shows a perspective view of an embodiment of an applicator.

[0019] FIG. 9 shows a top view of an embodiment of an applicator.

[0020] FIG. 10 shows a side view of an embodiment of an applicator.

[0021] FIG. 11 shows a perspective view of an embodiment of an applicator.

[0022] FIG. 12 shows a bottom view of an embodiment of an applicator.

[0023] FIG. 12A shows a front view of an embodiment of an applicator.

[0024] FIG. 12B shows a side view of an embodiment of an applicator.

[0025] FIG. 13 shows a front view of an embodiment of an applicator.

[0026] FIG. 14 shows a side view of an embodiment of an applicator.

[0027] FIG. 15 shows a rear view of an embodiment of an applicator.

[0028] FIG. 16 shows a perspective view of an embodiment of an applicator.

DETAILED DESCRIPTION

[0029] Examples of the present disclosure are directed to an apparatus and method for an applicator. In the following description, numerous details are set forth. It will be apparent, however, to one skilled in the art, that the present disclosure may be practiced without some or all of these specific details.

[0030] FIG. 1 shows a front view of an example applicator 100. The cosmetic applicator 100 comprises an outer cap 102, an applicator arrangement comprising an applicator stem, also referred to herein as an elongate stem 110 and an applicator element 112, and a container 106 for containing a product 108. In an embodiment the elongate stem 110 comprises a metal, a plastic, a ceramic, a glass, or any combination thereof. The product 108 can be any type of a cosmetic, including but not limited to cosmetics to apply to the face, eye, and nail area such as, lip gloss, eye liner, mascara, a concealer, a blemish control material, a nail polish or nail hardener, and the like. The product 108 can be a liquid, a semi-solid material, a solution, a suspension, a powder, a cream, or an ointment. The product 108 can be a therapeutic product, a fragrance, or a consumer product such as paint.

[0031] FIG. 2 shows a cross-section view of the example applicator 100. The applicator 100 as shown in FIG. 2 illustrates the outer cap 102, the container 106, and the product 108. In an embodiment, the container 106 comprises a container threaded portion 116 which is externally threaded around a cylindrically shaped sidewall defining an opening of the container 106. In an embodiment, the container 106 comprises a metal, a plastic, a ceramic, a glass, or any combination thereof.

[0032] The applicator 100 of FIG. 2 also comprises an applicator arrangement comprising the elongate stem 110 coupled to the applicator element 112 at a distal end and coupled to the handle (inner cap) 104 at a proximal end. In an embodiment, the elongate stem 110 can be substantially flat. In an embodiment, the elongate stem 110 can be a non-circular stem such as an ovoid, oval, or a polygon. In an

embodiment, the handle (inner cap) 104 comprises an inner cap threaded portion 114 which is internally threaded and dimensioned for cooperated threaded engagement with the container threaded portion 116. In an embodiment, the proximal end of the elongate stem 110 comprises a plurality of snap fasteners 122 configured to form a coupling of the proximal end of the elongate stem 110 to the handle (inner cap) 104. In an embodiment, the elongate stem 110 and the handle (inner cap) 104 are unitary. In an embodiment, the snap fasteners 122 enable the handle (inner cap) 104 to spin or rotate about the elongate stem 110 when the handle (inner cap) 104 is being unscrewed from or screwed onto the container 106. In an embodiment, the snap fasteners 122 enable the handle (inner cap) 104, coupled to the elongate stem 110, to be axially pushed or pulled through a wiper element 118. The wiper element 118 is configured to remove or wipe excess product 108 from the elongate stem 110 and applicator element 112 when the elongate stem 110 and applicator element 112 is dipped into the container 106 in order to pick up the product 108 and then withdrawn from the container 106 in order to apply the product 108 for its intended use. In an embodiment, the wiper element 118 and the container 106 are unitary.

[0033] In an embodiment, the wiper element 118 comprises a cup shaped body that can be inserted or mounted into the cylindrically shaped sidewall defining the opening of the container 106. In an embodiment, the wiper element 118 is constructed from a hard plastic, or from a flexible material such as rubber or synthetic rubber or the like. In an embodiment, the wiper element 118 comprises a metal, a plastic, a ceramic, a glass, or any combination thereof. In an embodiment, the wiper element 118 comprises a passage to permit or allow the elongate stem 110 and the applicator element 112 to slide through the passage.

[0034] In an embodiment, the outer cap 102 is a removable outer cap that engages the container 106 or the elongate stem 110. In an embodiment, the outer cap 102 is a removable outer cap that engages the handle (inner cap) 104. FIG. 3 shows an exploded view of the example applicator 100. The applicator 100 comprises an outer cap 102, an applicator arrangement comprising the elongate stem 110 comprising a sealing element 126 and snap fasteners 122 coupled to the handle (inner cap) 104 at a proximal end and the elongate stem 110 coupled to the applicator element 112 at a distal end and, the elongate stem 110, a wiper element 118 comprising guide ribs 124 and a peripheral lip 128, and a container 106 for containing a product 108, the container 106 comprising a container threaded portion 116. In an embodiment, the sealing element 126 is configured to form a contact seal with the peripheral lip 128 when the handle (inner cap) 104 is screwed onto the container threaded portion 116 of the container 106. In an embodiment, the contact seal that is formed by the contact between the peripheral lip 128 and the sealing element 126 contains the product 108 within the applicator 100. In an embodiment, the dimensions of the passage 126 substantially conform to the cross-section perimeter of the elongate stem 110.

[0035] FIG. 4 shows a top view of an embodiment the applicator 100. A top view of the elongate stem 110 shows an example of the relative position and placement of the snap fasteners 122 with respect to the top portion of the sealing element 126.

[0036] FIG. 5 shows a bottom view of an embodiment of the applicator 100. A bottom view of the elongate stem 110

shows an example of the relative position and placement of the applicator element 112 with respect to the bottom portion of the sealing element 126.

[0037] FIG. 6 shows a front view of an embodiment of the applicator 100. The elongate stem 110 comprises a sealing element 126 and a plurality of snap fasteners 122 at a proximal end.

[0038] FIG. 7 shows a side view of an embodiment of the applicator 100 in which the elongate stem 110 comprises a sealing element 126 and a plurality of snap fasteners 122 at a proximal end.

[0039] FIG. 7A shows a front view of an embodiment of the applicator 100 in which the elongate stem 110 comprises a sealing element 126. In an embodiment, the sealing element 126 may be substantially cone shaped and substantially conforms to the cone shaped wiper element 118 as illustrated below in FIGS. 12A and 12B.

[0040] FIG. 7B shows a side view of an embodiment of the applicator 100 in which the elongate stem 110 comprises a sealing element 126. In an embodiment, the sealing element 126 may be substantially cone shaped and substantially conforms to the cone shaped wiper element 118 as illustrated below in FIGS. 12A and 12B.

[0041] FIG. 7C shows a perspective view of an embodiment of the applicator 100 in which the elongate stem 110 comprises a cone shaped sealing element 126.

[0042] FIG. 8 shows a perspective view of an embodiment of an applicator 100 in which the elongate stem 110 comprises a sealing element 126 and a plurality of snap fasteners 122 at a proximal end.

[0043] FIG. 9 shows a top view of an embodiment of the applicator 100. A top view of the wiper element 118 shows the peripheral lip 128 for providing a seal when in contact with the bottom portion of the sealing element 126 of the elongate stem 110. In an embodiment, a substantially cone shaped wiper element 118 provides a seal when in contact with the substantially cone shaped sealing element 128 as illustrated in FIGS. 7A, 7B, and 7C.

[0044] FIG. 9 also shows the passage 126 for allowing the elongate stem 110 and the applicator element 112 to slide through the passage while wiping excess product 108 from the elongate stem 110 and applicator element 112 when the elongate stem 110 and applicator element 112 is withdrawn from the container 106. In an embodiment, the dimensions of the passage 126 substantially conform to the cross-section perimeter of the elongate stem 110. In an embodiment, the wiper element 118 comprises a plurality of guide ribs 124 along a sidewall of the wiper element 118. The dimensions of the guide ribs 124 can substantially conform to that of the elongate stem 110 to guide the elongate stem 110 while being inserted into the container 106. In an embodiment, the guide ribs 124 are also configured to restrain and prevent the elongate stem 110 from rotating when the handle (inner cap) 104 is being screwed into or unscrewed from the container 106. In an embodiment, the guide ribs 124 are also configured to align the elongate stem 110 as it is placed into the container 106.

[0045] FIG. 10 shows a side view of an embodiment of the applicator 100. A side view of the wiper element 118 shows that the shape of the wiper element can be in the form of a cup. The shape of the wiper element 118 as shown in FIG. 10 can substantially conform to the cylindrically shaped sidewall defining the opening of the container 106.

[0046] FIG. 11 shows a perspective view of an embodiment of the applicator 100 in which the wiper element 118 comprises the guide ribs 124 and the peripheral lip 128.

[0047] FIG. 12 shows a bottom view of an embodiment of the applicator 100 in which the wiper element 118 comprises the passage 126 and the peripheral lip 128.

[0048] FIG. 12A shows a front view of an embodiment of the applicator 100 in which the wiper element 118 is cone shaped and substantially conforms to the cone shaped sealing element 128 as illustrated in FIGS. 7A, 7B, and 7C.

[0049] FIG. 12B shows a side view of an embodiment of the applicator 100 in which the wiper element 118 is cone shaped and substantially conforms to the cone shaped sealing element 128 as illustrated in FIGS. 7A, 7B, and 7C.

[0050] FIG. 13 shows a front view of an embodiment of the applicator 100 in which the front portion of the applicator element 112 comprises a layer of a first material. In an embodiment, the applicator element 112 is capable of absorbing a liquid or semi-solid product. In an embodiment, the applicator element 112 is capable of adsorbing a liquid or semi-solid product. In an embodiment, the applicator element 112 is an absorbent material or an adsorbent material. In an embodiment, the applicator element 112 comprises a fabric. In an embodiment, the applicator element 112 is a brush, a rollerball or a doe foot applicator.

[0051] FIG. 14 shows a side view of an embodiment of the applicator 100 in which the applicator element 112 has a concave shape for the product 108.

[0052] FIG. 15 shows a rear view of an embodiment of the applicator 100 in which the rear portion of the applicator element 112 comprises a layer of a second material.

[0053] FIG. 16 shows a perspective view of an embodiment of the applicator 100.

[0054] One having ordinary skill in the art will appreciate that the size, shape and placement of such structures may be varied depending on the particular application. Apart from the functional aspects the structures provide, they also provide a novel decorative element. One having ordinary skill in the art will appreciate the decorative possibilities such shapes present.

[0055] The foregoing description, for purposes of explanation, has been described with reference to specific examples. However, the illustrative discussions above are not intended to be exhaustive or to limit the disclosure to the precise forms disclosed. Many modifications and variations are possible in view of the above teachings. The examples were chosen and described in order to best explain the principles of the disclosure and its practical applications, to thereby enable others skilled in the art to best utilize the disclosure and various examples with various modifications as may be suited to the particular use contemplated.

1. An applicator apparatus comprising:
a container comprising an opening;
a wiper element coupled to the container, the wiper element comprising a passage;
a non-circular applicator stem removably coupled to the container, the applicator stem configured to be slidably engaged in the passage of the wiper element such that rotational movement of the applicator stem is minimized.
2. The applicator apparatus of claim 1, wherein the container is adapted to hold a product.
3. The applicator apparatus of claim 2, wherein the product is a liquid or a semi-solid.
4. The applicator apparatus of claim 2, wherein the product is a cosmetic, a therapeutic product, a fragrance or a consumer product.
5. The applicator apparatus of claim 1, wherein the applicator stem comprises an applicator element at a proximal end that is capable of entering the container through the wiper element passage.
6. The applicator apparatus of claim 5, wherein a handle is positioned on a distal end of the applicator stem.
7. The applicator apparatus of claim 6, wherein the handle is configured to engage the container.
8. The applicator apparatus of claim 7, wherein the handle and the container are configured to be threadably engaged.
9. The applicator apparatus of claim 1, wherein the container and the wiper element are unitary.
10. The applicator apparatus of claim 5, wherein the handle and the stem are unitary.
11. The applicator apparatus of claim 1 or 8, wherein the handle and the stem are coupled by a fastener.
12. The applicator apparatus of claim 11, wherein the fastener comprises one or more snaps.
13. The applicator apparatus of claim 11, wherein the handle rotates independently of the stem.
14. The applicator apparatus of claim 5, further comprising a sealing element proximal to the handle to engage the container opening.
15. The applicator apparatus of claim 5, wherein the applicator element is capable of absorbing a liquid or semi-solid product.
16. The applicator apparatus of claim 5, wherein the applicator element is capable of adsorbing a liquid or semi-solid product.
17. The applicator apparatus of claim 5, wherein the applicator element is an absorbent material or an adsorbent material.
18. The applicator apparatus of claim 5, wherein the applicator element comprises a fabric.
19. The applicator apparatus of claim 5, wherein the applicator element is a brush.
20. The applicator apparatus of claim 5, wherein the applicator element is a rollerball.
- 21-40. (canceled)

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