



(12)

EUROPEAN PATENT APPLICATION

- (43)

Date of publication:
11.09.2024 Bulletin 2024/37
- (51)

International Patent Classification (IPC):
A45D 40/02 (2006.01)
- (21)

Application number: 24162438.6
- (52)

Cooperative Patent Classification (CPC):
A45D 40/02; A45D 2040/207; A45D 2200/05;
A45D 2200/25
- (22)

Date of filing: 08.03.2024

- (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 ME MK MT NL
NO PL PT RO RS SE SI SK SM TR
Designated Extension States:
BA
Designated Validation States:
GE KH MA MD TN
- (71)

Applicant: Vermouth Holdings, Inc.
Seattle Washington 98003 (US)

(72)

Inventor: Diaz, Margaret Eleanor
Seattle, 98112 (US)

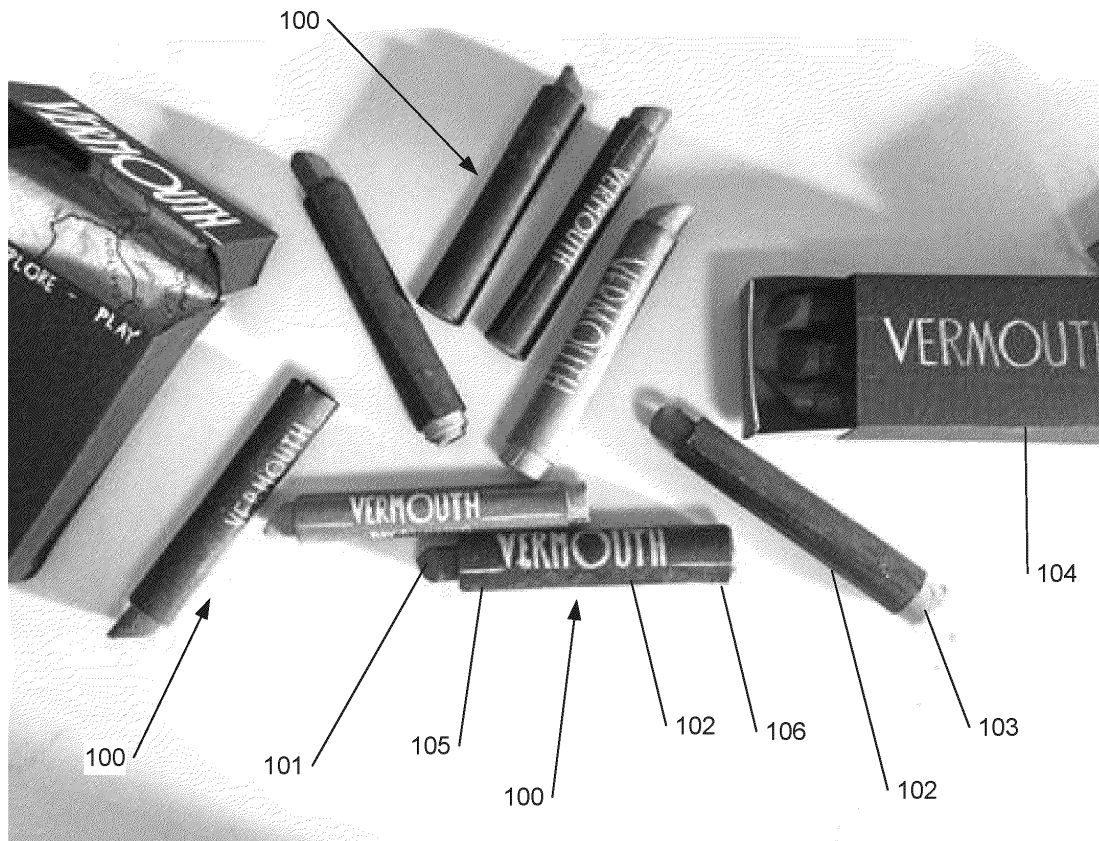
(74)

Representative: K&L Gates LLP
Friedrichstraße 110 A
10117 Berlin (DE)
- (30)

Priority: 08.03.2023 US 202363450823 P
- (54)

PAPER LIPSTICK APPLICATOR
- (57)

Example systems, methods, and apparatus are disclosed herein for a biodegradable lipstick applicator. The biodegradable lipstick applicator can be composted

and has slimmer profile that allows users to precisely and easily apply lipstick, while being easy to store.
- 
- FIG. 1
- Processed by Luminess, 75001 PARIS (FR)
- EP 4 427 630 A1

Description

PRIORITY CLAIM AND CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] The present application claims the benefit of U.S. Provisional Application No. 63/450,823, entitled PAPER LIPSTICK APPLICATOR, filed March 8, 2023, the contents of which are hereby incorporated by reference in their entirety.

FIELD

[0002] The present disclosure relates generally to a lipstick applicator. More specifically, this disclosure relates to a biodegradable lipstick applicator.

BACKGROUND

[0003] Lipstick applicators allow users to apply make up precisely. Specifically, users can apply lipstick in a careful and detailed manner with the aid of lipstick applicators. However, lipstick applicators are often larger and bulky, making them cumbersome and impractical for carrying. Moreover, lipstick applicators are often composed of various components, and include plastics. As a result, lipstick applicators create considerable waste and have a negative environmental impact.

[0004] In response, users have turned to re-fillable lipstick applicators that allow users to replenish the lipstick itself on a re-usable applicator, and slim lipsticks that have a smaller profile than standard lipstick applicators. However, re-fillable lipstick applicators are costly, and continue to be bulky and hard to recycle. Similarly, while slim lipsticks are less bulky, they are also costly and hard to recycle.

[0005] As such, a need exists for a biodegradable lipstick applicator that can be composted and has slimmer profile that allows users to precisely and easily apply lipstick, while being easy to store.

SUMMARY

[0006] Example systems, methods, and apparatus are disclosed herein for a biodegradable lipstick applicator. In light of the disclosure herein, and without limiting the scope of the invention in any way, in a first aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, a biodegradable lipstick applicator including an applicator body with a body length, and configured to selectively couple to a lipstick paste tube, such that the lipstick paste tube is inside the applicator body, and a plunger with a plunger length. The applicator body is a spiral tube made of a biodegradable material, the plunger is configured to nest inside applicator body, and the plunger is configured to selectively move in and out of the applicator body.

[0007] In a second aspect of the present disclosure,

which may be combined with any other aspect listed herein unless specified otherwise, the plunger length is less than 1/4 of the body length.

[0008] In a third aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo.

[0009] In a fourth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the plunger is a spiral tube made of a biodegradable material.

[0010] In a fifth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo.

[0011] In a sixth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, including a cap.

[0012] In a seventh aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the cap is made of a biodegradable material.

[0013] In an eighth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo.

[0014] In a ninth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the plunger is configured to selectively couple to the lipstick paste tube.

[0015] In a tenth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, moving the plunger into the applicator body moves the lipstick paste tube out of the applicator body, and moving the plunger out of the applicator body moves the lipstick paste tube into the applicator body.

[0016] In an eleventh aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the plunger includes a spring.

[0017] In a twelfth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, a biodegradable lipstick system including at least one biodegradable lipstick and an applicator box. Each the at least one biodegradable lipstick including an applicator body with a body length, the applicator body is a spiral tube made of a biodegradable material, a lipstick paste tube, a plunger with a plunger length, the applicator body is configured to selectively couple to a lipstick paste tube, such that the lipstick paste tube is inside the applicator body, the plunger is config-

ured to nest inside applicator body, the plunger is configured to selectively move in and out of the applicator body, and the applicator box is configured to hold the at least one biodegradable lipstick.

[0018] In a thirteenth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the plunger length is less than 1/4 of the body length.

[0019] In a fourteenth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo.

[0020] In a fifteenth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the plunger is made of a biodegradable material.

[0021] In a sixteenth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo.

[0022] In a seventeenth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, including a cap. The cap selectively couples to the applicator body when the lipstick paste tube is in the applicator body. The cap is made of a biodegradable material, and the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo.

[0023] In an eighteenth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, a biodegradable lipstick applicator including an applicator body with a body length, and configured to selectively couple to a lipstick paste tube, such that the lipstick paste tube is inside the applicator body, and a spring with a spring height. The applicator body is a spiral tube made of a biodegradable material. The biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo. The spring is comprised of a strip of a biodegradable material that is tightly curled and inserted into the applicator body, and the spring is configured to nest inside applicator body.

[0024] In a nineteenth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the spring is configured to selectively move in and out of the applicator body.

[0025] In a twentieth aspect of the present disclosure, which may be combined with any other aspect listed herein unless specified otherwise, the spring height is less than 1/4 of the body length.

[0026] In a twenty-first aspect of the present disclosure, any of the structure, functionality, and alternatives

disclosed in connection with any one or more of Figs. 1 to 7 may be combined with any other structure, functionality, and alternatives disclosed in connection with any other one or more of Figs. 1 to 7.

[0027] In light of the present disclosure and the above aspects, it is therefore an advantage of the present disclosure to provide users with a biodegradable lipstick applicator.

[0028] Additional features and advantages are described in, and will be apparent from, the following Detailed Description and the Figures. The features and advantages described herein are not all-inclusive and, in particular, many additional features and advantages will be apparent to one of ordinary skill in the art in view of the figures and description. Also, any particular embodiment does not have to have all of the advantages listed herein and it is expressly contemplated to claim individual advantageous embodiments separately. Moreover, it should be noted that the language used in the specification has been selected principally for readability and instructional purposes, and not to limit the scope of the inventive subject matter.

BRIEF DESCRIPTION OF THE FIGURES

[0029]

Fig. 1 is a side view of a biodegradable lipstick applicator with a lipstick paste tube inserted, according to an example embodiment of the present disclosure.

Fig. 2 is a side view of an applicator body of a biodegradable lipstick applicator, according to an example embodiment of the present disclosure.

Fig. 3 is a perspective view of a biodegradable lipstick applicator, according to an example embodiment of the present disclosure.

Fig. 4 is a top-down view of a biodegradable lipstick applicator without lipstick paste tube, according to an example embodiment of the present disclosure.

Fig. 5 is a top-down view of an alternate embodiment of a biodegradable lipstick applicator, according to an example embodiment of the present disclosure.

Fig. 6 is a side view of a deconstructed alternate embodiment of a biodegradable lipstick applicator, according to an example embodiment of the present disclosure.

Fig. 7 is a flowchart of a method of using a biodegradable lipstick applicator, according to an example embodiment of the present disclosure.

DETAILED DESCRIPTION

[0030] Example embodiments will now be described more fully with reference to the accompanying drawings. Example embodiments are provided so that this disclosure will be thorough, and will fully convey the scope to those who are skilled in the art. Numerous specific details are set forth such as examples of specific components,

devices, and methods, to provide a thorough understanding of embodiments of the present disclosure. It will be apparent to those skilled in the art that specific details need not be employed, that example embodiments may be embodied in many different forms and that neither should be construed to limit the scope of the disclosure. In some example embodiments, well-known processes, well-known device structures, and well-known technologies are not described in detail.

[0031] The terminology used herein is for the purpose of describing particular example embodiments only and is not intended to be limiting. As used herein, the singular forms "a," "an," and "the" may be intended to include the plural forms as well, unless the context clearly indicates otherwise. The terms "comprises," "comprising," "including," and "having," are inclusive and therefore specific the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or additional of one or more other features, integers, steps, operations, elements, components, and/or groups thereof. The method steps, processes, and operations described herein are not to be construed as necessarily requiring their performance in the particular order discussed or illustrated, unless specifically identified as an order of performance. It is also to be understood that additional or alternative steps may be employed.

[0032] When an element or layer is referred to as being "on," "engaged to," "connected to," or "coupled to" another element or layer, it may be directly on, engaged, connected or coupled to the other element or layer, or intervening elements or layers may be present. In contrast, when an element is referred to as being "directly on," "directly engaged to," "directly connected to," or "directly coupled to" another element or layer, there may be no intervening elements or layers present. Other words used to describe the relationship between elements should be interpreted in a like fashion (e.g., "between" versus "directly between," "adjacent" versus "directly adjacent"). As used herein, the term "and/or" includes any and all combinations of one or more of the associated listed items.

[0033] Although the terms first, second, third, etc. may be used herein to describe various elements, components, regions, layers and/or sections, these elements, components, regions, layers and/or sections should not be limited by these terms. These terms may be only used to distinguish one element, component, region, layer or section from another region, layer or section. Terms such as "first," "second," and other numerical terms when used herein do not imply a sequence or order unless clearly indicated by the context. Thus, a first element, component, region, layer or section discussed below could be termed a second element, component, region, layer or section without departing from the teachings of the example embodiments.

[0034] Spatially relative terms, such as "inner," "outer," "beneath," "below," "lower," "above," "upper," and the

like, may be used herein for ease of description to describe one element or feature's relationship to another element(s) or feature(s) as illustrated in the figures. Spatially relative terms may be intended to encompass different orientations of the device in use or operation in addition to the orientation depicted in the figures. For example, if the device in the figures is turned over, elements described as "below" or "beneath" other elements or features would then be oriented "above" the other elements or features. Thus, the example term "below" can encompass both an orientation of above and below. The device may be otherwise oriented (rotated 90 degrees or at other orientations) and the spatially relative descriptors used herein interpreted accordingly.

[0035] Methods, systems, and apparatus are disclosed herein for a biodegradable lipstick applicator. While the example methods, apparatus, and systems are disclosed herein as biodegradable lipstick applicator, it should be appreciated that the methods, apparatus, and systems may be operable with other cosmetics.

[0036] Fig. 1 shows a side view of a biodegradable lipstick applicator 100. As seen in Fig. 1, the biodegradable lipstick applicator 100 includes an applicator body 102 and a plunger 103. A lipstick paste tube 101 is securely inserted into the applicator body 102. Specifically, the lipstick paste tube 101 is inserted into a first end 105 of the applicator body 102, which is open. The applicator body 102 is configured to securely hold the lipstick paste tube 101 once inserted. Opposite the first end 105, there is a second end 106, which is capped closed by the plunger 103.

[0037] The biodegradable lipstick applicator 100 can be stored and carried in a case 104, which can hold multiple biodegradable lipstick applicators 100. The thickness of the applicator body 102 walls prevents exposed lipsticks paste tubes 101 from bumping into each other and becoming damaged. However, users can also carry the biodegradable lipstick applicator 100 individually. Specifically, users can place a cap (not shown) onto the first end 105 to prevent unintended smudging and damage to the lipstick paste tube 101. Moreover, the plunger 103 is configured to slide within the inside of the applicator body 102, such that pressing the plunger 103 into the applicator body 102 translates to pushing the lipstick paste tube 101 out of the applicator body.

[0038] Fig. 2 shows a side view of the applicator body 102 of the biodegradable lipstick applicator 100. In this embodiment, the applicator body is formed as a spiral tube. Moreover, the applicator body 102 has a hollow cylindrical shape with a length of about 2.5 inches, a diameter of about 3/8 of an inch, and cylindrical walls 1/16 of an inch thick. The thickness of the cylindrical walls can vary, so long as the applicator body 102 can be gripped without collapsing. The shape and dimensions of the applicator body 102 may vary in alternate embodiments. For example, the applicator body 102 may be a rectangular shape, or can be a cylindrical shape that is longer or shorter.

[0039] In this embodiment, the applicator body 102 is comprised of biodegradable paper that holds its shape. Specifically, the applicator body 102 is comprised of post-consumer waste paper that is cut and rolled into a spiral tube. Notably, the paper used in the applicator body 102 holds its shape and does not become greasy or disintegrate from extended contact with the lipstick paste tube 101. For example, the inside of the applicator body 102 may be coated with a biodegradable coating. In alternate embodiments, the applicator body 102 may be comprised of other biodegradable materials, such as, but not limited to, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo.

[0040] Continuing, Fig. 3 shows a perspective view of a biodegradable lipstick applicator 100 without a lipstick paste tube 101 inserted. As seen in Fig. 3, the plunger 103 is inserted into the second end 106 of the applicator body 102. The outer diameter of the plunger 103 may be the same as the inner diameter of the applicator body 102, such that the plunger 103 is secured into the applicator body 102 once inserted.

[0041] Much like the applicator body 102, the plunger 103 is formed as a spiral tube. In this embodiment, the length of the plunger 103 is less than 1/4 the length of the applicator body 102, but the length can vary in other embodiments. For example, the plunger 103 may be 1/3 to 1/2 the length of the applicator body 102. Moreover, the plunger 103 is comprised of biodegradable-grade paper that holds its shape. Specifically, the plunger 103 is comprised of post-consumer waste paper. The paper used in the plunger 103 holds its shape and does not become greasy or disintegrate from extended contact with the lipstick paste tube 101. For example, the outer edges of the plunger 103 may be coated with a biodegradable coating. In alternate embodiments, the plunger 103 may be comprised of other biodegradable materials, such as, but not limited to, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo. It should be noted that the applicator body 102 and the plunger 103 may be comprised of different biodegradable materials.

[0042] Fig. 4 shows a top-down view of a biodegradable lipstick applicator without a lipstick paste tube. The plunger 103 is configured to mate with the inside of the applicator body 102 such that there is a secure connection between the outer edges of the plunger 103 and the inner edges of the applicator body 102, this can also be seen in Fig. 3. As such, the plunger 103 nests inside the applicator body 102. The connection between the plunger 103 and the applicator body 102 is secure while allowing the user to selectively slide the plunger 103 in and out of the applicator body 102. The plunger 103 may also be configured to selectively couple with the lipstick paste tube 101. For example, the plunger 103 may include protrusions, notches, or other similar physical features on its internal portion, such that when the lipstick paste tube 101 is inserted into the applicator body 102, the protrusions, notches, or other similar physical features couple

with the lipstick paste tube 101 to secure the lipstick paste tube 101 inside the applicator body 102.

[0043] Fig. 5 shows a top-down view of an alternate embodiment of a biodegradable lipstick applicator 100. As seen in Fig. 5, the lipstick applicator 100 includes an applicator body 102 and a spring 107. In this embodiment, the spring 107 is used instead of the plunger 103 from the first embodiment. The spring 107 is inserted into the second end 106 of the applicator body 102.

[0044] Much like the applicator body 102, the spring 107 is comprised of biodegradable-grade paper that holds its shape. Specifically, the spring 107 is comprised of post-consumer waste paper. The paper used in the spring 107 holds its shape and does not become greasy or disintegrate from extended contact with the lipstick paste tube 101. For example, the spring 107 may be coated with a biodegradable coating. In alternate embodiments, the spring 107 may be comprised of other biodegradable materials, such as, but not limited to, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo. It should be noted that the applicator body 102 and the spring 107 may be comprised of different biodegradable materials.

[0045] Moreover, the spring 107 is comprised of a strip of the aforementioned paper that is tightly curled and inserted into the second end 106 of the applicator body 102. The diameter of the resulting spring 107 must be such that once the spring 107 is secured into the applicator body 102 once inserted. Moreover, the height of the resulting spring 107 must be one such that the spring 107 prevents the lipstick paste tube 101 from falling out the second end 106 of the applicator body 102. In this embodiment, the height of the spring 107 is less than 1/4 the length of the applicator body 102, but the height can vary in other embodiments. Notably, the spring 107 has crisp, sharp, or, for example textured, edges that dig into and secure to the base of the lipstick paste tube 101 once the lipstick paste tube 101 is inserted into the second end 106 of the applicator body 102.

[0046] Fig. 6 shows a side view of a deconstructed alternate embodiment of a biodegradable lipstick applicator 100. Users can couple the spring 107 a lipstick paste tube 101 (not shown) by pressing the spring 107 onto the lipstick paste tube 101. Subsequently, users can insert the spring 107 and lipstick paste tube 101 inside the applicator body 102. Much like the primary embodiment, the spring 107 is configured to slide in and out of the applicator body 102. As an additional alternative, it should be noted that the biodegradable lipstick applicator 100 may include a combination plunger 103 and spring 107.

[0047] Fig. 7 shows a flowchart of a method of using a biodegradable lipstick applicator 200. As shown in Fig. 7, a user first inserts a lipstick paste tube into an applicator body at a first end (block 205). It should be noted that the applicator body is configured to selectively couple to the lipstick paste tube, such that once the lipstick paste tube is inserted into the applicator body, the lipstick paste

tube remains in the applicator body unless the user applies force to remove it.

[0048] Next, the user inserts a plunger into the applicator body at a second end (block 210). Notably, the portion of the plunger that inserts into the applicator body at the second end selectively couples to the lipstick paste tube. As such, the plunger also serves to keep the lipstick paste tube in the applicator body. Also, the plunger is configured to slide in and out of the applicator body when the user places force on the plunger at the second end (block 215). However, the plunger remains in place in the applicator body, unless moved by the user.

[0049] Finally, the user moves the plunger out of the second end of the applicator body (block 220). Notably, because the plunger is selectively coupled to the lipstick paste tube, moving the plunger into the second end of the applicator body concurrently moves the lipstick paste tube out of the applicator body at the first end. Similarly, moving the plunger out of the second end of the applicator body concurrently moves the lipstick paste tube into the applicator body at the first end. Overall, this allows users to selectively slide the lipstick paste tube in and out of the applicator body at the first end by sliding the plunger in and out of the applicator body at the second end.

[0050] The foregoing description of the embodiments has been provided for purposes of illustration and description. It is not intended to be exhaustive or to limit the disclosure. Individual elements or features of a particular embodiment are generally not limited to that particular embodiment, but, where applicable, are interchangeable and can be used in a selected embodiment, even if not specifically shown or described. The same may also be varied in many ways. Such variations are not to be regarded as a departure from the disclosure, and all such modifications are intended to be included within the scope of the disclosure.

Claims

1. A biodegradable lipstick applicator comprising:

an applicator body with a body length, and configured to selectively couple to a lipstick paste tube, such that the lipstick paste tube is inside the applicator body; and
a plunger with a plunger length,
wherein the applicator body is a spiral tube made of a biodegradable material,
wherein the plunger is configured to nest inside applicator body, and
wherein the plunger is configured to selectively move in and out of the applicator body.

2. The biodegradable lipstick applicator of Claim 1, wherein the plunger length is less than 1/4 of the body length.

3. The biodegradable lipstick applicator of Claim 1, wherein the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo.

4. The biodegradable lipstick applicator of Claim 1, wherein the plunger is a spiral tube made of a biodegradable material.

5. The biodegradable lipstick applicator of Claim 4, wherein the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo.

6. The biodegradable lipstick applicator of Claim 1, further comprising a cap.

7. The biodegradable lipstick applicator of Claim 6, wherein the cap is made of a biodegradable material.

8. The biodegradable lipstick applicator of Claim 7, wherein the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo.

9. The biodegradable lipstick applicator of Claim 1, wherein the plunger is configured to selectively couple to the lipstick paste tube.

10. The biodegradable lipstick applicator of Claim 1, wherein moving the plunger into the applicator body moves the lipstick paste tube out of the applicator body, and wherein moving the plunger out of the applicator body moves the lipstick paste tube into the applicator body.

11. The biodegradable lipstick applicator of Claim 1, wherein the plunger includes a spring.

12. A biodegradable lipstick system comprising:

at least one biodegradable lipstick, each the at least one biodegradable lipstick comprising:

an applicator body with a body length, wherein the applicator body is a spiral tube made of a biodegradable material;
a lipstick paste tube;
a plunger with a plunger length,

wherein the applicator body is configured to selectively couple to a lipstick paste tube, such that the lipstick paste tube is inside the applicator body, wherein the plunger is configured to

nest inside applicator body, and
wherein the plunger is configured to selectively move in and out of the applicator body; and

5

an applicator box configured to hold the at least one biodegradable lipstick.

13. The biodegradable lipstick system of Claim 12, wherein the plunger length is less than 1/4 of the body length. 10

14. The biodegradable lipstick system of Claim 12, wherein the biodegradable material is one of paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo. 15

15. The biodegradable lipstick system of Claim 12, wherein the plunger is made of a biodegradable material. 20

16. The biodegradable lipstick system of Claim 15, wherein the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo. 25

17. The biodegradable lipstick system of Claim 12, further comprising a cap, wherein the cap selectively couples to the applicator body when the lipstick paste tube is in the applicator body, wherein the cap is made of a biodegradable material, and wherein the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo. 30 35

18. A biodegradable lipstick applicator comprising:

an applicator body with a body length, and configured to selectively couple to a lipstick paste tube, such that the lipstick paste tube is inside the applicator body; and
a spring with a spring height,
wherein the applicator body is a spiral tube made of a biodegradable material, 40 45
wherein the biodegradable material is one of paper, post-consumer waste paper, polylactic acid (PLA), wheat straw fiber, sugarcane fibers, cellulose, or bamboo,
wherein the spring is comprised of a strip of a biodegradable material that is tightly curled and inserted into the applicator body, and
wherein the spring is configured to nest inside applicator body. 50 55

19. The biodegradable lipstick applicator of Claim 18, wherein the spring is configured to selectively move in and out of the applicator body.

20. The biodegradable lipstick applicator of Claim 18, wherein the spring height is less than 1/4 of the body length.

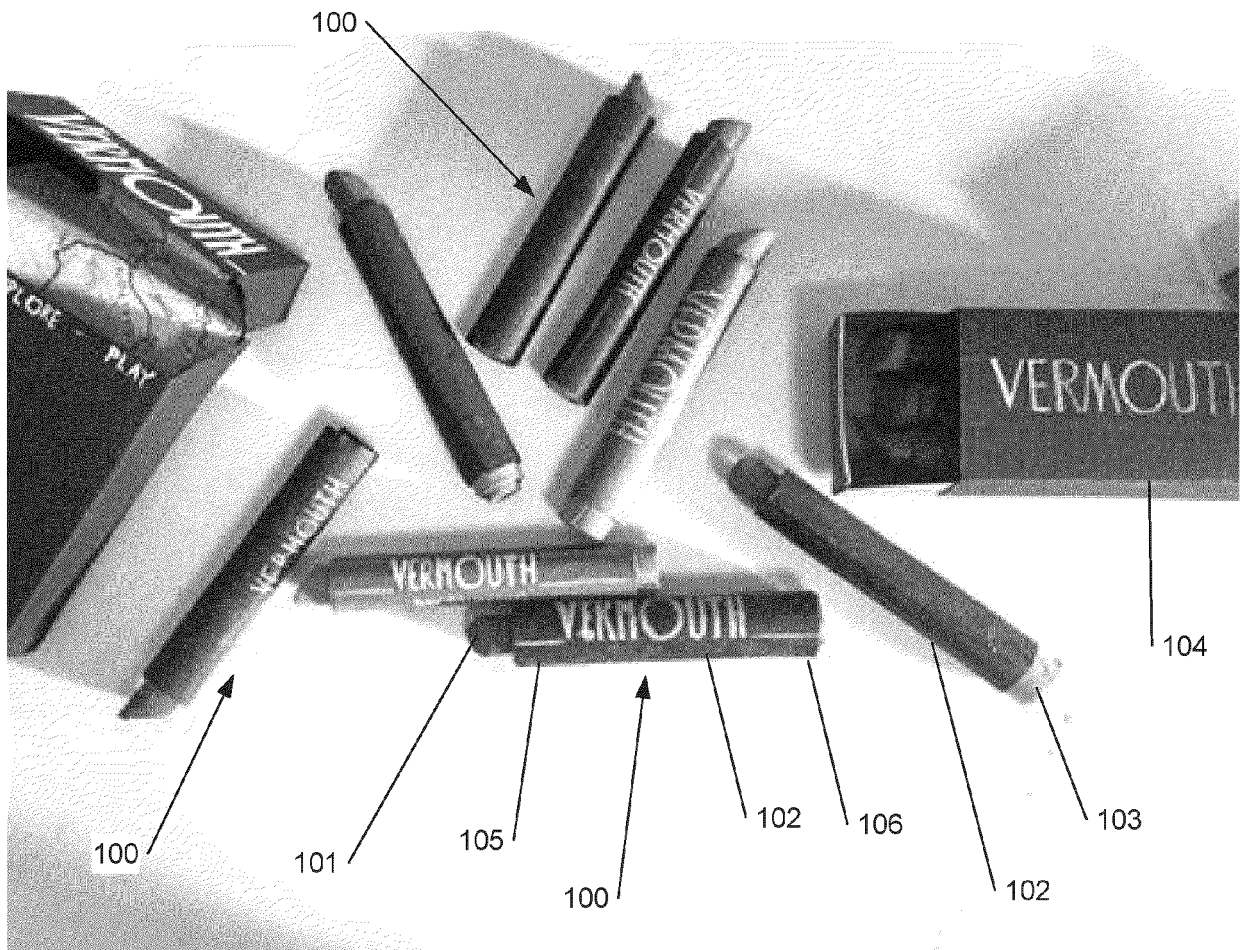


FIG. 1

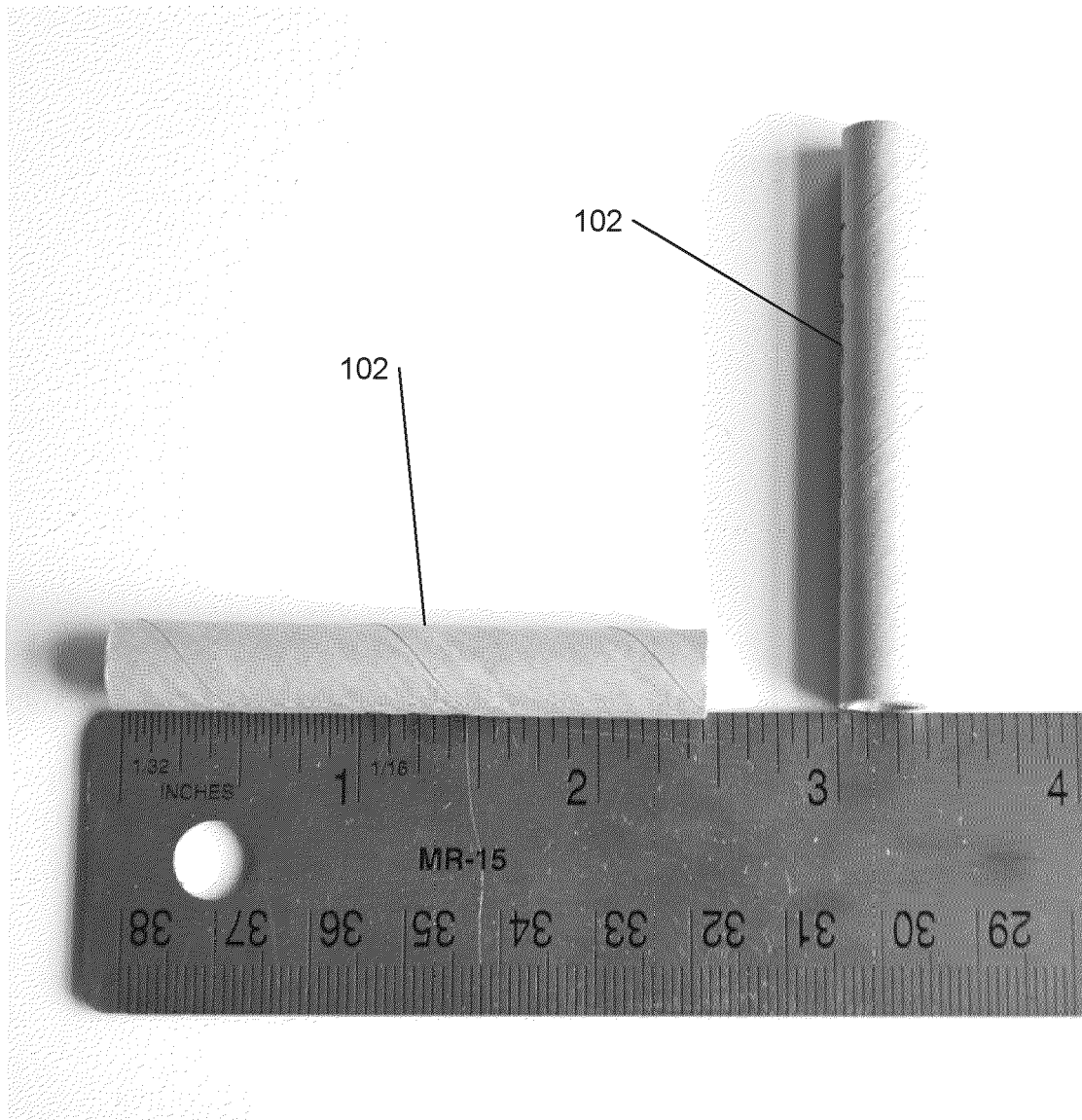


FIG. 2

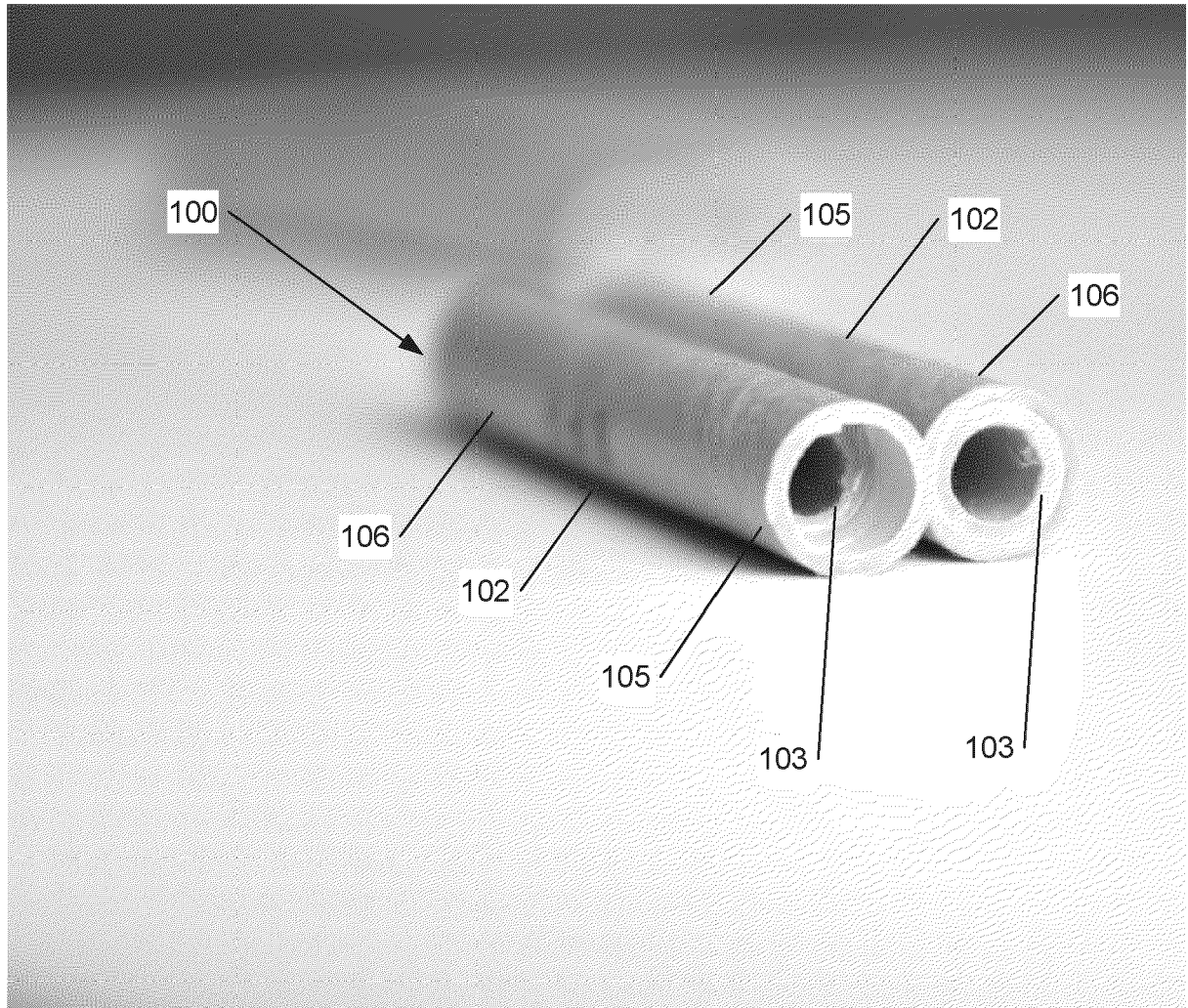


FIG. 3

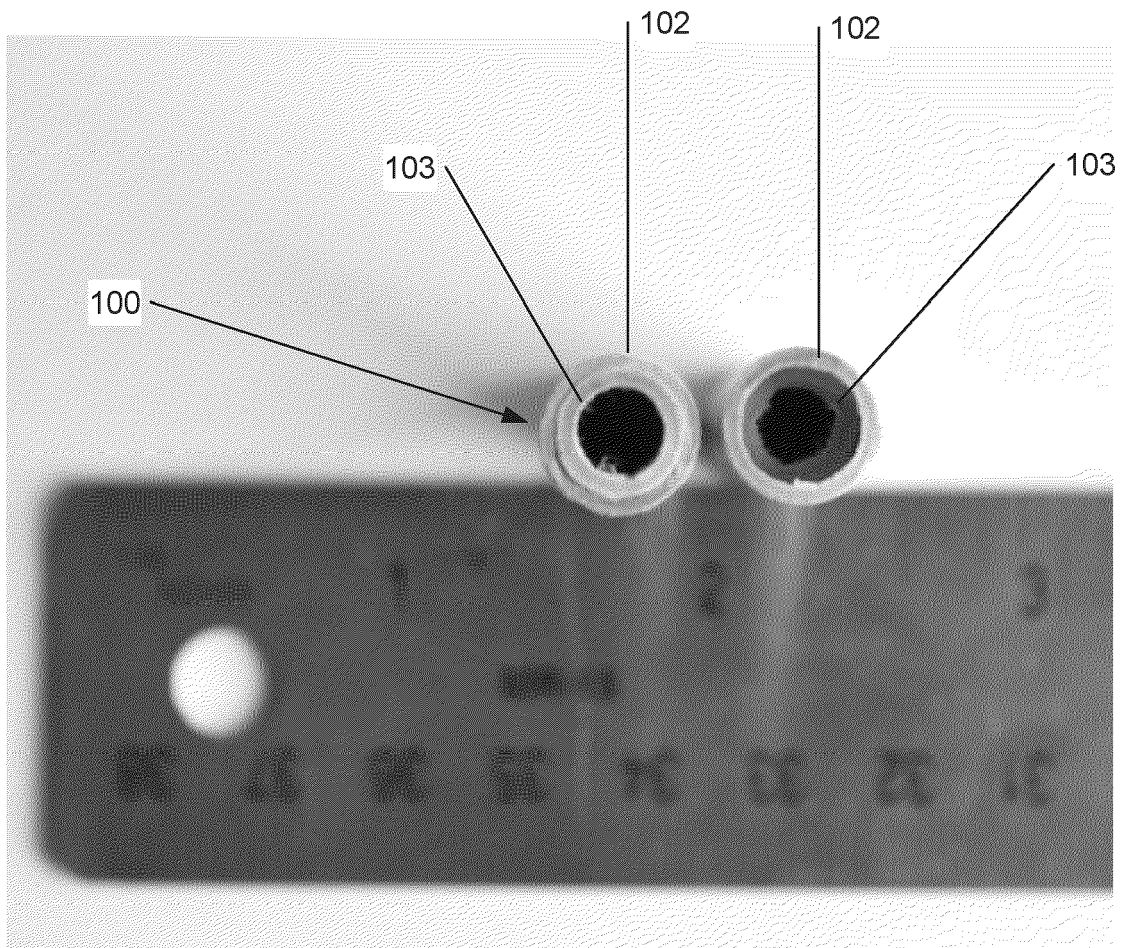


FIG. 4

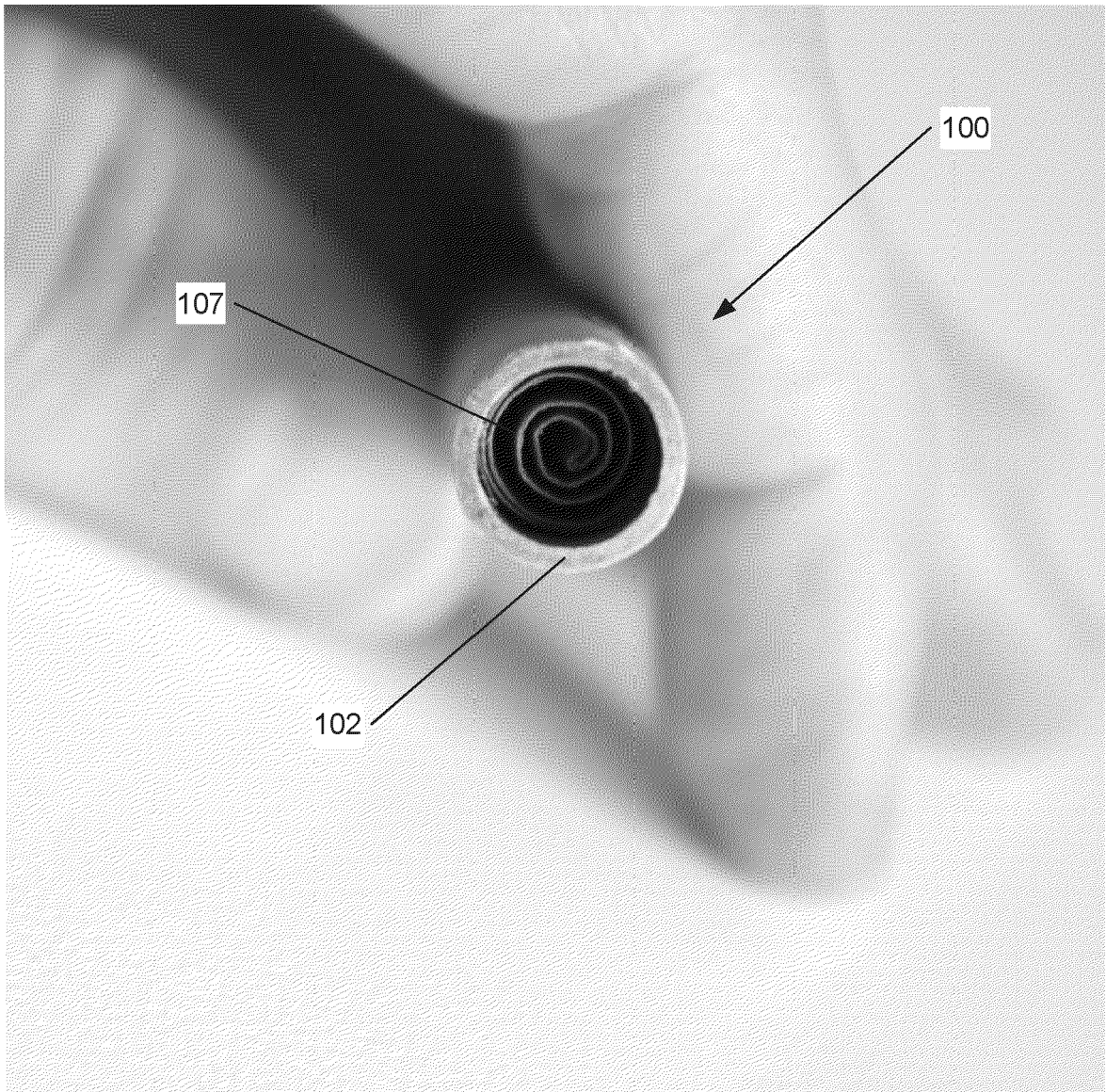


FIG. 5

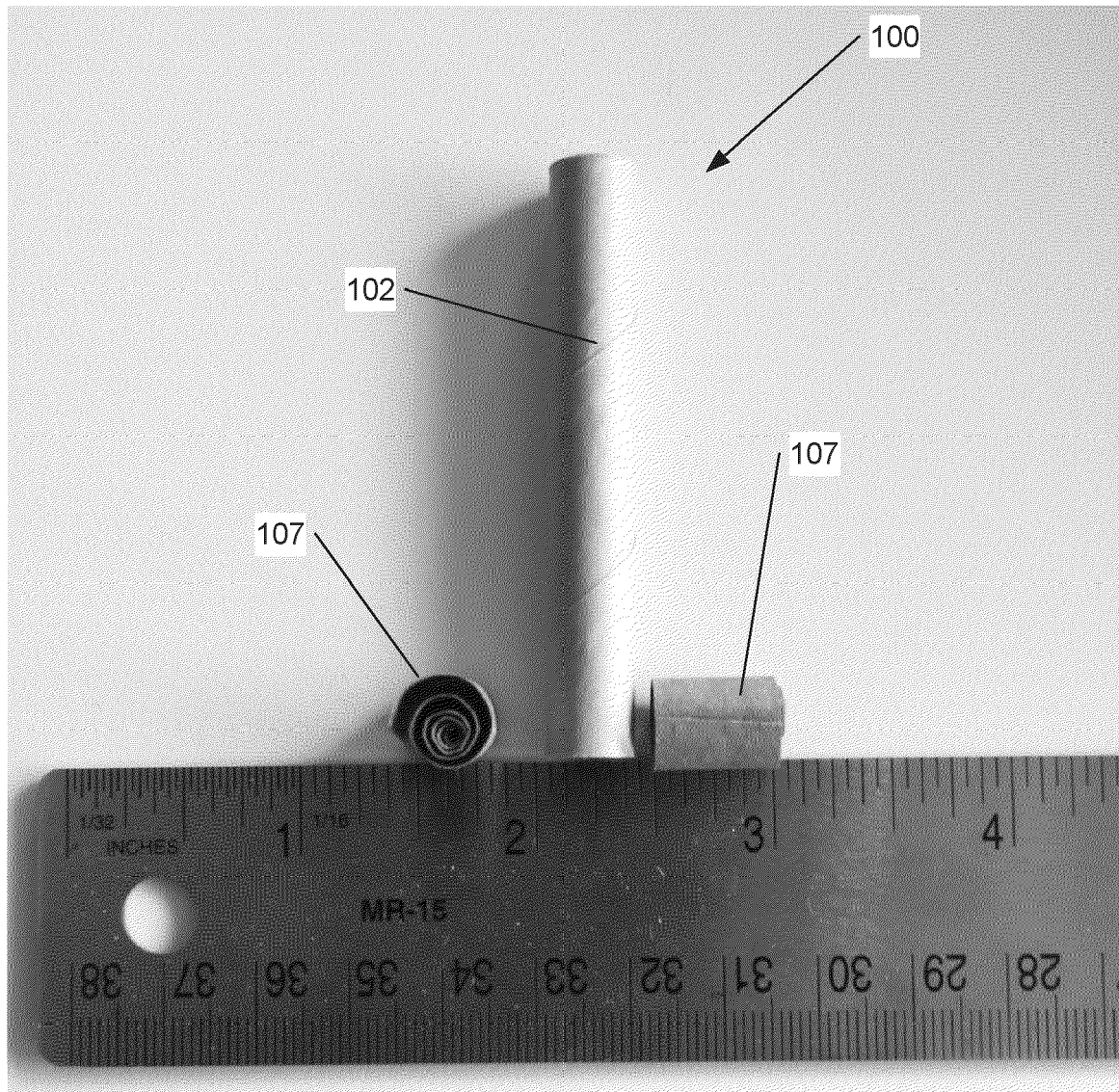


FIG. 6

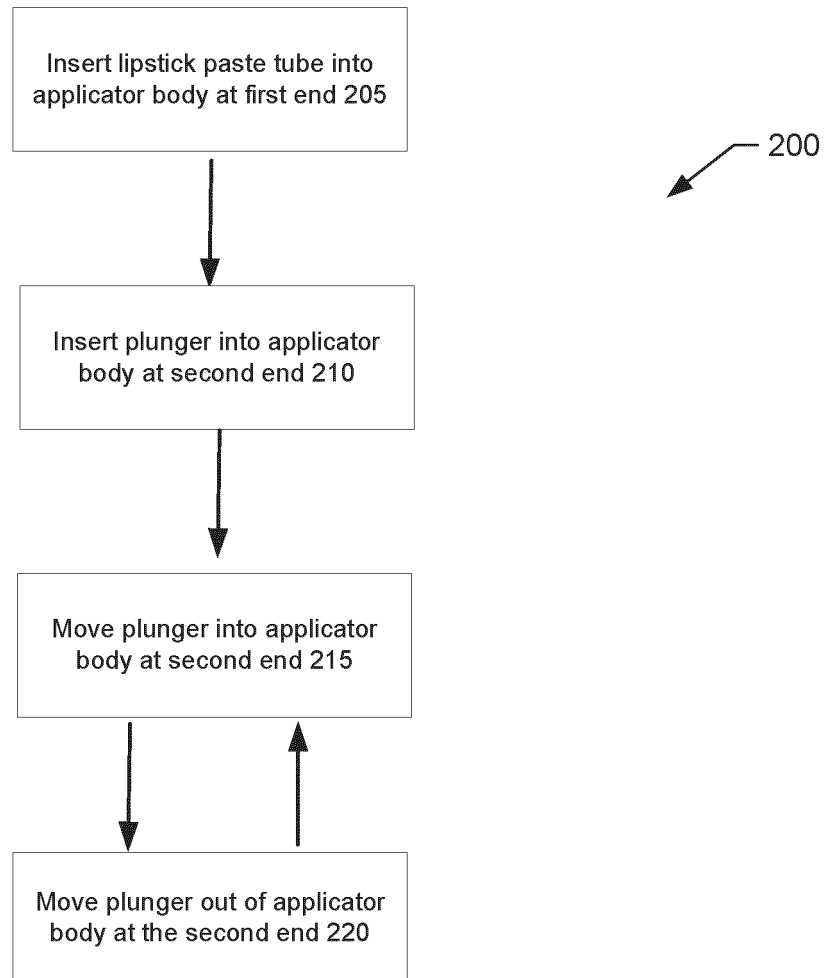


FIG. 7



EUROPEAN SEARCH REPORT

Application Number

EP 24 16 2438

5

10

15

20

25

30

35

40

45

50

55

1

EPO FORM 1503 03.82 (P04C01)

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	US 2 333 813 A (ROBERT NYDEN) 9 November 1943 (1943-11-09)	1-10	INV. A45D40/02
Y	* column 1, line 38 - column 3, line 38;	12-17	
A	figures *	11,18-20	

Y	Vermouth Beauty: "Facebook", , 29 July 2022 (2022-07-29), XP093185673, Retrieved from the Internet: URL:https://www.facebook.com/vermouthbeauty/photos/pb.100075995453324.-2207520000/184975290630918/?type=3 [retrieved on 2024-07-06] * figures *	12-17	

X	WO 2020/254803 A1 (MULTI PACKAGING SOLUTIONS UK LTD [GB]) 24 December 2020 (2020-12-24) * page 8, line 4 - line 35; figures *	1	

			TECHNICAL FIELDS SEARCHED (IPC)
			A45D
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 15 July 2024	Examiner van de Beek-Duijker
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.

EP 24 16 2438

5

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

15 - 07 - 2024

10

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2333813 A	09 - 11 - 1943	NONE	

WO 2020254803 A1	24 - 12 - 2020	EP 3986204 A1	27 - 04 - 2022
		GB 2584870 A	23 - 12 - 2020
		US 2022240646 A1	04 - 08 - 2022
		WO 2020254803 A1	24 - 12 - 2020

15

20

25

30

35

40

45

50

55

EPO FORM P0459

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

- US 63450823 [0001]