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(54) Title: PERSONAL APPLICATOR

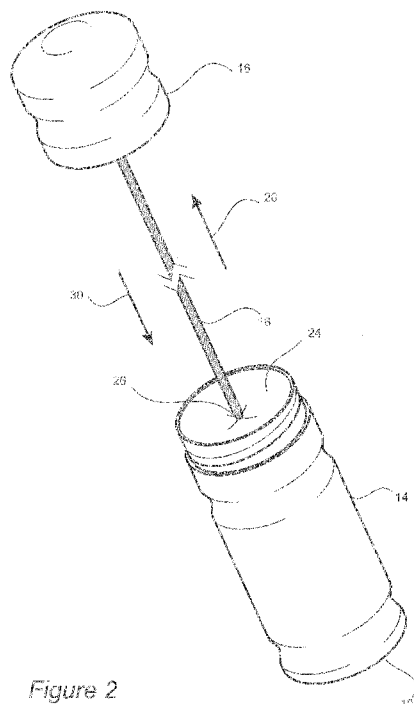


Figure 2

(57) Abstract: A personal applicator for application of a cream, gel or lotion by a user has a flexible elongate member (18) coated and/or impregnated with the cream gel or lotion from within the body (12) of a container (14). The flexible elongate member can be a chord, and may have a solid or elasticated central core covered with an impregnatable or absorbent sheath or coating, such as a foam. The container can include a retraction mechanism (20), such as having a spool or bobbin which can be spring biased to retract the chord. Alternatively, the chord may be self retracting, such as by elastic or self coiling.

PERSONAL APPLICATOR

FIELD OF THE INVENTION

[0001] The present invention relates to a personal applicator, such as an applicator for personal use in applying a cream, gel, liquid or lotion e.g. sunscreen, insect repellent and/or moisturiser or combinations of two or more thereof.

BACKGROUND TO THE INVENTION

[0002] Creams, gels, liquids or lotions for personal application to the skin are typically dispensed from simple tubes, sachets or bottles containing the cream, gel or lotion. After opening the tube, sachet or bottle, the cream, gel, liquid or lotion is dispensed by squeezing the cream, gel or lotion onto the skin or into the palm or onto the fingers of a user and rubbed into the relevant area of skin.

[0003] Some dispensers also include a roller baller applicator, such that the cream, gel, liquid or lotion is rubbed directly from the dispensing container onto the skin by coating the surface of the ball retained in the opening of the container.

[0004] Moistened wipes are sometimes employed for personal application moisturiser, insect repellent or sunscreen to the skin.

[0005] Whilst such application using tubes, sachets, bottles, moist wipes and roller ball type dispensers is relatively straightforward for easy to reach areas of skin, such as the forearms, thighs, lower legs and chest, other areas of the body are not readily reached and may not receive any coverage unless another person is available to assist.

[0006] It is with the aforementioned drawbacks in mind that the present invention has been conceived. It has been found desirable to provide an

applicator for cream, gel, liquid or lotion that enables a user to personally apply the cream, gel, liquid or lotion to areas of their skin/body that they could not otherwise reach or could not reach to apply sufficient or effective coverage of the cream, gel, liquid or lotion.

SUMMARY OF THE INVENTION

[0007] With the aforementioned in mind, an aspect of the present invention provides a personal applicator for application of a cream, gel or lotion by a user, the applicator including a flexible elongate member coated and/or impregnated with the cream gel or lotion.

[0008] Preferably the applicator includes a container for holding an amount of the cream, gel or lotion for replenishing the flexible elongate member with the cream, gel or lotion.

[0009] The flexible elongate member may preferably be at least partially stored within a body of the container when not is use by a user. Such storage may enable replenishment of the cream, gel or lotion on/into the flexible elongate member during periods of non-use of the applicator.

[0010] Preferably, in use, the elongate member is extended between the hands of a user such that the user can use the cream, gel or lotion coated or impregnated flexible member to apply the cream, gel or lotion to their own body, and especially areas that are difficult or impossible to reach, such as their own back and rear shoulders, and more particularly their central spinal area between their shoulders. This ensures application of the cream, gel or lotion to such areas and thereby avoids or at least reduces the risk of insect bite, sunburn and other UV related skin damage, dryness form lack of miniaturisation etc.

[0011] It will be appreciated that one or more embodiments of the present invention provides a readily useable cream, gel, liquid or lotion applicator for

people to reach difficult areas on the body, such as the rear areas of their back and neck. Utilising an embodiment of the present invention, a person can apply, for example, sunscreen, insect repellent or moisturiser, or combinations thereof, to their back simply and uniformly so that it allows for full coverage of the area.

[0012] An applicator according to at least one embodiment of the present invention allows the user to extend or extract from a container holding a reservoir of cream, gel, liquid or lotion a flexible elongate member, such as a sponge roller type rope that has the cream, gel, liquid or lotion coating and/or impregnated into it.

[0013] Preferably an amount of the cream, gel, liquid or lotion is pulled through an opening from the container that minimizes excess cream, gel, liquid or lotion coating or impregnating the sponge(s).

[0014] Preferably, the flexible elongate member includes a tension member providing tensile strength when the flexible elongate member is extended between the hands of a user for use. For example, a synthetic cord, such as nylon or polyester inside or providing support for the sponge(s) adds strength to the extended applicator when in use.

[0015] According to one or more embodiments of the present invention, the flexible elongate member may be attached to a body portion of the applicator and/or to a cover portion of the applicator by a respective swivel. For example, a swivel may be provided built into the top and/or bottom to minimize fatigue in the sponges and cord.

[0016] Preferably the flexible elongate member (such as the cord) may be retractable into the body of the applicator through a retraction mechanism. For example, a spring driven retraction mechanism may be provided in a base of the container body, such as in the bottom of the reservoir of cream, gel, liquid or lotion.

[0017] Thus, the elongate flexible member and any absorbent material forming part of or attached to the flexible elongate member may be self lubricated by retraction into the reservoir, and may preferably be readily deployed when it is extended for use by a user.

[0018] It will be appreciated that one or more embodiments of the present invention allows the user to open a lotion reservoir and extract a sponge roller type cord (or rope) that has the cream, gel, liquid or lotion covering it.

[0019] Preferably the container includes a means to remove excess cream, gel, liquid or lotion from the flexible elongate member, such as a slitted membrane (single slit, double –crossed or star shaped – slit) or the side edges of an aperture through or over which the flexible elongate membrane is drawn during extension by a user. This helps to minimize excess cream, gel, liquid or lotion from, for example, the sponge(s).

[0020] One or more embodiments of the present invention allows for additional dispensers/applicators, such as rollers, spray and squeeze type dispenser reservoirs to be included, such as to the top part of a two piece design to allow the user to have one cream, gel, liquid or lotion applicator with multiple functions and ease of use.

[0021] Preferably the applicator includes a number of sponges, such as foam or absorbent material, as rollers surrounding a strong nylon stretch cord. The sponges will soak up lotion and allow for transmission to skin through rolling motion. Preferably three to seven, and more preferably five, sponge type rollers are provided.

[0022] A retraction mechanism may include a retraction member about which the chord winds during retraction for storage and recoating the chord within the body portion. Preferably the retraction member is a spool, bobbin or an axle. The retraction member may be arranged on an axis of rotation aligned across the

body of the applicator. The retraction member may be conical, curved or bi conical (with the narrow ends of the cones facing or touching one another. This latter arrangement can be useful in preventing bunching of the chord at one end of the retraction member.

[0023] The retraction member may include guides at either end thereof to help ensure the chord winds onto the central axis of the retraction member.

[0024] Preferably the retraction mechanism is supported by or includes a frame. The retraction mechanism may be removable from the body portion for replacement or reuse. For example, the retraction mechanism may be provided as or part of a cartridge device. Thus, the retraction mechanism may be or include a cartridge mechanism for insertion into the body portion of the applicator.

[0025] The retraction mechanism may include a retraction member mounted for rotation about an axis aligned within and across the body of the applicator. For example, the retraction member may include a spool, bobbin or axle mounted for rotation about the axis.

[0026] Another form of the present invention provides a cartridge device for insertion into a body portion of a personal applicator, the cartridge including a retraction member for a chord and a retraction mechanism allowing the chord, in use, to be extended from the retraction member and to rewind the chord back onto the retraction member as required by a user.

[0027] Preferably the retraction member is aligned along an axis of rotation transverse to a direction of extending or retracting the chord from the retraction member.

[0028] The cartridge device may include the retraction member biased by a biasing means, such as a spring, to retract the chord about the retraction member as required by a user.

[0029] The cartridge device may include or be a replaceable or disposable component of a personal applicator. Thus, the chord may be replaced and the retraction mechanism reused, or the chord, and/or mechanism, once sufficiently used, may be disposed of.

BRIEF DESCRIPTION OF THE DRAWINGS

[0030] One or more embodiments of the present invention will hereinafter be described with reference to the accompanying drawings, in which:

[0031] Figure 1 shows a perspective view of a personal applicator according to an embodiment of the present invention, with the flexible elongate member stored in the body of the container.

[0032] Figure 2 shows a perspective view of the embodiment represented in Figure 1, with the flexible elongate member extended.

[0033] Figure 3 shows two views Figure 3a and Figure 3b of an embodiment of the personal applicator in use.

[0034] Figure 4 shows a side view of a longitudinal section of an applicator according to a further embodiment of the present invention with the elongate member wound around a transverse/lateral spool or axle.

[0035] Figure 5 shows the embodiment represented in Figure 4 with the flexible elongate member extended from the body of the container and unwound from the transverse/lateral spool/axle.

[0036] Figure 6 shows an alternative type of personal applicator according to a further embodiment of the present invention with a conical spool or bobbin.

[0037] Figure 7 shows the embodiment represented in Figure 6 with the flexible elongate member unwound from the conical spool or bobbin.

[0038] Figure 8 shows a further embodiment of the present invention with a self retracting flexible elongate member in a retracted state.

[0039] Figure 9 shows the embodiment represented in Figure 9 with the flexible elongate member extended.

[0040] Figure 10 shows a cross section through a flexible elongate member of one or more embodiments of the present invention.

DESCRIPTION OF PREFERRED EMBODIMENT

[0041] As shown in figures 1 and 2, an applicator 10 according to an embodiment of the present invention includes a body portion 12 providing a reservoir 14 for a cream, gel, liquid or lotion to coat and/or impregnate a flexible elongate member 18 stored in the body portion when not in use or retracted during replenishment of the cream, gel, liquid or lotion. A cap 16 covers the open end of the body 12 when the applicator is not in use, such as for transport or storage. The cap also provides the handgrip portion of the applicator for one hand of the user whilst the body portion provides the hand grip portion for the other hand of a user.

[0042] The body portion and/or the cap may have a surface texture and/or be shaped to enhance grip of the respective portions. For example, the external surface of at least part of the body portion or the cap may be ribbed or ridged for improved grip and/or may have a soft grip texture or coating, such as neoprene or other rubberised or foam material.

[0043] The flexible elongate member 18 is attached at one end thereof to a part 20 of a retraction mechanism housed within the body. The retraction

mechanism is preferably spring (or other biasing means) driven to automatically retract the flexible elongate member when applied tension from a user is released. Thus, as the flexible elongate member is extended from the body, the spring tension increases, such as a spring driven spool or bobbin around which the flexible elongate member winds during retraction, ready for extension next use.

[0044] The flexible elongate member may be self retracting without requiring a separate retraction mechanism. For example, and as shown in figures 8 and 9, one or more embodiments of the present invention may include an elastic/elasticated flexible elongate member. The flexible elongate member may include a central core of elastic material to resiliently contract the extended and/or stretched flexible elongate member into the body of the container after use or to replenish the lotion/liquid/gel/cream thereon.

[0045] The flexible elongate member may be of woven material, or may have a foam sheath or cover over a central core, or a combination thereof. The foam may be open cell foam to absorb the lotion/liquid/gel/cream for subsequent contact with the skin of the user.

[0046] Alternatively or in addition, the flexible elongate member may be elasticated, such as an elastic cord, which itself will automatically retract as tension is released, thereby shortening the effective length of the flexible elongate member for storage.

[0047] The flexible elongate member 18 may be elasticated or otherwise resilient and self coil to a compact state when retracting/retracted, as shown, for example, in Figure 8 as coiled flexible elongate member 18a.

[0048] The spool or bobbin 20 may rotate freely relative to the body i.e. need not be spring driven. Hence, once the flexible elongate member is extended (30 fig 4) a user can hold the body 12 in one hand and the cover 16 and allow the

flexible elongate member to roll relative to the body and cover to apply the cream, gel, liquid or lotion on/in the flexible elongate member or associated sponges by contact with the user e/g. their back or shoulders.

[0049] A wiper device 24 is provided in the opening of the body. The wiper device allows excess cream, gel, liquid or lotion to be removed from the absorbent means and/or from the surface on the flexible elongate member. Preferably the wiper device includes wiper portions 24a, 24b to define a slit or other opening 26 therebetween, so that the flexible elongate member is drawn through the slit and excess cream, gel, liquid or lotion is removed from the flexible elongate member and remains in the reservoir 14.

[0050] In use, a person removes the cover/cap 16 from the body 12 and extends the flexible elongate member 18. Cream, gel, liquid or lotion from within the reservoir 14 is carried by the flexible elongate member, and any excess is wiped off at the wiper device prior to being exposed outside of the body. The flexible elongate member is extended between the cover and body, and a user can apply the cream, gel, liquid or lotion by rolling and/or wiping the absorbent material on the flexible elongate member by pressure against their body, [particularly their back and rear shoulders.

[0051] Use of the applicator can also provide a degree of mild exercise and stretching, which is very useful for the infirm, elderly or sedentary person.

[0052] As shown in the embodiment in Figures 4 and 5, the flexible elongate member 18 can be automatically retracted 28 into the body after use or for replenishment of the cream, gel, liquid or lotion held in reserve in the body. The flexible elongate member coils around the central spindle 20b ready for use and to prevent tangling. Alternative embodiments or in addition to this embodiment, the flexible elongate member can include or be elasticated.

[0053] The applicator may include a pump dispenser, roller type dispenser or other additional reservoir of cream, gel, liquid or lotion for traditional dispensing as an adjunct to applying the cream, gel, liquid or lotion using the flexible elongate member.

[0054] The applicator 10 shown in Figures 5 and 6 has a body portion 12 housing a retraction mechanism 14 for a flexible elongate member 18 (such as a chord) that extends from the body portion by a user pulling the flexible elongate member relative to the body portion.

[0055] The retraction mechanism allows the flexible elongate member to be extended from the body portion, and, on release of the flexible elongate member or otherwise by activation of the retraction mechanism, the flexible elongate member is retracted into the body portion.

[0056] Retraction of the flexible elongate member is preferably by biasing means (such as a spring) activation. For example, a retraction member 20 (such as including a spool, bobbin or axle) retained within the body portion is spring biased to retract the chord into the body portion. Such retraction can be automatic, such as upon release of the flexible elongate member by the user, or when activated, such as by a sharp outward 'tug' on the flexible elongate member to engage the retraction mechanism and cause retraction. Thus, the retraction mechanism can include a locking mechanism to hold the flexible elongate member at a selected extension length, and only retract the flexible elongate member when activated.

[0057] The retraction member 20 can be mounted within a frame 20a for insertion and structural rigidity within the body portion.

[0058] The distal end 11 of the flexible elongate member can be attached to a lid 16 to cover the opening 26 of the body portion. Within the lid is an attachment portion 22 for the distal end of the flexible elongate member. This attachment can

allow rotation about an axis extending towards the body portion in the figures as shown. This rotation enhances the rolling motion and delivery of the lotion across the skin by allowing the flexible elongate member and any associated foam coated/impregnated with the lotion to roll across the skin.

[0059] It will be appreciated that the spool can be aligned across/transverse/lateral to the body rather longitudinally along the body in the embodiment shown in Figures 6 and 7. This arrangement allows the flexible elongate member to more readily be wound onto and from the spool, which helps prevent 'bunching' of the chord and the requirement for a longitudinal to horizontal guide for the chord onto the longitudinal spool.

[0060] The spool or bobbin can be an inverted cone with the wider end of the cone towards the opening for the flexible elongate member to extend from the body. Alternatively, the conical spool or bobbin can have its wider end toward the closed end of the body. Alternatively, the spool or bobbin can have an opposed cone structure with opposed wider ends tapering toward a narrow central section to help centralise the flexible elongate member retracting onto the spool or bobbin..

[0061] The opening of the body portion of the applicator includes a wiper device 116 to remove excess lotion from the chord as the chord extends, and can remove dirt, sand or other contaminants at the opening by wiping the chord as the chord retracts. This wiper device helps to prevent excessive coating of the chord (and any foam covering or central portion along the chord, and prevents contaminants getting into the reservoir of lotion held within the applicator.

[0062] A reservoir 12 at the closed end of the body portion holds lotion for coating the retracted chord before use of the applicator or to recharge the chord with lotion during use by retracting and re-extending the chord.

[0063] The chord may be a continuous chord, which itself can have at least a porous section for holding lotion, or can be coated or covered by a foam, preferably an open cell foam, or a combination thereof. Preferably the chord provides the tensile strength permitting the chord and lotion coating to be extended for use from the body portion.

[0064] One or more guides, such as on the inside wall 12a of the body 12 or toward the edge(s) or end(s) of spool, bobbin or axle of the retraction mechanism 20 help to prevent wear and bunching of the chord during retraction.

THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. A personal applicator for application of a cream, gel or lotion by a user, the applicator including a flexible elongate member coated and/or impregnated with the cream gel or lotion.
2. The applicator of claim 1, including a container for holding an amount of the cream, gel or lotion for replenishing the flexible elongate member with the cream, gel or lotion.
3. The applicator of claim 1 or 2, wherein the flexible elongate member is at least partially stored within a body of the container when not is use by a user.
4. The applicator of claim 3, wherein such storage effects replenishment of the cream, gel or lotion on/into the flexible elongate member.
5. The applicator of any one of the preceding claims, wherein the elongate member, in use, is extended between the hands of a user to apply the cream, gel or lotion to their own body,
6. The applicator of any one of the preceding claims, wherein the flexible elongate member includes an absorbent material to hold an amount of the cream, gel, liquid or lotion for application.
7. The applicator of claim 6, including at least one sponge roller on a cord or rope.
8. The applicator of any one of the preceding claims, wherein the flexible elongate member includes a tension member providing tensile strength when the flexible elongate member is extended between the hands of a user for use.

9. The applicator of claim 8, wherein the tension member includes a synthetic cord.
10. The applicator of any one of the preceding claims, wherein the flexible elongate member is attached to a body portion of the applicator and/or to a cover portion of the applicator by a respective swivel.
11. The applicator of claim 10, wherein the flexible elongate member is retractable into the body of the applicator through a retraction mechanism.
12. The applicator of claim 11, wherein the retraction mechanism includes a spring or other biasing means driven retraction mechanism.
13. The applicator of any one of the preceding claims, including means to remove excess cream, gel, liquid or lotion from the flexible elongate member.
14. The applicator of claim 13, including a slitted membrane or the side edges of an aperture through or over which the flexible elongate membrane is drawn during extension by a user.
15. The applicator of any one of the preceding claims, including one or more additional dispensers/applicators of the same or a different one of the cream, gel, liquid or lotion.
16. The applicator of claim 11, wherein the retraction mechanism is supported by a frame.
17. The applicator of claim 11 or 16, wherein the retraction mechanism is removable from the body portion for replacement or reuse.

18. The applicator of claim 17, wherein the retraction mechanism is a cartridge mechanism for insertion into the body portion of the applicator.

19. The applicator of claim 11 or 16, wherein the retraction mechanism includes a retraction member mounted for rotation about an axis aligned within and across the body of the applicator.

20. The applicator of claim 17, wherein the retraction member includes a spool, bobbin or axle mounted for rotation about the axis.

21. The applicator of any one of claims 11, 12 or 16 to 20, wherein the retraction mechanism includes a conical spool, bobbin or axle, or includes a an opposed cone spool , bobbin or axle with wider ends of the opposed cones at opposed ends and the opposed cones tapering to meet at a central section.

22. The applicator of any one of the preceding claims, wherein the flexible elongate member is self retracting into the body when extending tension force is sufficiently released.

23. A cartridge device for insertion into a body portion of a personal applicator, the cartridge including a retraction member for a chord and a retraction mechanism allowing the chord, in use, to be extended from the retraction member and to rewind the chord back onto the retraction member as required by a user.

24. The cartridge device of claim 23, wherein the retraction member is aligned along an axis of rotation transverse to a direction of extending or retracting the chord from the retraction member.

25. The cartridge device of claim 23 or 24, wherein the retraction member is biased by a biasing means, such as a spring, to retract the chord about the retraction member as required by a user.

26. The cartridge device of claim 23 or 24, being a replaceable component of a personal applicator.

27. The cartridge device of claim 23 or 24, being a disposable component of a personal applicator.

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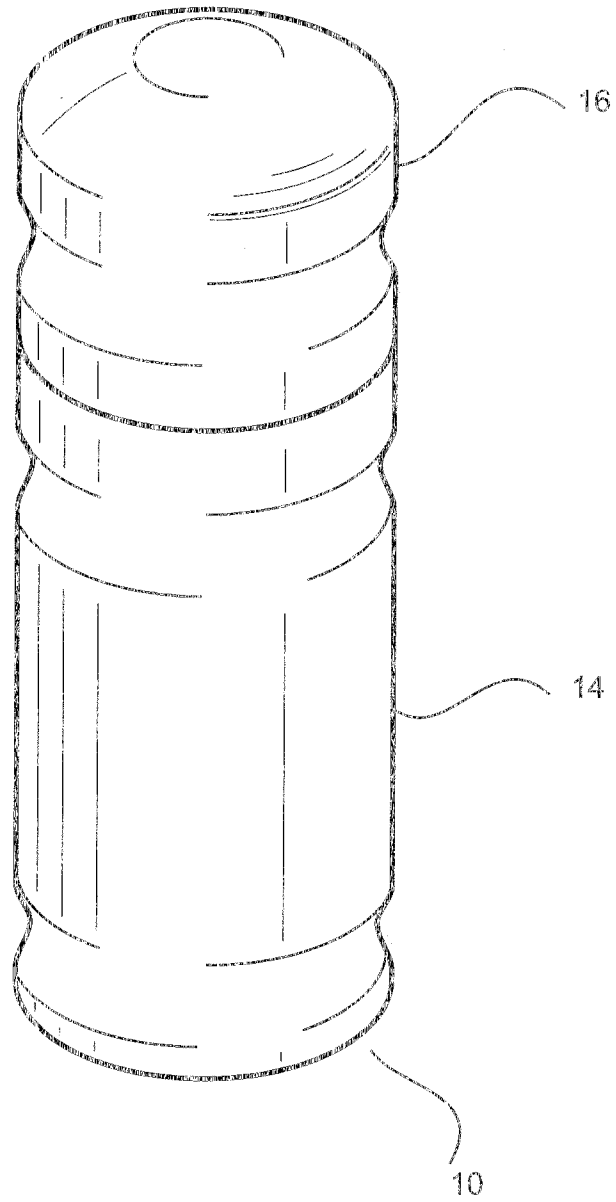


Figure 1

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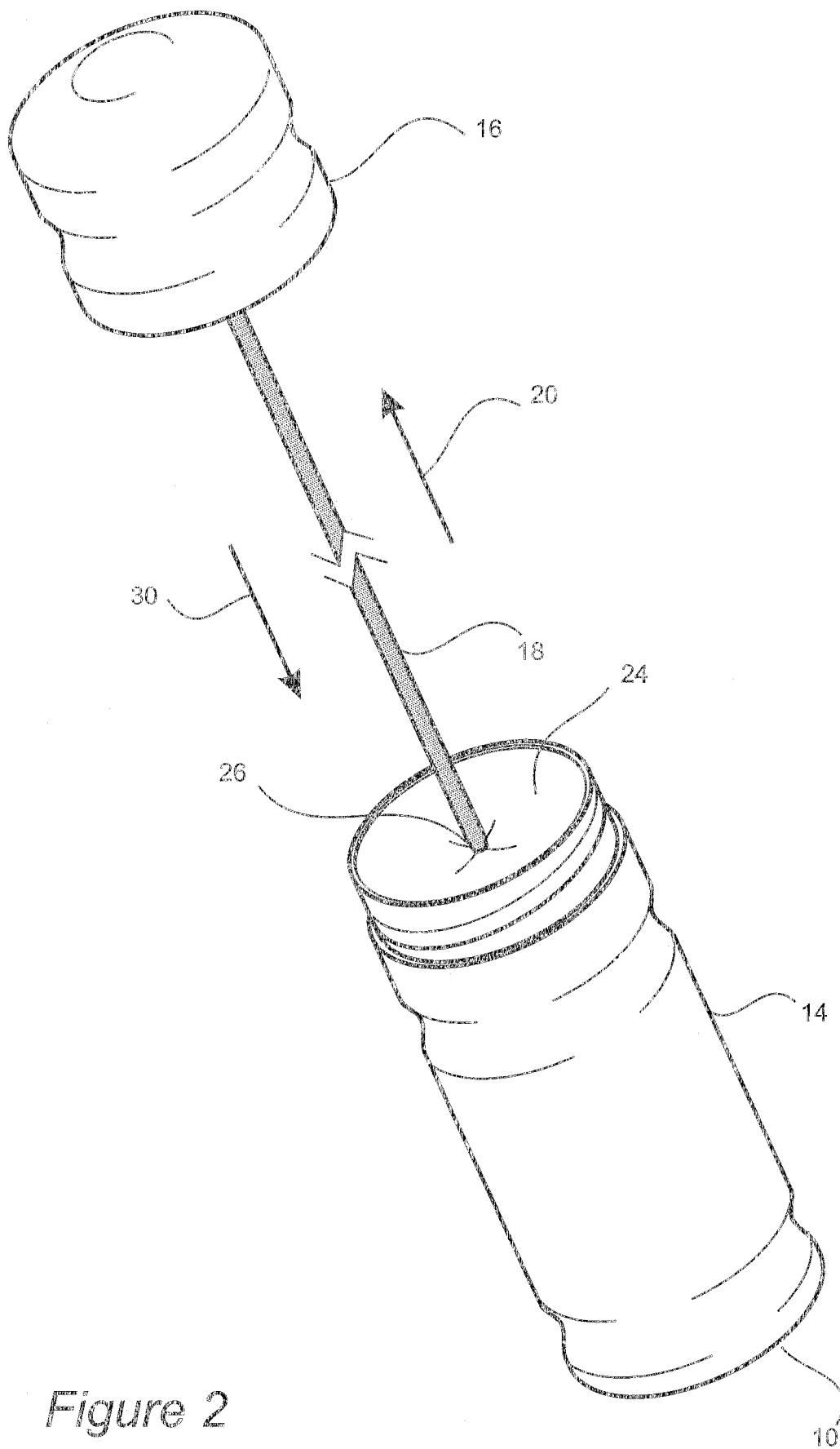


Figure 2

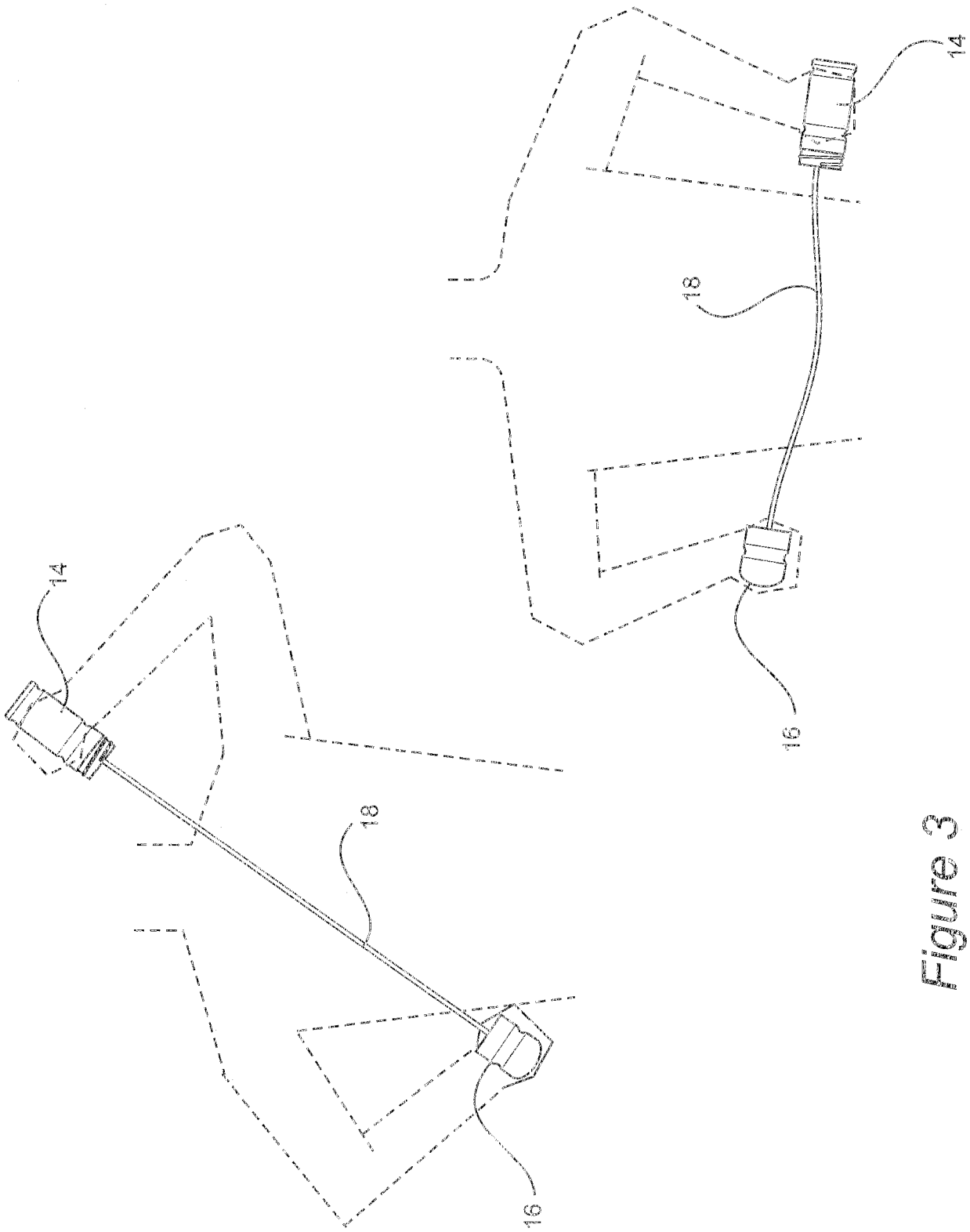
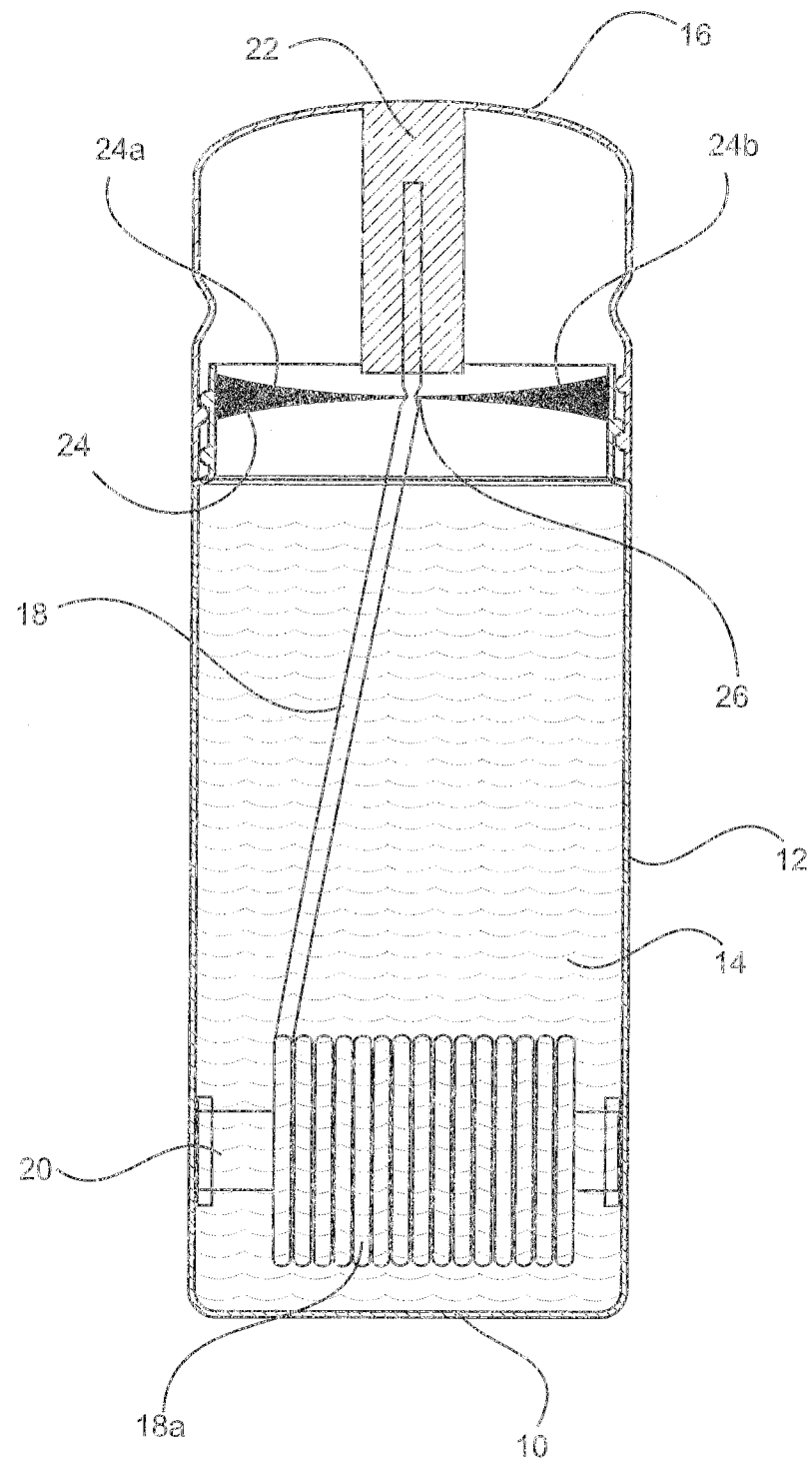


Figure 3

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*Figure 4*

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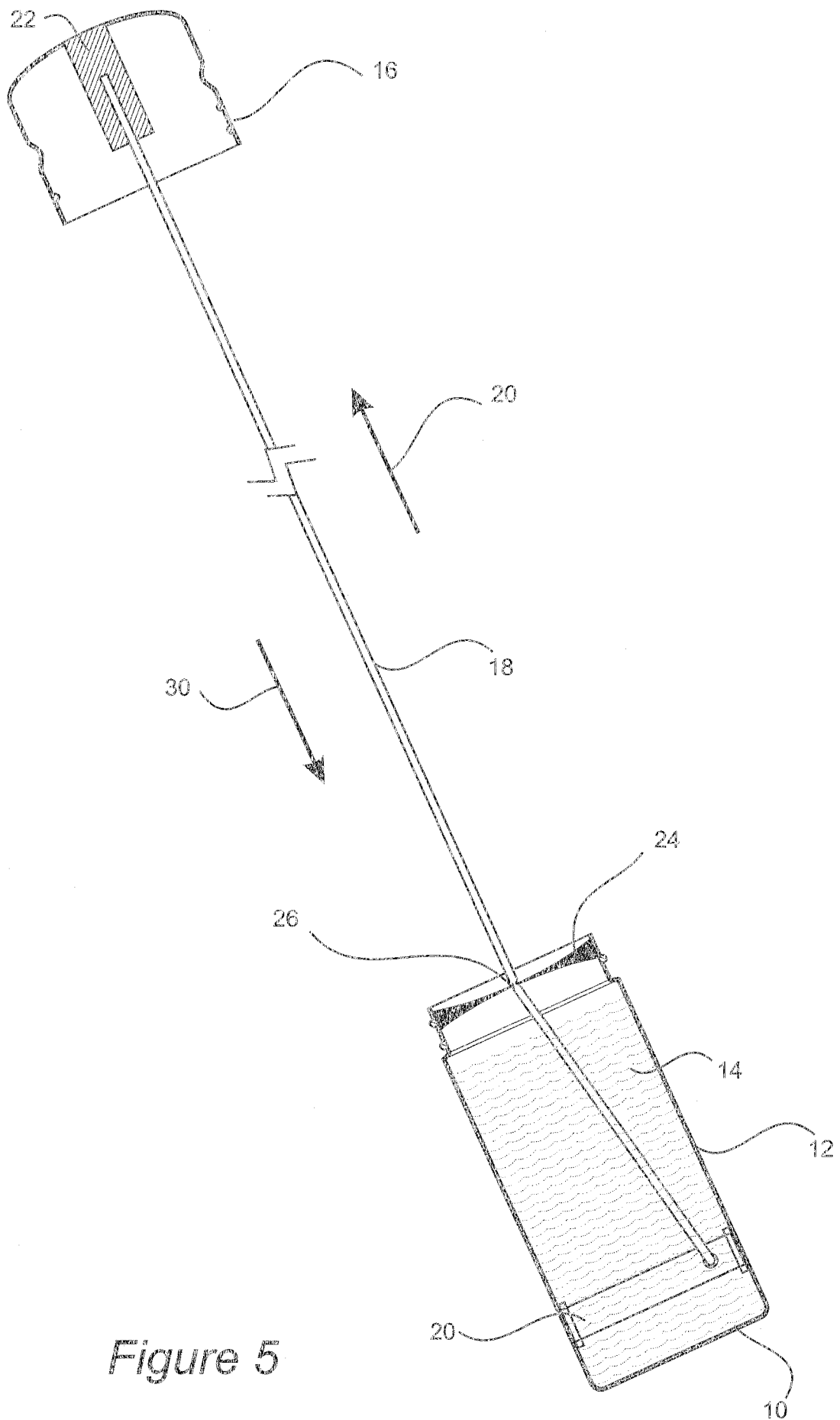
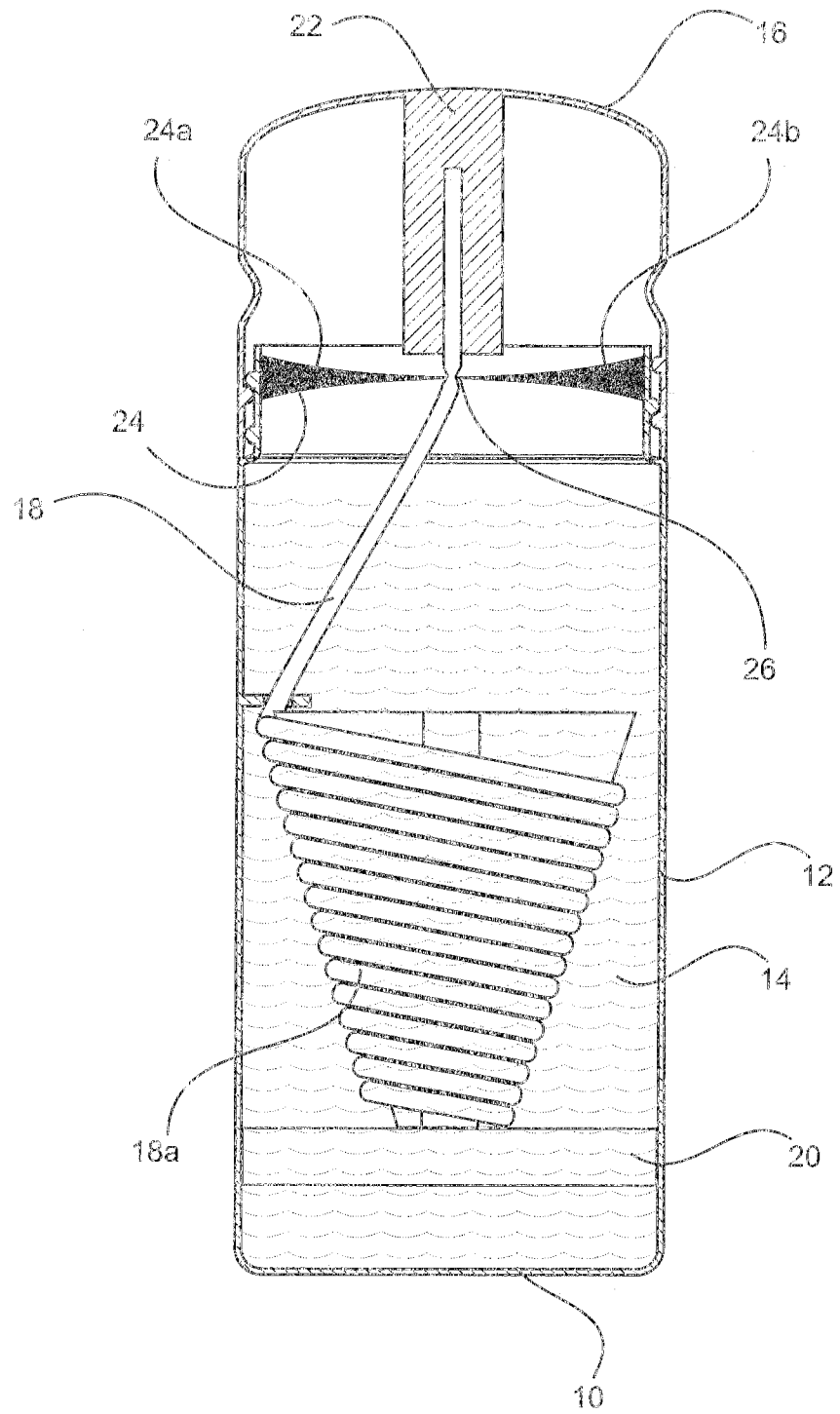


Figure 5

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*Figure 6*

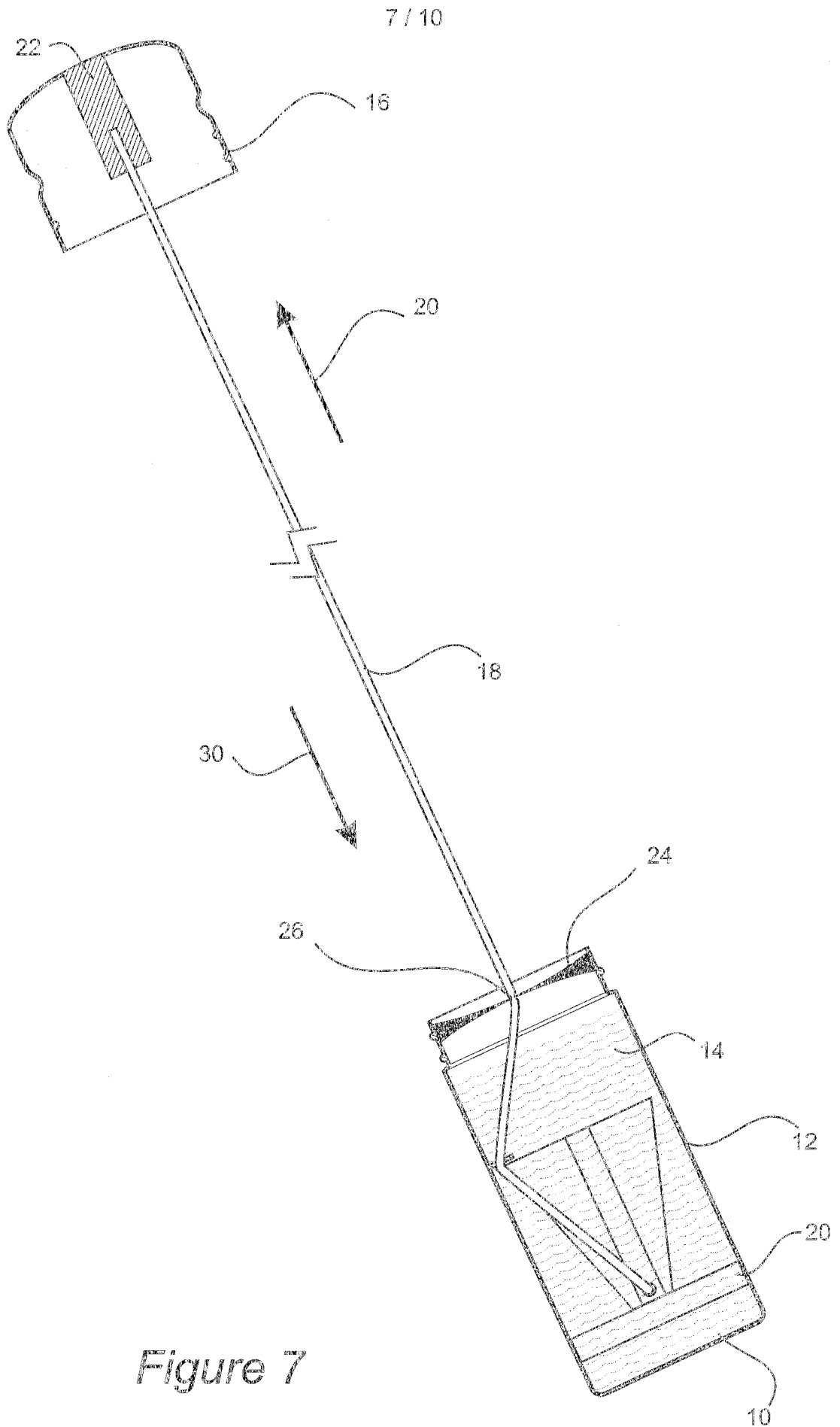
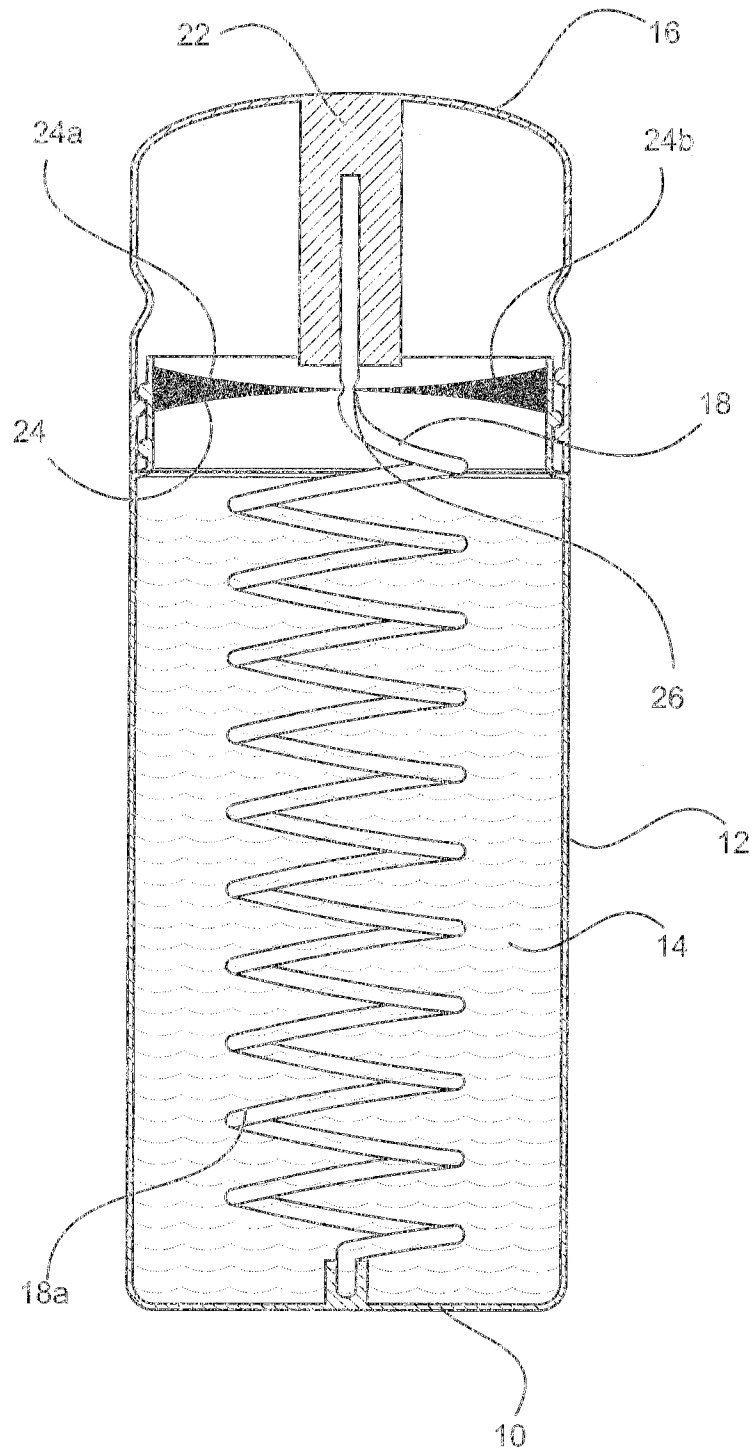


Figure 7

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*Figure 8*

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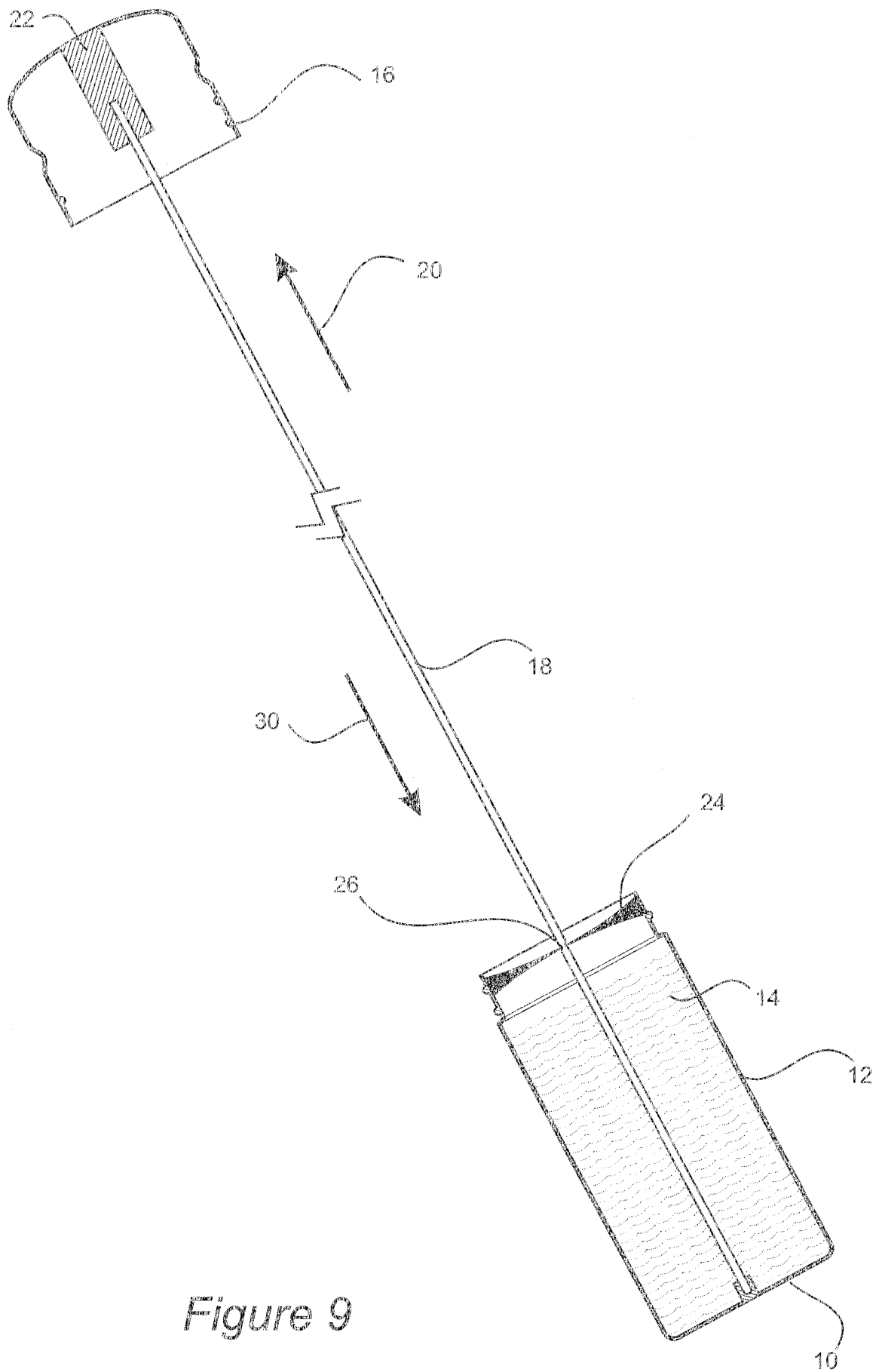


Figure 9

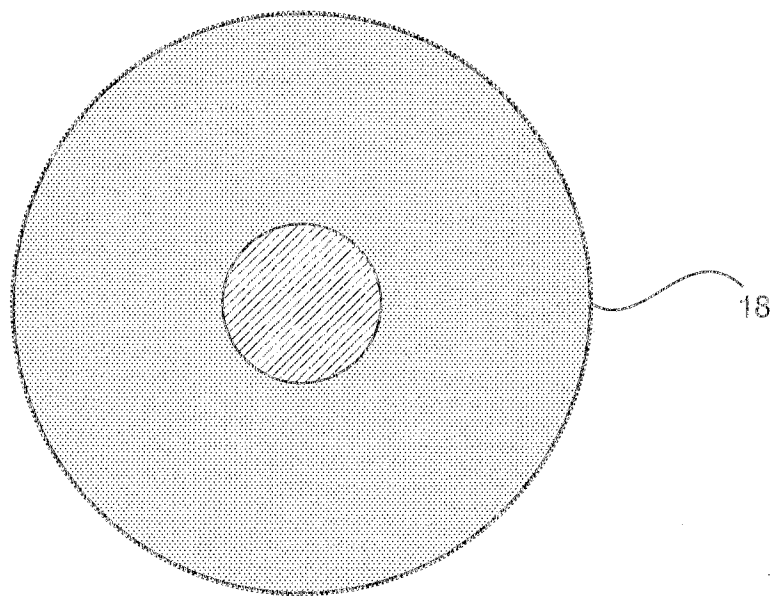


Figure 10

INTERNATIONAL SEARCH REPORT

International application No.

PCT/AU2016/050047

A. CLASSIFICATION OF SUBJECT MATTER

A47K 7/03 (2006.01) A45D 34/04 (2006.01) A61M 35/00 (2006.01) A46B 11/00 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPODOC, WPIAP: IPC/CPC (A45D2200/1081, A45D2200/1009/-, A47K7/03, A47K7/02/-, A46B11, A61M35, A45D34/04); Keywords (apply, lotion, tape, cord, retract, and like terms).

Google Patents and Google: Keywords (personal applicator, lotion, back, retractable, conical, spool, and like terms); Applicant/inventor (NEILSEN).

Espacenet: CPC (A45D2034/005/-, A45D2200/1081).

AUSPAT and internal databases provided by IP Australia: Inventor/applicant search (NEILSEN).

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
	Documents are listed in the continuation of Box C	



Further documents are listed in the continuation of Box C



See patent family annex

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"O"	document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
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Date of the actual completion of the international search
2 May 2016Date of mailing of the international search report
02 May 2016

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INTERNATIONAL SEARCH REPORT		International application No.
C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		PCT/AU2016/050047
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 2453563 A (BAYLIS) 15 April 2009 figs. 1-2; pg. 1; pg. 2, l. 3-16; pg. 2, l. 19-20	1-14, 16, 19-27
X	US 2002/0085873 A1 (KATSANDRES et al.) 04 July 2002 figures; abstract; paras. [0004], [0007]-[0013]	1-6, 8, 10-20, 22
X	US 6899481 B2 (KATSANDRES et al.) 31 May 2005 figures; col. 2, l. 15-45; col. 3, l. 1 to col. 4, l. 37; col. 4, l. 59 to col. 5, l. 52	1-6, 10-20, 22
X	US 5013171 A (ALMOND, II) 07 May 1991 figs. 3-13; col. 4, l. 1 to col. 5, l. 35	1-6, 8, 10-14, 16, 19, 22
X	WO 2002/001996 A1 (PAAR et al.) 10 January 2002 figs. 1-2; paras. [0005]-[0007], [0009]-[0013]	1-6, 8, 10-14, 16, 19, 22
X	US 2009/0142119 A1 (MIGYANKA) 04 June 2009 paras. [0007]-[0008], [0020]-[0026]	1-5, 10-11, 13-14, 16, 19, 23-24

Form PCT/ISA/210 (fifth sheet) (July 2009)

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
the subject matter listed in Rule 39 on which, under Article 17(2)(a)(i), an international search is not required to be carried out, including
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

See Supplemental Box for Details

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

Supplemental Box**Continuation of: Box III**

This International Application does not comply with the requirements of unity of invention because it does not relate to one invention or to a group of inventions so linked as to form a single general inventive concept.

This Authority has found that there are different inventions based on the following features that separate the claims into distinct groups:

- Claims 1-22 are directed to a personal applicator. The feature of a flexible elongate member coated and/or impregnated with cream, gel or lotion is specific to this group of claims.
- Claims 23-27 are directed to a cartridge device. The feature of a retraction member for a cord and a retraction mechanism allowing the cord, in use, to be extended from the retraction member and to rewind the cord back onto the retraction member as required by a user is specific to this group of claims.

PCT Rule 13.2, first sentence, states that unity of invention is only fulfilled when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features. PCT Rule 13.2, second sentence, defines a special technical feature as a feature which makes a contribution over the prior art.

When there is no special technical feature common to all the claimed inventions there is no unity of invention.

In the above groups of claims, the identified features may have the potential to make a contribution over the prior art but are not common to all the claimed inventions and therefore cannot provide the required technical relationship. Therefore there is no special technical feature common to all the claimed inventions and the requirements for unity of invention are consequently not satisfied *a priori*.

INTERNATIONAL SEARCH REPORT		International application No.	
Information on patent family members		PCT/AU2016/050047	
This Annex lists known patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.			
Patent Document/s Cited in Search Report		Patent Family Member/s	
Publication Number	Publication Date	Publication Number	Publication Date
GB 2453563 A	15 April 2009	GB 2453563 A	15 Apr 2009
		GB 2453563 B	11 Jul 2012
US 2002/0085873 A1	04 July 2002	US 2002085873 A1	04 Jul 2002
		US 2004161281 A1	19 Aug 2004
		US 6899481 B2	31 May 2005
US 6899481 B2	31 May 2005	US 2004161281 A1	19 Aug 2004
		US 6899481 B2	31 May 2005
		US 2002085873 A1	04 Jul 2002
US 5013171 A	07 May 1991	US 5013171 A	07 May 1991
WO 2002/001996 A1	10 January 2002	WO 0201996 A1	10 Jan 2002
		AT A11452000 A	15 Nov 2001
		AT 409214 B	25 Jun 2002
		AU 1674602 A	14 Jan 2002
US 2009/0142119 A1	04 June 2009	US 2009142119 A1	04 Jun 2009
		US 7597494 B2	06 Oct 2009
End of Annex			