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(54) **Packaging and applicator for skin care product**

(57) Packaging for a consumer healthcare product that may be applied with an applicator sold with the packaging. The applicator is configured to mate with and thereby to be coupled with a portion of the packaging. The portion of the packaging to which the applicator is coupled may be a rigid portion and / or a stock item. In one embodiment, the applicator has a coupling element that extends around a cap of the packaging to couple the

applicator to the cap in a substantially secure manner. The applicator may specifically be designed for manipulation by the user's fingers, and may be ergonomically formed to facilitate manipulation and use thereof by application of finger pressure (e.g. pressure from the user's index finger) thereto.

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Description

FIELD OF THE INVENTION

[0001] The present invention relates to packaging for a consumer healthcare product, such as a skin care product, and a complementary applicator for the skin care product associated with such packaging. More particularly, the present invention relates to packaging for a consumer healthcare product with an applicator configured to mate with and to be coupled to such packaging.

BACKGROUND OF THE INVENTION

[0002] Various products, such as cleaning products (e.g. for articles such as upholstery, floors, cars, or for humans, such as skin, teeth, hair), are advantageously used with an applicator that is used to apply the product to a surface. Such applicators may conveniently be sold with the packaging for the products with which the applicator is intended to be used. For additional convenience, such applicators may be coupled to the packaging so that the applicator remains with the packaging when stored for future use. Thus, the applicator for a particular product remains with the packaging for the product and is available for use with the product as desired.

[0003] An applicator for a product, which preferably is used with such applicator, may be coupled to the packaging for such product in any of a variety of manners. For instance, as shown in U.S. patents 3,008,164 to Herman et al. and 3,565,541 to Vallis, a brush type applicator may be coupled to a container (such as a receptacle or can) containing the product to be applied with such brush via coupling arms (such as spring fingers or arms of a clamping sleeve) which extend greater than halfway around the circumference of the container. The combination dispenser and cleaning brush of U.S. patent 2,257,606 to Herbert has a brush applicator that is mounted to the cap of the container. The container in these applicator / packaging combinations may be used as a handle for the applicator, the applicator remaining coupled to the container during use. The applicators of these patents are each maintained on the exterior of a container for use as needed. It will be appreciated, however, that the applicators of these packaging / applicator combinations are generally not intended for individual use separate from the packaging. Accordingly, these packaging / applicator combinations are not particularly suited for use with products that preferably are applied with fine control, such as applicators that are to be manipulated with the user's fingers rather than being gripped in the palm of the user's hand.

[0004] Product containers that are specifically shaped to removably receive a portion of an applicator for applying the product in the container are also known in the art. For example, U.S. patent 5,558,453 to Bell et al. shows a container that has grooves specifically designed to receive portions of the applicator handle. And, U.S. patent

D623,077 illustrates a container with a recess for receiving a scrub pad. The applicator accompanying both of these packagings may be removed, as desired, from the container to apply product from the container to a surface, and may be returned to coupled engagement with the container for storage. As may be appreciated, both of these applicator / packaging combinations have custom-shaped containers that are uniquely configured to receive a portion of the applicator selected to apply the product therein. Formation of containers to accommodate an applicator may result in increased overall container size to compensate for the loss of container volume resulting from the mating feature for receiving at least a portion of the applicator. Additionally, the applicators of these applicator / packaging combinations are uniquely shaped for mating with a particular container, and are not designed for being coupled to a stock container (i.e. one that is not custom-made for coupling with the applicator). Thus, added costs may be incurred for custom designing both the applicator and the container.

SUMMARY OF THE INVENTION

[0005] In accordance with principles of the present invention, a consumer healthcare product is contained within packaging that is configured to mate with and thereby to be coupled with an applicator for such consumer healthcare product. In accordance with one embodiment, the applicator is configured to mate with and thereby to be coupled with at least a portion of the packaging. Such container may have a substantially rigid element, and such applicator may be configured to be coupled with such rigid element in a substantially secure manner. In one embodiment, the container portion of the packaging is a tube and the rigid element of the packaging is a cap. The applicator in such embodiment has arms that extend around the cap to couple the applicator to the cap in a substantially secure manner.

[0006] The portion of the packaging to which the applicator (for applying the contents of the packaging) may be coupled advantageously may be a stock item that is not customized for the applicator. Instead, the applicator is customized for the stock item. As used herein, the term "stock" item is to be understood as one of ordinary skill in the art would understand such term, i.e. as an item which is commonly made for inventory (and stored until desired by a consumer for purchase) as well as for immediate sale to any of a variety of customers. As such, stock items are typically frequently ordered items, whether sold to one or many customers, and may be available from various sources as well (since the shape is not necessarily unique and therefore often not proprietary). A stock item may be contrasted with a non-stock item which is not manufactured for general purchase and stored, but rather, is procured or made when needed, such as a custom-made or made-to-order item made according to a particular purchaser's specifications. Because various stock packaging for consumer healthcare products and

the like exist, whereas applicators for the particular consumer healthcare product may have more particular specifications and thus require customization, the use of stock packaging (or at least a portion of the packaging) simplifies manufacture and reduces costs of a combined packaging and applicator formed in accordance with principles of the present invention by reducing the number of customized components by at least one.

[0007] Suitably, the present invention which may advantageously be applied to the applicator of the above-described packaging and applicator combination, is such that an applicator may be formed with arm elements configured to facilitate holding and stabilizing of the applicator during use. Such arms may also advantageously be shaped and configured to couple the applicator to the packaging. The applicator may further be ergonomically formed by having an ergonomically configured applicator head shaped and configured to receive a user's finger to optimally use the applicator to apply the consumer healthcare product contained within the packaging to which the applicator may be advantageously coupled.

[0008] These and other features and advantages of the present invention will be readily apparent from the following detailed description of the invention, the scope of the invention being set out in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] The detailed description will be better understood in conjunction with the accompanying drawings, wherein like reference characters represent like elements, as follows:

[0010] FIGURE 1 is a perspective view of a packaging and accompanying complementary applicator coupled thereto in accordance with principles of the present invention;

[0011] FIGURE 2 is an end elevational view of the complementary applicator of FIGURE 1; and

[0012] FIGURE 3 is a perspective view of an applicator such as may be used in the combined packaging and applicator illustrated in FIGURE 1, showing a user-engaging surface of the working end.

DETAILED DESCRIPTION OF THE INVENTION

[0013] An exemplary embodiment, formed in accordance with principles of the present invention, of a packaging 100 for a product, such as a consumer healthcare product (e.g. skin care, wound care, oral care, hair care, etc.), and an accompanying applicator 200 for applying such product is illustrated in FIGURES 1-3. Exemplary packaging 100 is illustrated as including a container 102 in the form of a tube, with a closure 104 in the form of a cap. However, other types of packaging may be used in accordance with the present invention, as will be discussed in further detail below. Applicator 200 is illustrated as having a proximal end 202 coupled to packaging 100, a distal end 204 forming the working end of applicator

200, and a neck or extension 206 (hereinafter "extension" for the sake of convenience, without intent to limit) therebetween. It will be appreciated, however, that other configurations of applicator 200 are within the scope of the present invention, as will be discussed in greater detail below.

[0014] Container 102 may be any type of container suited for containing a consumer healthcare product (e.g. a skincare product, a wound care product, an oral care product, a hair care product, etc.). Preferably, as discussed in further detail below, container 102 is a stock item available to the general public for purchase on demand and does not have any particular features uniquely designed to receive, to mate with, or otherwise to be coupled with an applicator. For instance, exemplary container 102 of FIGURES 1-3 is a common tube, as well known in the art. Depending on the product to be contained therein, container 102 may be sufficiently flexible to be squeezed by a user's hand or fingers to dispense product therefrom.

[0015] Closure 104 may be any type of closure which suitably closes the dispensing end of container 102 to maintain the product therein. Like container 102, closure 104 preferably also is a stock item, as well known in the art, and may be any type of closure such as, without limitation, a threaded or snap-on cap (which typically is completely removed from container 102 to dispense product from container 102) or a flip-top cap (such as with a living hinge to maintain the cap coupled with the packaging even when the cap is in an open configuration to allow for dispensing of product from container 102).

[0016] Proximal end 202 of exemplary applicator 200 of FIGURES 1-3 includes a coupling element 210 shaped and configured to couple applicator 200 to packaging 100. As may be appreciated, distal end 204 of applicator 200 is coupled to packaging 100 via proximal end 202 and is not directly coupled to packaging 100. Distal end 204 of exemplary applicator 200 of FIGURES 1-3 carries, or is formed with, an applicator element 220 configured to apply product from packaging 100 to a surface (e.g. the user's skin). In the exemplary embodiment of FIGURES 1-3, applicator element 220 faces away from packaging 100, opposite the direction in which coupling element 210 extends to couple applicator 200 to packaging 100. As such, packaging 100 need not be specifically shaped or configured to receive or otherwise to accommodate applicator element 220. Exemplary applicator element 220 illustrated in FIGURES 1-3 is a brush with a plurality of tufts 222 of bristles. For use with a skincare product, the bristles of tufts 222 may be made of PBT (polyester) resins that are tapered, the taper occurring over approximately 40% the bristle length. Standard toothbrush stapling technology may be used to form and to anchor tufts 222 to base 224 of applicator element 220, with staples punched from, e.g. stainless steel roll stock. It will be appreciated that applicator element 220 may be any type of applicator element, preferably formed and selected to apply the product contained in packaging

100 in a suitable manner. For instance, applicator element 220 may be a foam applicator or a single tuft of elongated bristles (in contrast with the shorter bristles of the multiple tufts of the illustrated brush), or a disposable pad. Alternatively, distal end 204 may be formed as a rigid element which is preferably shaped and configured to apply the product contained within packaging 100 to a surface.

[0017] In accordance with principles of the present invention, applicator 200 is shaped and configured to be coupled with at least a portion of packaging 100, and preferably to be maintained in coupled engagement with packaging 100. In one embodiment, applicator 200 is shaped and configured specifically to mate with (e.g. by corresponding in shape or other features to result in coupling of applicator 200 and packaging 100) at least a portion of packaging 100 and to be coupled therewith. In the embodiment of FIGURES 1-3, proximal end 202 of applicator 200 is configured for engaging with, and preferably mating with, at least a portion of packaging 100. Distal end 204, extending from proximal end 202 via extension 206, may be free from direct engagement with packaging 100 if the coupling of proximal end 202 with packaging 100 is sufficiently secure. Thus, distal end 204 need not contact or otherwise be engaged with packaging 100, as proximal end 202 is sufficiently coupled applicator 200 to packaging 100. However, it will be appreciated that any other portion of applicator 200 (or more than one portion of applicator 200) may be configured for coupling applicator 200 to packaging 100.

[0018] The applicator 200 preferably is shaped and configured based on a common, stock packaging (such term as may be understood by one of ordinary skill in the art as defined above, i.e. as a standard item that has not been formed, shaped, configured, or otherwise manufactured with any particular customer specifications and therefore does not have any specific feature shaped or configured for receiving or otherwise being coupled with an applicator or other element) which is not specifically shaped, configured, formed, or otherwise customized for use in the present invention. Examples of such stock include but are not limited to tube, bottle or any other container along with its complementary closures, suitable for liquid or cream based materials and currently commonly available to the general public for purchase. Instead, coupling element 210 of applicator 200 is specifically shaped and configured to be coupled to at least a portion of packaging 100. In the exemplary embodiment of FIGURES 1-3, coupling element 210 is shaped and configured to be coupled to and preferably to mate with closure 104, which preferably is a standard closure of a common shape. The outer surface of closure 104 preferably does not contribute to the coupling of applicator 200 thereto, and may be smooth or ribbed or have any other desired surface texture. As such, a unique mold is not required for such closure 104, and preferably the only customized element of the present invention is applicator 200.

[0019] It will be appreciated that use of a stock closure

does not limit the shape of closure 104 to have a particular shape or configuration or outer surface selected to mate with or complement applicator 200; coupling element 210 of applicator 200 being shaped and configured to conform to closure 104 for coupling therewith. Preferably, coupling element 210 is shaped and configured for coupling to closure 104 from any side of closure 104. Coupling element 210 may be shaped to accommodate protrusions or recesses, such as living hinges, grooves, crevices or ridges for facilitating grasping of closure 104 (such as to open a flip-top cap), yet still engage with the outer surface of closure 104 to be coupled thereto. In the exemplary embodiment illustrated in FIGURE 3, coupling element 210 has a recessed area 211 and container-engaging surfaces 212a and 212b, preferably adjacent recessed area 211. As such, exemplary coupling element 210 of FIGURES 1-3 may readily be coupled to a variety of stock closures, including flip-top closures with living hinges that protrude somewhat, from any side of the closure.

[0020] Preferably, for reasons as will become evident, a closure with a substantially symmetrical cross-sectional shape (at least about one plane in which a longitudinal axis L of packaging 100 lies) is selected for design of a complementary-shaped coupling element 210. For example, closure 104 may have a circular cross-section and may generally be readily available for purchase from any one of a number of suppliers (i.e. a closure 104 is a stock closure with circular cross-section). It will be appreciated that closures of other standard shapes may be used instead; applicator 200, particularly coupling element 210, being adapted for coupling with the stock closure 104. For instance, a closure with an oval or square cross-sectional shape may be used.

[0021] Suitably, packaging 100 has a rigid as well as a flexible element (such as packaging 100 of the embodiment of FIGURES 1-3) and applicator 200 preferably is configured for engaging with and preferably mating with the more rigid portion of packaging 100 so that preferably a more secure coupling of applicator 200 with packaging 100 is achieved. In FIGURES 1-3, container 102 of packaging 100 is a tube, and thus typically is flexible (to facilitate application or dispensing of the product contained therein), and closure 104 typically is more rigid than container 102, and typically considered to be substantially rigid (i.e. does not readily flex upon application of pressure thereto during normal use of packaging 100). Thus, at least a portion of applicator 200 preferably is shaped and configured for coupling with closure 104 of packaging 100. As such, a stock tube may be used for container 102 without any particular feature for coupling with or otherwise receiving applicator 200.

[0022] As illustrated in the embodiment of FIGURES 1-3, coupling element 210 (provided at proximal end 202 of exemplary applicator 200) is shaped and configured to extend around at least a portion of closure 104 of packaging 100. A configuration of coupling element 210 may be appreciated with reference to the end view of appli-

cator 200 illustrated in FIGURE 2, showing the curvature of coupling element 210. As may be appreciated, the curvature of coupling element 210 preferably is selected to complement (such as substantially matching) the curvature of the portion of packaging 100 to which applicator 200 is to be coupled. In the case of the embodiment of FIGURES 1- 3, the curvature of coupling element 210 preferably is selected to complement (such as by substantially matching) the curvature of closure 104 of packaging 100. Although various coupling elements (such as a groove and snap-in bead) may be provided to couple applicator 100 and packaging 200, coupling element 210 may simply be formed to extend sufficiently around the circumference of closure 104 to couple applicator 100 thereto in a substantially secure manner so that applicator 100 does not readily disengage from closure 104. It will be appreciated that such extensions of coupling element 210 about closure 104 of packaging 100 is generally dictated by the properties of the material from which coupling element 210, is formed. For instance, the more flexible the material of coupling element 210, the greater the extent coupling element 210 may extend about closure 104, since greater flexing of coupling element 210 to remove it from engagement with closure 104 may be achieved with reduced risk of breaking coupling element 210. Conversely, the more rigid the material of coupling element 200, the lesser the extent coupling element 210 may extend about closure 104 to avoid the risk of a more brittle material cracking upon removal of applicator 200 from packaging 100. According to the present invention, typical materials from which the applicator can be formed are characterized by having a density from about 0.88 to about 1.70 g/cm³, a melt flow from about 0.2 to about 50 g/ 10 min @ (230°C/ 2.16kg) , a tensile strength from about 12 to about 369 MPa, an elongation from about 3.5 to about 35% and a Notched izod impact from about 4 to about 90 J/m at 23 °C. In one embodiment, coupling element 210 is formed of polypropylene resin, preferably a clarified grade polypropylene homopolymer. Preferably, coupling element 210 extends at least approximately 50% of the original circumference/ perimeter of the closure 104. In order to facilitate repeated coupling to and removal from packaging 100, coupling element 210 preferably does not extend more than approximately 99% about closure 104.

[0023] In the exemplary embodiment illustrated in FIGURES 1-3, coupling element 210 includes one or more coupling arms 214a, 214b (collectively coupling arms 214, for the sake of convenience and without intent to limit) that are curved to extend around the circumference of closure 104. It will be appreciated that other shapes or forms of coupling element 210 are within the scope of the present invention, such shapes or forms preferably being selected to complement or correspond to the outer dimension of the element (e.g. closure 104) of packaging 100 with which applicator 200 is to be coupled. Only a portion of coupling arms 214a and 214b needs to mate with, or at least somewhat conform to, the outer shape

of closure 104 to couple applicator 200 with closure 104. Although the coupling arms 214a and 214b of exemplary coupling element 204 substantially match the outer shape and dimension of closure 104 and mate with closure 104, it will be appreciated that coupling arms 214a and 214b of coupling element 210 may conform to only a portion of the outer shape of closure 104 or need not conform to the outer shape of closure 104 at all so long as coupling arms 214a and 214b may couple applicator 200 to closure 104.

[0024] Coupling element 210 may comprise one or more elements that not only couple applicator 200 to packaging 100, but also facilitate use of applicator 200. Advantageously, exemplary coupling arms 214a and 214b preferably may be shaped and configured to facilitate grasping or manipulation of applicator 100 during use, and, specifically, may be ergonomically shaped and configured for optimal comfort during use. As such, coupling element 210 defines a receiving area 215 (e.g. an area between coupling arms 214a and 214b) shaped and dimensioned to receive at least a portion of packaging 100 or at least a portion of a user's hand. It will be appreciated that the manner of using applicator 100 (and thus the portion of the user's hand to be received in receiving area 215 of coupling element 210) typically depends on the product contained within packaging 100 and which applicator 100 is intended to apply. For instance, if packaging 100 contains a skin care product such as a facial product (e.g. a scrub or exfoliator or acne product or other product intended to be applied with a brush) , then applicator 100 may be sized for grasping with the user's hand, and, typically with the user's fingers (in contrast with being held in the palm of the user's hand) . As such, coupling arms 214a and 214b preferably are sized and shaped for comfortable grasping with the user's fingers. For instance, coupling arms 214a and 214b may be sized and shaped to extend about one or more fingers, such as the user's index finger, with one arm being grasped between such finger and the adjacent thumb and the other arm being grasped or stabilized between such finger and the adjacent middle finger. Preferably, for improved handling and manipulation, coupling arms 214a and 214b are sized and shaped to receive only one finger (typically the index finger) . One of ordinary skill in the art may readily determine particular dimensions of coupling arms 214a and 214b for grasping with the user's fingers, such as with reference to publicly available anthropometric data, such as the 1988 Anthropometric Survey of U.S. Army Personnel: Summary Statistics Interim Report, Technical Report NATICK/TR- 89-027, March 1989, United States Army Natick Research, Development and Engineering Center, Natick, Massachusetts. For instance, average (50th percentile) female index finger width measured at the proximal joint is 1.98cm, the 5th percentile being 1.78cm, and the 95th percentile being 2.20cm; average (50th percentile) female finger width measured at the distal joint is 1.72cm, the 5th percentile being 1.54cm, and the 95th percentile

being 1.94cm; and the average (50th percentile) female index finger circumference measured at the distal joint is 5.09cm, the 5th percentile being 4.77cm, and the 95th percentile being 5.40cm. Average (50th percentile) male index finger width measured at the proximal joint is 7.17cm, the 5th percentile being 6.79cm, and the 95th percentile being 7.75cm; average (50th percentile) male finger width measured at the distal joint is 2.39cm, the 5th percentile being 2.19cm, and the 95th percentile being 2.64cm; and average (50th percentile) male index finger circumference measured at the distal joint is 5.72cm, the 5th percentile being 5.48cm, and the 95th percentile being 6.03cm. It will be appreciated that if a stock closure is used, the size of stock closure is preferably selected to permit formation of an applicator 200 with a coupling element 210 with the desired dimensions and shapes to facilitate grasping or manipulation of applicator 100 during use in accordance with this aspect of the present invention. Preferably, the space formed between coupling arms 214a and 214b is at least approximately 1.94 cm and up to approximately 2.585cm in diameter, fitting 95% of the female and male index fingers and thus permitting users to have increased control of applicator 200 during use to target specific areas (e.g., of the face) while applying sufficient force (to apply the product and also to reduce pain and irritation as a result of the force of application) . Preferably, coupling arms 214a and 214b are symmetrical for equally comfortable right or left handed use.

[0025] It will be appreciated that the flexibility or rigidity of coupling arms 214a and 214b is not critical to the invention so long as coupling arms 214a and 214b function to couple applicator 200 to packaging 100. In particular, the rigidity or flexibility of coupling arms 214a and 214b preferably is selected so that applicator 200 remains coupled to packaging 100 when packaging 100 is transported or otherwise moved. In addition, applicator 200 should be removable from packaging 100 for use, as desired, separate from packaging 100. If desired, coupling arms 214a and 214b may be flexible so that when a user's finger or fingers are inserted in receiving area 215 to use applicator 200, coupling arms 214a and 214b may be flexed to increase user comfort in grasping applicator 200.

[0026] According to a further aspect of the present invention, which may be applied with any or all or none of the above-described aspects of the present invention, distal end 204 of applicator 200 may be specifically shaped and configured for application of finger pressure thereto for application of the product contained within packaging 100. Thus, in accordance with this aspect of the present invention, applicator 200 may be a finger applicator configured to be implemented by application of a user's finger thereto to use applicator 200 to apply a material to a surface. As may be appreciated, it may be desirable to form a finger applicator in an ergonomic manner to facilitate application of a finger thereto for manipulation thereof by a user's finger during its ordinary use

and typically receives pressure or force applied by a user's finger or fingertip. In particular, in accordance with this aspect of the present invention, user-engaging surface 228 of applicator element 220 is shaped and configured to receive a finger tip, such as an index finger tip. For instance, the curvature of user engaging surface 228 of applicator element 220 may be curved about longitudinal axis L_A of applicator 200 to complement the curvature of average fingers or fingertips. According to the above-noted Anthropometric Survey, the average (50th percentile) circumference of a female index finger measured at the distal joint is 50.8mm, the 5th percentile being 47.752mm, the 25th percentile being 49.53mm, the 75th percentile being 58.42mm, and the 95th percentile being 53.848mm; and the average (50th percentile) width of a female index finger measured at the distal joint is 17.272mm, the 5th percentile being 15.494mm, the 25th percentile being 16.51mm, the 75th percentile being 18.034mm, and the 95th percentile being 19.558mm. The average (50th percentile) circumference of a male index finger measured at the distal joint is 57.15mm, the 5th percentile being 54.864mm, the 25th percentile being 56.134mm, the 75th percentile being 52.07mm, and the 95th percentile being 60.198mm; and the average (50th percentile) width of a male index finger measured at the distal joint is 17.78mm, the 5th percentile being 20.07mm, the 25th percentile being 19.05mm, the 75th percentile being 21.082mm, and the 95th percentile being 22.86mm.

[0027] Preferably, applicator 200 has an extension 206 separating applicator element 220 and coupling element 210, thereby further contributing to the overall ergonomic design of applicator 200. Specifically, if coupling element 210 is shaped and configured to receive a single finger and to be grasped at least between such finger and the user's thumb, and if the fingertip of such single finger is to apply pressure to applicator element 220, then applicator element 220 preferably is spaced apart from coupling element 210 to permit the user's finger to apply fingertip pressure to applicator element 220 and grasp coupling element 210 between a more proximal region of that user's finger and the adjacent user's thumb with the user's finger at least somewhat extended (only partially bent) . Extension 206 preferably is sized, shaped, and dimensioned to accommodate comfortably the extent of a user's index finger between the index fingertip and the more proximal region at which the adjacent thumb would comfortably grasp coupling element 210 with such region of the index finger. More particularly, the length of applicator 200 is selected to accommodate a portion of a finger between receiving area 215 of coupling element 210 and user- engaging surface 228 of applicator element 220. One of ordinary skill in the art would be able to determine optimal dimensions with reference to such data as provided in the above- noted Anthropometric Survey (giving the average (50th percentile) length of a female index finger as 6.9m, the 5th percentile being 6.2cm, and the 95th percentile being 7.7m; and the

average (50th percentile) length of a male index finger as 7.5cm, the 5th percentile being 6.7cm, and the 95th percentile being 8.4cm) . Preferably, the total length of applicator 200 along applicator longitudinal axis L_A is at least approximately 4.2cm and less than approximately 8.4cm, fitting 95% of the female index fingers and thus permitting users to have increased control of applicator 200 during use to target specific areas (e.g. of the face) while applying sufficient force (to apply the product and also to reduce pain and irritation as a result of the force of application) .

[0028] When an ergonomically configured finger applicator is formed with ergonomically-shaped coupling arms 214a and 214b for grasping coupling element 210 during use, an overall advantageously ergonomic applicator 200 is formed. It will be appreciated that the inner, packaging-facing surfaces of applicator 200 are not necessarily shaped or configured to facilitate coupling of applicator 200 to packaging 100. Accordingly, ergonomic configurations of any part of applicator 200 generally do not interfere with the above-described aspect of the present invention of coupling or mating applicator 200 (and particularly coupling element 210 of applicator 200) with packaging 100.

[0029] Packaging 100 can be a tube containing a consumer healthcare product such as a skin care product, and applicator 200 has a brush type applicator element 220 with bristles properties (e.g. thickness, material, length, etc.) selected for optimal application of the skin care product to a user's face upon application of finger pressure (typically via the user's index finger) to finger-receiving surface 228 of brush type applicator element 220. If desired, the shape of applicator element 220 may be selected to be narrower at the distal-most end to facilitate access of the distal-most end thereof to hard-to-reach areas, such as the corners of the user's nose. As may be appreciated, the configuration of applicator 200 may be altered based on the consumer healthcare product to be contained within packaging 100, and preferably is selected to optimize application of such consumer healthcare product.

[0030] It will be appreciated that the features described with respect to one embodiment typically may be applied to another embodiment, whether or not explicitly indicated. The various features hereinafter described may be used singly or in any combination thereof. Therefore, the present invention is not limited to only the embodiments specifically described herein. The exemplary embodiment illustrated in the figures has several separate and independent inventive features, which each, at least alone, has unique benefits which are desirable for, yet not critical to, the present invention. Therefore, the various separate features of the present invention need not all be present in order to achieve at least some of the desired characteristics and / or benefits of the present invention. One or more separate features may be combined, or only one of the various features need be present in a packaging and applicator set formed in accordance

with principles of the present invention.

[0031] While the foregoing description and drawings represent exemplary embodiments of the present invention, it will be understood that various additions, modifications and substitutions may be made therein without departing from the spirit and scope of the present invention. In particular, it will be clear to those skilled in the art that the present invention may be embodied in other specific forms, structures, arrangements, proportions, and with other elements, materials, and components, without departing from the spirit or essential characteristics thereof. One skilled in the art will appreciate that the invention may be used with many modifications of structure, arrangement, proportions, materials, and components and otherwise, used in the practice of the invention, which are particularly adapted to specific environments and operative requirements without departing from the principles of the present invention. For example, elements shown as integrally formed may be constructed of multiple parts or elements shown as multiple parts may be integrally formed, the operation of elements may be reversed or otherwise varied, the size or dimensions of the elements may be varied. The presently disclosed embodiments are therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being indicated by the appended claims, and not limited to the foregoing description. In the claims, the term "comprises/comprising" does not exclude the presence of other elements or steps. Additionally, although individual features may be included in different claims, these may possibly advantageously be combined, and the inclusion in different claims does not imply that a combination of features is not feasible and/or advantageous. In addition, singular references do not exclude a plurality.

Claims

1. A packaging and applicator combination comprising:

a packaging comprising a flexible tube and a closure more rigid than said tube;
a consumer healthcare product within said tube and dispensed therefrom upon application of pressure from a user's fingers to said tube to flex said tube to squeeze out said consumer healthcare product; and
an applicator having a distal applicator end, and a coupling element shaped and configured for coupling with said closure;
wherein:

said closure is a stock closure;
said distal applicator end has an applicator element selected for application of said consumer healthcare product to a surface, and a user-engaging surface opposite said applicator element;

- said coupling element comprises one or more coupling arms configured to extend around greater than half the circumference of said closure to couple said applicator to said closure independently of features of said closure retaining said applicator on said closure; and
 said coupling arm is shaped and configured to receive at least a portion of a user's hand to apply said consumer healthcare product upon application of pressure from said portion of said user's hand to said applicator.
2. A packaging and applicator combination as in claim 1, wherein said coupling element comprises a pair of substantially symmetrical coupling arms shaped and configured to extend, together, about greater than half the circumference of said closure.
3. A packaging and applicator combination as in claim 1 or 2, wherein said stock closure has a cross-section with a substantially symmetrical geometric shape.
4. A packaging and applicator combination as in claim 1 or 2, wherein:
 said consumer healthcare product is a skincare product; and
 said coupling arms of said applicator are shaped and configured to receive a user's finger.
5. A packaging and applicator combination as in claim 4, wherein said user-engaging surface of said distal applicator end is shaped and configured to receive a user's fingertip.
6. A packaging and applicator combination as in claim 4, wherein said user-engaging surface of said distal applicator end is shaped and configured to receive a user's fingertip for application of pressure thereto to apply said skincare product to a user's skin.
7. A packaging and applicator combination as in claim 1, wherein said applicator further comprises an extension spacing apart said applicator element from said coupling element.
8. A packaging and applicator combination as in claim 7 wherein said applicator element is coupled only to said closure, via only said coupling element.
9. A packaging and applicator combination comprising:
 a packaging comprising a container and a closure;
 a consumer healthcare product within said container; and
 an applicator having a distal applicator end, and
- a coupling element shaped and configured for coupling with said closure; wherein:
 said distal applicator end has an applicator element selected for application of said consumer healthcare product to a surface, and a user-engaging surface opposite said applicator element;
 said coupling element defines a receiving area for receiving at least a portion of said packaging to couple said applicator to said packaging independently of features of said packaging;
 said receiving area of said coupling element is sized, shaped, and configured to receive only one of said user's fingers for grasping a portion of said coupling element between said only one of said user's fingers and an adjacent finger; and
 said applicator is removable from said closure.
10. A packaging and applicator combination as in claim 9, wherein said coupling element comprises at least one coupling arm configured to extend around the circumference of a portion of said packaging.
11. A packaging and applicator combination as in claim 10, wherein said coupling arm is substantially rigid.
12. A packaging and applicator combination as in claim 9, wherein said at least one coupling element is shaped and configured to extend greater than half-way around said closure.
13. A packaging and applicator combination as in claim 9, wherein said coupling element is substantially symmetrical about at least one plane of symmetry.
14. A method of packaging a consumer healthcare product, said method comprising:
 selecting a packaging having a container and closure with at least one of said container and closure being a stock item;
 forming an applicator with a coupling element based on the shape of said stock item so that said coupling element retains said applicator on said stock item;
 providing a consumer healthcare product in said container; and
 forming said applicator for ergonomic grasping by a user's hand, after removal of said applicator from said packaging, to apply said consumer healthcare product.
15. A method as in claim 14, wherein forming said ap-

plicator further comprises:

forming said applicator with a proximal end and
a distal end;
forming said coupling element at said proximal 5
end; and
forming an applicator element at said distal end.

16. A method as in claim 15, wherein forming said applicator for ergonomic grasping further comprises 10
forming said coupling element to receive a portion
of a user's hand.

17. A method as in claim 16, wherein forming said applicator for ergonomic grasping further comprises: 15

forming said coupling element to receive a user's finger; and
forming said applicator element to receive a fingertip of said user's finger. 20

18. A method as in claim 17, wherein forming said coupling element to receive a portion of a user's hand 25
comprises forming a receiving area in said coupling
element shaped to receive a portion of a user's hand
and alternately to receive said stock item.

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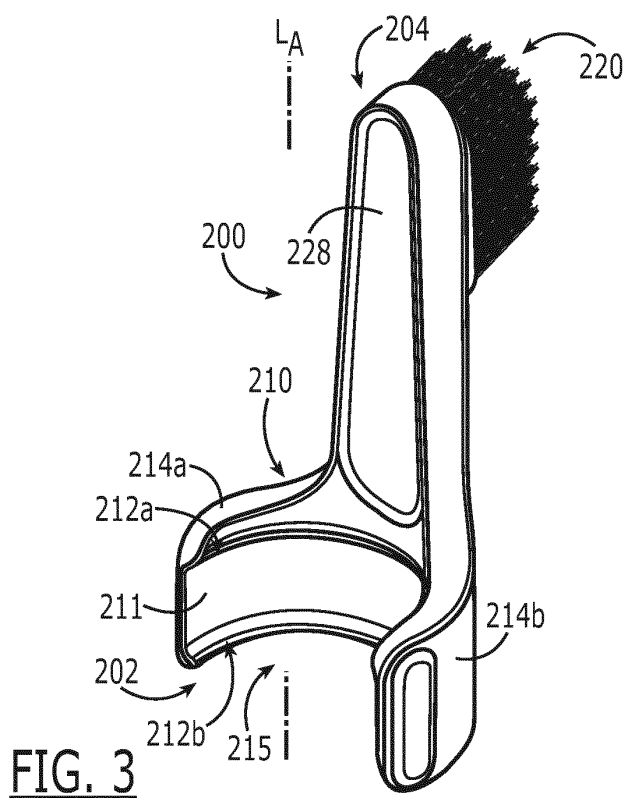
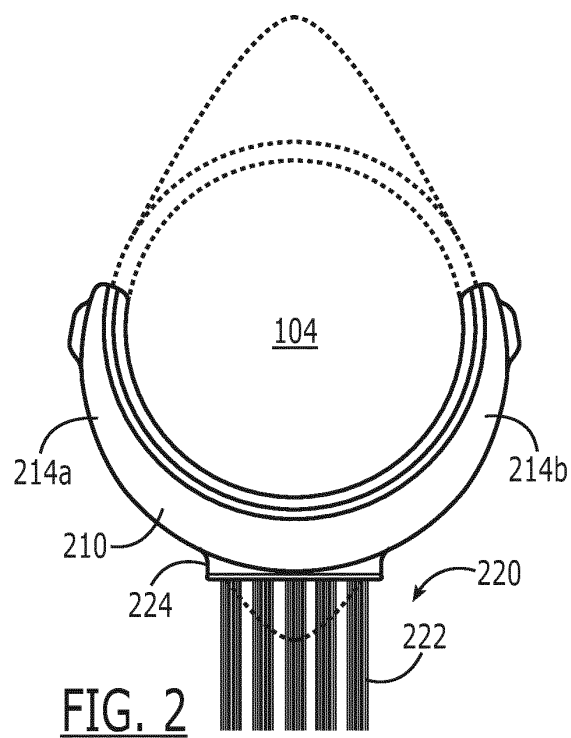
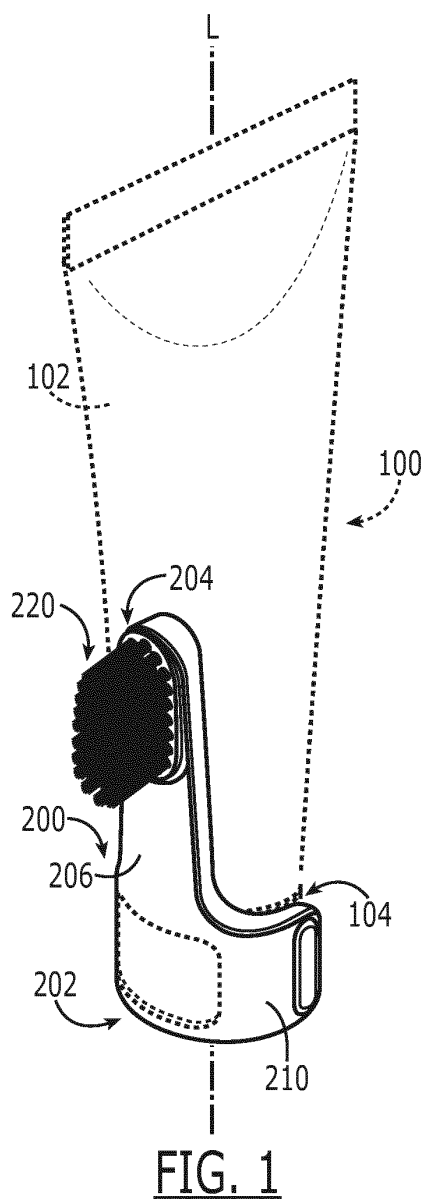
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EUROPEAN SEARCH REPORT

Application Number
EP 13 15 8843

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Place of search Munich		Date of completion of the search 18 June 2013	Examiner Salvatore, Claudio
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			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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