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(54) **Title:** ORAL CARE KIT FOR DISPLAYING A PORTION OF A TOOTHBRUSH

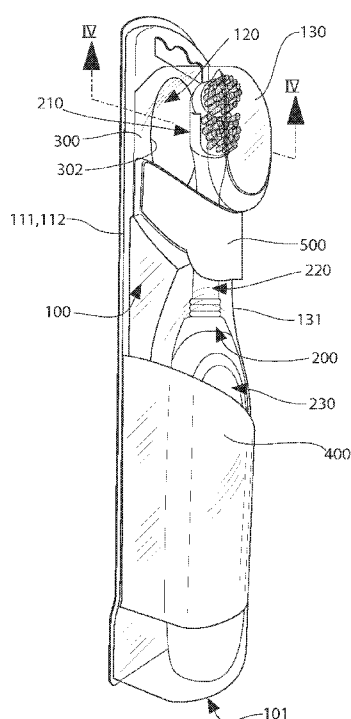


FIG. 1

(57) **Abstract:** An oral care kit (1000) including a package (100), a toothbrush (200) positioned within the package and a backer card (300) comprising a window aperture (30). The oral care kit provides the user with the ability to view a portion of the toothbrush, such as the head (210), from both the front and rear of the package while maintaining the package in an enclosed state. In one embodiment of the invention, the package comprises a front cover (101) comprising a substantially transparent window portion (130) and a rear cover (102) comprising a substantially transparent window portion (120), the rear cover coupled to the front cover to form a receiving cavity (115). The backer card is positioned within the receiving cavity between the toothbrush and the rear cover so that the window portion of the rear cover, the window aperture (301) of the backer card, a portion of the toothbrush, and the window portion of the front cover are transversely aligned.

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ORAL CARE KIT FOR DISPLAYING A PORTION OF A TOOTHBRUSH

FIELD OF THE INVENTION

[0001] The present invention relates generally to the field of oral care kits, and specifically to oral care kits that include a package and a toothbrush contained therein.

BACKGROUND OF THE INVENTION

[0002] In the commercialization of toothbrushes, the current trend is to package toothbrushes in blister packages. Because blister packages are typically formed of thin plastic films, blister packages often include a backer card contained therein on which product information is provided. While existing backer cards are helpful in relaying product information to the consumer, these backer cards completely block visibility of the toothbrush from the rear of the package. As a result, consumers are left to speculate as to the appearance and/or features located on the rear of the toothbrush. Thus, existing packages for toothbrushes are especially problematic when a toothbrush comprises features on both of its front and rear surfaces that can create commercial interest in the consumer.

BRIEF SUMMARY OF THE INVENTION

[0003] The present invention is directed to an oral care kit comprising a package, a toothbrush positioned within the package and a backer card comprising a window aperture. The oral care kit provides the user with the ability to view a desired portion of the toothbrush, such as the head, from both the front and rear of the package while maintaining the package in an enclosed state.

[0004] In one embodiment, the invention can be an oral care kit comprising: a blister package comprising a substantially transparent front cover and a substantially transparent rear cover coupled to the front cover to form a receiving cavity; a toothbrush comprising a handle and a head comprising a first surface and a second surface opposite the first surface, the toothbrush positioned within the receiving cavity; a backer card comprising a window aperture, the backer card positioned within the receiving cavity between the toothbrush and the rear cover; and wherein the head of the toothbrush is visible from outside of the package: (1) through the rear cover and the window aperture of the backer card; and (2) through the front cover.

[0005] In another embodiment, the invention can be an oral care kit comprising: a package having a longitudinal axis, the package comprising: a three-dimensionally contoured front cover comprising a substantially transparent window portion; and a rear cover comprising a substantially transparent window portion, the rear cover coupled to the three-dimensionally contoured front cover to form a receiving cavity; a toothbrush comprising a handle and a head positioned within the receiving cavity; a backer card comprising a window aperture, the backer card positioned within the receiving cavity between the toothbrush and the rear cover; and wherein the window portion of the rear cover, the window aperture of the backer card, the head of the toothbrush, and the window portion of the three-dimensionally contoured front cover are transversely aligned.

[0006] In yet another embodiment, the invention can be an oral care kit comprising: a package having a longitudinal axis, the package comprising: a front cover comprising a substantially transparent window portion; and a rear cover comprising a substantially transparent window portion, the rear cover coupled to the front cover to form a receiving cavity; a toothbrush comprising a handle and a head positioned within the receiving cavity; a backer card comprising a window aperture, the backer card positioned within the receiving cavity between the toothbrush and the rear cover; and wherein the window portion of the rear cover, the window aperture of the backer card, a portion of the toothbrush, and the window portion of the front cover are transversely aligned, wherein the window portion of the rear cover, the window aperture of the backer card, a portion of the toothbrush, and the window portion of the front cover are transversely aligned.

[0007] In still another embodiment, the invention can be an oral care kit comprising: a package comprising: a front cover comprising a substantially transparent window portion and a three-dimensional contour forming a receiving cavity; a backer card comprising a window aperture, the backer card coupled to the front cover to enclose the receiving cavity; a rear cover comprising a substantially transparent window portion enclosing the window aperture; a toothbrush positioned within the receiving cavity; and wherein a portion of the toothbrush is visible through: (1) the window portion of the rear cover and the window aperture of the backer card; and (2) the window portion of the front cover.

[0008] Further areas of applicability of the present invention will become apparent from the detailed description provided hereinafter. It should be understood that the detailed description and specific examples, while indicating the preferred embodiment of the invention, are intended for purposes of illustration only and are not intended to limit the scope of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] The present invention will become more fully understood from the detailed description and the accompanying drawings, wherein:

[0010] Figure 1 is a perspective view of an oral care kit according to one embodiment of the present invention;

[0011] Figure 2 is a perspective view of the oral care kit of FIG. 1 in a disassembled state;

[0012] Figure 3A is a plan rear view of the oral care kit of FIG. 1;

[0013] Figure 3B is a close-up view of area 3B of FIG. 3A;

[0014] FIG. 4 is a transverse cross-sectional view of the oral care kit of FIG. 1 taken along line IV-IV of FIG. 1;

[0015] Figure 5 is a longitudinal cross-sectional view of the oral care kit of FIG. 1 taken along line VII-VII of FIG. 3A; and

[0016] FIG. 6 is a transverse cross-sectional view of an oral care kit according to another embodiment of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0017] The following description of the preferred embodiment(s) is merely exemplary in nature and is in no way intended to limit the invention, its application, or uses.

[0018] The description of illustrative embodiments according to principles of the present invention is intended to be read in connection with the accompanying drawings, which are to be considered part of the entire written description. In the description of embodiments of the invention disclosed herein, any reference to direction or orientation is merely intended for convenience of description and is not intended in any way to limit the scope of the present invention. Relative terms such as “lower,” “upper,” “horizontal,” “vertical,” “above,” “below,” “up,” “down,” “top” and “bottom” as well as derivative thereof (e.g., “horizontally,” “downwardly,” “upwardly,” etc.) should be construed to refer to the orientation as then described or as shown in the drawing under discussion. These relative terms are for convenience of

description only and do not require that the apparatus be constructed or operated in a particular orientation unless explicitly indicated as such. Terms such as “attached,” “affixed,” “connected,” “coupled,” “interconnected,” and similar refer to a relationship wherein structures are secured or attached to one another either directly or indirectly through intervening structures, as well as both movable or rigid attachments or relationships, unless expressly described otherwise. Moreover, the features and benefits of the invention are illustrated by reference to the exemplified embodiments. Accordingly, the invention expressly should not be limited to such exemplary embodiments illustrating some possible non-limiting combination of features that may exist alone or in other combinations of features; the scope of the invention being defined by the claims appended hereto.

[0019] Referring to FIGS. 1-5 concurrently, an oral care kit 1000 is illustrated according to one embodiment of the present invention. The oral care kit 1000 generally comprises a package 100, a toothbrush 200, a backer card 300, a sleeve 400, and a panel 500. In some embodiments, the sleeve 400 may include product information, marketing information, instructions, and/or other relevant information. In the embodiment as shown, the panel 500 is a sticker panel that is attached to a portion of the front cover of the package 100. The panel 500 may include graphics, logos, and/or other visual designs. The toothbrush 200, the backer card 300 and the sleeve 400 are disposed within the package 100. In the exemplified embodiment, the entirety of the toothbrush 200, the entirety of the backer card 300, and the entirety of the sleeve 400 are disposed in the package 100 such that the toothbrush 200, the backer card 300, and the sleeve 400 are sealed therein. However, in alternate embodiments, only a portion of the toothbrush 200, only a portion of the backer card 300 and/or only a portion of the sleeve 400 may be disposed within the package 100 while another portion of the toothbrush 200, the backer card 300, and/or the sleeve 400 protrudes therefrom. Similarly, in alternative embodiments, the entirety of the backer card 300 and the sleeve 400 may be outside of the package 100. In some embodiments, the backer card 300 may form the entirety or a portion of the rear cover of the package 100.

[0020] The oral care kit 1000 is exemplified in conjunction with the commercialization of a toothbrush 200. The invention, however, is not so limited. In alternate embodiments, other oral care implements can be used in conjunction with the oral care kit 1000, including tongue cleaners, tooth polishers, oral care material dispensers, and other oral care ansate implements.

Moreover, while the toothbrush 200 is exemplified as a powered toothbrush, the toothbrush 200 may be a manual toothbrush in other embodiments of the invention.

[0021] As noted above, in the exemplified embodiment, the toothbrush 200 is a powered toothbrush. In certain embodiments, the toothbrush 200 comprises an oscillating tuft block 218 and a stationary tuft block 219. However, in certain other embodiments the oscillating tuft block 218 may move with a vibratory motion rather than an oscillating motion. Furthermore, in still other embodiments, the toothbrush 200 may comprise one or more movable tuft blocks and the stationary tuft block 219 may be omitted.

[0022] The toothbrush 200 generally comprises a head 210, a neck 220 and a handle 230. The handle 230 provides the user with a mechanism by which he/she can readily grip and manipulate the toothbrush 200. The handle 230 may be formed of many different shapes, sizes, materials and a variety of manufacturing methods that are well-known to those skilled in the art. If desired, the handle 230 may include a suitable textured grip made of soft elastomeric material. The handle 230 can be a single or multi-part construction.

[0023] The handle 230 transitions into the neck 220 at a distal end. While the neck 220 is illustrated as having a smaller transverse cross-sectional area than the handle 230, the invention is not so limited. The neck 220 is the transition region between the handle 230 and the head 210 and can conceptually be considered as a portion of the handle 230. In this manner, the head 210 is connected to the distal end of the handle 230 (via the neck 220).

[0024] The head 210 generally comprises a front surface 211, a rear surface 212 and a peripheral surface 213. The front surface 211 and the rear surface 212 of the head 210 are opposite one another and can take on a wide variety of shapes and contours, none of which are limiting of the present invention. For example, the front and rear surfaces 211, 212 can be planar, contoured or combinations thereof. The rear surface 212 comprises a soft tissue cleanser 240. The soft tissue cleanser 240 is constructed of an elastomeric material, such as a thermoplastic elastomer, and comprises a plurality of protuberances 241 for engaging and/or massaging soft oral tissue. Details of the soft tissue cleanser are disclosed in U.S. Patent 7,143,462, issued December 5, 2006 to the assignee of the present application, the entirety of which is hereby incorporated by reference. Furthermore, while the head 210 is normally widened relative to the neck 220 of the handle 230, it could in some constructions simply be a continuous extension or narrowing of the handle 230.

[0025] The front surface 211 of the head 210 comprises a collection of tooth engaging elements 215 extending therefrom for cleaning and/or polishing contact with a user's teeth. While the collection of tooth engaging elements 215 is preferably suited for brushing teeth, the collection of tooth engaging elements 215 can also be used to polish teeth instead of or in addition to cleaning teeth. As used herein, the term "tooth engaging elements" is used in a generic sense to refer to any structure that can be used to clean, polish or wipe the teeth through relative surface contact. Common examples of "tooth engaging elements" include, without limitation, bristle tufts, filament bristles, fiber bristles, nylon bristles, spiral bristles, rubber bristles, elastomeric protrusions, flexible polymer protrusions, combinations thereof and/or structures containing such materials or combinations. Suitable elastomeric materials include any biocompatible resilient material suitable for uses in an oral hygiene apparatus. To provide optimum comfort as well as cleaning benefits, the elastomeric material preferably has a hardness property in the range of A8 to A25 Shore hardness. One preferred elastomeric material is styrene-ethylene/butylene-styrene block copolymer (SEBS) manufactured by GLS Corporation. Nevertheless, SEBS material from other manufacturers or other materials within and outside the noted hardness range could be used.

[0026] When the oral care kit 1000 is assembled for retail display (as shown in FIG. 1), at least a portion of the toothbrush 200 is visible from outside of the package 100 from both the front of the package 100 and the rear of the package 100 (discussed in greater detail below). As a result, surfaces of the portion of the toothbrush 200 that are opposite one another (i.e., 180° apart) can be viewed by the consumer without removing the toothbrush 200 from the package 100 or compromising the integrity of the package 200. Thus, improved visual display of the toothbrush 200 can be achieved in accordance with the present invention that allows the consumer to properly evaluate the contents of the oral care kit 1000 at the point of sale.

[0027] The package 100 extends along a longitudinal axis A-A. The package 100 may take on a wide variety of embodiments and may be of a wide variety of packaging types as is known in the art. In one embodiment, the package 100 is a blister package. The package 100 generally comprises a three-dimensionally contoured front cover 101 and a rear cover 102. The three-dimensionally contoured front cover 110 and the rear cover 102, in one embodiment, are thermoformed plastic films. Suitable thermoformed plastic films may be constructed of such material as polyethyleneterephthalate (PETA, PETG, PETGAG), polyvinylchloride (PVC),

polypropylene (PP) or styrol-butadiene-blockcopolymer (SBS), preferred PVC. Other suitable materials of construction for the thermoformed plastic film include, without limitation, renewable primary products, for example of cornstarch, sugar (polyhydroxybutyrat/-valerat), cellulose diacetat, cellulose nitrate, polyactid (PLA), and polyhydroxybutyrat (PHB).

[0028] The front cover 101 is three-dimensionally contoured so that a receiving cavity 115 (FIGS. 4-5) is formed between the front cover 101 and the rear cover 102 when the front cover 101 and the rear cover 102 are coupled together. In one embodiment, the front cover 101 is three-dimensionally contoured to generally correspond to the general shape of the oral care product that is to be disposed therein, which in the exemplified embodiment is the toothbrush 200. In alternate embodiments, a front cover may be used that is not three-dimensionally contoured if desired. For example, in an alternate embodiment, the front cover may assume a generally rectangular box shape. In the exemplified embodiment, the three-dimensionally contoured front cover 101 comprises a perimeter portion 111 while the rear cover 102 comprises a perimeter portion 112. The perimeter portion 111 of the front cover 101 circumferentially surrounds a three-dimensionally contoured portion 131 of the front cover 110. Similarly, the perimeter portion 112 of the rear cover 102 circumferentially surrounds a panel portion 103 of the rear cover 102. The perimeter portion 111 of the front cover 101 provides a mating structure for coupling to the perimeter portion 112 of the rear cover 120. The perimeter portion 111 of the front cover 101 can be coupled to the perimeter portion 112 of the rear cover 120 via a thermal weld, adhesive, interference fit, tab, tape, combinations thereof, or any other suitable technique as would be understood by those of skill in the art.

[0029] The front cover 101 comprises a window portion 130. As discussed below, the window portion 130 of the front cover 101 is transversely aligned with the portion of the toothbrush 200 that is desired to be displayed to the consumer, which in the exemplified embodiment is the head 210.

[0030] In the exemplified embodiment, the entirety of the front cover 101 and the entirety of the rear cover 102 are substantially transparent, thereby allowing visibility therethrough. However, in alternate embodiments, only a portion of the front cover 101 and a portion of the rear cover 102 may be substantially transparent so as to form the window portions 120, 130 (discussed in greater detail below). In embodiments where only a portion of the front cover 110 and a portion of the rear cover 102 are substantially transparent, the substantially transparent portions 120, 130

will preferably be transversely aligned with a window aperture 301 of the backer card 300 (discussed in greater detail below) and the portion of the toothbrush 200 desired to be displayed to the consumer. As used herein, the term “transparent” includes materials that allow a user to see through the material, even if the material is colored or includes a small degree of translucency.

[0031] The panel portion 103 of the rear cover 102, in the exemplified embodiment, is a substantially planar panel comprising a planar top surface 122 and a planar bottom surface 123. Of course, in other embodiments, the panel portion 103 of the rear cover 102 may also be three-dimensionally contoured. In certain alternate embodiments in which the rear cover 102 is three-dimensionally contoured, the rear cover 102 may form a cavity that forms a portion of the receiving cavity 115 in which a portion of the toothbrush 200, a portion of the backer card 300, and/or a portion of the sleeve 400 is disposed.

[0032] The panel portion 103 of the rear cover 102 further comprises a closure panel 104. The closure panel 104 is provided as a mechanism for opening and closing the package 100 so that the toothbrush 200 can be removed therefrom. More specifically, the closure panel 104 is alterable between an open position (not illustrated) in which the toothbrush can be removed from the package 100 and a closed position (FIGS. 2 and 5) in which the receiving cavity 115 is substantially enclosed. In the exemplified embodiment, the closure panel 104 is formed by creating a transverse slit 105 through the panel portion 103 and two pre-weakened areas 106A, 106B extending longitudinally therefrom in a spaced apart manner. Thus, when a user desires to alternate the closure panel 104 from the closed position to the open position in order to remove the toothbrush 200 from the package 100, he/she first grasps the free end of the closure panel 104 (which is the edge of the closure panel formed by the slit 105). The user then pulls the free edge of the closure panel 104 outwardly and away from the bottom surface 123 of the rear cover 102, thereby breaking the pre-weakened areas 106A, 106B to create a living hinge in area 107 of the rear cover 102. The pre-weakened areas 106A, 106B can be formed by forming perforations in the rear cover 102, scoring the rear cover 102, pre-creasing the rear cover 102, combinations thereof, and/or otherwise comprising the integrity of the rear cover 102 in a controlled manner through the use of chemical energy, thermal energy, mechanical energy, or combinations thereof.

[0033] The rear cover 103 further comprises a window portion 120 that, as discussed below, facilitates visibility of a portion of the toothbrush 200 from the rear of the package 100. The

window portion 120, in the exemplified embodiment, protrudes from the top surface 122 of the rear cover 102. The invention, however, is not so limited and in alternate embodiments, the window portion 120 may not protrude from the top surface 122 of the rear cover 102 and/or may merely be a contiguous portion of the panel portion 103.

[0034] The window portion 120 comprises an upstanding wall 124 that forms a closed perimeter geometry. In the exemplified embodiment, the closed perimeter geometry (and thus the shape of the window portion 120) is oval. The invention, however, is not limited to any particular shape for the window portion 120. Nonetheless, as discussed below, in one embodiment, it is preferred that the window portion 120 of the rear cover 102 has a shape and size that corresponds to a shape and size of the window aperture 301 of the backer card 300. The window portion 120 of the rear cover 102 further comprises a substantially flat panel 125 connected to a top edge 126 of the upstanding wall 124. In other embodiments, however, the panel 125 of the window portion 120 may be contoured either convexly or concavely as desired. As discussed in greater below, when the oral care kit 1000 is assembled, the window portion 120 of the rear cover 102 extends into the window aperture 301 of the backer card 300 to retain the backer card 300 in place within the receiving cavity 115.

[0035] The backer card 300, in the exemplified embodiment, is a flat panel. In certain other embodiments, however, the backer card 300 may be three-dimensionally contoured. The backer card 300 may comprise product information. In such embodiments, the backer card 300 comprises indicia that provides information to a consumer about the toothbrush 200 (or other oral care product disposed within the package 100). The indicia on the backer card 300 may include instructions, logos, advertisements, and/or other marketing information. All or a portion of the backer card 300 can be opaque so that product information can be effectively conveyed to the consumer. However, such opaqueness can block effective viewing of the toothbrush 200 disposed within the package 100.

[0036] In order to ensure that the desired portion of the toothbrush 200 is adequately displayed despite the inclusion of the backer card 300, the backer card 300 comprises the window aperture 301. The window aperture 301 forms a passageway through the backer card 300, thereby providing a viewing window when transversely aligned with the window portion 120 of the rear cover 102 that allows the desired portion of the toothbrush 200 to be viewed from the rear of the package 100 (as shown in FIGS. 3A-B). The window aperture 301 is formed by an inner edge

302 of the backer card 300 that forms a closed perimeter. When the oral care kit 1000 is assembled, the upstanding wall 124 of the window portion 120 of the rear cover 102 and the inner edge 302 of the backer card 300 retains the backer card 300 in place within the receiving cavity 115. While the window aperture 301 is illustrated as being oval in shape, it is contemplated that in other embodiments, the window aperture 301 may assume other appropriate geometric shapes, such as rectangular, triangular, circular, or the like.

[0037] The backer card 300 can be a single layer or a multi-layer laminate. The back card 300 can be constructed of plastic, film, paperboard, combinations thereof, or any other suitable material. While the backer card 300 is flexible in certain embodiments, in other embodiments the backer card 300 may be rigid or semi-rigid. In addition, in embodiments where only the head 210 (or other desired portion) is visible from outside of the rear of the package 100, a portion of the rest of the toothbrush 200 may not be visible from outside of the rear of the package 100. In such embodiments, the portion of the toothbrush 200 that may not be visible from outside of the rear of the package 100 may be one half, one third, one quarter, or the entirety of the toothbrush handle 230 (which may include neck 220).

[0038] Referring now to FIGS. 2, 4 and 5 concurrently, the oral care kit 1000 will be further described in its assembled state. When the oral care kit 1000 is assembled, the toothbrush 200 and the backer card 300 are positioned within the receiving cavity 115. More specifically, the backer card 300 is positioned adjacent the top surface 122 of the rear cover 102 of the package 100. Thus, the backer card 300 is positioned between the rear cover 102 of the package 100 and the toothbrush 200. Furthermore, when assembled and the closure panel 104 of the rear cover 102 is in the closed position, the window portion 120 of the rear cover 120 extends into the window aperture 301 of the backer card 300. As such, structural interference between the upstanding wall 124 of the window portion 120 of the rear cover 102 and the inner edge 302 of the backer card 300 that forms the window aperture 301 assists in retaining the backer card 300 in place within the receiving cavity 115. Thus, the window aperture 301 of the backer card 300 is retained in transverse alignment with the window portion 120 of the rear panel 102. Because the head 210 (or other desired portion) of the toothbrush 200 is also in transverse alignment with the window portion 120 and the window aperture 301, the head 210 (or other desired portion) of the toothbrush 200 is visible from outside of the rear of the package 100, even when the package 100 is sealed. In the exemplified embodiment, such visibility allows a potential customer to

clearly and adequately inspect/view the soft tissue cleaner 240 on the rear surface 212 of the head 210 (see FIGS. 3A-B).

[0039] Furthermore, the window portion 130 of the front cover 130 is also in transverse alignment with the head 210 (or other desired portion) of the toothbrush 200 (and also consequently with the window portion 120 and the window aperture 301). As a result, the head 210 (or other desired portion) of the toothbrush 200 is simultaneously visible from outside of the front of the package 100, even when the package 100 is sealed. In the exemplified embodiment, such visibility allows a potential customer to clearly and adequately inspect/view the tooth engaging elements 215 on the front surface 211 of the head 210 (see FIG. 1). Thus, the present invention affords the potential consumer with the ability to view the head 210 (or other desired portion) of the toothbrush 200 from viewing angles that are 180° apart.

[0040] The ability to properly view the head 210 of the toothbrush 200 is further facilitated by the fact that the package 100 is configured so that the toothbrush 200 is mounted within the receiving cavity 115 so that the front and rear surfaces 211, 212 of the head 210 of the toothbrush 200 are at an oblique angle relative to a front surface 303 of the backer card 300 (shown in FIG. 4). Such mounting of the toothbrush 200 can be achieved using properly oriented retaining channels or other retaining structures.

[0041] The window portion 120 of the rear cover 102 is located within the closure panel 104. By locating the window portion 120 of the rear cover 102 within the closure panel 104, the window portion 120 of the rear cover 102 is withdrawn from the rear cover 102 during opening of the package 100 so as to not extend into the window aperture 301 of the backer card 300 when the closure panel 104 is in the open position. As a result, the backer panel 300 can be more easily removed so as to not prohibit or obstruct removal of the toothbrush 200 from the package 100.

[0042] Referring now to FIGS. 1 and 2 concurrently, the front cover 101 further comprises a hanger aperture 180 at a top end thereof. The rear cover 102 also has a corresponding hanger aperture 181 at a top end thereof. The backer panel 300 also comprises such a hanger aperture 182 at a top end thereof. When the oral care kit 1000 is assembled, the hanger apertures 180-182 are aligned so as to form a passageway through the package 100 which may be used for hanging the oral care kit 1000 for display in a retail store.

[0043] In some embodiments of the invention, such as the embodiment illustrated in FIG. 6, the backer card 300 can be sized appropriately to be coupled directly to the three dimensionally contoured front cover 101 so that the combination of the backer card 300 and the front cover 101 substantially enclose the receiving cavity 115. In one such embodiment, a perimeter portion of the backer card 300 will be coupled to a perimeter portion of the front cover. Such coupling can be achieved through the use of an adhesive, a thermal weld, fasteners, combinations thereof, or any other means known in the art. In such an embodiment, the backer card 300 can conceptually be considered as part of the package 100 of the oral care kit 1000.

[0044] As with the embodiments exemplified and discussed above with respect to FIGS. 1-5, the backer card 300 will comprise the window aperture 301. However, the window aperture 301 of the backer card 300 will be enclosed by the window portion 120 of the rear cover 102, which may be located inside or outside of the receiving cavity 115. The rear cover 102 may be directly coupled to the backer card 300 using any of the means discussed above. In the exemplified embodiment of FIG. 6, the rear cover 102 is located within the receiving cavity 115 and directly coupled to the top surface 303 of the backer card 300 so that the window portion 120 of the rear cover 102 extends downwardly into the window aperture 301. As a result, the rear cover 102 can not be easily dislodged and/or tampered with to expose the toothbrush 200.

[0045] In such an embodiment, the rear cover 102 may be substantially reduced in size so as to include only the window portion 120. In a further embodiment, the rear cover 102 may include an annular flange 149 surrounding the window portion 120 for facilitating coupling to the backer card 102. It is to be understood that the structural details discussed above with regards to FIGS. 1-5 are also applicable to the oral care kit 1000 of FIG. 6.

[0046] As used throughout, ranges are used as shorthand for describing each and every value that is within the range. Any value within the range can be selected as the terminus of the range. In addition, all references cited herein are hereby incorporated by referenced in their entireties. In the event of a conflict in a definition in the present disclosure and that of a cited reference, the present disclosure controls.

[0047] While the foregoing description and drawings represent the 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 as defined in the accompanying claims. 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, sizes, 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, sizes, 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. The presently disclosed embodiments are therefore to be considered in all respects as illustrative and not restrictive, the scope of the invention being defined by the appended claims, and not limited to the foregoing description or embodiments.

CLAIMS

WHAT IS CLAIMED IS:

1. An oral care kit comprising:
 - a blister package comprising a substantially transparent front cover and a substantially transparent rear cover coupled to the front cover to form a receiving cavity;
 - a toothbrush comprising a handle and a head comprising a first surface and a second surface opposite the first surface, the toothbrush positioned within the receiving cavity;
 - a backer card comprising a window aperture, the backer card positioned within the receiving cavity between the toothbrush and the rear cover; and
 - wherein the head of the toothbrush is visible from outside of the package: (1) through the rear cover and the window aperture of the backer card; and (2) through the front cover.
2. The oral care kit according to claim 1 wherein the rear cover comprises a closure panel adjustable between a closed position and an open position.
3. The oral care kit according to claim 2 wherein at least a portion of the closure panel is defined by a pre-weakened area.
4. The oral care kit according to any one of claims 1 to 3 wherein the rear cover comprises a window portion that extends into the window aperture of the backer card to retain the backer card in place within the receiving cavity.
5. The oral care kit according to claim 4 wherein the window portion of the rear cover has a shape and size that corresponds to a shape and size of the window aperture of the backer card.
6. The oral care kit according to any one of claims 4 to 5 wherein the window portion of the rear panel comprises an upstanding wall forming a closed perimeter, wherein the window aperture is formed by an inner edge of the backer card that forms a closed perimeter, and wherein contact between the upstanding wall and the inner edge retains the backer card in place within the receiving cavity.

7. The oral care kit according to claim 6 wherein the window portion of the rear panel further comprises a substantially flat panel connected to a top edge of the upstanding wall.
8. The oral care kit according to any one of claims 4 to 7 wherein the window portion of the rear cover is located within the closure panel.
9. The oral care kit according to claim 8 wherein when the closure panel is in the closed position, the window portion of the rear cover extends into the window aperture of the backer card, and wherein when the closure panel is in the open position, the window portion of the rear cover does not extend into the window aperture of the backer card.
10. The oral care kit according to any one of claims 1 to 9 wherein the front cover and the rear cover are thermoformed plastic films.
11. The oral care kit according to any one of claims 1 to 10 wherein the backer card is opaque.
12. The oral care kit according to any one of claims 1 to 11 wherein the front cover comprises a three-dimensional contour that forms the receiving cavity.
13. The oral care kit according to claim 12 wherein the three-dimensional contour generally corresponds in shape to the toothbrush.
14. The oral care kit according to any one of claims 1 to 13 wherein the window aperture of the backer card is transversely aligned with the head of the toothbrush.
15. The oral care kit according to any one of claims 1 to 14 wherein the toothbrush is mounted within the receiving cavity so that the first and second surfaces of the head of the toothbrush are at an oblique angle relative to a front surface of the backer card.
16. The oral care kit according to any one of claims 1 to 15 wherein a perimeter portion of the front cover is coupled to a perimeter portion of the rear cover.
17. The oral care kit according to any one of claims 1 to 16 wherein the entirety of the toothbrush and the entirety of the backer card are disposed within the package.
18. The oral care kit according to any one of claims 1 to 17 wherein the backer card is a flat flexible panel.

19. The oral care kit according to any one of claims 1 to 18 wherein the front cover comprises a front window portion, and wherein the window portion of the front cover, the head of the toothbrush, and the window aperture of the backer card are transversely aligned.
20. The oral care kit according to any one of claims 1 to 19 wherein a portion of the handle is not visible through the rear cover.
21. The oral care kit according to claim 20 wherein the portion of the handle is one of: one half, one third, one quarter, and entirety of the handle.
22. The oral care kit according to any one of claims 1 to 21 wherein the rear cover is substantially planar.
23. An oral care kit comprising:
 - a package having a longitudinal axis, the package comprising:
 - a three-dimensionally contoured front cover comprising a substantially transparent window portion; and
 - a rear cover comprising a substantially transparent window portion, the rear cover coupled to the three-dimensionally contoured front cover to form a receiving cavity;
 - a toothbrush comprising a handle and a head positioned within the receiving cavity;
 - a backer card comprising a window aperture, the backer card positioned within the receiving cavity between the toothbrush and the rear cover; and
 - wherein the window portion of the rear cover, the window aperture of the backer card, the head of the toothbrush, and the window portion of the three-dimensionally contoured front cover are transversely aligned.
24. The oral care kit according to claim 23 wherein the toothbrush further comprises a plurality of tooth engaging elements that extend from a first surface of the head and a soft tissue cleaner on a second surface of the head opposite the first surface.

25. The oral care kit according to any one of claims 23 to 24 wherein the rear cover comprises a closure panel adjustable between a closed position and an open position.
26. The oral care kit according to claim 25 wherein the window portion of the rear cover is located within the closure panel.
27. The oral care kit according to claim 26 wherein when the closure panel is in the closed position, the window portion of the rear cover extends into the window aperture of the backer card, and wherein when the closure panel is in the open position, the window portion of the rear cover does not extend into the window aperture of the backer card.
28. The oral care kit according to claim 23 wherein the window portion of the rear cover extends into the window aperture of the backer card to retain the backer card in place within the receiving cavity.
29. The oral care kit according to any one of claims 23 and 28 wherein the window portion of the rear cover has a shape and size that corresponds to a shape and size of the window aperture of the backer card.
30. The oral care kit according to any one of claims 23 to 29 wherein the three-dimensionally contoured front cover and the rear cover are thermoformed plastic films.
31. The oral care kit according to any one of claims 23 to 30 wherein the backer card is opaque.
32. The oral care kit according to any one of claims 23 to 31 wherein the toothbrush is mounted within the receiving cavity so that first and second surfaces of the head of the toothbrush are at an oblique angle relative to a front surface of the backer card.
33. The oral care kit according to any one of claims 23 to 32 wherein a portion of the handle is not visible through the rear cover.
34. The oral care kit according to claim 33 wherein the portion of the handle is one of: one half, one third, one quarter, and entirety of the handle.
35. The oral care kit according to any one of claims 23 to 34 wherein the rear cover is substantially planar.

36. An oral care kit comprising:
- a package having a longitudinal axis, the package comprising:
 - a front cover comprising a substantially transparent window portion; and
 - a rear cover comprising a substantially transparent window portion, the rear cover coupled to the front cover to form a receiving cavity;
 - a toothbrush comprising a handle and a head positioned within the receiving cavity;
 - a backer card comprising a window aperture, the backer card positioned within the receiving cavity between the toothbrush and the rear cover; and
 - wherein the window portion of the rear cover, the window aperture of the backer card, a portion of the toothbrush, and the window portion of the front cover are transversely aligned .
37. The oral care kit according to claim 36 wherein the portion of the toothbrush is visible from outside of the package through: (1) the window portion of the rear cover and the window aperture of the backer card; and (2) the window portion of the front cover.
38. The oral care kit according to any one of claims 36 to 37 wherein a portion of the handle is not visible through the rear cover.
39. The oral care kit according to claim 38 wherein the portion of the handle is one of: one half, one third, one quarter, and entirety of the handle.
40. The oral care kit according to any one of claims 36 to 39 wherein the rear cover is substantially planar.
41. An oral care kit comprising:
- a package comprising:
 - a front cover comprising a substantially transparent window portion and a three-dimensional contour forming a receiving cavity;

a backer card comprising a window aperture, the backer card coupled to the front cover to enclose the receiving cavity;

a rear cover comprising a substantially transparent window portion enclosing the window aperture;

a toothbrush positioned within the receiving cavity; and

wherein a portion of the toothbrush is visible through: (1) the window portion of the rear cover and the window aperture of the backer card; and (2) the window portion of the front cover.

42. The oral care kit according to claim 41 wherein the window portion of the rear cover, the window aperture of the backer card, the portion of the toothbrush, and the window portion of the front cover are transversely aligned.
43. The oral care kit according to any one of claims 41 to 42 wherein the backer card is opaque.
44. The oral care kit according to any one of claims 41 to 43 wherein the backer card is constructed of a paperboard material.
45. The oral care kit according to any one of claims 41 to 44 wherein the rear cover is coupled to the backer card.
46. The oral care kit according to any one of claims 41 to 45 wherein the front cover is a thermoformed thin plastic film.
47. The oral care kit according to any one of claims 41 to 46 wherein a portion of the handle is not visible through the rear cover.
48. The oral care kit according to claim 47 wherein the portion of the handle is one of: one half, one third, one quarter, and entirety of the handle.
49. The oral care kit according to any one of claims 41 to 48 wherein the rear cover is substantially planar.

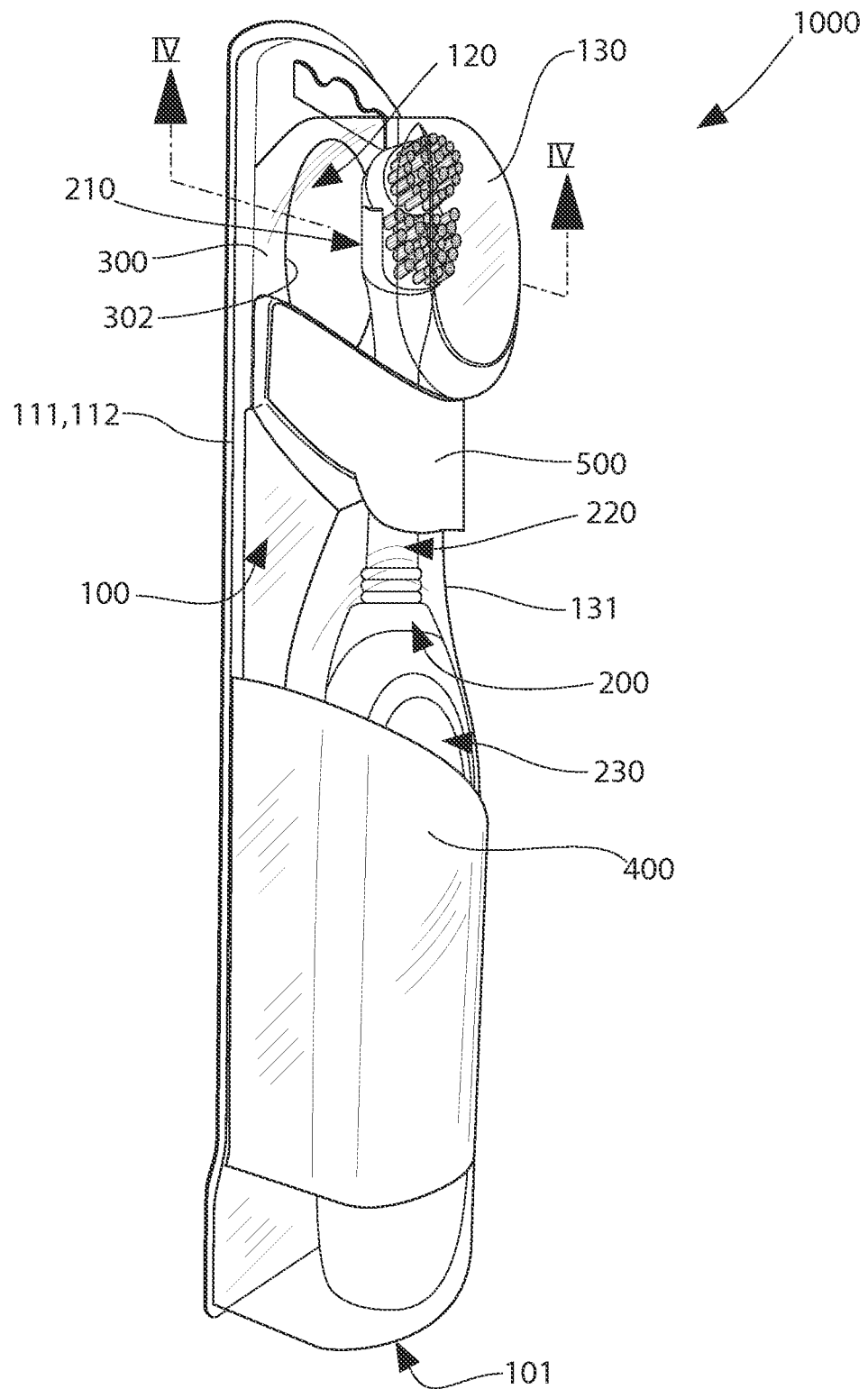


FIG. 1

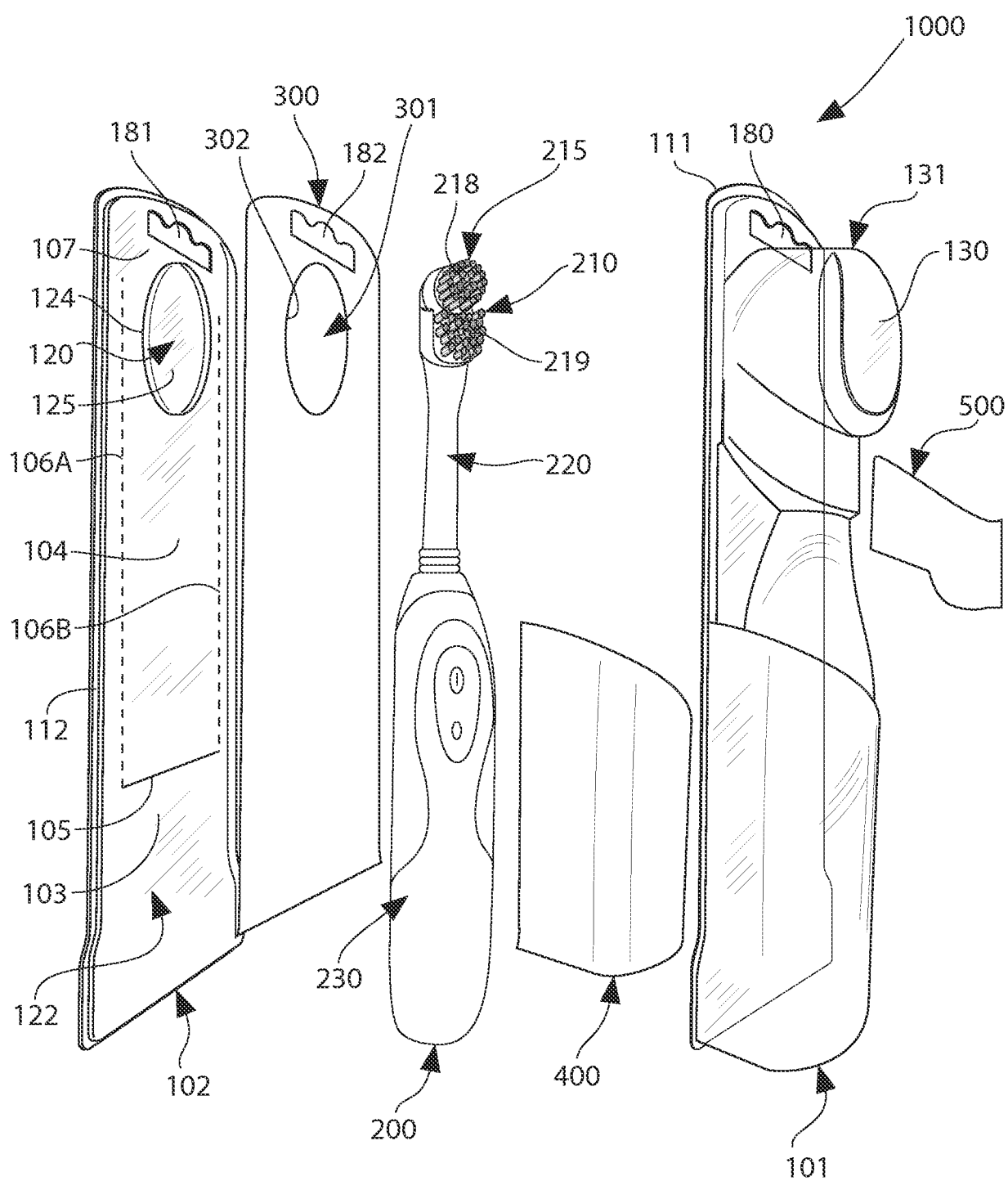
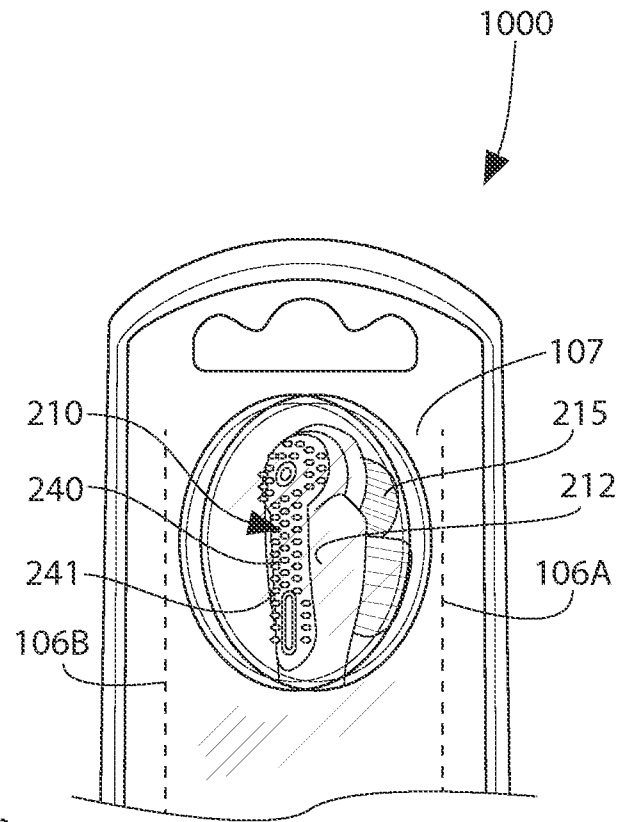
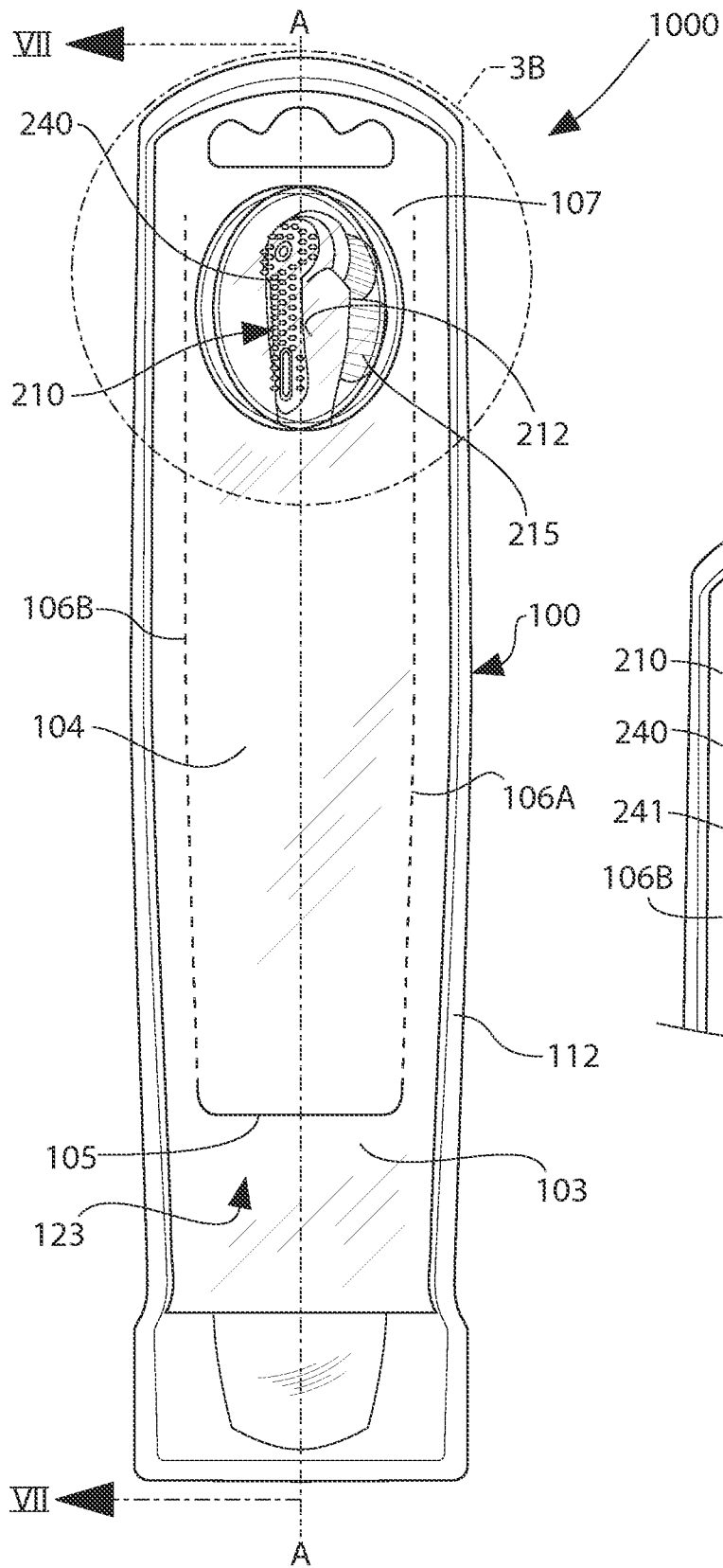


FIG. 2



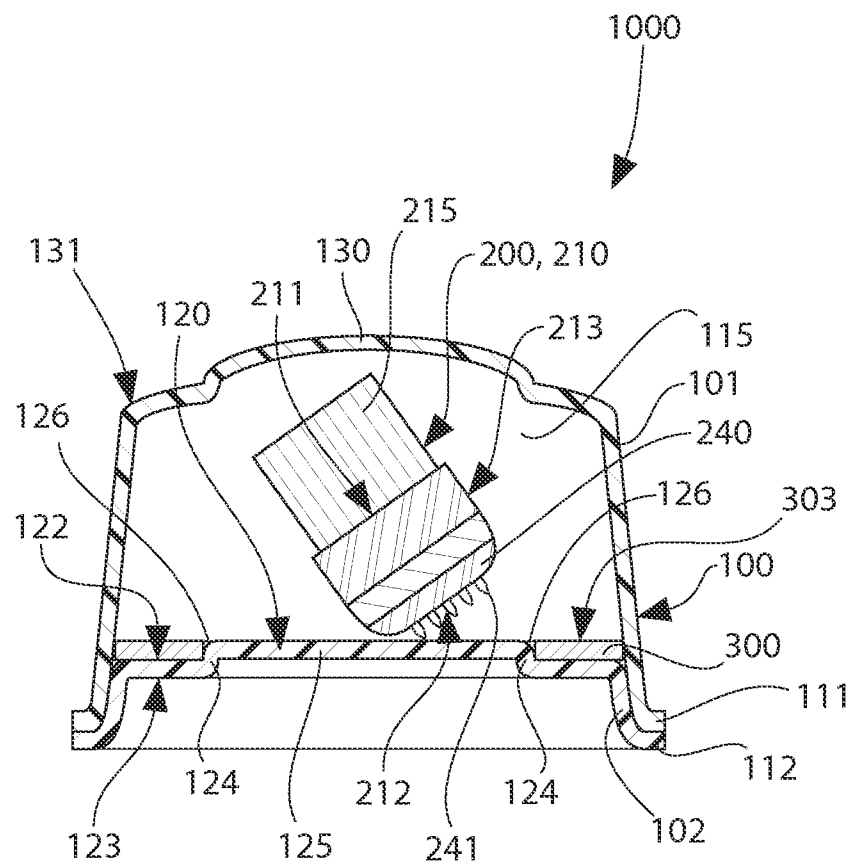


FIG. 4

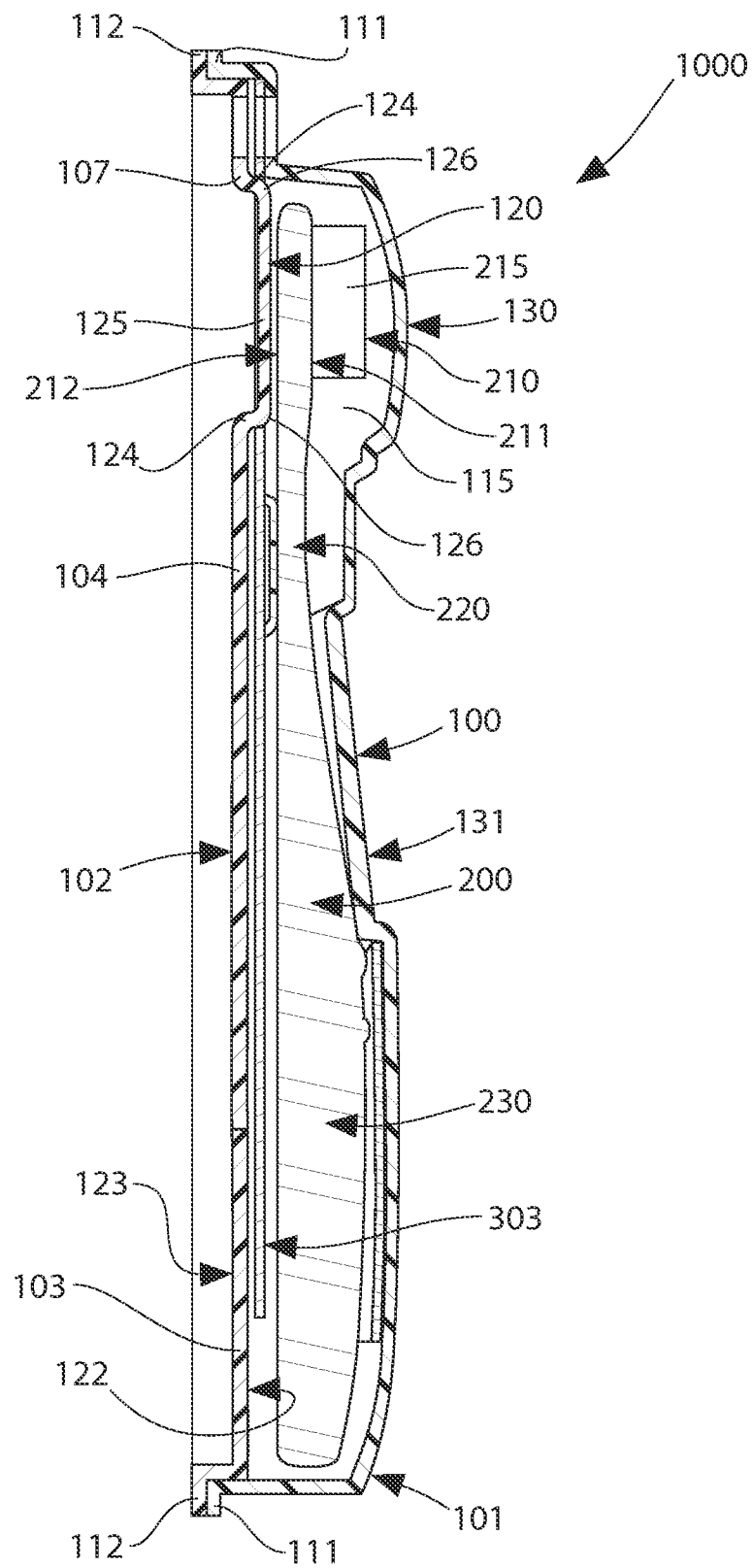


FIG. 5

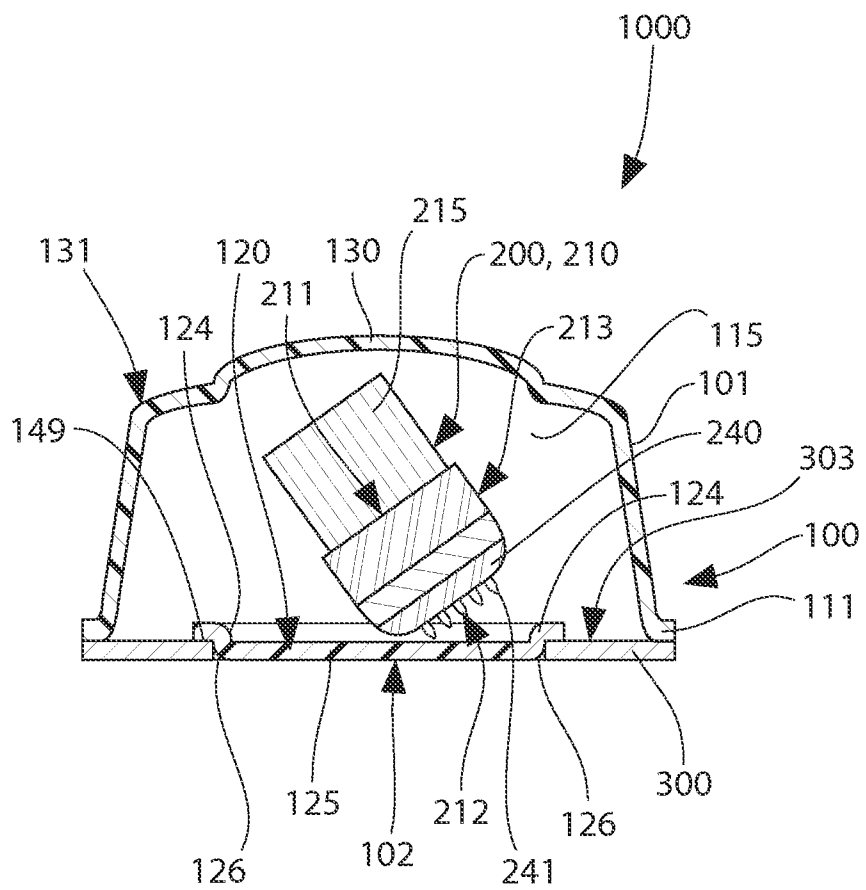


FIG. 6

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2011/038297

A. CLASSIFICATION OF SUBJECT MATTER
INV. A61J1/03 B65D75/32
ADD.

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)
B65D A61J

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 practical, search terms used)

EP0-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 407 066 A (GRANGE KENNETH) 18 April 1995 (1995-04-18)	1,4-14, 16-19, 22,23, 26-31, 35-37, 40-46,49
Y	column 2, line 54 - column 3, line 17; figure 2	2,3,14, 15,20, 21,24, 25, 32-34, 38,39, 47,48
Y	----- US 3 972 417 A (ITEN CLEMENS A ET AL) 3 August 1976 (1976-08-03) column 2, line 27 - line 32; figure 2 ----- -/--	2,3,25

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

5 April 2012

Date of mailing of the international search report

17/04/2012

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2011/038297

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:
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 additional sheet

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 an 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.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2011/038297

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2005/087464 A1 (BRATTESANI STEVEN J [US] ET AL) 28 April 2005 (2005-04-28) paragraph [0028] - paragraph [0030]; figures 1,9 -----	14,15, 20,21, 32-34, 38,39, 47,48
Y	WO 2004/112538 A1 (COLGATE PALMOLIVE CO [US]; HOHLBEIN DOUGLAS J [US]) 29 December 2004 (2004-12-29) cited in the application claim 1 -----	24
A	WO 2006/020075 A1 (COLGATE PALMOLIVE CO [US]; SORRENTINO ALAN [US]; MOSKOVICH ROBERT [US]) 23 February 2006 (2006-02-23) page 4, line 6 - page 5, line 14; figures 1-3 -----	1-23, 25-49

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2011/038297

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5407066	A	18-04-1995	NONE	
US 3972417	A	03-08-1976	NONE	
US 2005087464	A1	28-04-2005	NONE	
WO 2004112538	A1	29-12-2004	AU 2004249249 A1	29-12-2004
			AU 2004249300 A1	29-12-2004
			AU 2011200008 A1	27-01-2011
			CA 2526826 A1	29-12-2004
			CA 2526830 A1	29-12-2004
			US 2005000049 A1	06-01-2005
			WO 2004112535 A1	29-12-2004
			WO 2004112538 A1	29-12-2004
WO 2006020075	A1	23-02-2006	AU 2005274952 A1	23-02-2006
			BR PI0513518 A	06-05-2008
			CA 2574596 A1	23-02-2006
			CN 1997566 A	11-07-2007
			EP 1768918 A1	04-04-2007
			MY 140152 A	30-11-2009
			RU 2383480 C2	10-03-2010
			US 2006016704 A1	26-01-2006
			WO 2006020075 A1	23-02-2006
			ZA 200700682 A	25-06-2008

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-23, 25-49

How to package an oral product

2. claim: 24

How to clean oral areas
