

PACKAGE COMPRISING A TACTILE ELEMENT

BACKGROUND OF THE INVENTION

There are many types of packages in the market. Blister packages are commonly used to describe several types of pre-formed plastic packaging used for small articles. The primary component of a blister pack (the “blister”) is a cavity or pocket made from a formable material, usually a thermoformed plastic which can be clear to expose the interior contents. The blister package usually has a backing of paperboard or a lidding seal of aluminum foil or plastic.

Blister packages have been used to contain shaving razors. Often times the blister portion is clear to allow would be purchasers to observe the contents prior to purchase. Sometimes, the manufacturer will place visual indicia on the blister, such as a picture or photo of the razor to further assist the consumer in understanding the details of the product. The addition of embossments onto the blisters have also been generally described. See e.g. U.S. Patent Nos. 7,704,583; 7,121,822; and 6,890,472.

Despite the use of known packaging techniques, there remains a need to further modify blister and other types of packages to improve consumer recognition of products and / or product features contained therein.

SUMMARY OF THE INVENTION

One aspect of this invention relates to a package comprising: a primary face having an outer surface and an inner surface; a secondary face opposing said inner surface wherein said secondary face and said inner surface define a cavity; a hand held device contained within said cavity, said hand held device comprising a head unit; a handle attachable to said head unit; and at least one device feature; wherein said outer surface forms at least one package tactile feature, and wherein said at least one package tactile feature and said at least one device feature have substantially the same shape.

Another aspect of the invention provides for a package comprising: a thermoformed plastic layer having an outer surface and an inner surface forming a cavity, said thermoformed plastic layer forming a peripheral lip; a backing substrate opposing said inner surface of said thermoformed plastic layer, wherein at least a portion of said peripheral lip is adjacent to said backing substrate, a razor contained within said cavity, said razor comprising a cartridge head unit; a handle attachable to said cartridge head unit; wherein said outer surface forms at least one

embossment having substantially the same shape as at least one of said cartridge head unit and said handle.

Yet another aspect of the invention provides for a package for containing a device, said package comprising: a primary or consumer facing face forming at least one package tactile feature, wherein said at least one package tactile feature which has the same shape as at least a portion of a device which can be contained therein. The tactile feature can have the general 2D shape of said portion of the device, the same general 3D shape, and even include similar coloring or surface treatment. The invention is not limited to the package containing the device, but can simply include the package itself, prior to having the device placed therein. Blister packs and other commonly used package structures can be modified with the package tactile features described herein to arrive at the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows a frontal of a package in accordance with at least one embodiment of the present invention.

FIG. 2 is a cross sectional view of the package shown in FIG. 1, taken along view line A—A.

FIG. 3 shows a frontal view of another package in accordance with at least one embodiment of the present invention.

FIG. 4 is a cross sectional view of the package shown in FIG. 1, taken along view line B—B.

FIG. 5 shows a frontal view of another package of the present invention containing a hand held device having a brush head.

FIG. 6 is a back view of the package shown in FIG. 5.

FIG. 7 is a side view of the package shown in FIG. 5.

FIG. 8 shows a frontal view of another package of the present invention.

FIG. 9 is a back view of the package shown in FIG. 8.

FIG. 10 is a side view of the package shown in FIG. 8.

DETAILED DESCRIPTION OF THE INVENTION

The present invention relates to packages for containing hand held devices such as shaving razors. Although, the present discussion may discuss certain aspects of shaving razors which can be stored with such packages, similar packaging can also be used to store other

devices, including but not limited to: toothbrushes, cosmetic devices and brushes, telephones, writing utensils, screw drivers, flashlights, combs, portable electronics, and so forth. As well, larger versions of the same packaging invention can be used to contain larger products such as vacuum cleaners, kitchen equipment, and toys.

5 FIGS. 1 and 2 show a frontal view of a package (100) of the present invention and a cross sectional view of the same package taken along view line A—A. The package (100) comprises: a primary face (140) having an outer surface (145) and an inner surface (147); a secondary face (150) opposing said inner surface (147) wherein said secondary face and said inner surface define a cavity (400); a hand held device (200) contained within said cavity, said hand held device
10 comprising a head unit (210); a handle (220) attachable to said head unit; and at least one device feature (212, 214, 222); wherein said outer surface forms at least one package tactile feature (312, 314, 322), and wherein said at least one package tactile feature and said at least one device feature have substantially the same shape. Those of skill in the art will understand that the primary face is the portion of the package which faces out when the product is stored on shelf.
15 The face can be flat or curved and can be made of one or more portions of the package (i.e. such as where the face is formed of two fold over flaps that can come together to form the face). Preferably, the primary face is made of a single portion of material and is the outermost portion of the package that a consumer would see when viewing products on the shelf. The secondary face would be the face at the back of the package, generally opposite the primary face. Those of
20 skill in the art would understand these two faces as the front of package, and the back of the package.

 When the device is contained in the cavity, it can be free floating within the cavity, or one or more retaining features can be used to keep the device in place. In one embodiment, multiple devices can be included in the cavity within the package. In another embodiment, multiple
25 components of a device are contained in the cavity, such as where one device handle and a one or a plurality of device head units are also contained therein.

 “Same shape” as used herein, means that the device feature and the package tactile feature have similar or the exact same two dimensional shapes. Those of skill in the art will appreciate that the exact dimensions can differ given the device and the primary face have different
30 curvatures and can be made of different structures. The same shape can also mean that the features both have the same general 3 dimensional shape, such as if both form raised structures extending away from the device and primary face, respectively. In one embodiment, the device feature and the package tactile feature also share similar coloring or general surface feel. In some

embodiments, the device feature and the package tactile feature can be made of the same material, including but not limited to elastomeric materials, or textured grips, hologram stickers, and so forth. In embodiments, where the device feature has a 3 dimensional aspect (something beyond just artwork or a 2D design), the package tactile feature can have the same shape 3 dimensionally. As used herein, features can be 2 or 3 dimensional structures and tactile features can also be 2 or 3 dimensional structures but would be something that looks and/or feels different from its surrounding elements when contacted by the user. Non-limiting examples of 2D package tactile features can include a laminate, a foil laminate, glossy or matted print, various surface treatments or texturing known in the art, and combinations thereof. Non-limiting examples of 3D package tactile features can include embossments, a crevice, materials with different stiffness or hardness compared to the environment surrounding the feature, mottling, elastomeric features, or any difference in material compared to the environment surrounding the feature (which can be compositional differences such as plastic vs. elastomer or cellulosic or leather, or it can be surface finish differences which have more than a difference in appearance – such as a difference in feel which can be measured by consumers or by CoF measurements).

The package of FIG. 1 can be referred to as a blister package where the primary face is made of a thermoplastic substrate which can be clear, translucent, or opaque. Other packages can also be modified to include the package tactile features of the present invention. This thermoplastic substrate is adhered (such as via glue or heat seal) to the secondary face, often a cardboard or plastic backing board or other semi-rigid substrate. In one embodiment, the primary face is operably connected to the secondary face to help form the package, this can be achieved by the direct adhesion or bonding of the primary face to the secondary face, or the two faces can be attached via intermediate side walls.

In this embodiment, the hand held device is a shaving razor comprising a razor cartridge head unit (210) and a handle (220). The head unit can be permanently or removably attachable to the handle. When contained within the device, the head unit can be in an attached or un-attached position, and can optionally be contained in individual wrappers or tubs. Non-limiting examples of suitable shaving razors that can be used in accordance with the present invention include razors currently available on the market from Gillette®, Gillette Venus®, such as those marketed under Mach 3®, Fusion®, Embrace®, Breeze®, Venus&Olay® families of razors. Disposable and refillable razors can be used.

In the embodiment shown in FIGs. 1 and 2, the primary face of the package includes a package tactile feature which has the same shape as corresponding device features of the

products contained within the package. In this case, not only does same shape mean that the package tactile feature shares a similar 2D shape, but is also embossed to emphasize the corresponding features provided on the razor contained within the package cavity (400). In this embodiment, the device includes features on the head unit of a lubricating strip (212), 3 blades (214), along with a guard (shown but not numbered). The handle also includes a grip or other aesthetic feature in the form of three arcs (222). The package primary face forms corresponding package tactile features. The package tactile features can be formed only on the outer surface (145) or can be formed from the inner surface as well (147). The former can be where embossments are adhered to the exterior of the outer surface, or the feature can be formed when molding or otherwise forming the primary surface such that the shape is pressed out from the inner surface through to the outer surface.

The device can be a toothbrush, a writing or cosmetic utensil such as a pen or pencil, or a wide scraping surface such as for hair removal. Non-limiting examples of hair removal device include those used with a depilatory or for skin exfoliation, or razors with a blade unit, such as a safety razor. Where the hair removal head is a razor cartridge, razor may be power or manual, disposable or a refillable system. The razor cartridge may also include multiple blades. For example, U.S. Patent 7,168,173 generally describes a Fusion® razor that is commercially available from The Gillette Company, which includes a razor cartridge with multiple blades. Additionally, the razor cartridge may include a guard as well as a shaving aid. A variety of razor cartridges can be used in accordance with the present invention. Nonlimiting examples of suitable razor cartridges, with and without fins, guards, and/or shave aids, include those marketed by The Gillette Company under the Fusion®, Venus® product lines as well, as those disclosed in U.S. Patent Nos. 7,197,825, 6,449,849, 6,442,839, 6,301,785, 6,298,558; 6,161,288, and U.S. Patent Publ. 2008/060201.

The terms “forward” and “aft”, as used herein, define relative position between features of the blade unit (i.e., razor cartridge). A feature “forward” of the at least one blade, for example, is positioned so that the surface to be treated with by the device encounters the feature before it encounters the at least one blade. For example, if the device is being stroked in its intended cutting direction, the guard is forward of the blade(s). A feature “aft” of the blade(s) is positioned so that the surface to be treated by the device encounters the feature after it encounters the blade(s), for example if the device is stroked in its intended cutting direction, the cap is disposed aft of the blade(s).

In one embodiment, the head unit is a razor cartridge comprising one or more blades, and a guard positioned forward of said one or more blades, wherein the guard has at least one elongated flexible protrusions to engage a user's skin. In one embodiment, at least one flexible protrusion comprises flexible fins generally parallel to said one or more elongated edges. In another embodiment, said at least one flexible protrusion comprises flexible fins comprises at least one portion which is not generally parallel to said one or more elongated edges. Non-limiting examples of suitable guards include those used in current razor blades, and include those disclosed in U.S. Patent Nos. 7,607,230 and 7,024,776; (disclosing elastomeric / flexible fin bars); 2008/0034590 (disclosing curved guard fins); 2009/0049695A1 (disclosing an elastomeric guard having guard forming at least one passage extending between an upper surface and a lower surface).

In one embodiment, the head unit comprises at least one skin engaging member such as a conventional shave aid or lubrication strip. The skin engaging member can be positioned forward and/or aft of any blade(s). Non-limiting examples of known skin conditioning compositions suitable for use herein include shave aids and lubrication strips as described in: U.S. Patent Nos. 7,581,318, 7,069,658, 6,944,952, 6,594,904, 6,302,785, 6,182,365, D424,745, 6,185,822, 6,298,558 and 5,113,585, and 2009/0223057.

The head unit is fixedly or removably attached to a handle. The attachment can be a direct attachment from head unit to a docking member of the handle, or the head unit can attach to an interconnect member which is then connected to the docking member of the handle.

The device feature can be any feature on the device which can be seen or contacted by the user's hand or body during handling or use. These device features can include aesthetics, and tactile features. Tactile device features are those that can be felt by a user, and can be simply ergonomic or aesthetic in nature and/or can provide functional benefits. Non-limiting examples of tactile features which can be present on the head unit (shown in FIG. 2 as 212, 214) and can include: razor blades, lubrication members, elastomeric or other types of guards, brush or bristle heads, and so forth. The features on the device can be present on the head unit and/or the handle, preferably on both. In one embodiment, the device feature is a grip feature (222) which can wrap around a portion of the handle or around the entire periphery. Examples of grip features on hand held devices are generally known. They can be particularly useful where the user can suffer from fatigue in the hands over extended usage periods, or when the product is used in situations where they can become difficult to handle and / or slippery, such as when wet. The feature can be elastomeric grips, chrome or metalized features, buttons, clear window areas, and so forth. The

features can have various shapes such as ribbons, wavy patterns, circles, ovals, knurled patterns, mottling, cross hatching, dimpling and so forth. In one embodiment, tactile feature on the handle can simply be an image or picture that is notable to the eye, such as geometric shapes, patterns, cartoon characters, and even words or lettering. Those of skill in the art will understand that device features can be tactile in nature (such that they feel different to the user than the rest of the surrounding device) or they can be 2 dimensional in nature, such as in the case of logos, or designs, artwork, color patterns, lettering, and so forth,

In one embodiment, the device handle can be an elongated rod, such as shown in FIGs. 1 and 2. These types of handles are commonly found in everyday items such as flashlights, razor handles, tooth brushes, and household utensils like writing devices, cooking devices and screwdrivers or other tools. Non-limiting specific examples of elongated rod type handles which can be used herein include razor handles which correspond to any of the above mentioned shaving razors, such as Mach 3, Fusion, ProGlide, Venus, Embrace, Breeze, and so forth. Popular toothbrush handles can also be contained, including those from Oral B, Colgate, Crest and others. This can be particularly useful where the toothbrush

In another embodiment, such as shown in FIGs. 3 and 4, the handle can have a different shape such as a flat and wide substrate which can be gripped by opposing sides, such as that described in U.S. 2013/0061481 and US Application Nos. 61/766,792 to Eagleton et al. and 61/766,928 to Eagleton, et al. FIG. 3 is a frontal view of another package in accordance with the present invention and FIG. 4 is a cross sectional view of that package taken along view line B-B.

In one embodiment, the package contains a device having a handle comprising a disc shaped substrate comprising a first surface (225) facing said, and wherein said device feature is positioned on first surface (225). As shown in FIGs. 3 and 4, the head unit is a simplified version of a razor cartridge head commonly available on the market and sold under the Venus Embrace® product line. In this embodiment, the cartridge head includes 5 razor blades, surrounded by a Ribbon of Moisture, which is a lubricating element on the cartridge. The blades, and/or the lubricating element can be used as the device features. The device features shown here also include a grip pattern on the handle. In one embodiment, the feature is tactile in nature such as an elastomeric grip as shown here having a ring shape. Other arcoidal or linear type shapes can also be used.

In some embodiments, the grip patterns which can be used with devices described herein can have irregular patterns or can form a larger artwork type design such as vines, waves, floral patterns, or simply geometric shapes or repeating or non repeating nature. In other embodiments,

the grip pattern can be simple ribs or arcs, also within the scope of the invention would be handles with grip patterns which could represent the amount of added grip functionality, such as a “1” or “low” for low amount of grip or CoF, and a “5” or “high” for higher grip functionality (i.e. softer or tackier). As explained above, logos and brand names can also be used as well as
5 other communication messages. In one embodiment, the device feature comprises an elastomeric grip feature on said handle, and wherein said package tactile feature comprises a grip feature having the same shape and color as the elastomeric grip feature.

In one embodiment, the invention further comprises a container (500) contained within said package, as shown in FIG. 4. The container can be used to store the device within the
10 package and can also usefully be used to store the device or a portion thereof after the package is opened and discarded. Non-limiting examples of such containers include the ShowerPod® by Venus Embrace, razor or toothbrush travel cases, cartridge tubs which are often used for refillable cartridge heads such as Venus Embrace, and compact cases which can be used with make-up kits.

In one embodiment, where the device is contained within the container which is then contained within the package, where the container is not transparent, it can be difficult for the consumer to view and understand the details of the product contained therein. More difficult than viewing, it is believed that understanding the features of the device can be even harder. As such, it can be useful to provide tactile features on the packaging that allow the user to
15 understand the key features which are contained therein. In one embodiment, the tactile features actually represent discrete portions of the device, such as representing the head unit itself. Or a portion of the handle, or any interconnecting parts between the head unit and the handle, such as a joint or interconnecting member.

FIGs. 5, 6 and 7 show three other views of another package in accordance with the present invention. In this case, the package has a flat primary face (140) and the cavity is formed by a deformation in the secondary face (150). In this case, the primary face can be made of a flat semi-rigid material such as a plastic or cardboard sheet. The secondary face can also be formed of similar materials. The device shown here is more akin to a toothbrush having a toothbrush head and a handle. The package includes package tactile elements of the toothbrush head (310)
20 further including two sets of bristle patterns, and a handle (320) having two grip features.

FIGs. 8, 9 and 10, include package tactile features on yet another type of package which is similar to the package of FIG. 5, but has a curved boat type shape. In this case, a package tactile element similar to a two bladed razor head design is shown.

It should be understood that every maximum numerical limitation given throughout this specification includes every lower numerical limitation, as if such lower numerical limitations were expressly written herein. Every minimum numerical limitation given throughout this specification includes every higher numerical limitation, as if such higher numerical limitations were expressly written herein. Every numerical range given throughout this specification includes every narrower numerical range that falls within such broader numerical range, as if such narrower numerical ranges were all expressly written herein.

All parts, ratios, and percentages herein, in the Specification, Examples, and Claims, are by weight, and all numerical limits are used with the normal degree of accuracy afforded by the art, unless otherwise specified. Further, as used herein, where a group is described to be “comprising of” a list of group members, that group may also “consist essentially of” or “consist of” that same list of group members.

The dimensions and values disclosed herein are not to be understood as being strictly limited to the exact numerical values recited. Instead, unless otherwise specified, each such dimension is intended to mean both the recited value and a functionally equivalent range surrounding that value. For example, a dimension disclosed as “40 mm” is intended to mean “about 40 mm.”

Every document cited herein, including any cross referenced or related patent or application, is hereby incorporated herein by reference in its entirety unless expressly excluded or otherwise limited. The citation of any document is not an admission that it is prior art with respect to any invention disclosed or claimed herein or that it alone, or in any combination with any other reference or references, teaches, suggests or discloses any such invention. Further, to the extent that any meaning or definition of a term in this document conflicts with any meaning or definition of the same term in a document incorporated by reference, the meaning or definition assigned to that term in this document shall govern.

While particular embodiments of the present invention have been illustrated and described, it would be obvious to those skilled in the art that various other changes and modifications can be made without departing from the spirit and scope of the invention. It is therefore intended to cover in the appended claims all such changes and modifications that are within the scope of this invention.

CLAIMS

What is claimed is:

- 1) A package (100) comprising:
 - a. a primary face (140) having an outer surface (145) and an inner surface (147);
 - b. a secondary face (150) opposing said inner surface (147) wherein said secondary face and said inner surface define a cavity (400);
 - c. a hand held device (200) contained within said cavity, said hand held device comprising a head unit (210); a handle (220) attachable to said head unit; and at least one device feature (212, 214, 222);
 - d. wherein said outer surface forms at least one package tactile feature (312, 314, 322), and wherein said at least one package tactile feature and said at least one device feature have substantially the same shape.
- 2) The package of claim 1, wherein said device feature is positioned on the head unit.
- 3) The package of claim 2, wherein the device feature comprises at least one of: a blade (214); a lubricating member (212); and a guard member.
- 4) The package of claim 1, wherein said hand held device comprises a shaving razor.
- 5) The package of claim 1, wherein said device feature is positioned on said handle.
- 6) The package of claim 5, wherein said device feature is a grip feature (222).
- 7) The package of claim 5, wherein said handle is an elongated rod, and wherein said tactile feature wraps around at least a portion of said rod.
- 8) The package of claim 5, wherein said handle comprises a disc shaped substrate comprising a first surface (225) facing said, and wherein said device tactile feature is positioned on first surface (225).

- 9) The package of claim 5, wherein said device tactile feature comprises an arcoidal shape.
- 10) The package of claim 9, wherein said handle is an elongated rod, and wherein said arcoidal feature wraps around at least a portion of said rod.
- 11) The package of claim 9, wherein said handle comprises a disc shaped substrate comprising a first surface, and wherein said arcoidal feature is positioned on first surface.
- 12) The package of claim 1, wherein said packager further comprises a container (500) contained within said package.
- 13) The package of claim 12, wherein at least one of said head unit (210) and said handle (220) is contained within said container.
- 14) The package of claim 12, wherein said container is not transparent.
- 15) The package of claim 1, wherein said at least package tactile feature is selected from the group consisting of an embossment, a crevice, a laminate, a foil laminate, a hologram, glossy print, lettering, cross hatching or mottling, and combinations thereof.