



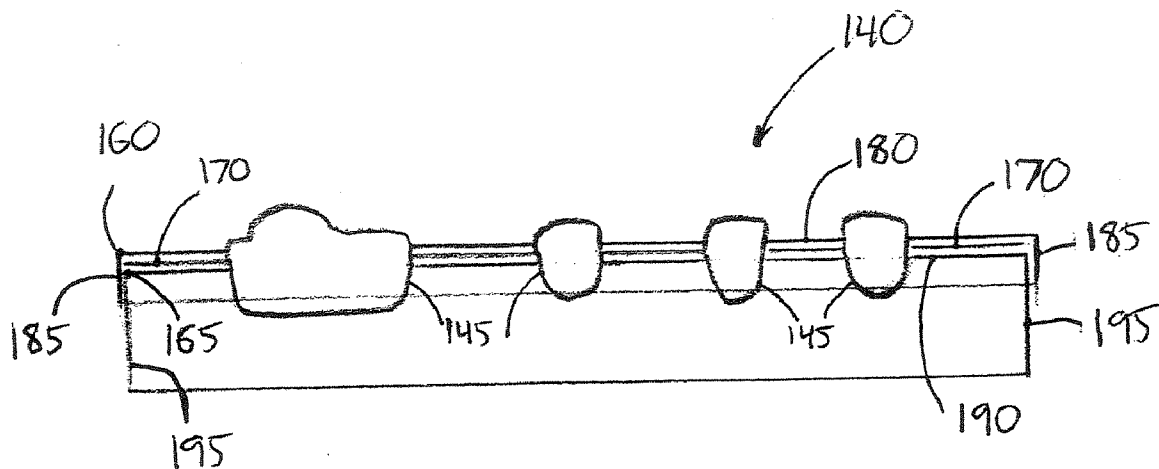
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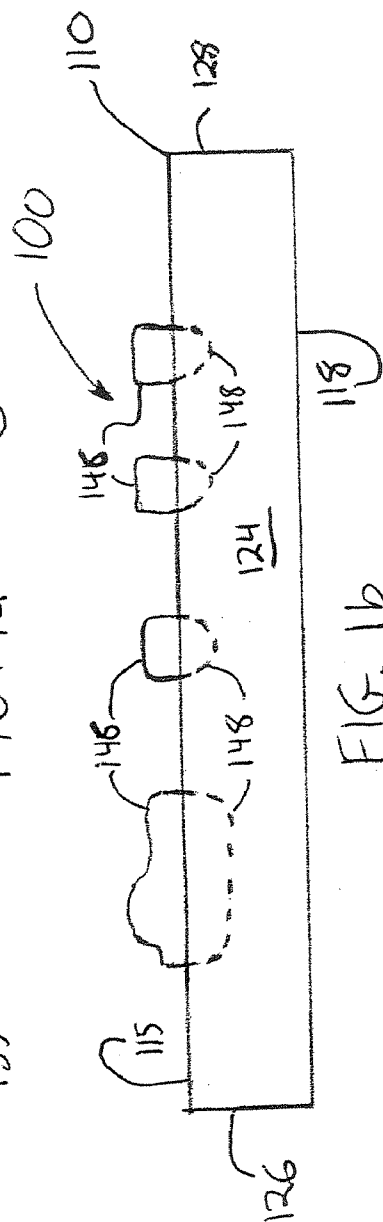
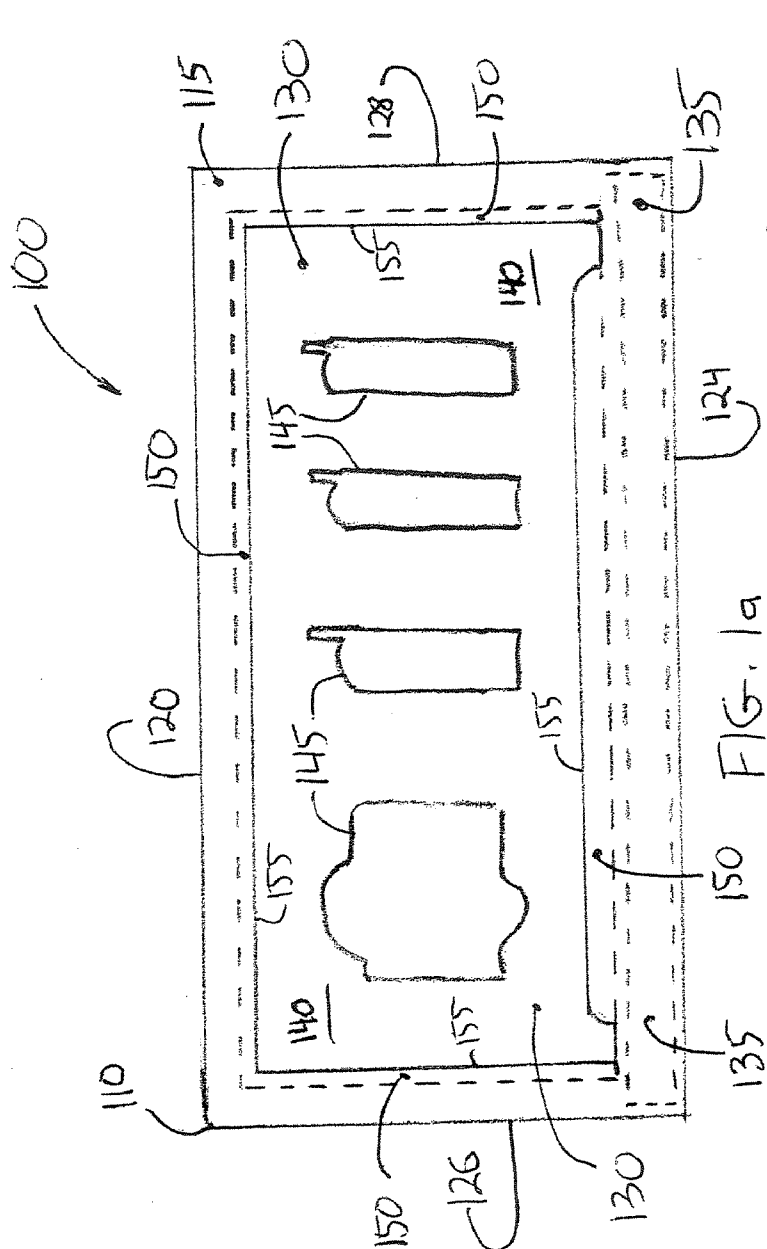
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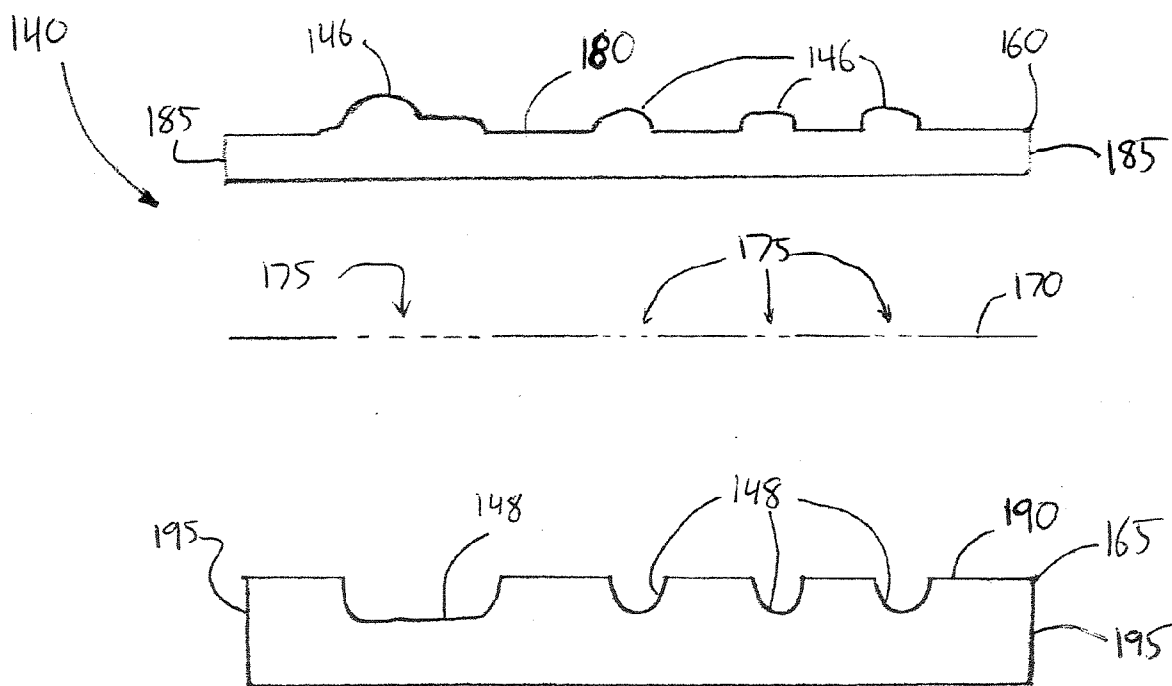
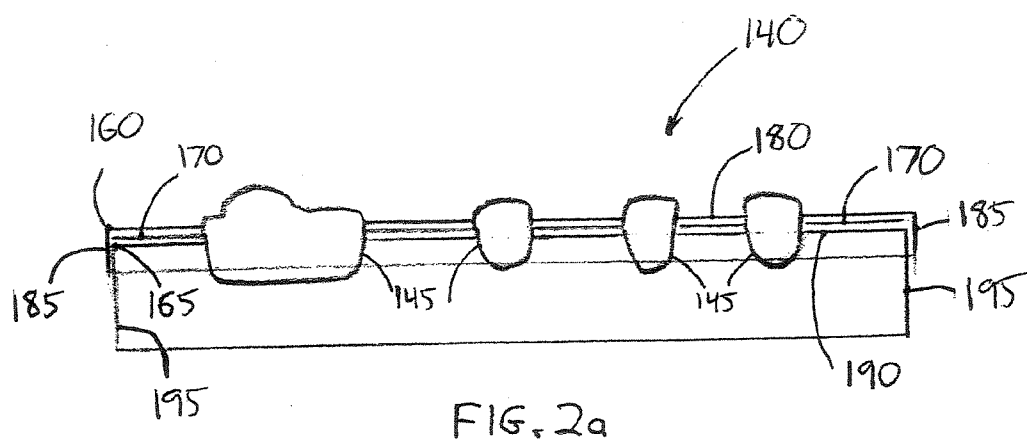
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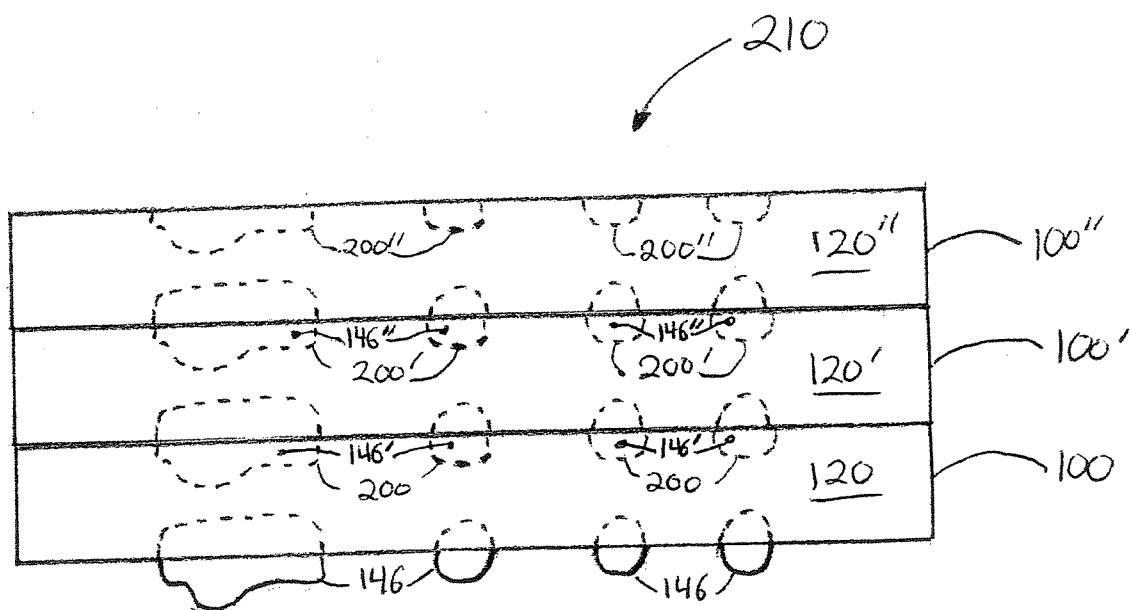
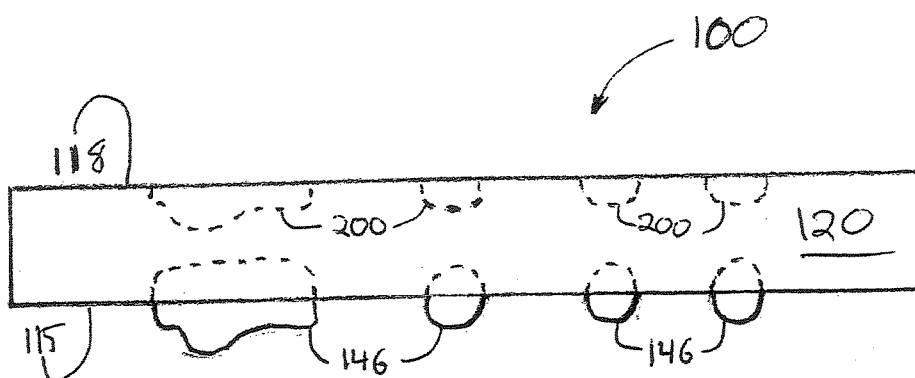
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**LOS ANGELES, CA 90071-1448**(57) **ABSTRACT**

The present invention provides a packaging assembly for displaying and shipping a packaged product, the packaging assembly comprising a display pack having one or more product chambers for containing the packaged product and a box that houses the display pack, the box including a front panel having a product window disposed therein for revealing the packaged products contained within the display pack, wherein the front panel includes a lip around a perimeter of the product window that prevents the display pack from being removed from the box through the product window.

(73) Assignee: **Timely Inventions, LLC.**(21) Appl. No.: **11/425,658**(22) Filed: **Jun. 21, 2006**







## PACKAGING ASSEMBLY

### FIELD OF THE INVENTION

[0001] The present invention relates generally to bulk packaging for shipping and display and, more particularly, to a packaging assembly for economically and safely shipping and displaying one or more products.

### BACKGROUND OF THE INVENTION

[0002] Traditionally, products have been shipped in bulk from a manufacturer to a retailer in cartons containing protective packing material. Individual products were then removed from the cartons to be individually placed on a shelf or rack for display. For small, expensive and easily stolen products, the shelf or rack might be located within a secured display case to minimize the risk of theft.

[0003] This system of shipping and display is both costly and time consuming. The manufacturer must often pay relatively expensive initial packaging costs, particularly for items that are easily damaged by rough handling. The retailer must pay employees to individually place each product item on display in a manner that is both appealing to the customer and safe for the product. Furthermore, for small, expensive and easily stolen products, which are kept in secured display cases, the retailer must pay a sales person to attend to each customer wishing to inspect the products. These costs are typically passed along to the consumer, who receives little benefit from them other than to receive a product that has safely survived the rigors of shipping. Accordingly, there is a continuing need for more economical means of safely and efficiently shipping and displaying products for sale.

[0004] It is known that small products may be packaged in comparatively large containers to deter theft. However, these containers require the use of large amounts of retail space, and the containers must be decorated and otherwise configured to appeal to consumers, adding to the total product packaging cost. Therefore, some manufacturers have used smaller packaging, with an optional, transparent display pack, such as a blister pack, available at a retailer's request.

[0005] The display pack, which contains the product within its smaller packaging, typically is significantly larger than the small packaging, providing for increased deterrence of theft. Typically, display packs are configured with an appealing appearance to the customer, and provide added safety in shipping. Display packs are usually made from two vacuum-formed sheets of clear plastic, sealed around the edges, forming a chamber for holding the product. Such display packs are relatively inexpensive, and benefit from the appealing appearance of the small packaging, which is visible through the display packs. U.S. Design Pat. No. D 353,092, to Green, entitled "Blister Pack" discloses a transparent display pack assembly having several cavities for containing products.

[0006] Warehouse shopping clubs such as Sam's Club and Costco require manufacturers to ship products according to strict guidelines that ensure the products are adequately protected during shipment and ready to be displayed on the warehouse floor. A challenge for manufacturers is in striking an appropriate balance between adequately protecting the products and minimizing the amount of handling necessary to display the products on the store floor. Internal plastic packaging is preferred because it allows the product to be

viewed by consumers. However, such packaging is more susceptible to damage during shipment and is difficult to display in bulk form. Consequently, warehouse clubs and manufacturers have a long felt need for external packaging that is sufficiently strong to protect the internal plastic packaging, yet that permits easy handling and display of the packaged products on the store floor.

[0007] It should, therefore, be appreciated that there exists a need for a packaging assembly that overcomes the drawbacks of prior packaging assemblies, as described above, and that includes a box and a product display pack housed within the box, wherein the box is sufficiently strong to protect the product display pack, yet permits easy handling and display of the packaged product. The present invention fulfills this need and provides further related advantages.

### SUMMARY OF THE INVENTION

[0008] In view of the foregoing, it is an object of the present invention to provide a packaging assembly including a box and a product display pack housed within the box, wherein the box includes a front panel having a lip that prevents the display pack from being removed through a product window in the front panel, thereby discouraging theft of the product.

[0009] The present invention provides a packaging assembly for shipping and displaying a plurality of products. It provides for economy and safety by protecting the products from shipping damage, providing for fast and efficient display, and offering significant protection against theft without requiring the attention of a salesperson.

[0010] One aspect of the present invention involves a packaging assembly for displaying and shipping a packaged product, the packaging assembly comprising a display pack having one or more product chambers for containing the packaged product and a box that houses the display pack, the box including a front panel having a product window disposed therein for revealing the packaged products contained within the display pack, wherein the front panel includes a lip around a perimeter of the product window that prevents the display pack from being removed from the box through the product window. In the preferred embodiment of the invention, the display pack comprises a transparent, two-part blister pack assembly carried within the box, but visible through the product window in the front panel. Each product chamber of the display pack comprises a convex portion that protrudes from the packaging assembly such that the convex portion is disposed substantially in front of the front panel of the box. Additionally, each product chamber of the display pack further comprises a concave portion disposed substantially within the box, wherein the convex and concave portions are mated to form the one or more product chambers.

[0011] According to the invention, the display pack comprises a front portion containing one or more convex portions of the one or more product chambers, and a rear portion containing one or more concave portions of the one or more product chambers. The front portion of the display pack comprises a substantially planar sheet of transparent plastic having the convex portions projecting therefrom, and a side wall around a perimeter of the front portion that is disposed substantially normal to the planar sheet. In addition, the rear portion comprises a substantially planar sheet of transparent plastic having the concave portions forming recesses therein, and a side wall around a perimeter of the rear portion

that is disposed substantially normal to the planar sheet. The front and rear portions of the display pack are adjoined such that the convex and concave portions align to create the one or more product chambers.

[0012] According to some embodiments of the invention the packaging assembly may further comprise a substantially planar product display card disposed between the front and rear portions of the display pack such that the display card is visible through the product window in the front panel of the box. The display card preferably includes one or more cutouts that correspond with dimensions and locations of the one or more product chambers. According to additional embodiments, the packaging assembly may further comprise a product insert area disposed within the cardboard box, the product insert area containing packaged product parts that are not displayed through the product window. According to further embodiments, a rear panel of the box may comprise one or more concave recesses dimensioned to receive one or more convex portions of a display pack of another packaging assembly.

[0013] Another aspect of the present invention involves a multi-layer stack of packaging assemblies for displaying and shipping packaged products, the stack comprising a first layer of packaging assemblies and a second layer of packaging assemblies disposed on top of the first layer of packaging assemblies, wherein each packaging assembly comprises a display pack having one or more product chambers for containing the packaged product and a box that houses the display pack. The box includes a front panel having a product window disposed therein for revealing the packaged products contained within the display pack, wherein the front panel includes a lip around a perimeter of the product window that prevents the display pack from being removed from the box through the product window. In addition, a rear panel of the box comprises one or more concave recesses dimensioned to receive one or more convex portions of a display pack of another packaging assembly.

[0014] Other features and advantages of the present invention should become apparent from the following description of the preferred embodiments, taken in conjunction with the accompanying drawings, which illustrate, by way of example, the principles of the invention.

#### BRIEF DESCRIPTION OF THE DRAWINGS

[0015] Embodiments of the present invention will now be described, by way of example only, with reference to the following drawings, in which:

[0016] FIG. 1 *a* is a side view of a preferred packaging assembly, in accordance with the principles of the present invention;

[0017] FIG. 1 *b* is a bottom view of the preferred packaging assembly of FIG. 1 *a*;

[0018] FIG. 2 *a* is a bottom view of the display pack of the preferred packaging assembly, in accordance with the principles of the present invention;

[0019] FIG. 2 *b* is an exploded view of the display pack of FIG. 2 *a*;

[0020] FIG. 3 *a* is a top view of the preferred packaging assembly of FIG. 1 *a*, wherein the cardboard box is provided with concave recesses dimensioned to receive the convex portions of another packaging assembly; and

[0021] FIG. 3 *b* is a top view of a layer of packaging assemblies formed by positioning a plurality of the packaging assemblies of FIG. 3 *a* in a side-by-side orientation.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0022] The present invention is directed to a packaging assembly for displaying and shipping one or more packaged products. In particular, the packaging assembly includes a box having a front panel with an opening or product window for revealing a packaged product disposed within the box. The packaging assembly further comprises a two-part, transparent plastic display pack carried within the box, but visible through the product window in the front panel. The box includes a lip around an edge of the product window that prevents the two-part plastic display pack from being removed from the box. The preferred packaging assembly of the invention includes a box made of corrugated cardboard to provide adequate strength for shipping and handling. It should be understood to those of ordinary skill in the art that the box may comprise any number of materials having a high strength to weight ratio without departing from the scope of the invention.

[0023] Referring to FIGS. 1 *a* and 1 *b*, a preferred packaging assembly 100 for displaying and shipping one or more packaged products in accordance with the principles of the invention will now be described. Specifically, the packaging assembly 100 comprises a cardboard box 110 that houses a display pack 140 having one or more product chambers 145 for containing the packaged product. The cardboard box 110 comprises a front panel 115, a rear panel 118, a top panel 120, a bottom panel 124, a left side panel 126, and a right side panel 128, wherein the front panel 115 includes a product window 130 comprising an opening or cutout in the front panel 115 for revealing one or more packaged products disposed within the display pack 140. In accordance with the principles of the invention, the front panel 115 of the cardboard box 110 includes a lip 150 around a perimeter 155 of the product window 130, such that the perimeter 155 of the product window is smaller than a perimeter of the display pack 140. In other words, the lip 150 is the portion of the front panel 115 that fits over the display pack 140 and prevents the display pack 140 from being removed from the cardboard box 110 through the product window 130. The packaging assembly 100 may further comprise a product insert area 135 disposed within the cardboard box 110. Particularly, the product insert area 135 may contain additional product parts, accessories, instructions and other materials related to the product that are not displayed through the product window 130.

[0024] The display pack 140 of the preferred packaging assembly 100 of the invention may comprise a transparent, two-part blister pack assembly carried within the cardboard box 110, but visible through the product window 130 in the front panel 115. As illustrated in FIG. 1 *b*, each product chamber 145 of the display pack 140 includes a convex portion 146 that protrudes from the packaging assembly 100 such that it is disposed substantially in front of the front panel 115. Additionally, each product chamber 145 further includes a concave portion 148 disposed substantially within the cardboard box 110. The convex portions 146 and concave portions 148 are mated to form the product chambers 145 for the packaged products. In the illustrated embodiment, the product window 130 comprises a single opening

that is large enough to receive all of the product chambers 145. According to other embodiments, the front panel 115 may comprise a plurality of product windows, each product window dimensioned to receive a single product chamber. According to some embodiments of the invention, the display pack 140 may be vacuum sealed around its periphery. [0025] With further reference to FIGS. 1a and 1b, the bottom panel 124 of the cardboard box 110 preferably includes a surface area that is sufficiently large to allow the packaging assembly 100 to stand on its own while being transported or displayed. In addition, the cardboard box 110 should be strong enough to support a significant amount of weight placed on top of the packaging assembly 100 in the form of additional stacked packaging assemblies. In this regard, the preferred packaging assembly 100 of the invention includes a box 110 made of corrugated cardboard to provide adequate strength for stacking layers of packaging assemblies on top of one another.

[0026] Referring to FIGS. 2a and 2b, the two-part display pack 140 of the invention is depicted after being removed from the cardboard box 110. Specifically, the display pack 140 comprises a front portion 160 containing the convex portions 146 of the product chambers 145 and a rear portion 165 containing the concave portions 148 of the product chambers 145. More particularly, the front portion 160 of the display pack 140 comprises a substantially planar sheet 180 of transparent plastic having the convex portions 146 projecting therefrom, and a side wall 185 around the perimeter of the planar sheet 180 that is disposed substantially normal to the planar sheet 180. Similarly, the rear portion 165 comprises a substantially planar sheet 190 of transparent plastic having the concave portions 148 forming recesses therein, and a side wall 195 around the perimeter of the planar sheet 190 that is disposed substantially normal to the planar sheet 190. The planar sheet 180 of the front portion 160 preferably is slightly larger in length and width than the planar sheet 190 of the rear portion 165 such that the side wall 185 of the first portion 160 may be slipped into place over the side wall 195 of the rear portion, as depicted in FIG. 2a.

[0027] When the front and rear portions 160, 165 are adjoined, the convex and concave portions 146, 148 align to create the product chambers 145. Each product chamber 145 is configured to hold a packaged product (or a portion of a packaged product), and is dimensioned to conform to the shape of the packaged product to accommodate both display and shipping requirements. Since the front and rear portions 160, 165 are formed using a transparent material, the product chambers 145 allow the one or more packaged products to be visible to potential buyers. As depicted in FIG. 2b, a substantially planar product display card 170 may be disposed between the front and rear portions 160, 165 of the display pack 140 such that the display card 170 is visible through the product window 130 in the front panel 115 of the cardboard box 110. The display card 170 preferably includes cutouts 175 that correspond with the dimensions and locations of the product chambers 145, so as to accommodate the one or more packaged products within the product chambers 145.

[0028] With further reference to FIGS. 2a and 2b, in the illustrated embodiment the front and rear portions 160, 165 are readily separable from each other. According to some embodiments of the invention, the front and rear portions 160, 165 may be provided with interlocking indents such

that an interference or friction fit is established therebetween. Alternatively, the front and rear portions 160, 165 may be sealed together by fusing the side wall 185 of the front portion 160 to the side wall 195 of the rear portion 165. In this manner, the display pack may be vacuum sealed around its periphery.

[0029] In the packaging assembly 100, the packaged products are suspended in the product chambers 145, thereby protecting the packaged products from damage during shipping and handling. The display pack 140 internally provides vertical and lateral support to the rest of the packaging assembly 100. The display pack 140, while having an appealing shape, and optionally having a display card 170 to augment its appearance, displays the packaged products in full view, allowing the aesthetics of the packaged products and information on the display card 170 to encourage consumers to purchase the products. In this regard, the outer periphery of the entire cardboard box 110 may be employed to display printing such as text and/or images associated with the packaged products. The lip 150 of the front panel 115 provides further surface area for displaying additional printing such as text and/or images associated with the packaged products.

[0030] According to the invention, the packaging assembly 100 described herein acts as a theft deterrent because the cardboard box 110 makes the overall assembly too large to easily conceal, for example underneath an article of clothing. Additionally, the cardboard box 110 gives the packaging assembly 100 added strength to avoid being crushed during shipping and handling, especially when layers, or tiers, of packaging assemblies are stacked on top of one another, as described below. Unlike conventional blister packs that require a slotted display stand for proper support, the packaging assembly 100 of the invention is self-supporting and may be employed to transport and display much larger products.

[0031] The display pack 140 preferably is sized to extend fully from the bottom panel 124 to the top panel 120 of the cardboard box 110. The display pack, thereby, can assist the cardboard box in supporting the weight of any overlaying layers, or tiers, of packaging assemblies 100. This supplemental support optionally allows the cardboard box to be formed of panels that are thinner, and thus less costly, than would be required if the overlaying tiers were to be supported by the cardboard boxes, alone.

[0032] FIG. 3a is a top view of the packaging assembly 100 of FIG. 1, wherein the rear panel 118 of the cardboard box 110 comprises one or more concave recesses 200 dimensioned to receive the convex portions 146 of the display pack 140 of another packaging assembly 100. As illustrated in FIG. 3b, a layer 210 of packaging assemblies may be formed by positioning a plurality of packaging assemblies 100, 100', 100" side-by-side such that the convex portions 146" of the rearmost packaging assembly 100" nest within the corresponding concave recesses 200' of the packaging assembly 100' that is immediately in front of the rearmost packaging assembly 100". Similarly, the convex portions 146' of packaging assembly 100' nest within the corresponding concave recesses 200 of the leading packaging assembly 100 disposed immediately in front of packaging assembly 100'. Although the illustrated embodiment depicts a layer 210 having three side-by-side packaging assemblies 100, 100', 100", it should be understood by those of ordinary skill in the art that any number of packaging

assemblies may be employed to form a layer without departing from the scope of the invention.

**[0033]** With further reference to FIGS. 3*a* and 3*b*, additional layers **210** of packaging assemblies **100** may be stacked on top of each other to form a multi-layer stack of packaging assemblies **100**. In particular, by nesting the convex portions **146** of a packaging assembly **100** within the corresponding concave recesses **200** of an adjacent packaging assembly **100**, the resultant formation includes enhanced structural rigidity that allows layers of packaging assemblies **100** to be stacked on top of one another without crushing the bottom layer. In addition, the cargo space necessary for shipping a multi-layer stack of packaging assemblies **100** is significantly reduced when the packaging assemblies **100** are nested in this manner. The multi-layer stack of packaging assemblies **100** may be wrapped in shrink-wrap or otherwise contained during shipment. After shipment, the stack is then unwrapped such that the packaging assemblies **100** may be displayed for sale on the store floor.

**[0034]** The present invention has been described above in terms of presently preferred embodiments so that an understanding of the present invention can be conveyed. However, there are other embodiments not specifically described herein for which the present invention is applicable. Therefore, the present invention should not be seen as limited to the forms shown, which is to be considered illustrative rather than restrictive.

What is claimed is:

1. A packaging assembly for displaying and shipping a packaged product, the packaging assembly comprising:

- a display pack having one or more product chambers for containing the packaged product; and
- a box that houses the display pack, the box including a front panel having a product window disposed therein for revealing the packaged products contained within the display pack;

wherein the front panel includes a lip around a perimeter of the product window that prevents the display pack from being removed from the box through the product window.

2. The packaging assembly of claim 1, wherein the display pack comprises a transparent, two-part blister pack assembly carried within the box, but visible through the product window in the front panel.

3. The packaging assembly of claim 1, wherein each product chamber of the display pack comprises a convex portion that protrudes from the packaging assembly such that the convex portion is disposed substantially in front of the front panel of the box.

4. The packaging assembly of claim 3, wherein each product chamber of the display pack further comprises a concave portion disposed substantially within the box.

5. The packaging assembly of claim 4, wherein the convex and concave portions are mated to form the one or more product chambers.

6. The packaging assembly of claim 1, wherein the product window comprises a single opening that is large enough to receive each of the one or more product chambers.

7. The packaging assembly of claim 1, wherein the product window comprises a plurality of openings, each opening dimensioned to receive a single product chamber.

8. The packaging assembly of claim 1, wherein the display pack comprises a front portion containing one or more convex portions of the one or more product chambers,

and a rear portion containing one or more concave portions of the one or more product chambers.

9. The packaging assembly of claim 8, wherein the front portion of the display pack comprises a substantially planar sheet of transparent plastic having the convex portions projecting therefrom, and a side wall around a perimeter of the front portion that is disposed substantially normal to the planar sheet.

10. The packaging assembly of claim 9, wherein the rear portion comprises a substantially planar sheet of transparent plastic having the concave portions forming recesses therein, and a side wall around a perimeter of the rear portion that is disposed substantially normal to the planar sheet.

11. The packaging assembly of claim 8, wherein the front and rear portions of the display pack are adjoined such that the convex and concave portions align to create the one or more product chambers.

12. The packaging assembly of claim 8, further comprising a substantially planar product display card disposed between the front and rear portions of the display pack such that the display card is visible through the product window in the front panel of the box.

13. The packaging assembly of claim 12, wherein the display card includes one or more cutouts that correspond with dimensions and locations of the one or more product chambers.

14. The packaging assembly of claim 1, wherein the perimeter of the product window is smaller than a perimeter of the display pack.

15. The packaging assembly of claim 1, further comprising a product insert area disposed within the cardboard box, the product insert area containing packaged product parts that are not displayed through the product window.

16. The packaging assembly of claim 1, wherein a rear panel of the box comprises one or more concave recesses dimensioned to receive one or more convex portions of a display pack of another packaging assembly.

17. A multi-layer stack of packaging assemblies for displaying and shipping packaged products, the stack comprising:

- a first layer of packaging assemblies; and
- a second layer of packaging assemblies disposed on top of the first layer of packaging assemblies;

wherein each packaging assembly comprises:

- a display pack having one or more product chambers for containing the packaged product, and
- a box that houses the display pack, the box including a front panel having a product window disposed therein for revealing the packaged products contained within the display pack, wherein the front panel includes a lip around a perimeter of the product window that prevents the display pack from being removed from the box through the product window,

wherein a rear panel of the box comprises one or more concave recesses dimensioned to receive one or more convex portions of a display pack of another packaging assembly.

18. The multi-layer stack of packaging assemblies of claim 17, wherein the display pack comprises a transparent, two-part blister pack assembly carried within the box, but visible through the product window in the front panel.

19. The multi-layer stack of packaging assemblies of claim 17, wherein each product chamber of the display pack comprises:

a convex portion that protrudes from the packaging assembly such that the convex portion is disposed substantially in front of the front panel of the box; and a concave portion disposed substantially within the box; wherein the convex and concave portions are mated to form the one or more product chambers.

20. The multi-layer stack of packaging assemblies of claim 17, wherein:

the display pack comprises a front portion containing one or more convex portions of the one or more product chambers, and a rear portion containing one or more concave portions of the one or more product chambers;

the front portion of the display pack comprises a substantially planar sheet of transparent plastic having the convex portions projecting therefrom, and a side wall around a perimeter of the front portion that is disposed substantially normal to the planar sheet; and wherein the rear portion comprises a substantially planar sheet of transparent plastic having the concave portions forming recesses therein, and a side wall around a perimeter of the rear portion that is disposed substantially normal to the planar sheet.

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