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(19) **United States**(12) **Patent Application Publication****Linz**(10) **Pub. No.: US 2006/0219593 A1**(43) **Pub. Date: Oct. 5, 2006**(54) **DISPLAY CONTAINER WITH
INTERLOCKING COVER****Publication Classification**(76) Inventor: **Arthur W. Linz**, Boonton, NJ (US)(51) **Int. Cl.****B65D 21/00** (2006.01)(52) **U.S. Cl.** **206/509**

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ABSTRACT(21) Appl. No.: **11/359,655**(22) Filed: **Feb. 22, 2006****Related U.S. Application Data**

(60) Provisional application No. 60/667,261, filed on Apr. 1, 2005.

A container and cover combination comprising a container having a bottom with an inwardly extending non-circular protrusion and an open top, and a cover for said open top of said container having an outwardly extending non-circular protrusion, wherein said protrusion of said container and said protrusion of said cover are configured to interlock with each other when nested within each other to prevent rotation therebetween.

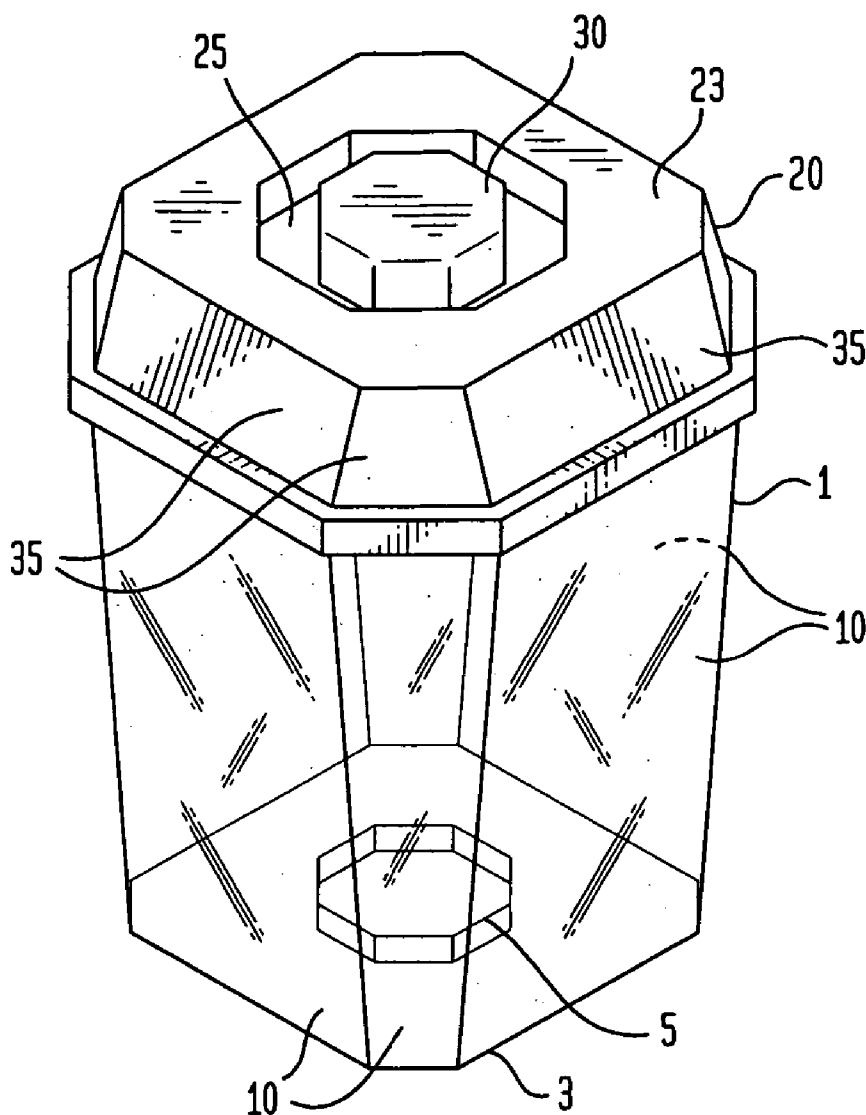


FIG. 1
(PRIOR ART)

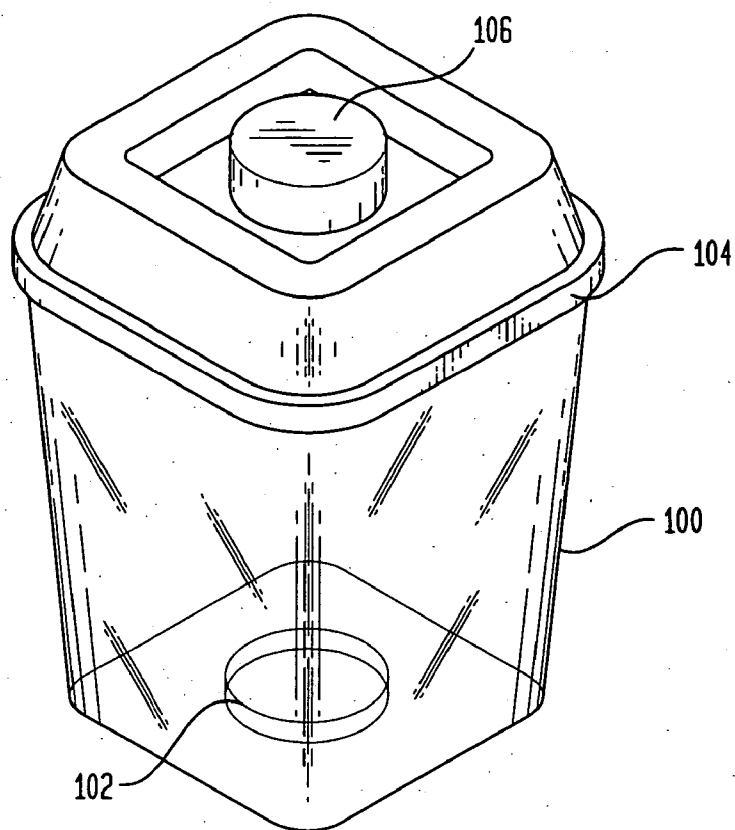


FIG. 2
(PRIOR ART)

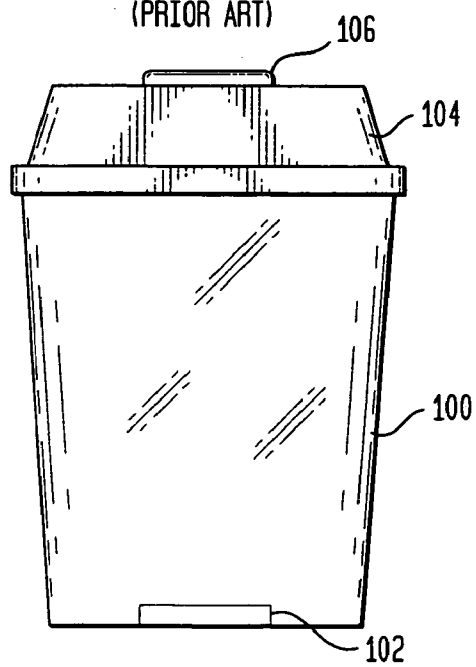


FIG. 3
(PRIOR ART)

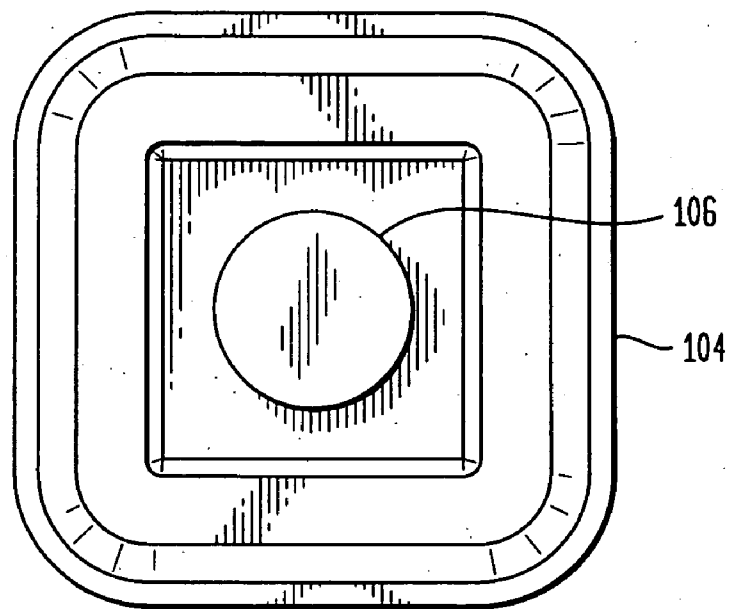


FIG. 4
(PRIOR ART)

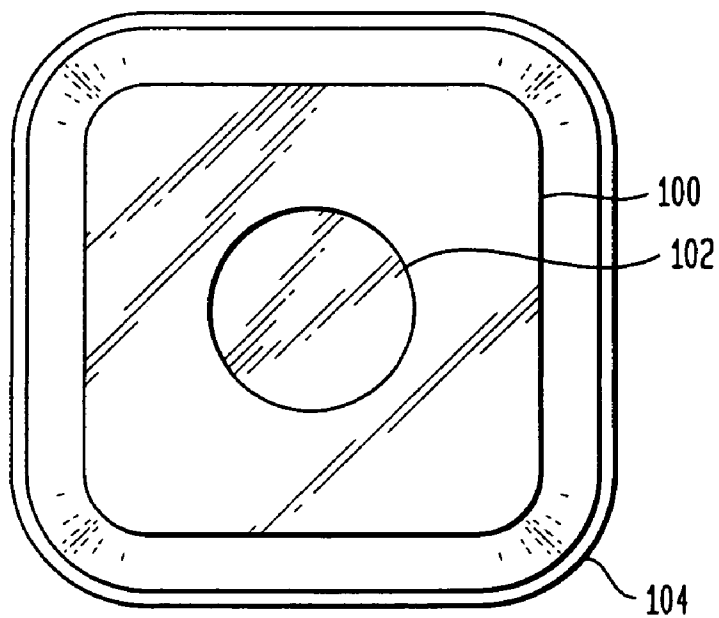


FIG. 5

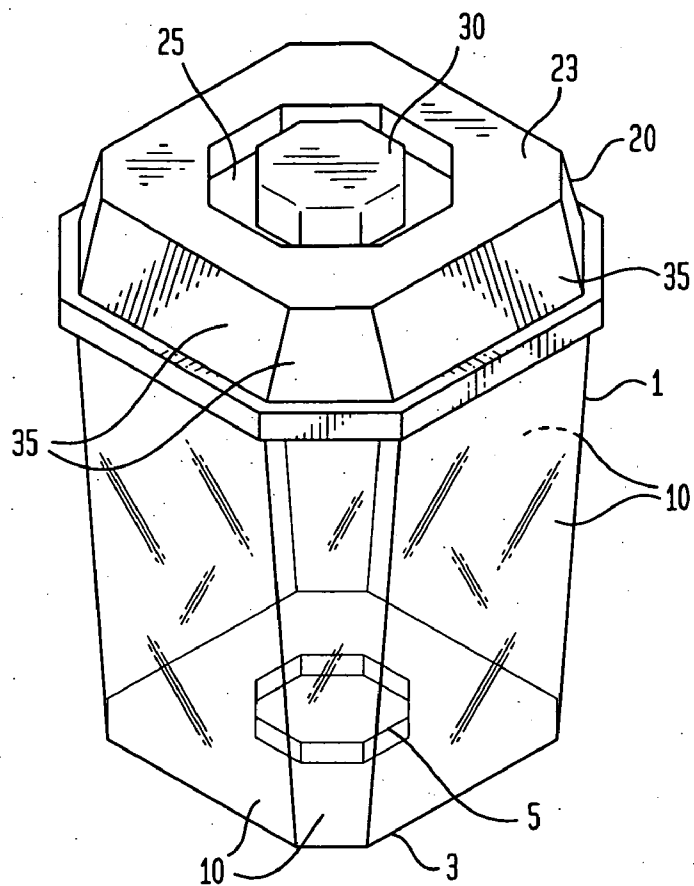


FIG. 6

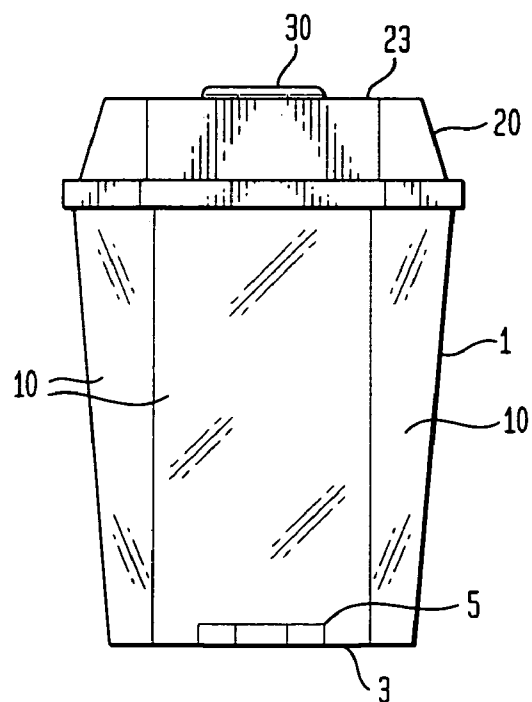


FIG. 7

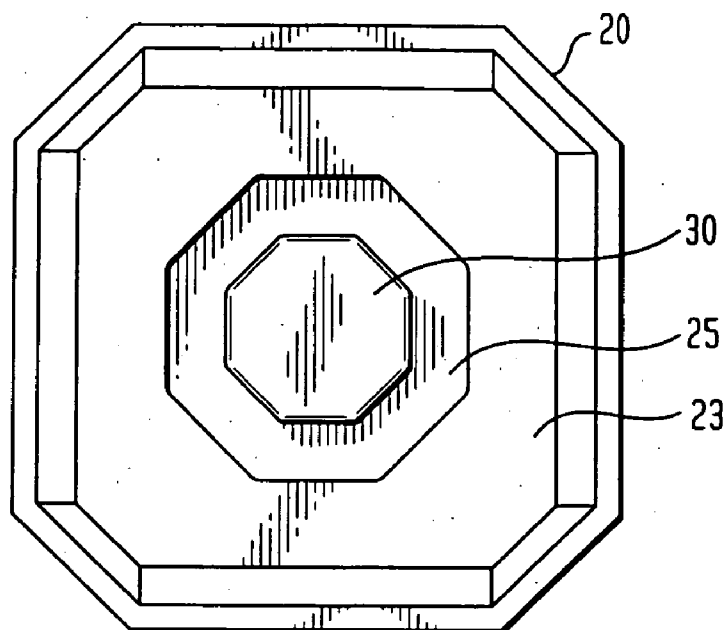


FIG. 8

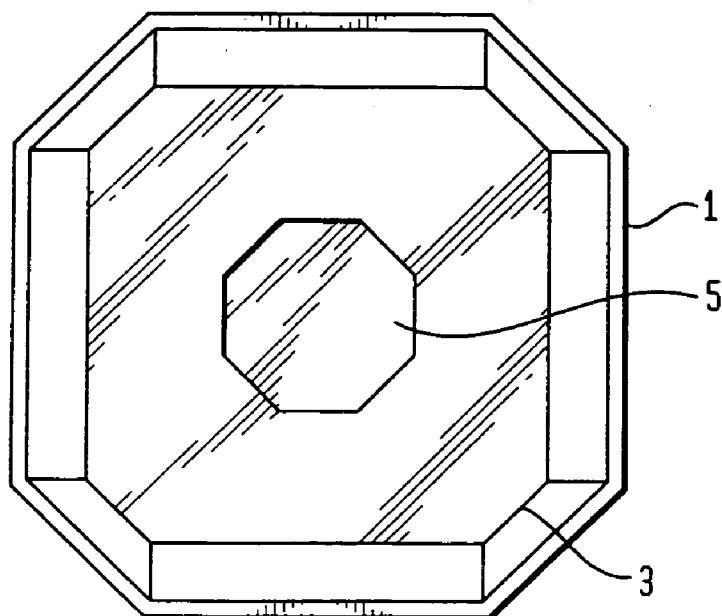


FIG. 9

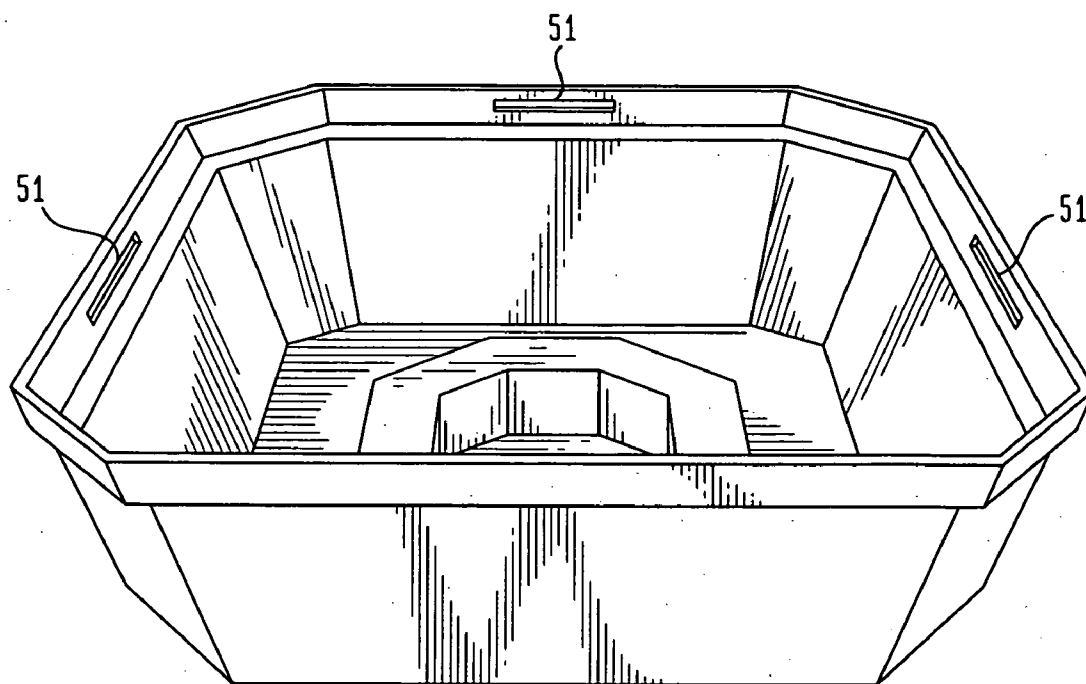
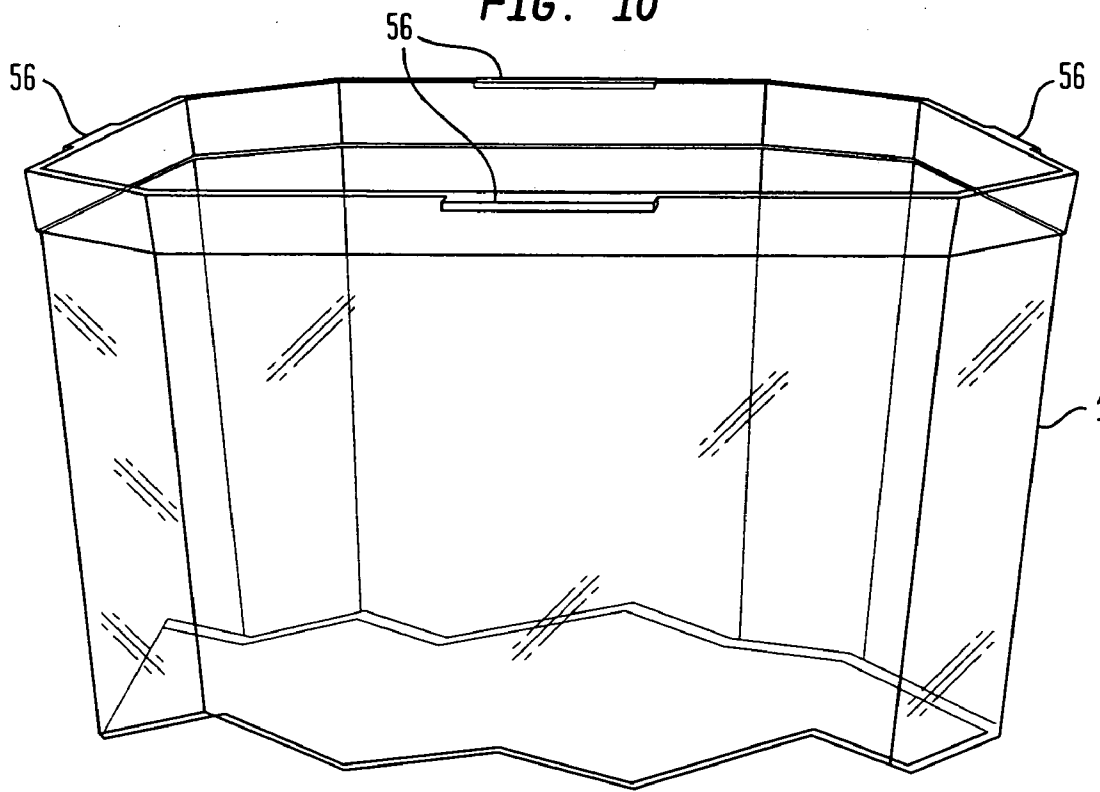


FIG. 10



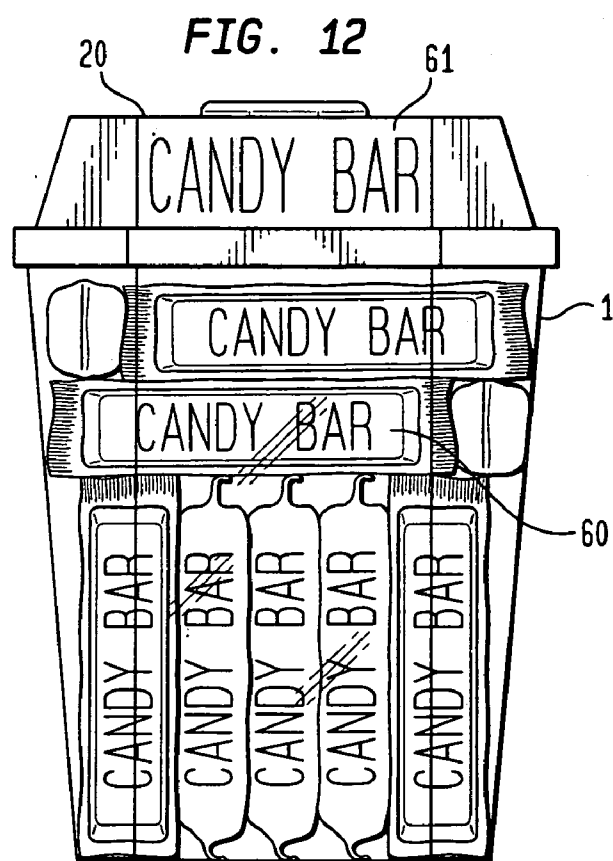
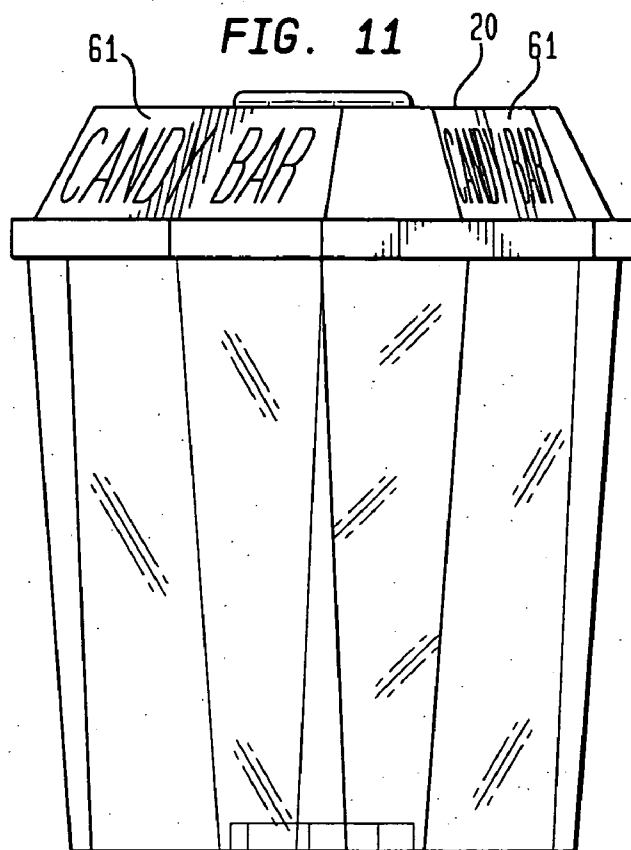


FIG. 13

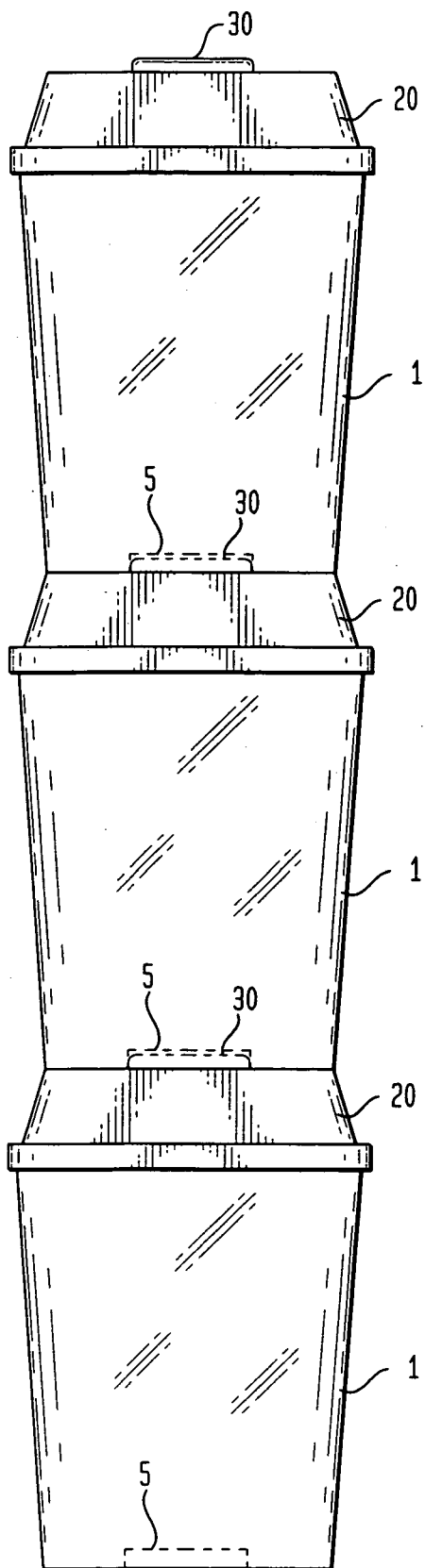
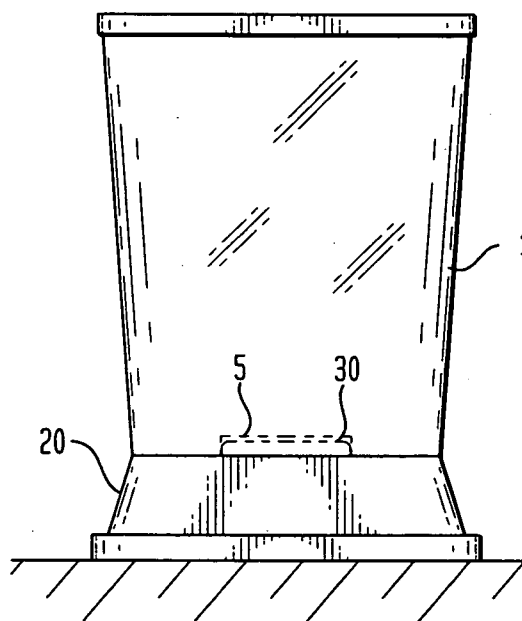


FIG. 14



DISPLAY CONTAINER WITH INTERLOCKING COVER

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims the benefit of the filing date of U.S. Provisional Patent Application No. 60/667,261 filed Apr. 1, 2005, the disclosure of which is hereby incorporated herein by reference.

BACKGROUND OF THE INVENTION

[0002] When packaging and displaying various products, such as candy, the object is often to provide an appealing visual display container, while also functioning as a storage or shipping container for the product. One such prior art display container being used for candy is shown in **FIGS. 1-4**. This display container includes a transparent container **100** having an inwardly extending circular protrusion **102** at its bottom end and a cover **104** having an outwardly extending corresponding circular protrusion **106** at its top end.

[0003] The prior art containers provide a visually appealing display for candies and are also vertically stackable with each other. However, these containers do not fixedly interlock with each other when they are stacked due to the circular design of the protrusions, and therefore, they easily move and/or rotate during shipping or storage, which can result in damage to the candy inside. These known containers are generally unstable when stacked for shipment or storage. Accordingly, these containers often require that they be packaged in a sealed cardboard box for shipping in order to prevent any damage to the products disposed therein during shipping.

[0004] Thus, there is an unsolved need in the art for display containers which overcome the problems associated with these known containers, such as those noted hereinabove that may occur during shipping and storage.

SUMMARY OF THE INVENTION

[0005] The present invention generally relates to a display container having a cover. In accordance with one embodiment, a container includes a shell having a bottom with an inwardly extending non-circular protrusion and an open top; and a cover for the open top of the shell having an outwardly extending non-circular protrusion.

[0006] Still more particularly, the invention relates to a container having a closed bottom section with an inwardly extending protrusion, and interconnected side walls connected to the bottom section; and a cover for the display container having a closed top section with an outwardly extending protrusion, and interconnected side walls connected to the top section. The outward protrusion located at the top of the container cover will interlock with the inward protrusion in the bottom of the adjacent container when the containers are stacked on top of each other making them substantially immovable and thus less susceptible to damage during shipping and storage.

[0007] It is one aspect of the present invention to provide a container and cover combination comprising a container having a bottom with an inwardly extending non-circular protrusion and an open top; and a cover for said open top of said container having an outwardly extending non-circular

protrusion, wherein said protrusion of said container and said protrusion of said cover are configured to interlock with each other when nested within each other to prevent rotation therebetween.

[0008] It is yet another aspect of the present invention to provide a container and cover combination comprising a container having a bottom with an inwardly extending opening and an open top, and a cover for said open top of said container, said cover having an outwardly extending projection, said projection releasably nestable within said opening when said container is supported on said cover, said opening and said projection each having a shape which prevents rotation of said cover relative to said container when said projection is nested within said opening.

[0009] It is also an object of the display container disclosed herein to provide a container with cover for displaying various products in an attractive and reliable manner while also discouraging the unintentional discharge of or damage to the products disposed therein during shipping and storage.

[0010] The display container of the present invention preferably includes a transparent container with a closed bottom section with an inwardly extending non-circular protrusion; and a cover for the container having a closed top section with an outwardly extending correspondingly shaped non-circular protrusion.

[0011] The preferred display containers of the present invention includes polygonal shaped protrusions at the top of the cover and at the bottom of the container so that they can be interlocked when the containers are stacked on top of each other.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] It should be understood that the drawings are provided for the purpose of illustration only and are not intended to define the limits of the invention. The foregoing and other objects and advantages of the embodiments described herein will become apparent with reference to the following detailed description when taken in conjunction with the accompanying drawings in which:

[0013] **FIG. 1** is a perspective view of the prior art display container.

[0014] **FIG. 2** is a front elevational view of the prior art display container.

[0015] **FIG. 3** is a top plan view of the prior art display container.

[0016] **FIG. 4** is a bottom plan view of the prior art display container.

[0017] **FIG. 5** is a perspective view of the assembled display container according to one embodiment of the present invention.

[0018] **FIG. 6** is a front elevational view of the display container according to one embodiment of the present invention.

[0019] **FIG. 7** is a top plan view of the display container according to one embodiment of the present invention.

[0020] **FIG. 8** is a bottom plan view of the display container according to one embodiment of the present invention.

[0021] **FIG. 9** is a perspective view showing the inside of the cover according to one embodiment of the present invention.

[0022] **FIG. 10** is a perspective view of the top portion of the container according to one embodiment of the present invention.

[0023] **FIG. 11** is a perspective view of the assembled display container showing the cover with advertising labels.

[0024] **FIG. 12** is a perspective view of the assembled display container in **FIG. 11** showing the container filled with candy.

[0025] **FIG. 13** is a front elevational view showing a plurality of containers nested in a vertical stack.

[0026] **FIG. 14** is a front elevational view showing the container in use with its cover functioning as a support.

DETAILED DESCRIPTION OF THE INVENTION

[0027] In describing the preferred embodiments of the present invention, specific terminology will be resorted to for the sake of clarity. However, the invention is not intended to be limited to the specific terms so selected, and is understood that each specific term includes all technical equivalence which operate in a similar manner to accomplish the same purpose.

[0028] Referring first to **FIGS. 5-8**, there is shown, according to one embodiment of the invention, a transparent container **1** with a closed bottom section **3** with an inwardly extending non-circular protrusion **5** or opening, and interconnected side walls **10** connected to the bottom section **3** forming an open top container. The cover **20** of the display container **1** has a closed top section **23** with an outwardly extending non-circular protrusion **30** or projection surrounded by a recess **25**, and interconnected side walls **35** connected to the top section **23**. The protrusion **30** extends above the top section **23**. The top section **23** of the cover **20** and the bottom section **3** of the container **1** are essentially flat, so that they are in contact when stacked on top of each other, either during shipment or when in use as described hereinafter. The container **1** and cover **20** may be made of any suitable material. The preferred material is plastic and can be transparent or of any color desired. Preferably the container **1** is transparent to allow the product with the container to be visible to the consumer. The cover **20** may also be of any color or transparent.

[0029] It is to be understood that although the container **1** has been shown as having sidewalls **10**, the container may be of any shape such as round, oval, polygonal, square, or the like. The cover **20** may also be of other shapes, preferably being the same shape as the container **1**.

[0030] The shape of the outwardly extending protrusion **30** of the cover **20** and the inwardly extending protrusion **5** of the display container **1** can be of any angular or non-circular shape that would prevent the containers from rotating when stacked on top of each other. For example, the shape of the protrusions may be octagonal, triangular, rectangular, trapezoidal, polygonal, +sign, - sign or any other such shape. As shown in **FIGS. 8-9**, the preferred shape of the outwardly extending protrusion **30** of the cover **20** and the inwardly extending protrusion **5** of the display container

1 is polygonal. In this regard, the protrusions **5** and **30** will nest inside one another to prevent the stacked containers **1** from rotating relative to one another.

[0031] In addition, the shape of the outwardly extending protrusion **30** of the cover **20** and the inwardly extending protrusion **5** of the display container **1** may be of different shapes and sizes with respect to each other as long as they are configured to interlock with each other when nested within each other to prevent rotation. For example, the shape of the outwardly extending protrusion **30** of the cover **20** may be a + sign, and the shape of the inwardly extending protrusion **5** of the display container **1** may be a - sign.

[0032] Moreover, the outwardly extending protrusion **30** of the cover **20** and the inwardly extending protrusion **5** of the display container **1** are sized so that when they are nested in each other, they do not become stuck in each other.

[0033] As shown in **FIGS. 9-10**, the cover **20** can be removably fixed on the top of the container **1**. In order to obtain a good seal, the cover **20** has at least one outward peripheral edge **51** as shown in **FIG. 9**, which can grip over at least one outward peripheral edge **56** of the container **1** as shown in **FIG. 10**.

[0034] As shown in **FIGS. 11 and 12**, the cover **20** may include labels **61** attached to the side walls **35** of the cover **20**. The labels **61** may contain any texts or graphics that a user would like to incorporate in order to make the display container more attractive and appealing, including product identification and advertising labels.

[0035] In the embodiment illustrated in **FIG. 12**, Milky-Way® candy bars **60** are housed in the display container **1**. However, the present invention is not limited to storing only candy products, but any other products desired, such as hard candy, pencils, key chains, novelty items, etc. Because the display containers of the present invention interlock and do not rotate when stacked on top of each other, the display containers can be used as reliable storage and shipping containers. A plurality of stacked containers **1** are shown in **FIG. 13**. Because the display containers also provide reliable shipping containers, the display containers filled with fragile products do not need to be packaged in a sealed cardboard box. Instead, a large volume of display containers of the present invention filled with fragile products can be shipped to a destination on a pallet with shrink-wrap around them.

[0036] In use of the container **1** as shown in **FIG. 14**, the cover **20** may be removed and used as a supporting base for the shell **12**. In this regard, the top section **23** of the cover **20** will support the bottom section **3** of the container, with the protrusions **5** and **30** nested within one another thereby preventing rotation of the container when in display mode for sell the contained product to the consumer.

[0037] As these and other variations and combinations of the features discussed above can be utilized without departing from the present invention as defined by the claims, the foregoing description of the preferred embodiments should be taken by way of illustration rather than by way of limitation of the invention as defined by the claims.

What is claimed is:

1. A container and cover combination comprising:

a container having a bottom with an inwardly extending non-circular protrusion and an open top, and

a cover for said open top of said container having an outwardly extending non-circular protrusion,

wherein said protrusion of said container and said protrusion of said cover are configured to interlock with each other when nested within each other to prevent rotation therebetween.

2. The container and cover combination of claim 1, wherein the shape of said protrusions of said container and said cover is independently octagonal, triangular, rectangular, trapezoidal, polygonal, +sign, or – sign.

3. The container and cover combination of claim 2, wherein said protrusions of said container and said cover are of the same shape.

4. The container and cover combination of claim 2, wherein said protrusions are of different shapes.

5. The container and cover combination of claim 1, wherein said protrusions of said container and said cover are sized so that they are releasably nestable in each other.

6. The container and cover combination of claim 1, wherein said container and said cover are made of plastic.

7. The container and cover combination of claim 1, wherein said container and said cover are formed from a plurality of sidewalls, said sidewalls of said container and said cover are of round, oval, polygonal, or square shape.

8. The container and cover combination of claim 1, wherein the color of sidewalls of said container is transparent.

9. The container and cover combination of claim 1, wherein said cover has at least one outward peripheral edge

which grips over at least one outward peripheral edge of said container.

10. The container and cover combination of claim 1, wherein said cover further comprises at least one label on at least one sidewall of said cover.

11. A container and cover combination comprising:

a container having a bottom with an inwardly extending opening and an open top, and

a cover for said open top of said container, said cover having an outwardly extending projection, said projection releasably nestable within said opening when said container is supported on said cover, said opening and said projection each having a shape which prevents rotation of said cover relative to said container when said projection is nested within said opening.

12. The container and cover combination of claim 11, wherein the shape of said opening of said container and said projection of said cover is independently octagonal, triangular, rectangular, trapezoidal, polygonal, + sign or – sign.

13. The container and cover combination of claim 11, wherein said cover has at least one outward peripheral edge which grips over at least one outward peripheral edge of said container.

14. The container and cover combination of claim 11, wherein said cover further comprises at least one label on at least one sidewall of said cover.

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