



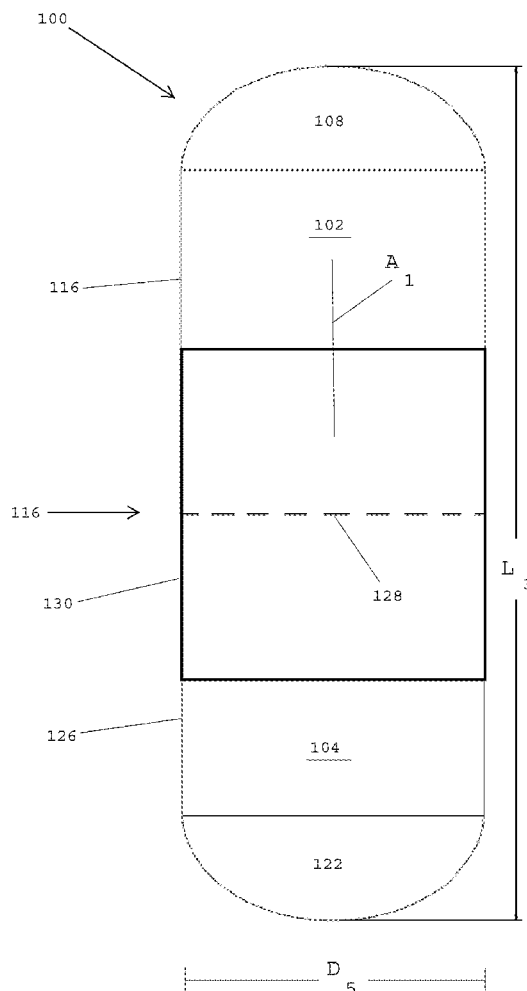
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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2019/0168956 A1****Fux et al.**(43) **Pub. Date:****Jun. 6, 2019**(54) **PACKAGING ASSEMBLIES AND DISPLAY SYSTEMS FOR BEDDING PRODUCTS**(52) **U.S. Cl.**CPC *B65D 85/07* (2018.01); *B65D 25/205* (2013.01); *B65D 25/108* (2013.01); *B65D 11/02* (2013.01)(71) Applicant: **Comfort Revolution, LLC**, West Long Branch, NJ (US)(72) Inventors: **Michael Fux**, Fort Lauderdale, FL (US); **Gloria Rubin**, Atlantic Highlands, NJ (US); **Christopher Webb**, West Windsor, NJ (US)(21) Appl. No.: **15/833,808**(22) Filed: **Dec. 6, 2017****Publication Classification**(51) **Int. Cl.***B65D 85/07* (2006.01)*B65D 8/00* (2006.01)*B65D 25/10* (2006.01)*B65D 25/20* (2006.01)

(57)

ABSTRACT

A display system for bedding products includes a top capsule half having a closed upper end, an open lower end, and an outer wall extending from said closed upper end to said open lower end, and a lower capsule half having a closed lower end, an open upper end, and an outer wall extending from said open upper end to the closed lower end of the lower capsule half. The outer wall at the open upper end of the lower capsule half is inserted into the outer wall at the open lower end of the top capsule half to form an assembled capsule. A bedding product, such as a pillow, is contained within the assembled capsule. A label is secured over the outer walls of the top and bottom capsule halves for sealing the bedding product within the assembled capsule. A display case holds the assembled capsules in spaced openings.



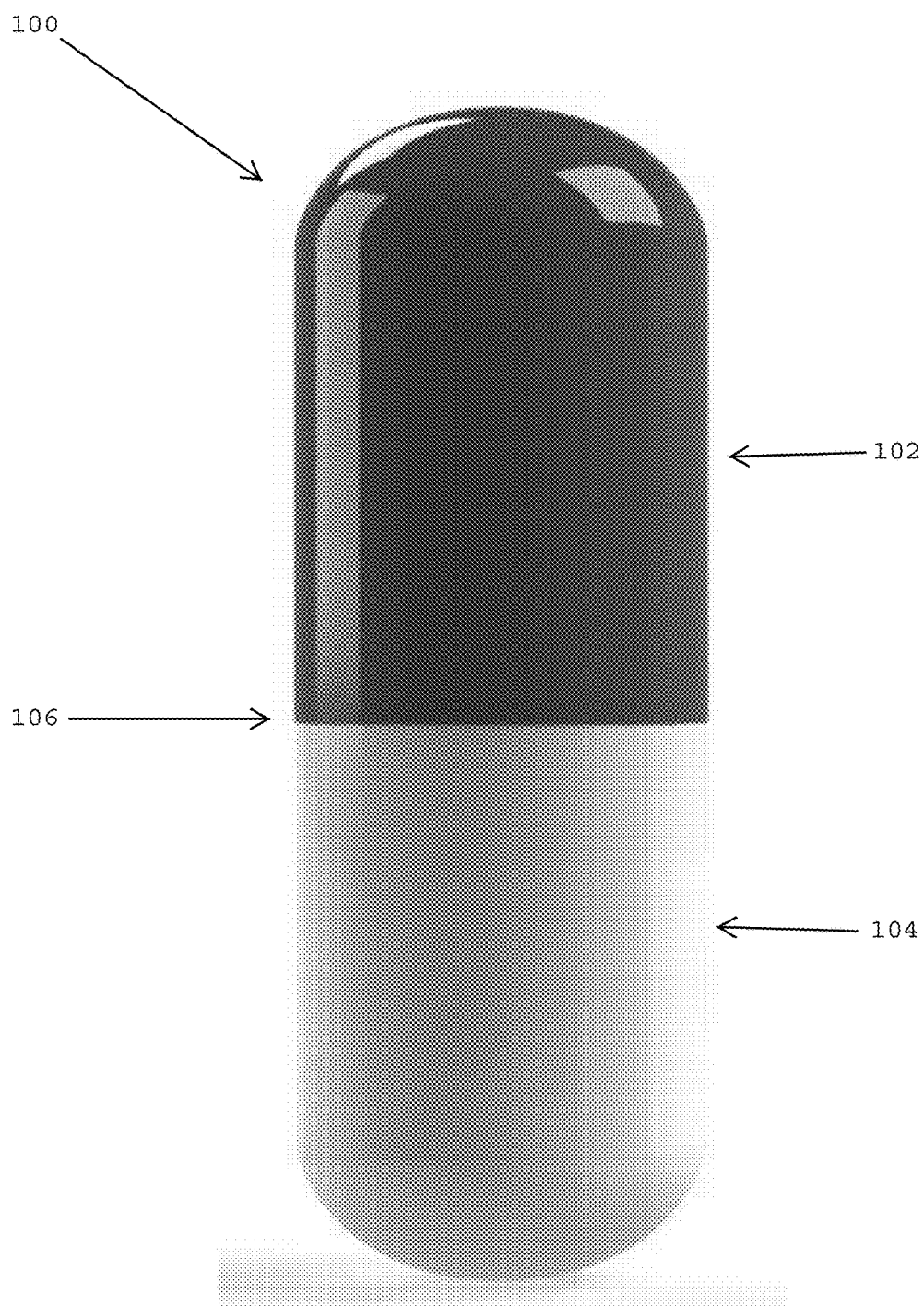


FIG. 1

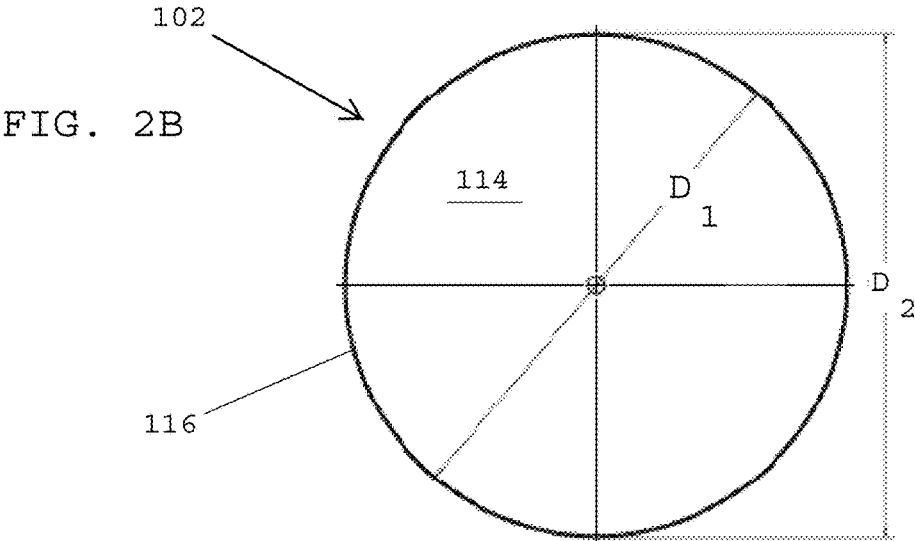
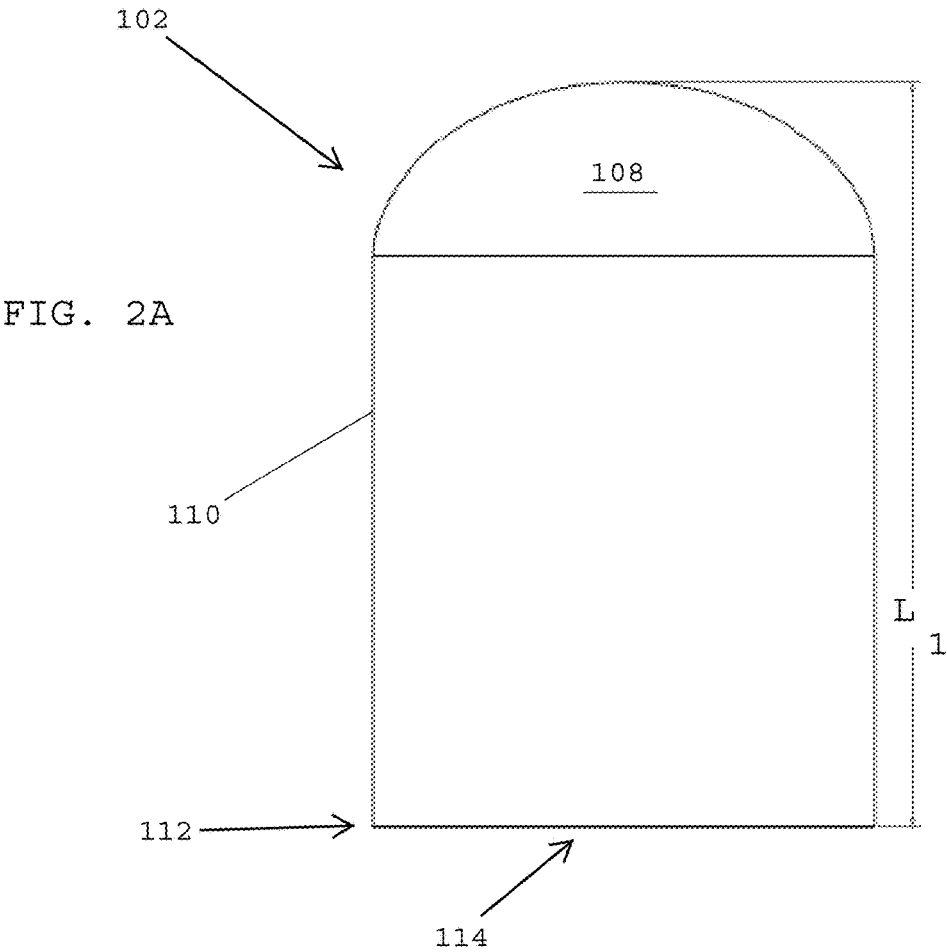


FIG. 3A

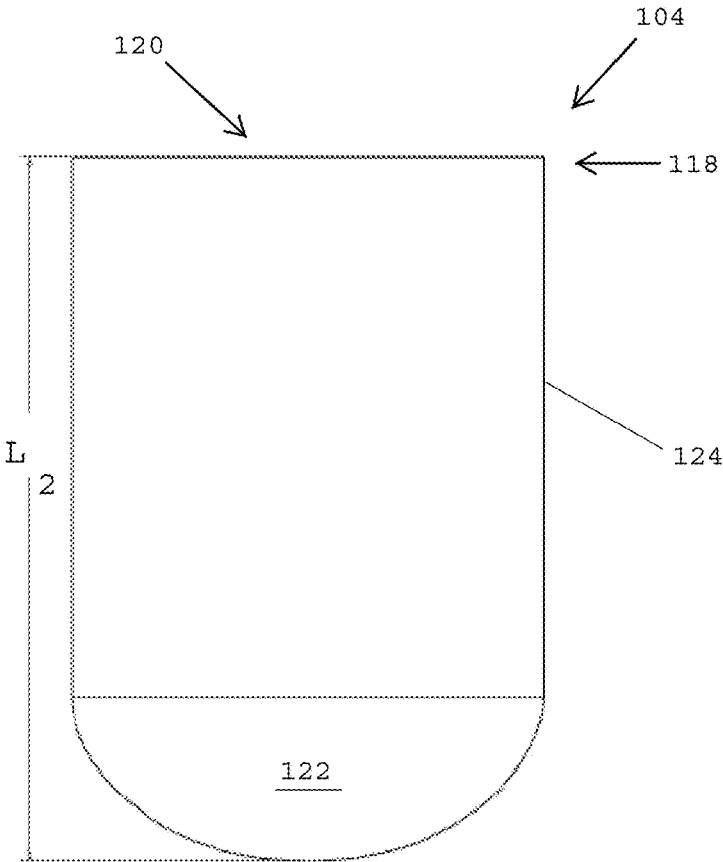
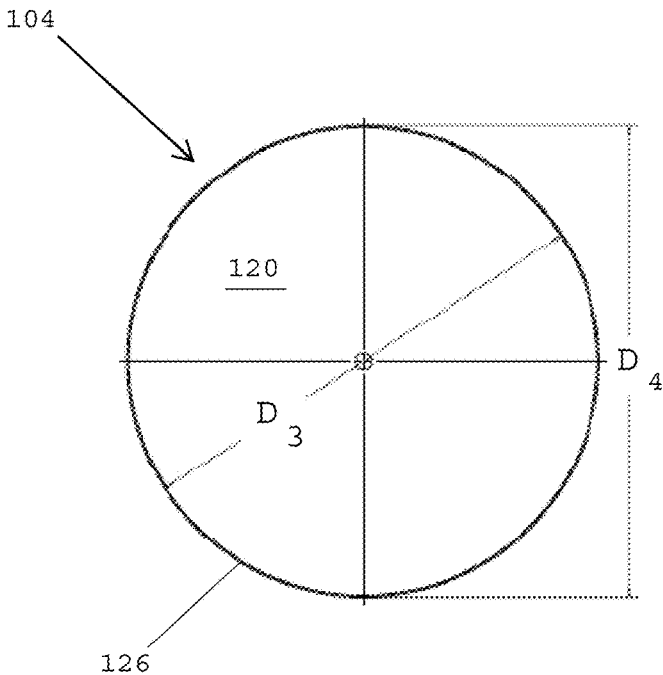
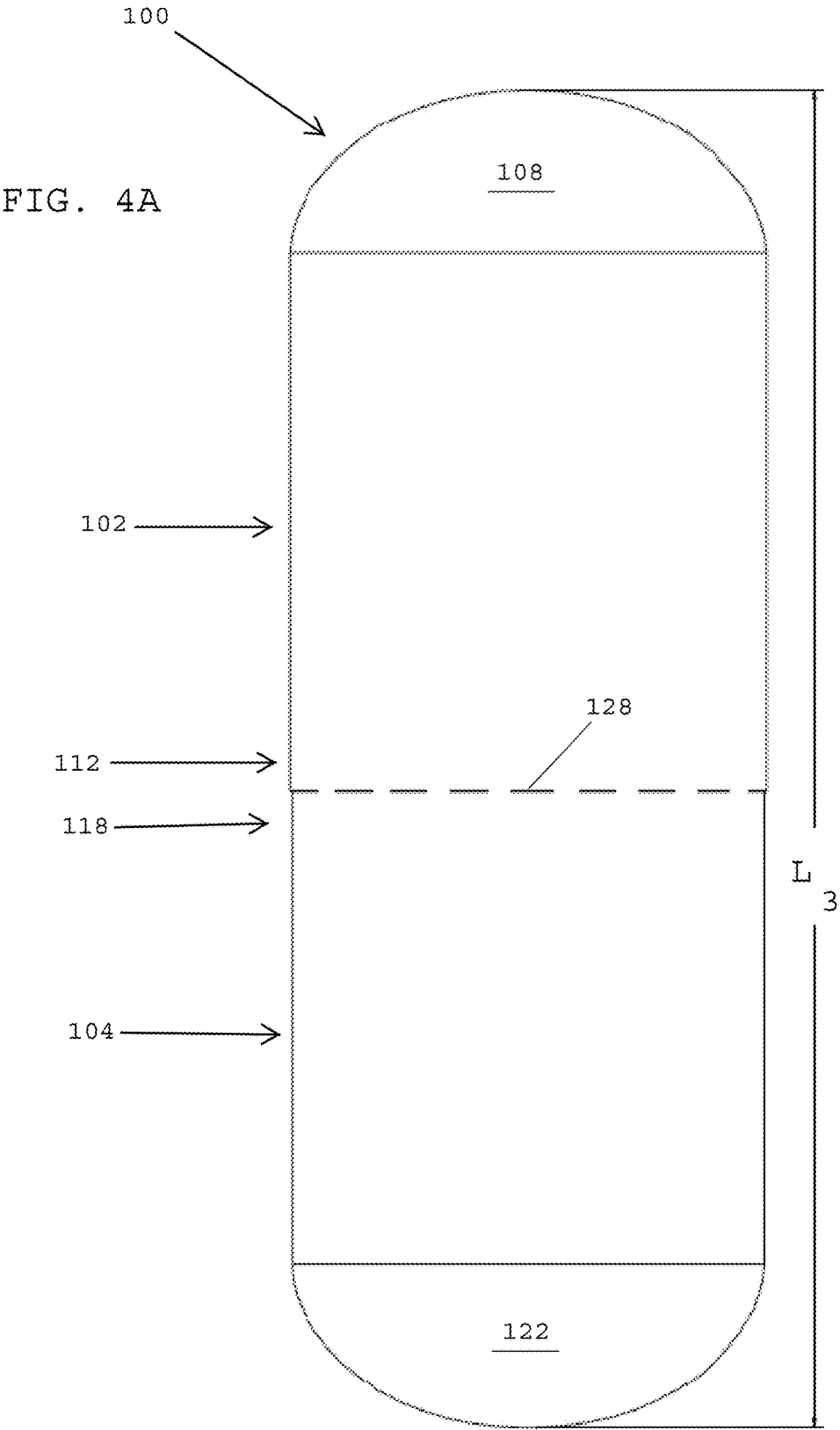
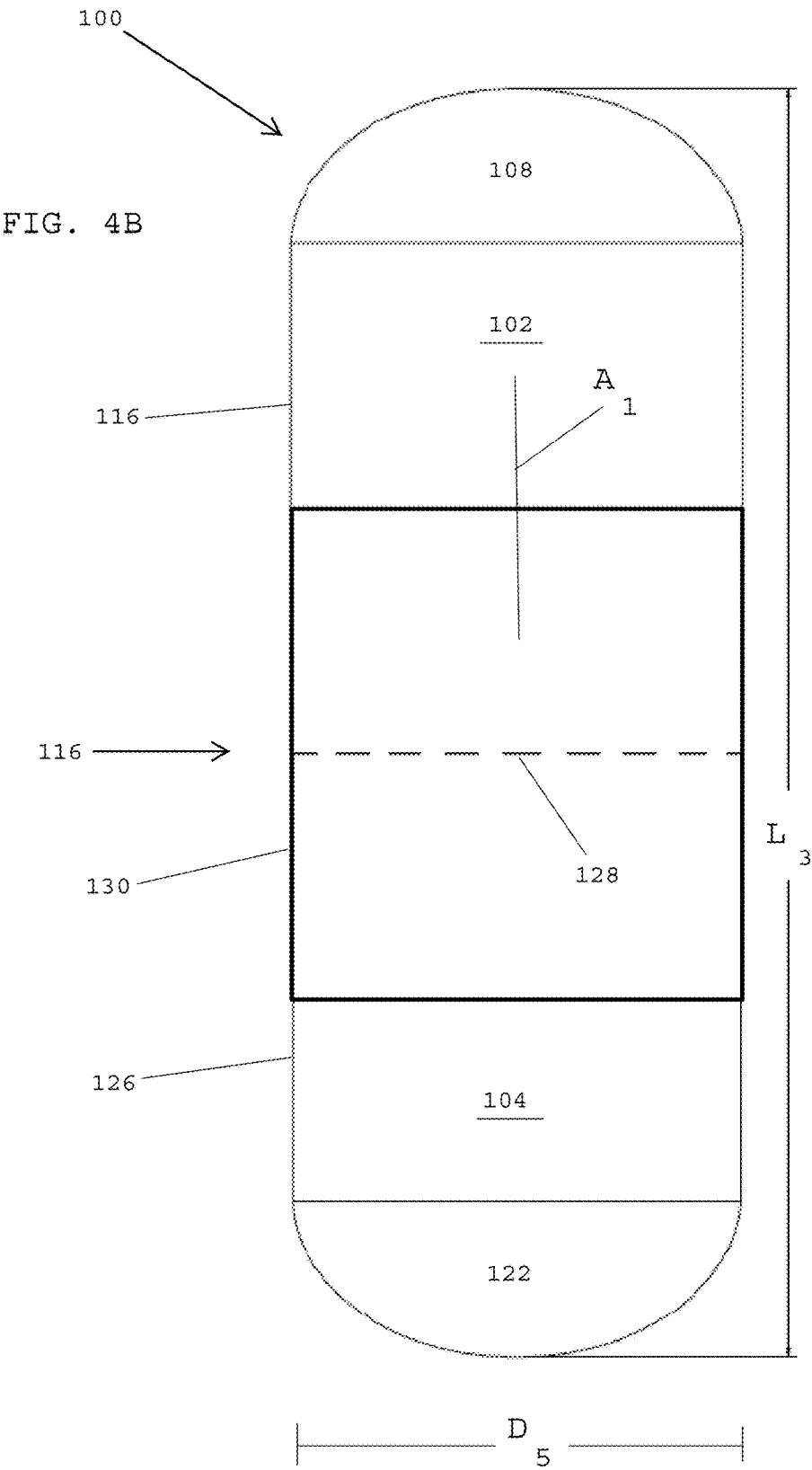


FIG. 3B







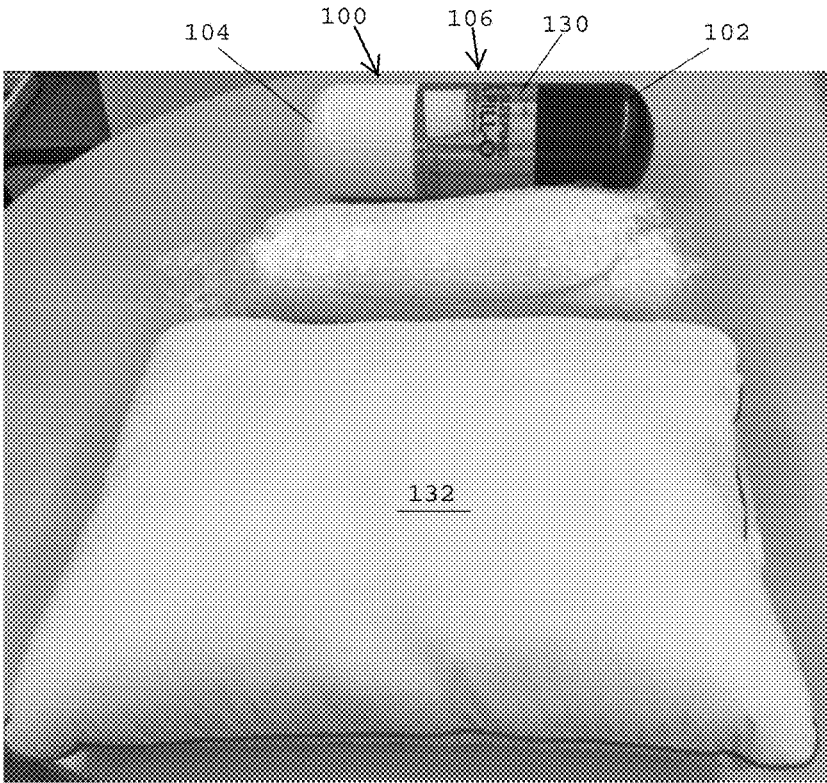


FIG. 5A

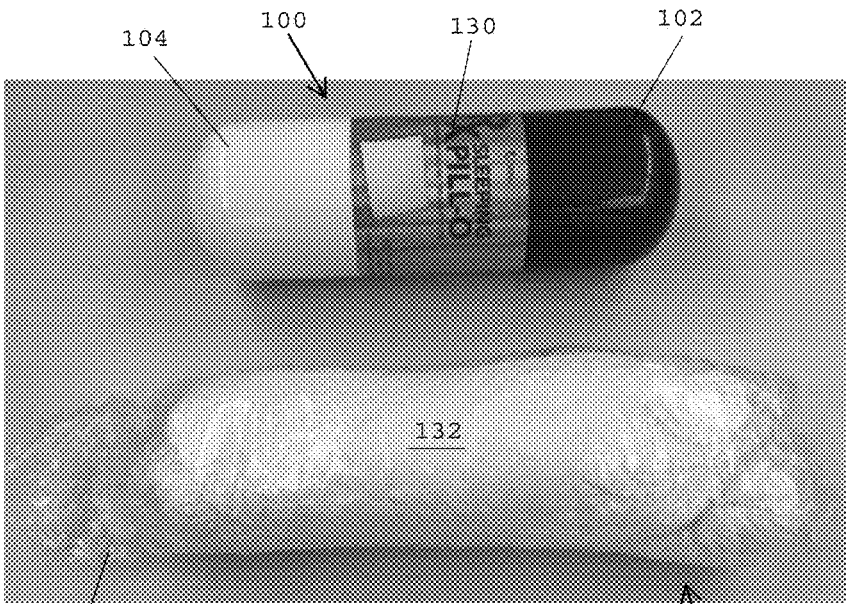


FIG. 5B

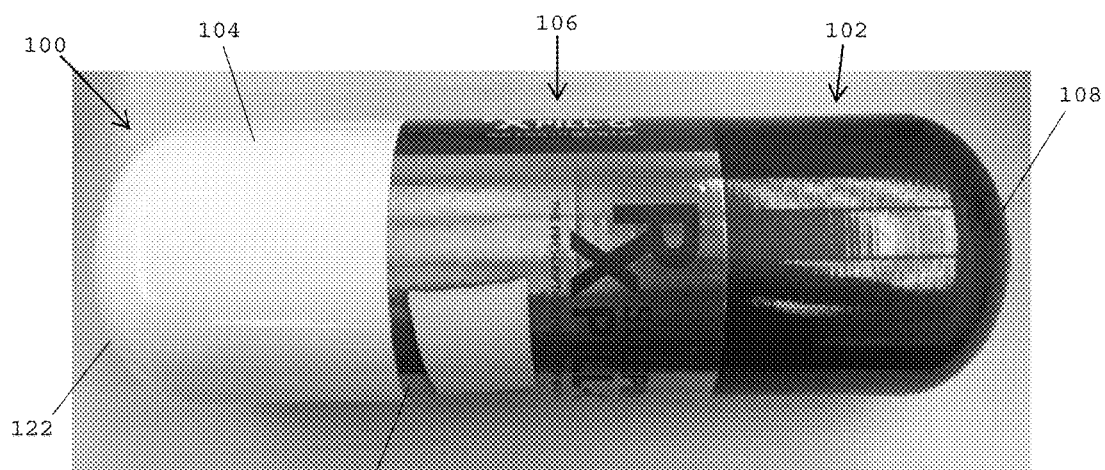


FIG. 6

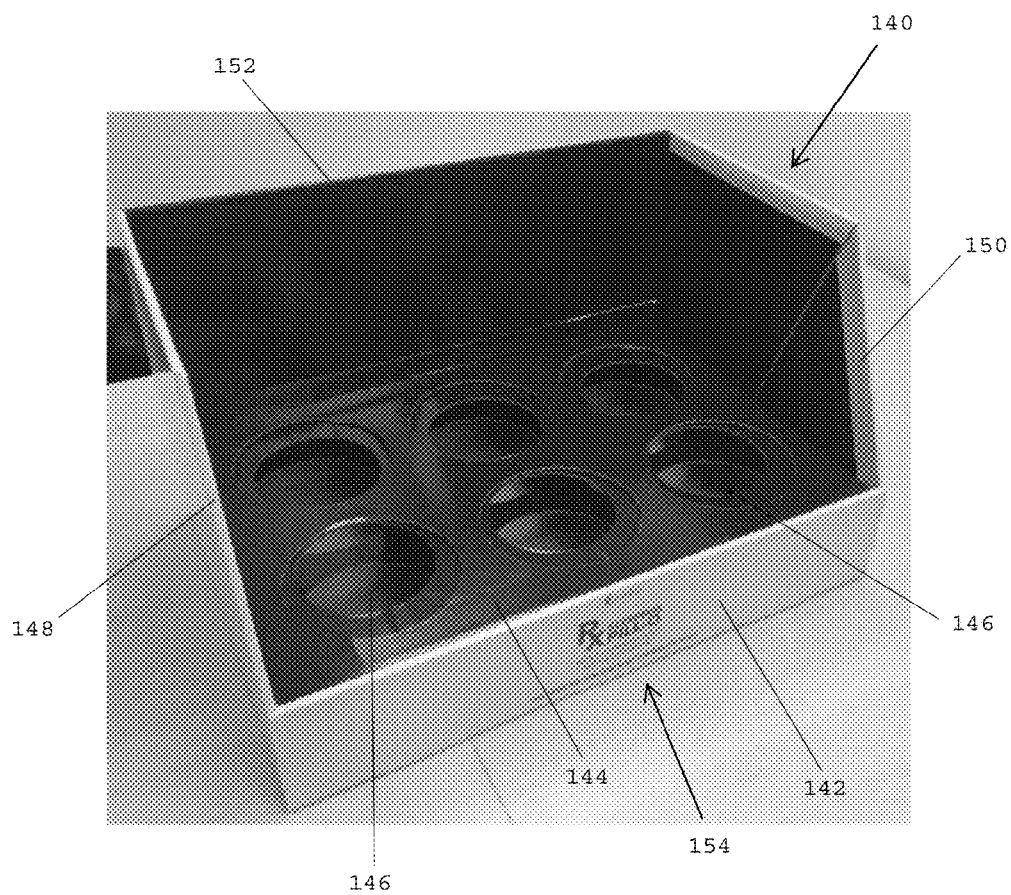
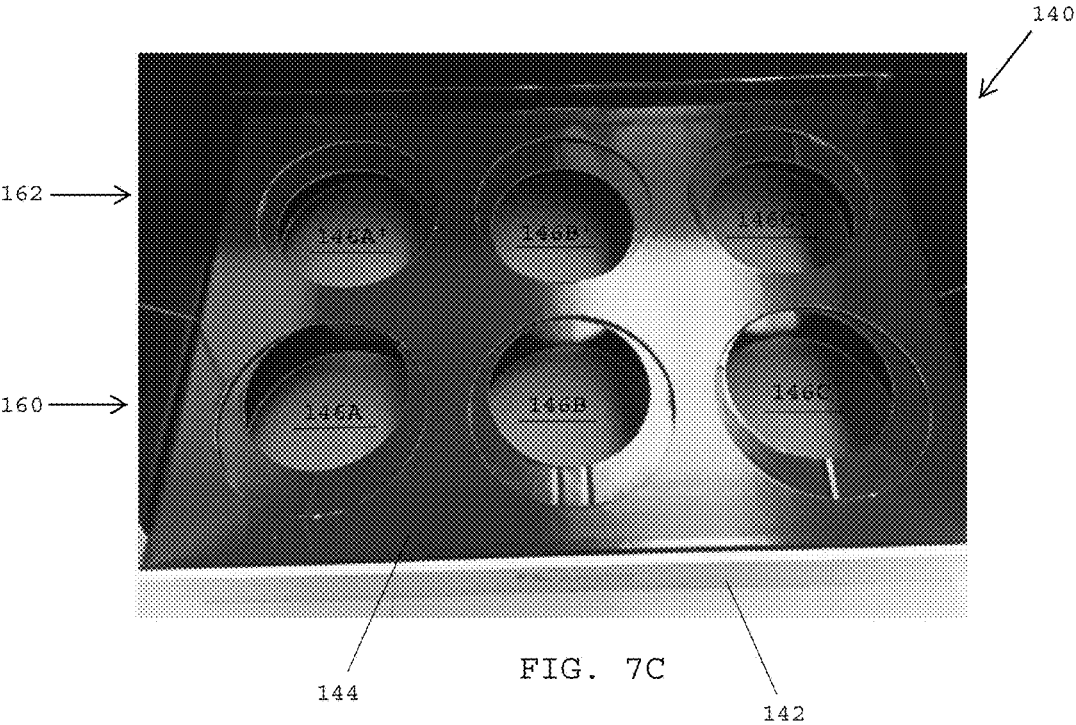
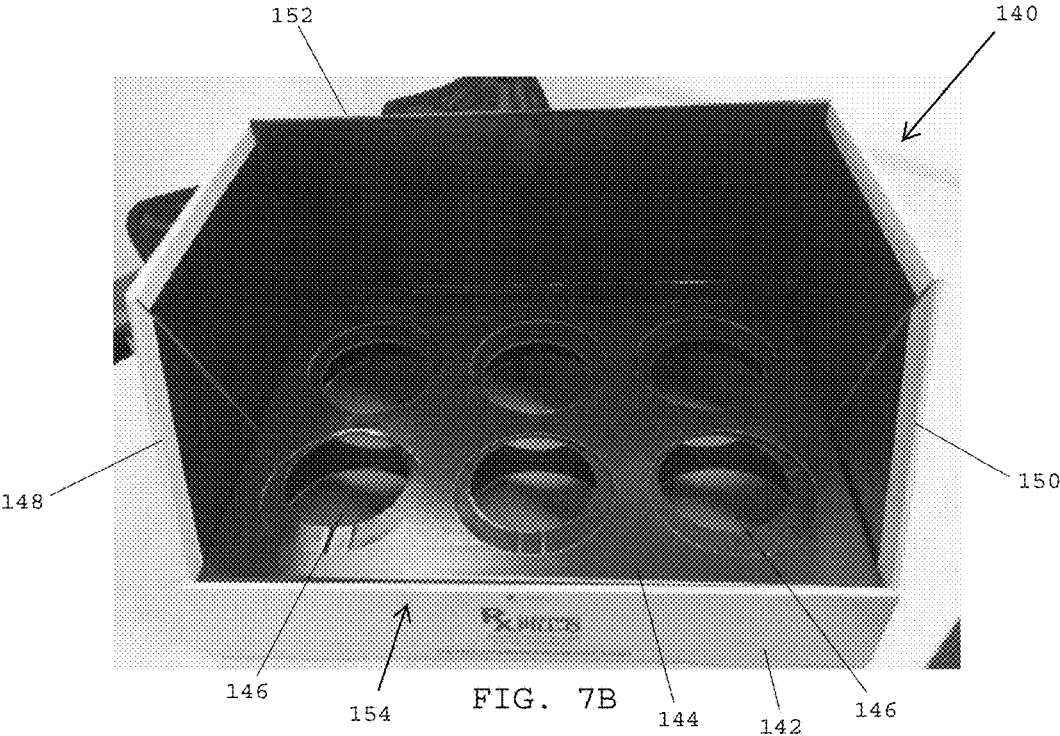


FIG. 7A



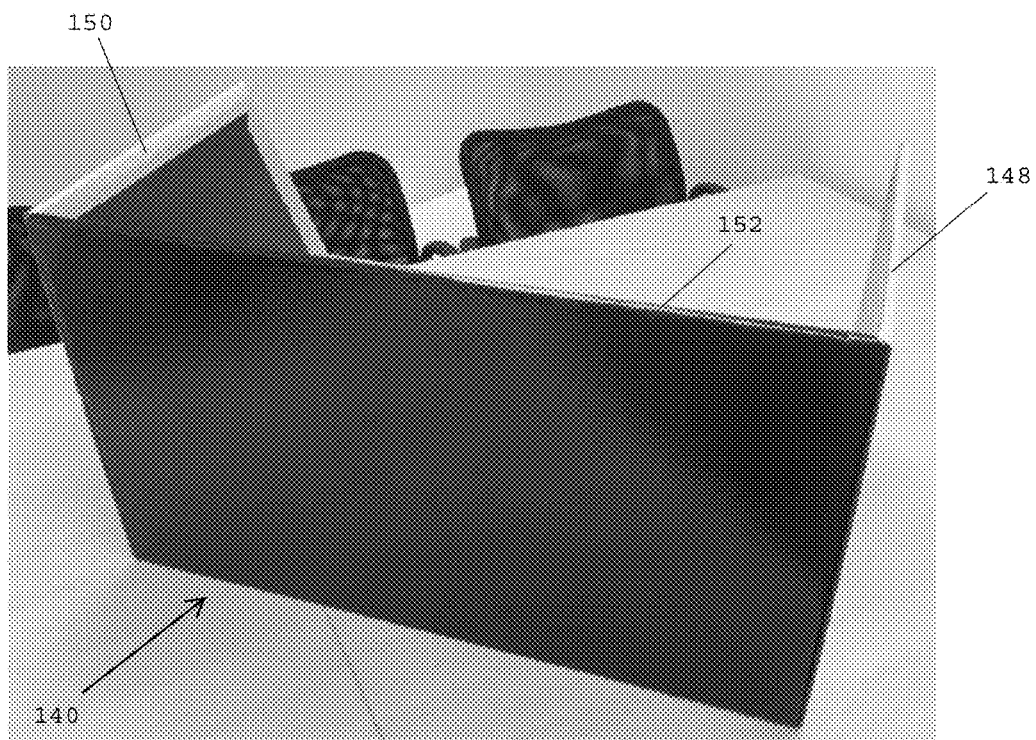
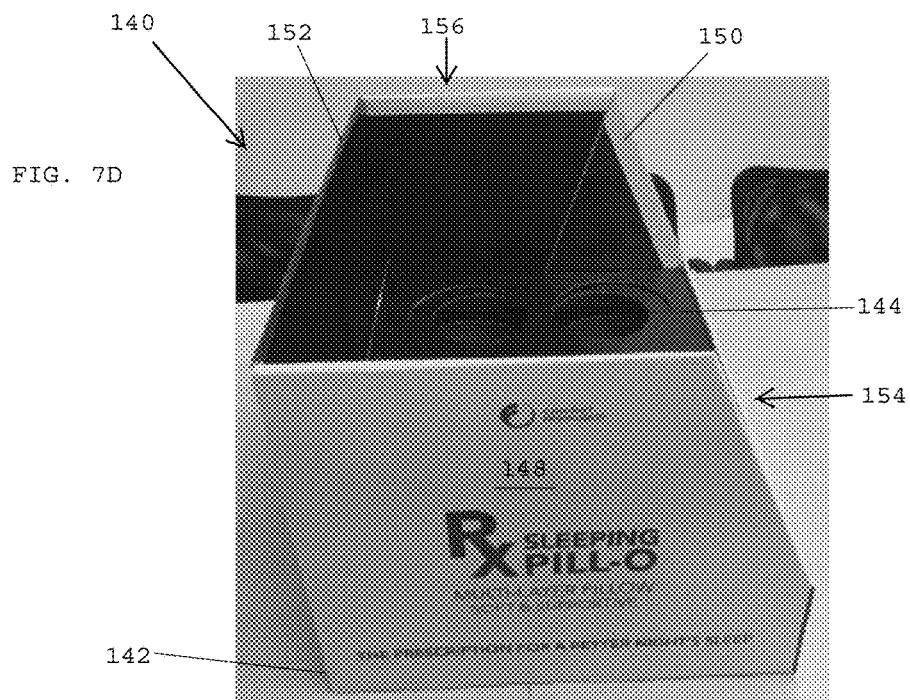
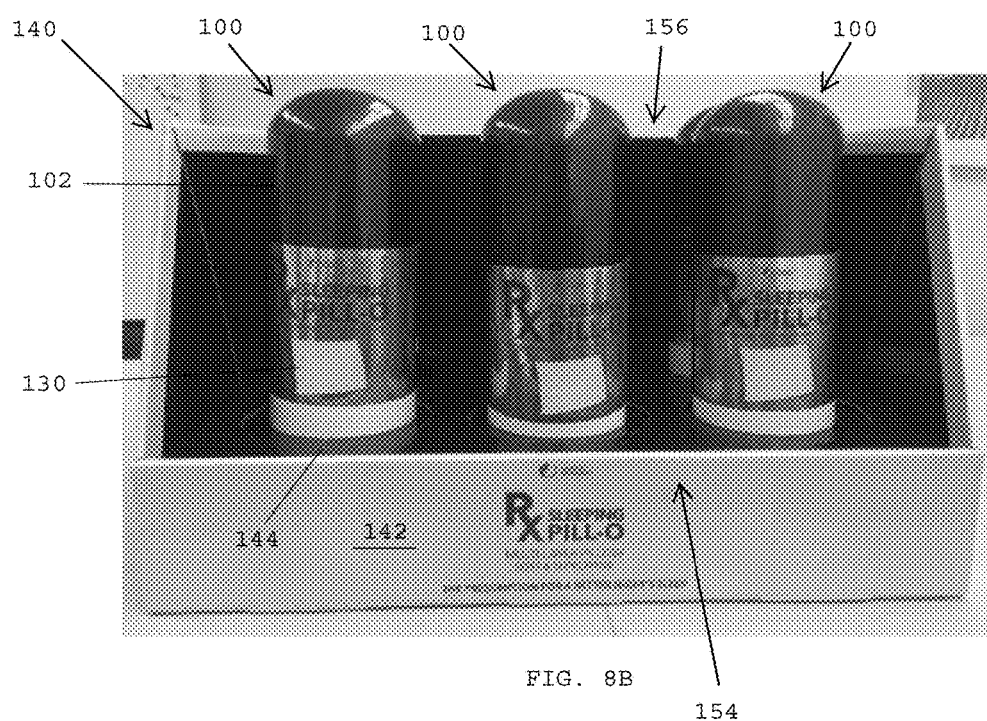
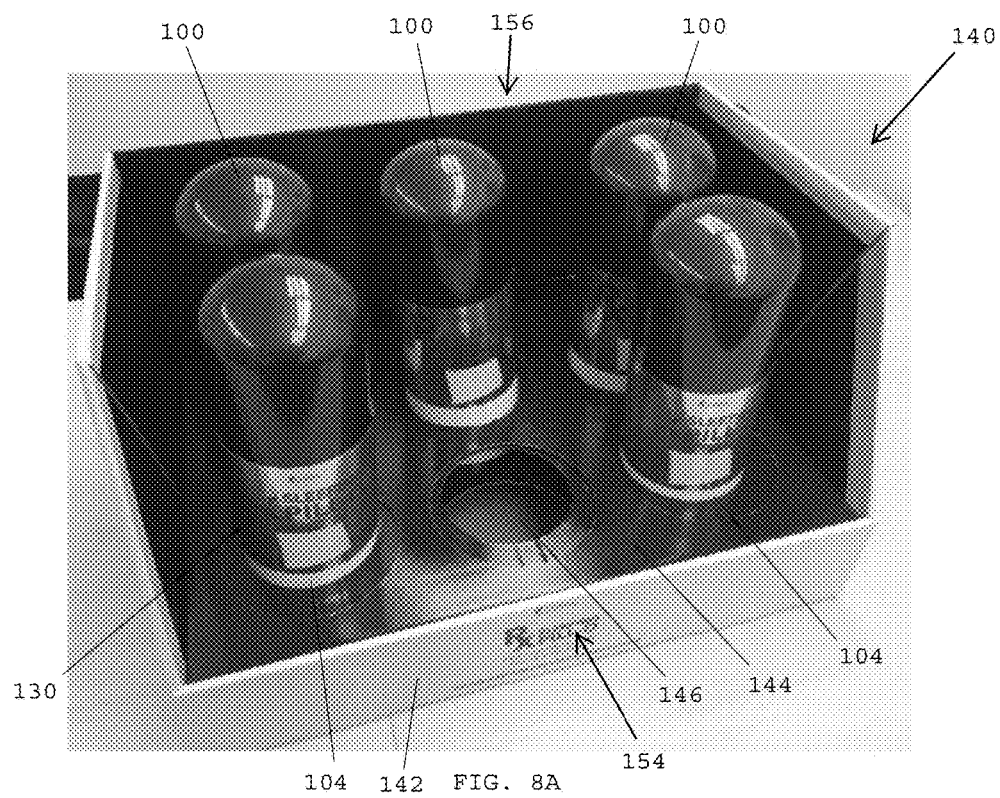


FIG. 7E





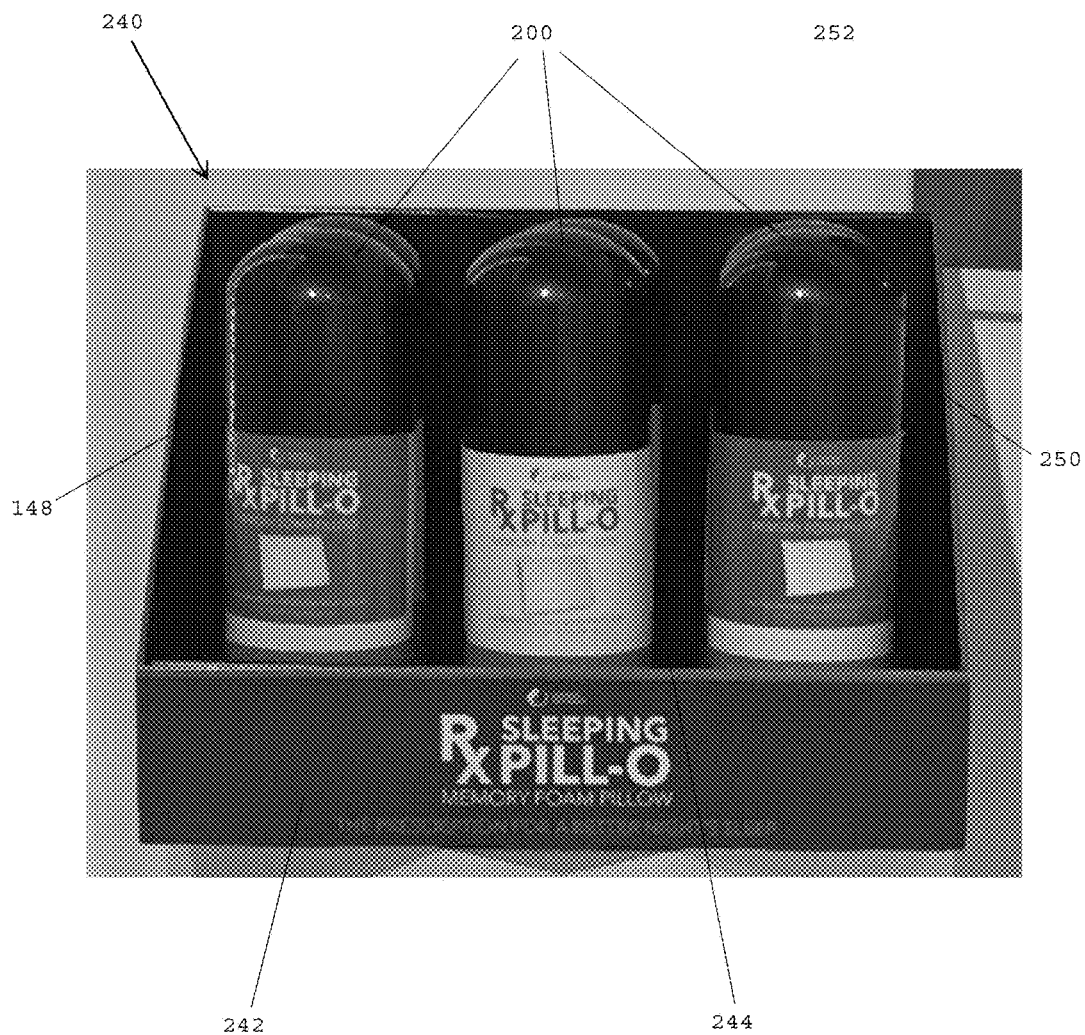
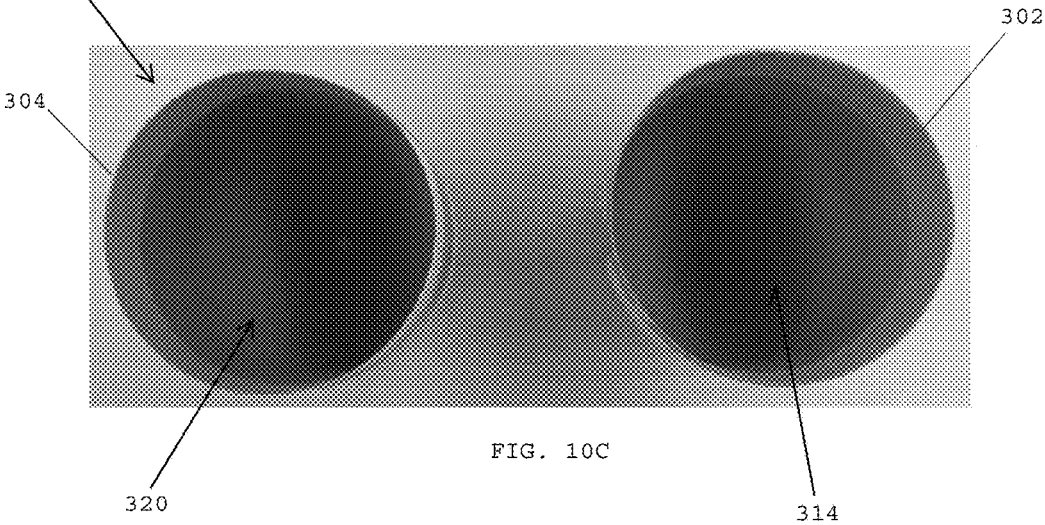
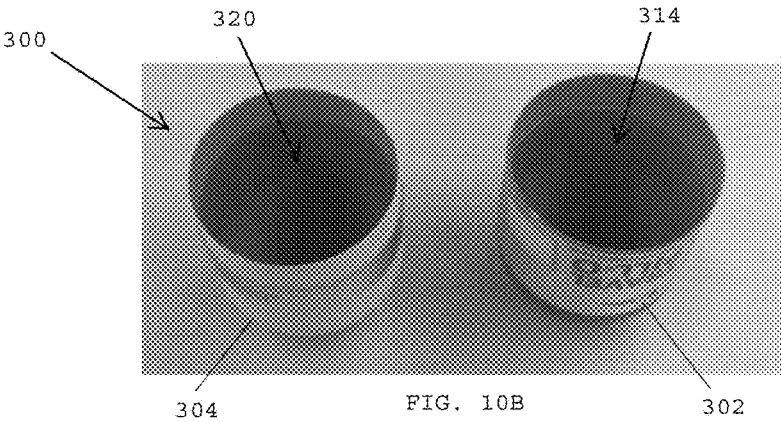
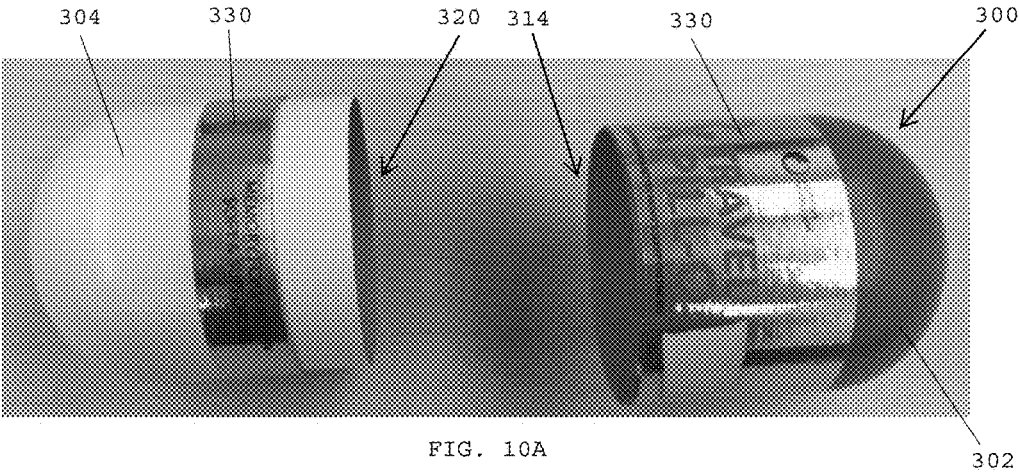


FIG. 9



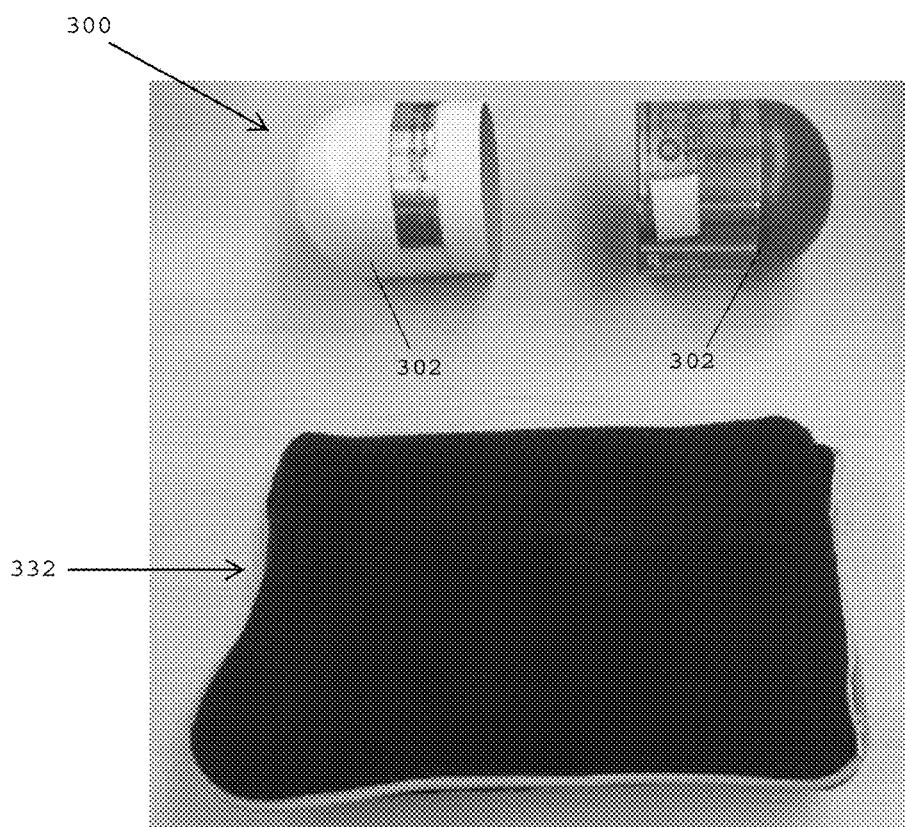


FIG. 11A

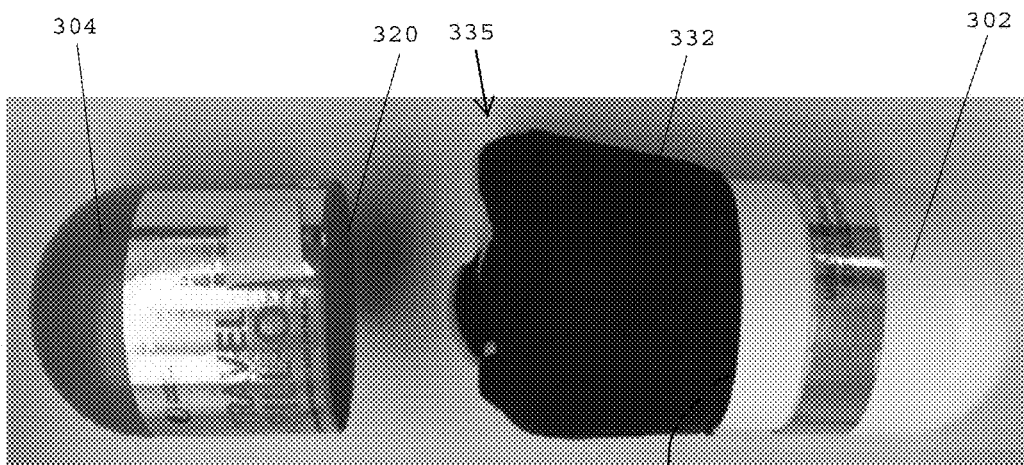


FIG. 11B

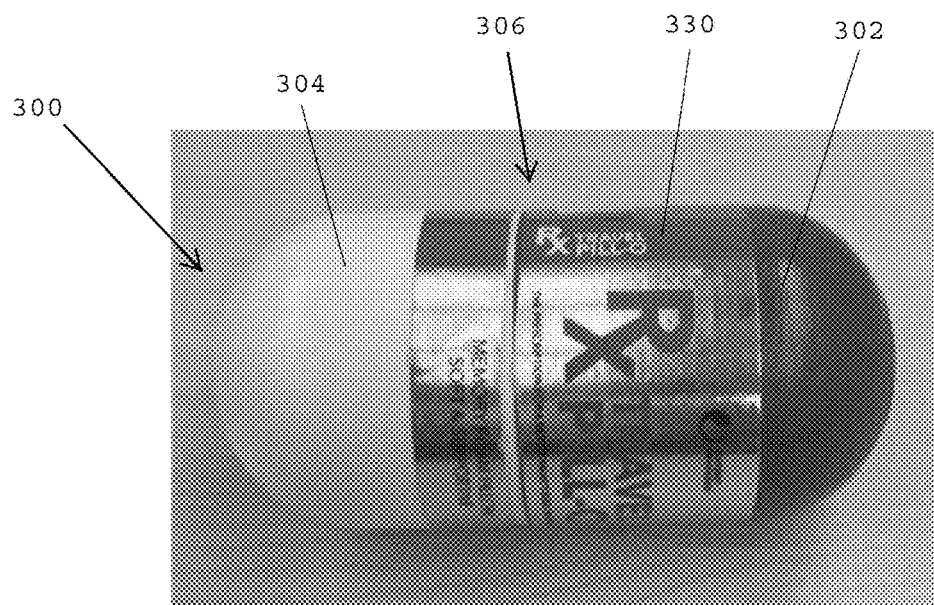
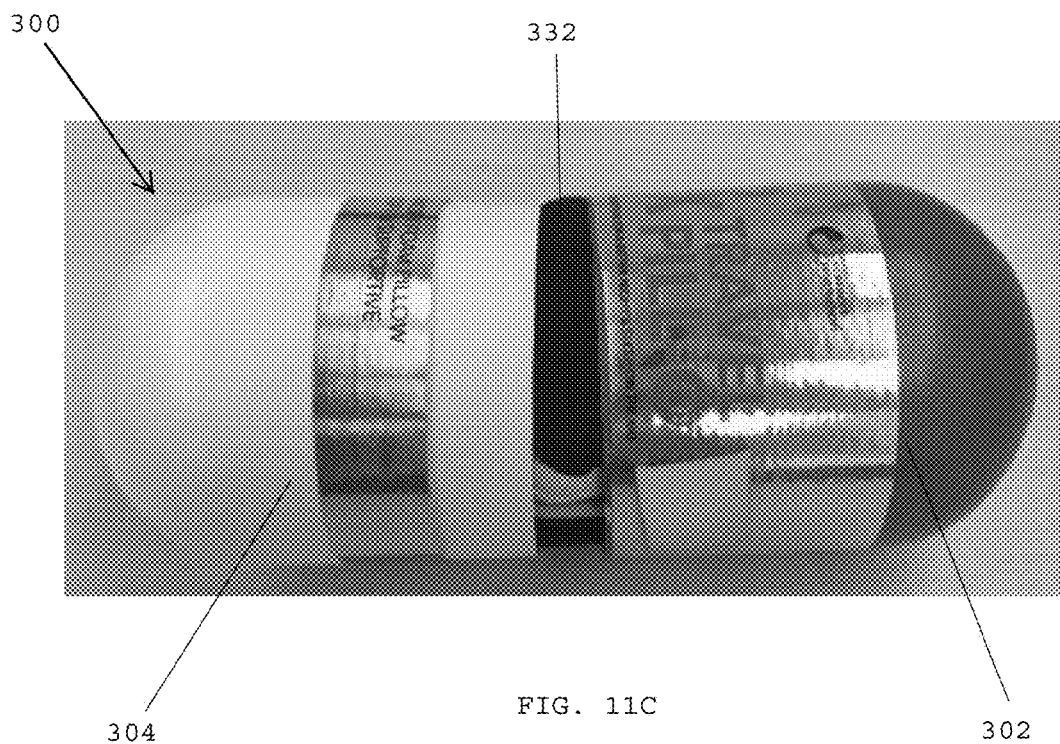
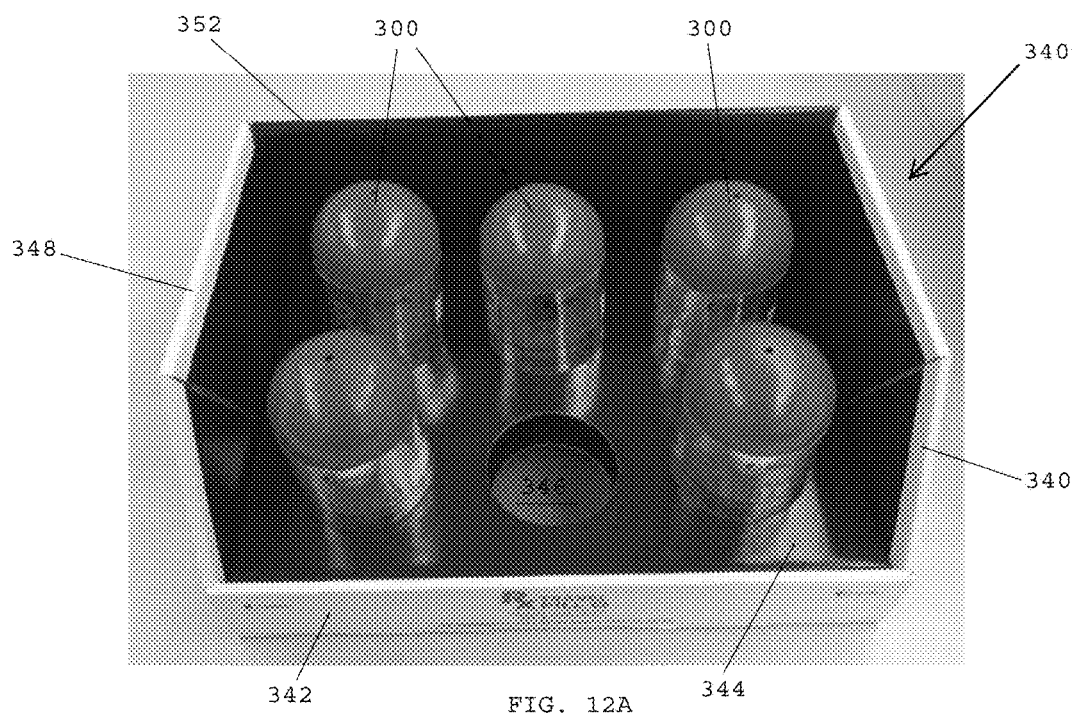
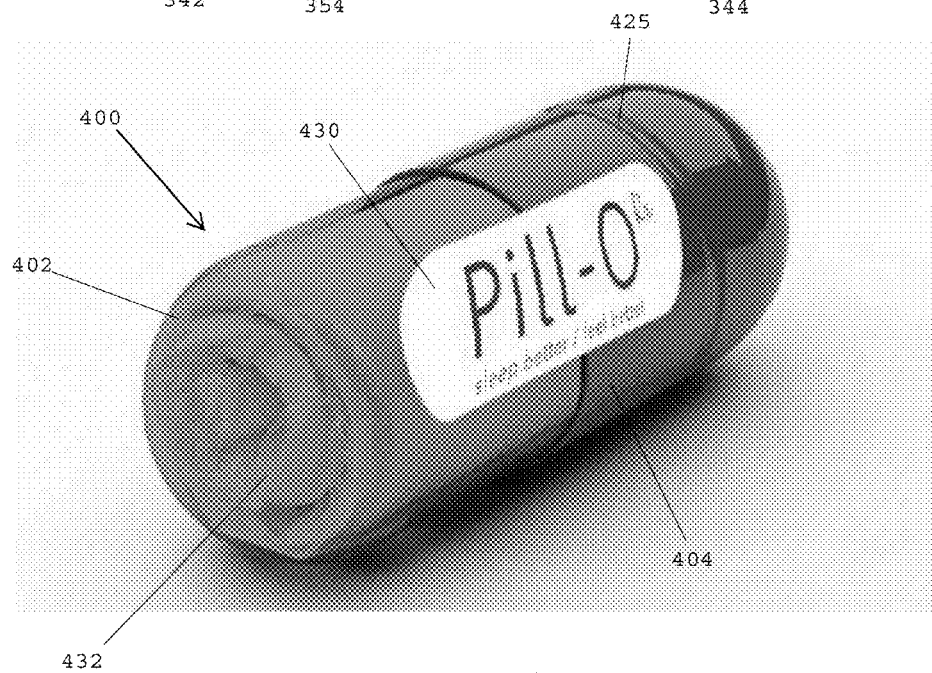


FIG. 11D





PACKAGING ASSEMBLIES AND DISPLAY SYSTEMS FOR BEDDING PRODUCTS

BACKGROUND OF THE INVENTION

Field of the Invention

[0001] The present patent application generally relates to bedding products and more specifically relates to packages for bedding products such as pillows and blankets.

Description of the Related Art

[0002] It is well known to package compressible materials, such as pillows, in a package or bag made from flexible, polymeric material. The resulting packaging, however, can be bulky, which increases transportation, storage and display costs from the point of manufacture to the point of sale.

[0003] Moreover, the bedding product itself or the covering for the bedding product may become soiled as a result of handling and exposure during transport, storage and display. As a result, consumers may be less likely to purchase bedding products packaged in unwieldy, bulky containers.

[0004] There have been a number of developments directed to providing improved packaging for bedding products to make it easier to transport, store, display and sell bulky bedding products. For example, U.S. Pat. No. 4,054,204 to Keeton discloses an article made of flexible foam material, such as a pillow, that is compressed by encasing the article in a substantially air-tight sack, and withdrawing air from the sack, thereby reducing the size of the foam article. After compression, the article is packaged in a box.

[0005] U.S. Pat. No. 4,768,247 to Beier discloses a compressible travel pillow that is stored within a flexible plastic bag. One end of the flexible plastic bag has a zipper or the like to enable that end of the plastic bag to be selectively closed. A one-way air valve is provided at the other end of the bag to permit air within the bag and the pillow contained therein to be exhausted outwardly therefrom so that the thickness of the pillow may be reduced.

[0006] U.S. Pat. No. 5,802,644 to Scheurer discloses a travel pillow including a block of resilient, open cell foam material that can be compressed, rolled-up and secured within an outer protective covering. The outer protective covering includes a pre-stretched, dimensionally stable compression wrapper of a hook and loop-compatible fabric material, a strip of complementary hook or loop fastener material secured along one edge portion and a compression rod secured along an opposite edge portion of the wrapper. The foam pillow and the outer protective covering are wound together about the compression rod as the foam pillow is compressed. The pillow assembly is releasably secured in the rolled-up, compressed configuration by engagement of the complementary fastener strip with the hook and loop-compatible fabric material.

[0007] U.S. Pat. No. 7,870,960 to Diliberto discloses a disaster pack including a pillow, a blanket, and a mattress pad compressed to a volume of about five and one-half percent of their free state volume. A method for making the packaged product includes placing the compressible dry goods within a bag; placing the compressible dry goods disposed within the bag on a platen; compressing the compressible dry goods within the bag; sealing the open end of the bag to form a sealed bag; and removing the dry goods within the sealed bag from the platen.

[0008] US 2011/0266188 to Share et al. discloses a method and apparatus for compressing woven material or other compressible material, such as, but not limited to, a comforter set or bedding set. The bedding set or other woven material is placed into a re-closable storage bag through the open bottom thereof. The bag is compressed by a compression apparatus and the open bottom of the storage bag is sealed shut. The result is a package with reduced volume, which reduces shipping and display costs, and is more aesthetically attractive to the consumer.

[0009] U.S. Pat. No. 8,387,185 to Hasan et al. discloses a space saver pillow system including a space saver pillow and a bag. The space saver pillow has a fill and a covering surrounding and enclosing the fill. The fill of the space saver pillow is adapted to generally rebound back to its natural state after being compressed. The bag encloses the space saver pillow and an amount of air. The space saver pillow enclosed in the bag is compressed to no more than about 80% of its original size.

[0010] U.S. Pat. No. 8,875,875 to Fux discloses a stackable package for bedding includes a flexible outer container having an upper end and a lower end, a bottom panel extending along the lower end of the flexible container and side panels extending upwardly from the bottom panel toward the upper end of the flexible container for defining an open end of the flexible outer container. The stackable package includes an insert disposed inside the flexible outer container for reinforcing the bottom and side panels of the flexible outer container, and bedding disposed inside the insert. The side panels of the flexible outer container have upper ends that are joined together for hermetically sealing the bedding inside the flexible outer container. In one embodiment, a bedding product, such as a pillow, is compressed before being inserted into the insert for minimizing the size and/or footprint of the pillow within the package.

[0011] U.S. Pat. No. 8,875,876 to Fux discloses a stackable package for a bedding product, such as a pillow, that is similar to that disclosed in above-mentioned U.S. Pat. No. 8,875,875. In one embodiment, side panels of the flexible outer container have upper ends that are joined together for sealing the bedding inside the flexible outer container. At least one of the panels of the flexible outer container has at least one vent opening formed therein for allowing air to circulate through the package after the package has been sealed.

[0012] In spite of the above advances, there is a continuing need for improved packages for bedding products that make it easier to pack, ship, store, display and sell bedding products, such as compressible foam pillows. There is also a need for improved display cases used to sell bedding products in retail establishments.

SUMMARY OF THE INVENTION

[0013] In one embodiment, a display system for bedding products includes a top capsule half having a closed upper end, an open lower end, and an outer wall extending from the closed upper end to the open lower end, and a lower capsule half having a closed lower end, an open upper end, and an outer wall extending from the open upper end to the closed lower end of the lower capsule half. In one embodiment, the outer wall at the open upper end of the lower capsule half is inserted into the outer wall at the open lower end of the top capsule half to form an assembled capsule.

[0014] In one embodiment, a bedding product is contained within the assembled capsule.

[0015] In one embodiment, a label, such as a flexible polymeric label, an adhesive label, or a label made of a heat shrink material, is secured over the outer walls of the top and bottom capsule halves for sealing the bedding product within the assembled capsule and/or for holding the capsule halves together. In one embodiment, the label is wrapped completely around the outer perimeter of the assembled capsule.

[0016] In one embodiment, the top and bottom capsule halves are made of polymers or plastic materials.

[0017] In one embodiment, the closed upper end of the top capsule half has a dome shape, and the closed lower end of the bottom capsule half has a dome shape.

[0018] In one embodiment, the outer wall of the top capsule half at the open lower end of the top capsule half has a larger diameter than the outer wall of the lower capsule half at the open upper end of the bottom capsule half.

[0019] In one embodiment, the outer wall of the top capsule half is cylindrically-shaped and the outer wall of the bottom capsule half is cylindrically-shaped.

[0020] In one embodiment, the cylindrically-shaped outer wall at the open lower end of the top capsule half includes a first opening having a first diameter extending along a first axis and a second diameter extending along a second axis that crosses the first axis and that is larger than the first diameter.

[0021] In one embodiment, the cylindrically-shaped outer wall at the open upper end of the bottom capsule half includes a second opening having a first diameter extending along a first axis and a second diameter extending along a second axis that crosses the first axis of the second opening and that is larger than the first diameter of the second opening.

[0022] In one embodiment, the opposing openings of the top and bottom capsule halves do not define perfect circles so that the outer walls of the respective capsule halves form a friction fit when assembled together.

[0023] In one embodiment, the outer wall at the open lower end of the top capsule half overlaps with the outer wall at the open upper end of the bottom capsule half to define a mid-section of the assembled capsule. In one embodiment, the label overlies the mid-section of the assembled capsule.

[0024] In one embodiment, the capsule may be opened by peeling away the label or cutting the label at the mid-section of the assembled capsule.

[0025] In one embodiment, the display system preferably includes a display case having a base with a top surface and a plurality of spaced openings provided in the top surface. In one embodiment, the assembled capsule being disposed in one of the spaced openings with the closed lower end of the lower capsule half being located below the top surface of the base, and the label and the upper capsule half being located above the top surface of the base.

[0026] In one embodiment, the assembled capsule has a longitudinal axis that extends from the closed upper end to the closed lower end of the assembled capsule. In one embodiment, the top surface of the base defines a horizontally-extending surface, and the longitudinal axis of the assembled capsule disposed in the one of the spaced openings is perpendicular to the horizontally-extending top surface of the base.

[0027] In one embodiment, a plurality of assembled capsules are provided, and each one of the assembled capsules is disposed in one of the spaced openings formed in the top surface of the base.

[0028] In one embodiment, the top and bottom capsule halves of the capsules are made of plastic or polymer material and the display case is made of cellulose material such as cardboard.

[0029] In one embodiment, the base of the display case has a front edge, a rear edge, and first and second side edges extending from the front edge to the rear edge of the base. In one embodiment, the display case includes a first side wall extending upwardly from the first side of the base and above the top surface of the base, a second side wall extending upwardly from the second side of the base and above the top surface of the base, and a rear wall extending upwardly from the rear side of the base and above the top surface of the base. In one embodiment, the rear wall extends between and interconnects the first and second side walls, such as the rear edges of the first and second side walls.

[0030] In one embodiment, the bedding product disposed within the assembled capsule may be a pillow, a compressed and rolled pillow, a cushion, a head and neck pillow, a blanket, or a mattress topper.

[0031] In one embodiment, a display system for bedding products may include a display case having a base with a top surface and a plurality of spaced openings formed in the top surface, and assembled capsules disposed within the spaced openings of the display case, whereby each of the spaced opening holds one of the assembled capsules.

[0032] In one embodiment, each assembled capsule includes a top capsule half having a closed upper end, an open lower end, and an outer wall extending from the closed upper end to the open lower end, and a lower capsule half having a closed lower end, an open upper end, and an outer wall extending from the open upper end to the closed lower end of the lower capsule half.

[0033] In one embodiment, the outer wall at the open upper end of the lower capsule half is inserted into the outer wall at the open lower end of the top capsule half to form the assembled capsule.

[0034] In one embodiment, a bedding product is contained within the assembled capsule. In one embodiment, a label is secured over the outer walls of the top and bottom capsule halves for sealing the bedding product within the assembled capsule and/or holding the capsule halves together.

[0035] In one embodiment, the closed upper end of the top capsule half has a dome shape or a hemispherical shape and the outer wall of the top capsule half has a cylindrical shape.

[0036] In one embodiment, the closed lower end of the bottom capsule half has a dome shape or a hemispherical shape and the outer wall of the bottom capsule half has a cylindrical shape.

[0037] In one embodiment, the outer wall of the top capsule half has a larger diameter than the outer wall of the bottom capsule half. In one embodiment, the label may include a flexible material, such as a flexible polymeric material or flexible cellulose material that overlies a mid-section of the assembled capsule. In one embodiment, the label may be an adhesive label, a plastic label, a paper label, or a shrink wrap label. In one embodiment, the mid-section

of the capsule is defined by an area where the outer wall of the top capsule half contacts or meshes with the outer wall of the bottom capsule half.

[0038] In one embodiment, a display system for bedding products preferably includes a display case having a base with a front edge, a rear edge, first and second side edges extending from the front edge to the rear edge, a top surface, and a plurality of spaced openings formed in the top surface. In one embodiment, the display case includes a first side wall extending upwardly from the first side of the base and above the top surface of the base, a second side wall extending upwardly from the second side of the base and above the top surface of the base, and a rear wall extending upwardly from the rear side of the base and above the top surface of the base. In one embodiment, the rear wall extends between and interconnects the first and second side walls.

[0039] In one embodiment, assembled capsules are disposed within the spaced openings of the display case, whereby each spaced opening holds one of the assembled capsules.

[0040] In one embodiment, each assembled capsule includes a top capsule half having a closed upper end, an open lower end, and an outer wall extending from the closed upper end to the open lower end, and a lower capsule half having a closed lower end, an open upper end, and an outer wall extending from the open upper end to the closed lower end of the lower capsule half. In one embodiment, the outer wall at the open upper end of the lower capsule half is inserted into the outer wall at the open lower end of the top capsule half to form the assembled capsule.

[0041] In one embodiment, a compressed pillow is contained within each capsule.

[0042] In one embodiment, a package label is secured over the outer walls of the top and bottom capsule halves for sealing the bedding product within the assembled capsule.

[0043] In one embodiment, the closed upper end of the top capsule half has a dome shape and the outer wall of the top capsule half has a cylindrical shape. In one embodiment, the closed lower end of the bottom capsule half has a dome shape and the outer wall of the bottom capsule half has a cylindrical shape. In one embodiment, the outer wall of the top capsule half has a larger diameter than the outer wall of the bottom capsule half.

[0044] In one embodiment, the label overlies a mid-section of the assembled capsule. In one embodiment, the mid-section of the capsule is defined by an area where the outer wall of the top capsule half overlaps with the outer wall of the bottom capsule half.

[0045] These and other preferred embodiments of the present invention will be described in more detail below.

BRIEF DESCRIPTION OF THE DRAWINGS

[0046] FIG. 1 shows a front elevation view of a capsule for a bedding product including a first capsule half and a second capsule half that are joined together, in accordance with one embodiment.

[0047] FIG. 2A shows a front elevation view of the top capsule half shown in FIG. 1.

[0048] FIG. 2B shows a cross-sectional view of the top capsule half of FIG. 2A taken along line 2B-2B thereof.

[0049] FIG. 3A shows a front elevation view of the bottom capsule half shown in FIG. 1.

[0050] FIG. 3B shows a cross-sectional view of the bottom capsule half of FIG. 3A taken along line 3B-3B thereof.

[0051] FIG. 4A shows a front elevation view of a capsule for bedding products after the top capsule half of FIGS. 2A and 2B has been joined with the bottom capsule half of FIGS. 3A and 3B.

[0052] FIG. 4B shows the capsule of FIG. 4A after a label has been applied over a mid-section of the assembled capsule, in accordance with one embodiment.

[0053] FIG. 5A shows a perspective view of a pillow prior to being compressed and inserted into a capsule, in accordance with one embodiment.

[0054] FIG. 5B shows the pillow of FIG. 5A after it has been compressed, rolled and prepared for insertion into a capsule, in accordance with one embodiment.

[0055] FIG. 6 shows a perspective view of a capsule containing a compressed bedding product, the capsule including a top capsule half, a bottom capsule half, and a label covering a mid-section of the capsule, in accordance with one embodiment.

[0056] FIG. 7A shows a perspective view of a display case for capsules containing bedding products, in accordance with one embodiment.

[0057] FIG. 7B shows a front view of the display case shown in FIG. 7A.

[0058] FIG. 7C shows a top perspective view of the display case shown in FIGS. 7A and 7B.

[0059] FIG. 7D shows a left side perspective view of the display case shown in FIGS. 7A-7C.

[0060] FIG. 7E shows a rear perspective view of the display case shown in FIGS. 7A-7D.

[0061] FIG. 8A shows a front perspective view of a display case and capsules containing bedding products inserted into openings of the display case, in accordance with one embodiment.

[0062] FIG. 8B shows a front elevation view of the display case of FIG. 8A having capsules containing bedding products inserted into openings provided on the display case, in accordance with one embodiment.

[0063] FIG. 8C shows a magnified view of one of the capsules containing a bedding product inserted into an opening of the display case of FIG. 8B.

[0064] FIG. 9 shows a front elevation view of a display case that holds capsules containing bedding products, in accordance with one embodiment.

[0065] FIG. 10A shows a perspective view of a capsule for a bedding product including a top capsule half, a bottom capsule half, and a label that covers a mid-section of the capsule, in accordance with one embodiment.

[0066] FIG. 10B shows top perspective views of the respective top capsule half and bottom capsule half shown in FIG. 10A.

[0067] FIG. 10C shows top plan views of the respective top capsule half and bottom capsule half capsule shown in FIG. 10B.

[0068] FIG. 11A shows a first step of a method for inserting a pillow into a capsule, in accordance with one embodiment.

[0069] FIG. 11B shows a second step of a method for inserting a pillow into a capsule, in accordance with one embodiment.

[0070] FIG. 11C shows a third step of a method for inserting a pillow into a capsule, in accordance with one embodiment.

[0071] FIG. 11D shows a fourth step of a method of inserting a pillow into a capsule, in accordance with one embodiment.

[0072] FIG. 12A shows a top plan view of a display case having openings for receiving capsules containing bedding products, in accordance with one embodiment.

[0073] FIG. 12B shows a front perspective view of the display case of FIG. 12A with capsules containing bedding products inserted into openings of the display case, in accordance with one embodiment.

[0074] FIG. 13 shows a front elevation view of the display case and the capsules shown in FIG. 12B.

[0075] FIG. 14 shows a capsule containing a bedding product including a top capsule half, bottom capsule half joined with the top capsule half, and a label secured to a mid-section of the capsule, in accordance with one embodiment.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0076] Referring to FIG. 1, in accordance with one embodiment, a capsule 100 preferably includes a top capsule half 102 and a bottom capsule half 104. In one embodiment, one of the two capsule halves has a slightly larger diameter than the other one of the two capsule halves so that the capsules may be joined together by inserting one capsule half into the other capsule half. In one embodiment, the capsule 100 is adapted to hold a bedding product, such as a pillow. In one embodiment, the bedding product may be compressed, rolled, and/or folded prior to being placed within the capsule 100. In one embodiment, the bedding product is inserted into an open end of one of the top capsule half 102 or the bottom capsule half 104 before the two capsule halves are assembled together for fully encapsulating the bedding product within the capsule 100. In one embodiment, a label may be placed over a mid-section 106 of the capsule 100. In one embodiment, the label may be placed over a cylindrical shaped portion of the capsule 100. The label may extend over portions of the outer surface of the top capsule half 102 and the bottom capsule half 104. The label may provide a seal that covers the mid-section 106 of the capsule. The label may be cut or pulled away from the outer wall of the capsule 100 to open the capsule, whereupon the first and second capsule halves 102, 104 may be separated from one another for accessing the bedding product disposed inside the capsule.

[0077] Referring to FIG. 2A, in one embodiment, the top capsule half 102 preferably has a dome-shaped upper end 108 and a cylindrical-shaped main body 110 that extends below the dome-shaped upper end 108. The top capsule half 102 preferably has a lower end 112 that defines a substantially circular opening adapted to receive a bedding product. In one embodiment, the top half 102 of the capsule has a length L_1 of about 10-12 inches and more preferably about 10.75 inches.

[0078] Referring to FIG. 2B, in one embodiment, the lower end of the top capsule half 102 preferably defines an opening 114 adapted to receive a bedding product. The opening 114 is defined by the outer wall 116 of the cylindrical-shaped main body portion 110 (FIG. 2A) of the top capsule half 102. In one embodiment, the opening 114 does not define a circle so that it has a first diameter D_1 that is smaller than a second diameter D_2 that intersects the axis defining the first diameter D_1 . In one embodiment, the first

diameter D_1 of the opening 114 of the top capsule half 102 is about 7.21 inches and the second diameter D_2 of the opening 114 of the top capsule half 102 is about 7.28 inches.

[0079] Referring to FIG. 3A, in one embodiment, the bottom capsule half 104 preferably includes an upper end 118 defining an opening 120 and a dome-shaped lower end 122 that defines a lower end of the bottom capsule half 104. The bottom capsule half 104 desirably includes a cylindrical-shaped main body portion 124 that preferably extends between the upper end 118 and the dome-shaped lower end 122. In one embodiment, the bottom capsule half 104 has a length L_2 of about 10-12 inches and more preferably about 10.75 inches.

[0080] Referring to FIG. 3B, in one embodiment, the opening 120 at the upper end 118 (FIG. 3A) of the bottom capsule half 104 is preferably defined by an outer wall 126. The outer wall 126 preferably has a substantially cylindrical shape that extends between the upper end of the bottom capsule half and the dome-shaped lower end 122 of the bottom capsule half 104. In one embodiment, the opening 120 does not define a circle so that a first diameter D_3 of the opening 120 is smaller than a second diameter D_4 of the opening that intersects the axis defining the first diameter D_3 . In one embodiment, the first diameter D_3 of the opening 120 of the bottom capsule half 104 is about 7.15 inches and the second diameter D_4 of the opening 120 of the bottom capsule half 104 is about 7.21 inches.

[0081] In one embodiment, the top and bottom capsule halves are made of polymer or plastic materials. In one embodiment, the top and bottom capsule halves may have different colors. In one embodiment, the top capsule half may be blue or red and the bottom capsule half may be white. In one embodiment, one of the capsule halves may be opaque and the other one of the capsule halves may be transparent.

[0082] In one embodiment, the top capsule half has a first substantially cylindrical shaped wall having a slightly larger diameter than an opposing, second substantially cylindrical shaped wall of the bottom capsule half. As such, when the capsule halves are assembled together, the upper end of the bottom capsule half fits or nests inside the lower end of the top capsule half. In one embodiment, the top and bottom capsule halves may be held together by a snap fit connection.

[0083] In one embodiment, the openings of the capsule halves are do not define perfect circles so that the capsule halves may be wedged together or held together via a friction fit.

[0084] Referring to FIG. 4A, in one embodiment, the capsule 100 may be assembled together by inserting the upper end 118 of the smaller diameter bottom capsule half 104 into the opening at the lower end 112 of the larger diameter top capsule half 102. In one embodiment, after the bottom capsule half 104 is inserted into the top capsule half 102, the dome-shaped upper end 108 of the top capsule half 102 forms an upper end of the capsule 100 and the dome-shaped lower end 122 of the bottom capsule half 104 forms a lower end of the capsule 100. After the top and bottom capsule halves 102, 104 are assembled together, a demarcation line 128 extends around an outer perimeter of the capsule 100 and defines a location where the top and bottom capsule halves 102, 104 of the capsule 100 are joined together. In one embodiment, a portion of the lower end 112 of the top capsule half 102 overlaps with a portion of the upper end 118 of the bottom capsule half 104. In one

embodiment, after the top and bottom capsule halves **102**, **104** are assembled together, the capsule **100** has a length L_3 of about 18-22 inches and more preferably about 20.50 inches, which is shorter than the aggregate lengths of the top and bottom capsule halves.

[0085] Referring to FIG. 4B, in one embodiment, after the top and bottom capsule halves **102**, **104** have been assembled together, a label **130** is preferably positioned over the mid-section **106** of the capsule to include the demarcation line **128** of the capsule **100**. In one embodiment, the label **130** is desirably adhered to the outer surface of the outer wall **116** of the top capsule half **102** and the outer surface of the outer wall **126** of the bottom capsule half **104**. In one embodiment, the label **130** provides a breakable seal that holds the top and bottom capsule halves **102**, **104** together until it is desirable to open the capsule for accessing the bedding product contained therein. In one embodiment, the assembled capsule **100** has a length L_3 of about 20.50 inches, and a diameter D_5 of about 7-8 inches and more preferably about 7.20-7.30 inches. In one embodiment, the assembled capsule **100** defines a longitudinal axis A_1 that extends along the length of the capsule from the closed upper end **108** to the closed lower end **122**.

[0086] Referring to FIG. 5A, in one embodiment, a bedding product, such as a pillow **132** may be packed into a capsule **100**. In one embodiment, the pillow **132** may be compressed, folded, and/or rolled prior to being placed inside the capsule **100**. In one embodiment, after the pillow **132** is packed into the capsule **100**, the label **130** may be applied over the outer surface of the capsule **100** for holding the top capsule half **102** and the bottom capsule half **104** together. In one embodiment, the label **130** preferably covers the midsection **106** of the capsule and provides a breakable seal that holds the top and bottom capsule halves together.

[0087] Referring to FIG. 5B, in one embodiment, after the pillow **132** is compressed, folded, and/or rolled, the pillow **132** may be wrapped in a flexible wrapper **134**, such as cellophane or a plastic wrap, that maintains the pillow **132** in the compressed, folded, and/or rolled configuration. The pillow subassembly **136** shown in FIG. 5B may be inserted into the top and bottom capsule halves **102**, **104**, with the label **130** affixed over the outer surface of the capsule **100** for holding the top and bottom capsule halves **102**, **104** together. After the label **130** has been applied, in order to open the capsule **100**, the label **130** may be peeled away from the outer surface of the capsule or a cut line may be formed at the demarcation line **128** (FIG. 4B) of the capsule for separating the top capsule half **102** from the bottom capsule half **104** for accessing the pillow.

[0088] Referring to FIG. 6, in one embodiment, a capsule **100** has a bedding product stored therein. The capsule **100** preferably has a top capsule half **102** that is assembled with a bottom capsule half **104**, with a label **130** overlying the top and bottom capsule halves for securing the top and bottom capsule halves together. A seal **130** preferably overlies a midsection **106** of the capsule **100**. In one embodiment, the top capsule half **102** has a dome-shaped upper end **108** that defines an upper end of the capsule **100** and the bottom capsule half **104** has a dome-shaped lower end **122** that preferably defines a lower end of the capsule **100**.

[0089] Referring to FIGS. 7A and 7B, in one embodiment, a display case **140** preferably has a base **142**, such as a rectangular or square shaped base, with a top surface **144** having a plurality of spaced openings **146** formed in the top

surface **144**. In one embodiment, the spaced openings **146** define a diameter that substantially matches the outer diameter of the mid-section **106** (FIG. 1) of the capsule for holding the capsules in a vertical orientation relative to the top surface **144** of the base **142**. In one embodiment, the display case **140** preferably includes first and second sidewalls **148**, **150** that extend upwardly from the top surface **144** and a rear wall **152** that extends upwardly from the top surface **144** adjacent a rear edge of the base **142**. The rear wall **152** preferably extends between and interconnects the rear ends of the first and second sidewalls **148**, **150** for defining a closed region of the display case **140** adjacent the rear edge of the base **142**. In one embodiment, the front **154** of the display case **140** is open (i.e., not covered by a vertical wall) so that a consumer may access the capsules positioned within the spaced openings **146** formed in the top surface **144** of the display case **140**.

[0090] Referring to FIG. 7C, in one embodiment, the spaced openings **146** include a front row of spaced openings **160** and a second row of spaced openings **162**. In one embodiment, the first row of spaced openings **160** includes openings **146A**, **146B**, and **146C** that are evenly spaced from one another over the top surface **144** of the base **142**. In one embodiment, the second row of spaced openings **162** includes openings **146A'**, **146B'**, and **146C'** that are evenly spaced from one another across the top surface **144** of the base **142**. In one embodiment, each of the spaced openings **146** has a diameter that is substantially the same as and/or matches the outer diameter of the capsules **100** (FIG. 1) inserted into the respective openings. In one embodiment, when the capsules are inserted into the spaced openings **146** of the display case **140**, a friction fit may be formed between the outer surfaces of the cylindrical-shaped walls of the capsules and the edge of the openings for holding the capsules in a substantially vertical orientation relative to a horizontal surface defined by the top surface **144** of the base **142**.

[0091] Referring to FIG. 7D, in one embodiment, the first sidewall **148** of the display case **140** defines a left side of the display case **140** and extends upwardly from the base **142**. The second sidewall **150** of the display case **140** also extends upwardly from the base **142** to define a right side of the display case **140**. The rear wall **152** preferably extends between the first sidewall **148** and the second sidewall **150**. The top surface **144** of the display case **140** may be accessed via the front opening **154** located between the first and second sidewalls **148**, **150**. In one embodiment, the display case has a top opening **156** that is located between the first and second sidewalls **148**, **150** and the rear wall **152**.

[0092] Referring to FIG. 7E, in one embodiment, the rear wall **152** extends between the first and second sidewalls **148**, **150** and defines a rear side of the display case **140**. The rear wall **152** interconnects the rear edges of the first and second sidewalls **148**, **150** to enhance the structural integrity of the display case **140**.

[0093] In one embodiment, the upper ends of the first and second sidewalls **148**, **150** and the rear wall **152** lie in a common plane so that a first display case similar to that shown in FIGS. 7A-7E may be stacked atop a second display case having similar features, such as by stacking boxes atop one another.

[0094] Referring to FIG. 8A, in one embodiment, a plurality of capsules **100** similar to that shown in FIG. 6 are inserted into spaced openings **146** provided in the top

surface 144 of the display case 140. In one embodiment, the bottom capsule halves 104 of the capsules 100 are inserted into the respective openings 146 for holding the capsules 100 in a substantially vertical orientation relative to the top surface 144. In one embodiment, when the capsules are in the openings, the labels 130 on the capsules 100 are preferably visible above the top surface 144 of the base 142 so that the labels may be easily seen by a consumer through the front opening 154 of the display case 140. The top opening 156 of the display case allows consumers to access the capsules 100 from the top of the display case (e.g., to access the capsules in the rear row of capsules).

[0095] Referring to FIG. 8B, in one embodiment, the capsules 100 are inserted into the openings 146 (FIG. 8A) formed in the top surface 144 of the base 142. The bottom capsule halves 104 are desirably inserted into the openings so that the labels 130 and the top halves 102 project above the top surface 144 of the base 142. The front opening 154 of the display case 140 enables consumers to access the capsules 100 at the front edge of the base 142. The top opening 156 of the display case 140 enables a consumer to access the capsules 100 from the top of the display case.

[0096] Referring to FIG. 8C, in one embodiment, a bottom capsule half 104 is inserted into an opening 146 formed in the top surface 144 of the base 142 of the display case 140. The outer diameter of the cylindrical-shaped wall of the bottom capsule half 104 preferably matches the diameter of the opening 146 so that the capsule 100 is held in a substantially vertical orientation relative to a horizontal plane defined by the top surface 144 of the base 142. In one embodiment, with the bottom half 104 inserted into the opening 146, the label 130 is preferably visible above the top surface 144 of the base 142. The top capsule half 102 preferably projects above the label 130.

[0097] Referring to FIG. 9, in one embodiment, a display case 240 has a rectangular-shaped base 242 having a top surface 244 with a plurality of spaced openings formed in the top surface 244. A plurality of capsules 200, each including a bedding product (e.g., a compressed pillow), are desirably inserted into the respective spaced openings for holding the capsules 200 in a substantially vertical orientation relative to the top surface 244. The display case 240 includes first and second sidewalls 248, 250 and a rear wall 252 that defines a closed rear end of the display case 240. In one embodiment, a consumer may reach between the first and second sidewalls 248, 250 for accessing one or more of the capsules 200 via a front opening or a top opening of the display case 240.

[0098] In one embodiment, a display case may have a base with a top surface having openings for receiving the capsules, with no side or rear walls extending upwardly from the top surface of the base.

[0099] Referring to FIGS. 10A-10C, in one embodiment, a capsule 300 is adapted to receive a bedding product. In one embodiment, the capsule 300 preferably includes a top capsule half 302 having a lower end defining an opening 314 and a bottom capsule half 304 having an upper end defining an opening 320. In one embodiment, after the top and bottom halves 302, 304 of the capsule 300 are assembled together, a label 340 may be applied over the outer surfaces of the top and bottom halves for holding the top and bottom halves of the capsule together.

[0100] Referring to FIG. 11A, in one embodiment, a bedding product such as a pillow 332 is preferably insertable

into the top and bottom capsule halves 302, 304. The pillow 332 may be compressed, folded, and/or rolled prior to being inserted into the top and bottom capsule halves 302, 304.

[0101] Referring to FIG. 11B, in one embodiment, the pillow 332 may be compressed, folded, and/or rolled prior to being inserted into the opening 314 at the lower end of the top capsule half 302. Referring to FIGS. 11B and 11C, in one embodiment, the free end 335 of the pillow 332 may be inserted into the opening 320 of the bottom capsule half 304 whereupon a first portion of the pillow is disposed within the top capsule half 302 and a second portion of the pillow 332 is disposed within the bottom capsule half 304.

[0102] Referring to FIG. 11D, after the top and bottom capsule halves 302, 304 have been assembled together, a label 330 is preferably secured around a midsection 306 of the capsule 300 for holding the top and bottom capsule halves 302, 304 together and for sealing the pillow 332 (FIG. 11C) within the capsule 300.

[0103] Referring to FIG. 12A, in one embodiment, a display case 340 preferably includes a base 342, such as a rectangular-shaped base, having a top surface 344 with a plurality of spaced openings 346 formed in the top surface 344. In one embodiment, the openings 346 are preferably evenly spaced from one another over the top surface 344. In one embodiment, the display case 340 includes first and second sidewalls 348, 350 that extend upwardly from the top surface 344. The display case 340 also preferably includes a rear wall 352 that extends upwardly from the top surface 344 and interconnects rear ends of the first and second sidewalls 348, 350. In one embodiment, a plurality of the capsules 300 shown in FIG. 11D, each containing a bedding product, are inserted into the respective openings 346 provided in the top surface 344 of the base 342. The openings 346 preferably have inner diameters that are substantially equal to the outer diameters of the respective capsules 300 so that the capsules form a snug fit or friction fit with the openings 346 for holding the capsules in a substantially vertical orientation relative to the top surface 344 of the base 342.

[0104] Referring to FIG. 12B, in one embodiment, the display case 340 includes a first row of openings 360 located adjacent a leading edge of the base 342 and a second row of openings 362 located adjacent rear edge of the base 342. The embodiment shown in FIG. 12B has a total of six openings formed in the top surface 344 of the base 342, however, other embodiments may have more openings and/or more rows and still fall within the scope of the disclosure.

[0105] Referring to FIG. 13, in one embodiment, the display case 340 desirably holds a plurality of capsules 300 in a substantially vertical orientation relative to the top surface 344 of the base 342. The display case 340 has a front opening 354 that extends between first and second sidewalls 348, 350 to provide access to the capsules 300 at a front edge of the base 342. The display case 340 preferably includes a top opening 356 that enables a consumer to access and remove the capsules from the top of the display case 340.

[0106] Referring to FIG. 14, in one embodiment, a capsule 400 for a bedding product 432 preferably includes a top capsule half 402 and a bottom capsule half 404 that are assembled together for forming the assembled capsule 400. In one embodiment, the top capsule half 402 may be transparent for providing visibility of the bedding product 432 stored therein. In one embodiment, the bottom capsule half 404 preferably has an annular groove 425 formed in an outer surface thereof that may form a friction fit with an

inner edge defining an opening **346** (FIG. 11A) formed in a top surface of a base of a display case for holding the capsule **400** in a vertical orientation relative to the top surface. In one embodiment, the bottom capsule half **404** may be opaque (i.e., not transparent like to top capsule half **402**). In one embodiment, after the top and bottom capsule halves are joined together, a label **430** may be placed over an outer surface of the top and bottom capsule halves **402**, **404** for sealing the capsule and holding the top and bottom capsule halves in an assembled configuration. The label **430** may be broken for separating the top and bottom capsule halves from one another and accessing the bedding product contained within the capsule **400**.

[0107] While the foregoing is directed to embodiments of the present invention, other and further embodiments of the invention may be devised without departing from the basic scope thereof, which is only limited by the scope of the claims that follow. For example, the present invention contemplates that any of the features shown in any of the embodiments described herein, or incorporated by reference herein, may be incorporated with any of the features shown in any of the other embodiments described herein, or incorporated by reference herein, and still fall within the scope of the present invention.

What is claimed is:

1. A display system for bedding products comprising:
 - a top capsule half having a closed upper end, an open lower end, and an outer wall extending from said closed upper end to said open lower end;
 - a lower capsule half having a closed lower end, an open upper end, and an outer wall extending from said open upper end to said closed lower end of said lower capsule half, wherein outer wall at said open upper end of said lower capsule half is inserted into said outer wall at said open lower end of said top capsule half to form an assembled capsule;
 - a bedding product contained within said assembled capsule;
 - a label secured over said outer walls of said top and bottom capsule halves for sealing said bedding product within said assembled capsule.
2. The display system as claimed in claim 1, wherein said top and bottom capsule halves are made of materials selected from the group consisting of polymers and plastics.
3. The display system as claimed in claim 1, wherein said closed upper end of said top capsule half has a dome shape, and said closed lower end of said bottom capsule half has a dome shape.
4. The display system as claimed in claim 1, wherein said outer wall of said top capsule half at said open lower end of said top capsule half has a larger diameter than said outer wall of said lower capsule half at said open upper end of said bottom capsule half.
5. The display system as claimed in claim 4, wherein said outer wall of said top capsule half is cylindrically-shaped and said outer wall of said bottom capsule half is cylindrically-shaped.
6. The display system as claimed in claim 5, wherein said cylindrically-shaped outer wall at said open lower end of said top capsule half includes a first opening having a first diameter extending along a first axis and a second diameter extending along a second axis that crosses the first axis and that is larger than the first diameter.

7. The display system as claimed in claim 6, wherein said cylindrically-shaped outer wall at said open upper end of said bottom capsule half includes a second opening having a first diameter extending along a first axis and a second diameter extending along a second axis that crosses the first axis of the second opening and that is larger than the first diameter of the second opening.

8. The display system as claimed in claim 1, wherein said outer wall at said open lower end of said top capsule half overlaps with said outer wall at said open upper end of said bottom capsule half to define a mid-section of said assembled capsule, and wherein said label overlies said mid-section of said assembled capsule.

9. The display system as claimed in claim 1, further comprising:

- a display case having a base with a top surface and a plurality of spaced openings provided in said top surface;
- said assembled capsule being disposed in one of said spaced openings with said closed lower end of said lower capsule half being located below said top surface of said base, and said label and said upper capsule half being located above said top surface of said base.

10. The display system as claimed in claim 9, wherein said assembled capsule has a longitudinal axis that extends from said closed upper end to said closed lower end of said assembled capsule, wherein said top surface of said base defines a horizontally-extending surface, and wherein the longitudinal axis of said assembled capsule disposed in the one of said spaced openings is perpendicular to said horizontally-extending top surface of said base.

11. The display system as claimed in claim 9, further comprising a plurality of said assembled capsules, wherein each one of said assembled capsules is disposed in one of said spaced openings formed in said top surface of said base.

12. The display system as claimed in claim 9, wherein said assembled capsules comprise plastic or polymer material and said display case comprises cellulose material.

13. The display system as claimed in claim 9, wherein said display case comprises:

- said base having a front edge, a rear edge, and first and second side edges extending from said front edge to said rear edge of said base;
- a first side wall extending upwardly from said first side of said base and above said top surface of said base;
- a second side wall extending upwardly from said second side of said base and above said top surface of said base;
- a rear wall extending upwardly from said rear side of said base and above said top surface of said base, wherein said rear wall extends between and interconnects rear edges of said first and second side walls.

14. The display system as claimed in claim 1, wherein said bedding product disposed within said assembled capsule comprises a compressed and rolled pillow.

15. A display system for bedding products comprising:

- a display case having a base with a top surface and a plurality of spaced openings formed in said top surface;
- assembled capsules disposed within said spaced openings of said display case, wherein each said spaced opening holds one of said assembled capsules;

each said assembled capsule comprising

- a top capsule half having a closed upper end, an open lower end, and an outer wall extending from said closed upper end to said open lower end,
- a lower capsule half having a closed lower end, an open upper end, and an outer wall extending from said open upper end to said closed lower end of said lower capsule half, wherein said outer wall at said open upper end of said lower capsule half is inserted into said outer wall at said open lower end of said top capsule half to form said assembled capsule,
- a bedding product contained within said assembled capsule, and
- a label secured over said outer walls of said top and bottom capsule halves for sealing said bedding product within said assembled capsule.

16. The display system as claimed in claim **15**, wherein said closed upper end of said top capsule half has a dome shape and said outer wall of said top capsule half has a cylindrical shape, and wherein said closed lower end of said bottom capsule half has a dome shape and said outer wall of said bottom capsule half has a cylindrical shape.

17. The display system as claimed in claim **15**, wherein said outer wall of said top capsule half has a larger diameter than said outer wall of said bottom capsule half, and wherein said label comprises a flexible material that overlies a mid-section of said assembled capsule defined by an area where said outer wall of said top capsule half contacts said outer wall of said bottom capsule half.

18. The display system as claimed in claim **15**, wherein said bedding product comprises a compressed and rolled pillow.

19. A display system for bedding products comprising:

- a display case having a base with a front edge, a rear edge, first and second side edges extending from said front edge to said rear edge, a top surface, and a plurality of spaced openings formed in said top surface;
- said display case including a first side wall extending upwardly from said first side of said base and above said top surface of said base, a second side wall

extending upwardly from said second side of said base and above said top surface of said base, and a rear wall extending upwardly from said rear side of said base and above said top surface of said base, wherein said rear wall extends between and interconnects said first and second side walls;

assembled capsules disposed within said spaced openings of said display case, wherein each said spaced opening holds one of said assembled capsules;

each said assembled capsule comprising

- a top capsule half having a closed upper end, an open lower end, and an outer wall extending from said closed upper end to said open lower end,
- a lower capsule half having a closed lower end, an open upper end, and an outer wall extending from said open upper end to said closed lower end of said lower capsule half, wherein said outer wall at said open upper end of said lower capsule half is inserted into said outer wall at said open lower end of said top capsule half to form said assembled capsule,
- a compressed pillow contained within said capsule, and
- a label secured over said outer walls of said top and bottom capsule halves for sealing said bedding product within said assembled capsule.

20. The display system as claimed in claim **19**, wherein said closed upper end of said top capsule half has a dome shape and said outer wall of said top capsule half has a cylindrical shape, wherein said closed lower end of said bottom capsule half has a dome shape and said outer wall of said bottom capsule half has a cylindrical shape, wherein said outer wall of said top capsule half has a larger diameter than said outer wall of said bottom capsule half, and wherein said label overlies a mid-section of said assembled capsule defined by an area where said outer wall of said top capsule half overlaps with said outer wall of said bottom capsule half.

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