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(54) **CARRIER FOR CONTAINERS**

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(57) **ABSTRACT**

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Related U.S. Application Data

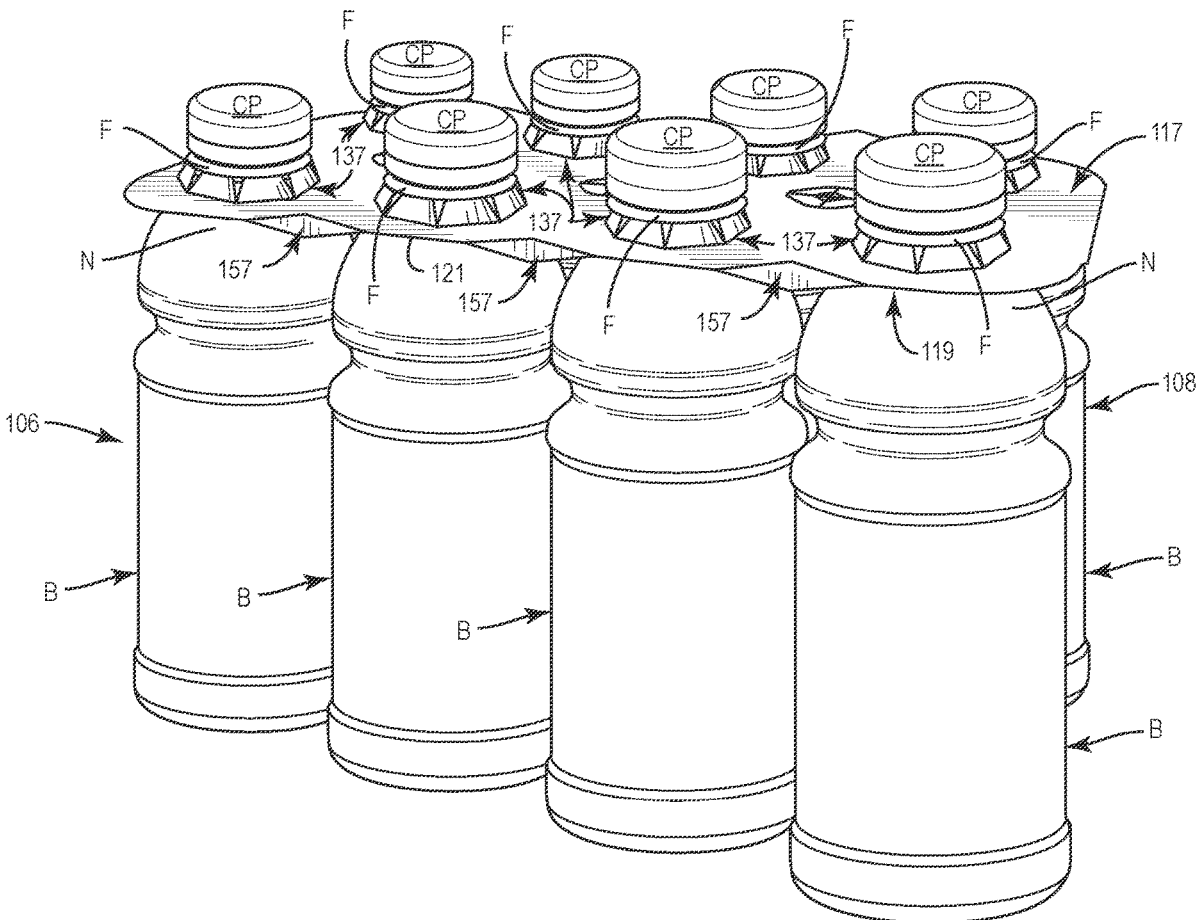
(60) Provisional application No. 63/346,494, filed on May 27, 2022, provisional application No. 63/324,264, filed on Mar. 28, 2022.

Publication Classification

(51) **Int. Cl.**
B65D 71/42 (2006.01)

A carrier for holding a plurality of containers, the carrier including a central panel including a plurality of container retention openings for at least partially receiving a respective container of the plurality of containers, at least one reinforcement flap foldably connected to the central panel at a fold line, the at least one reinforcement flap including a base portion and a plurality of spaced extents extending from the base portion for being positioned between respective containers of the plurality of containers, and at least one reinforcement feature interrupting the fold line and positioned between the central panel and the at least one reinforcement flap.

105/107



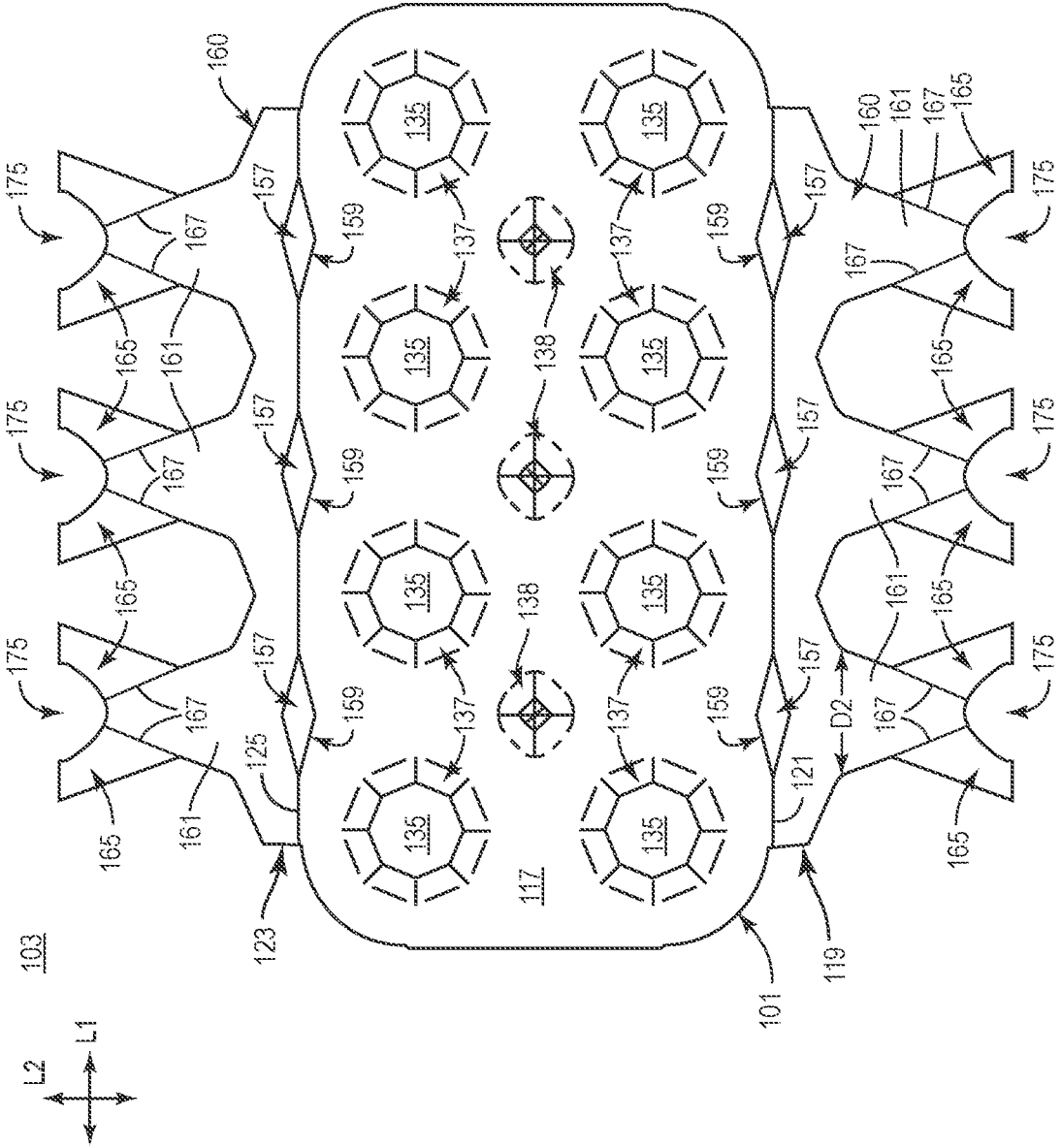


FIG. 1

103

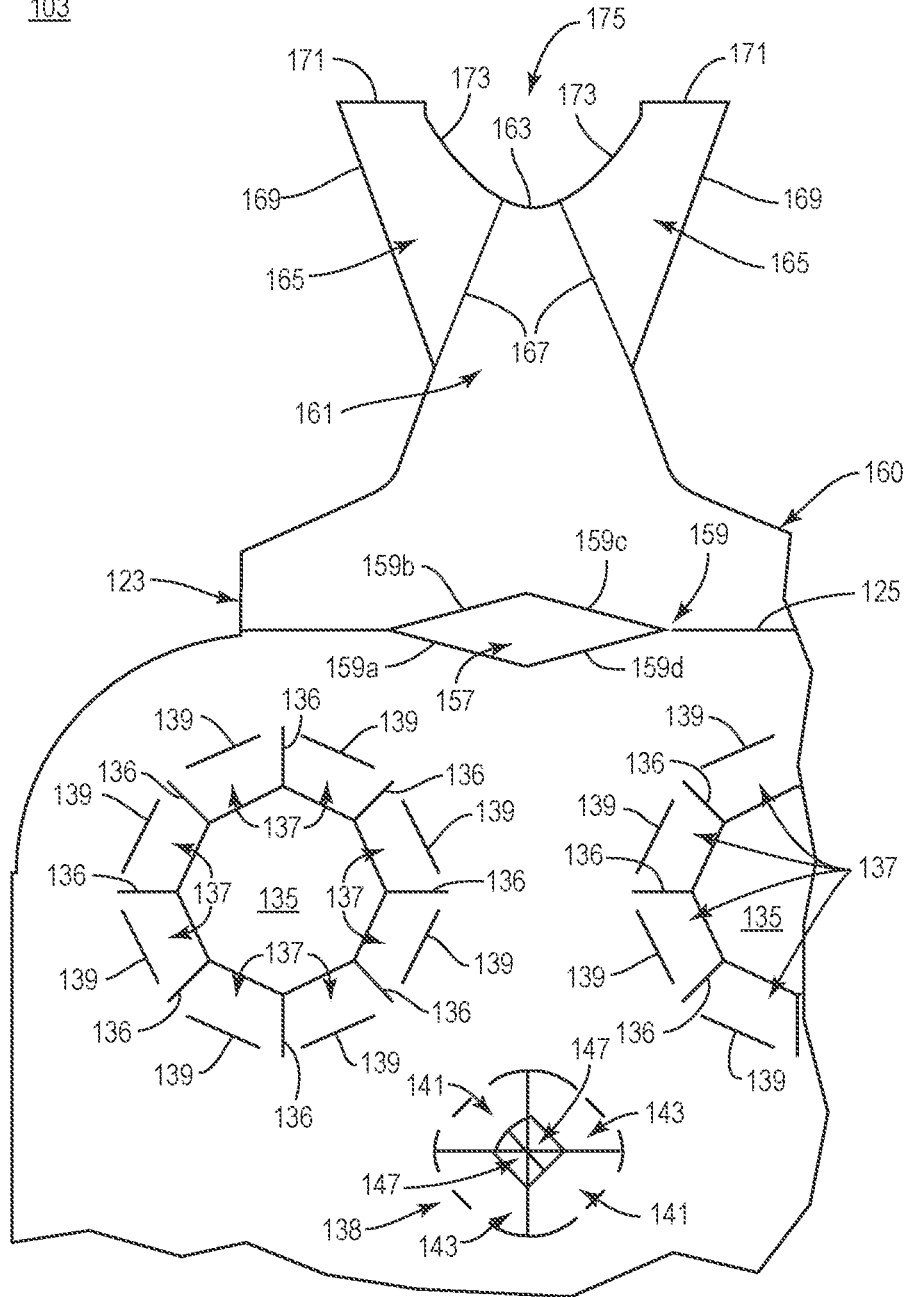


FIG. 1A

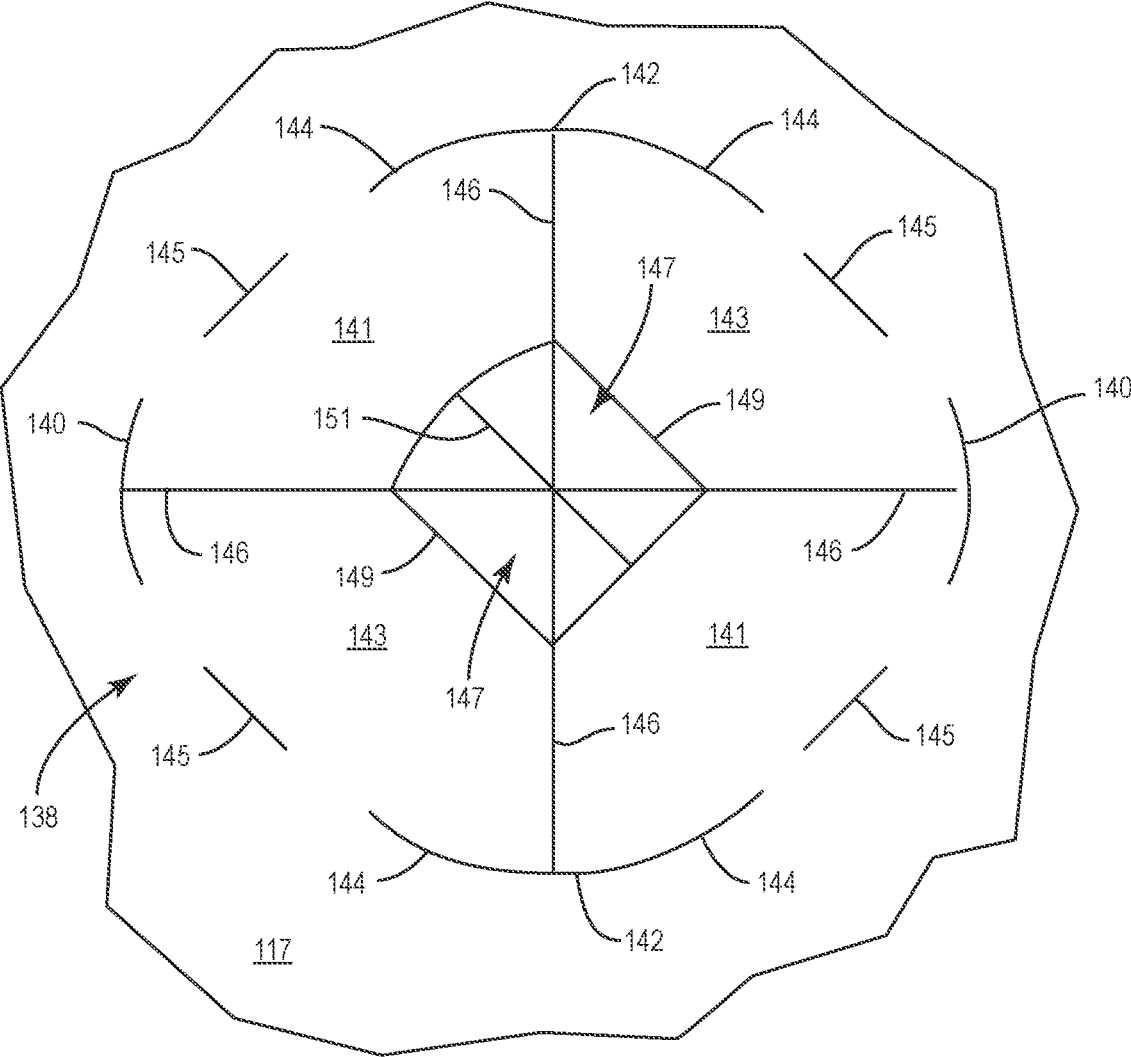


FIG. 1B

105/107

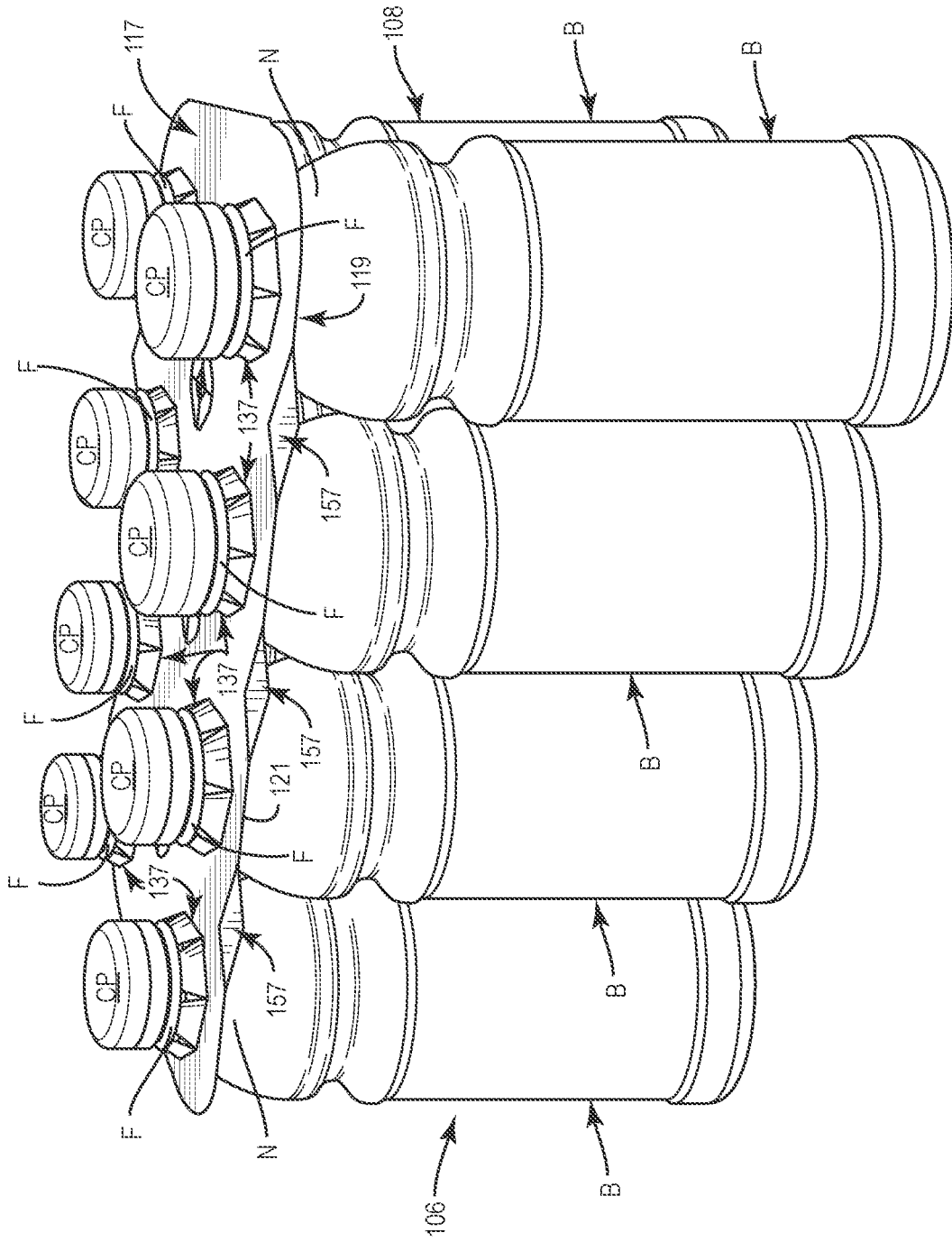


FIG. 2

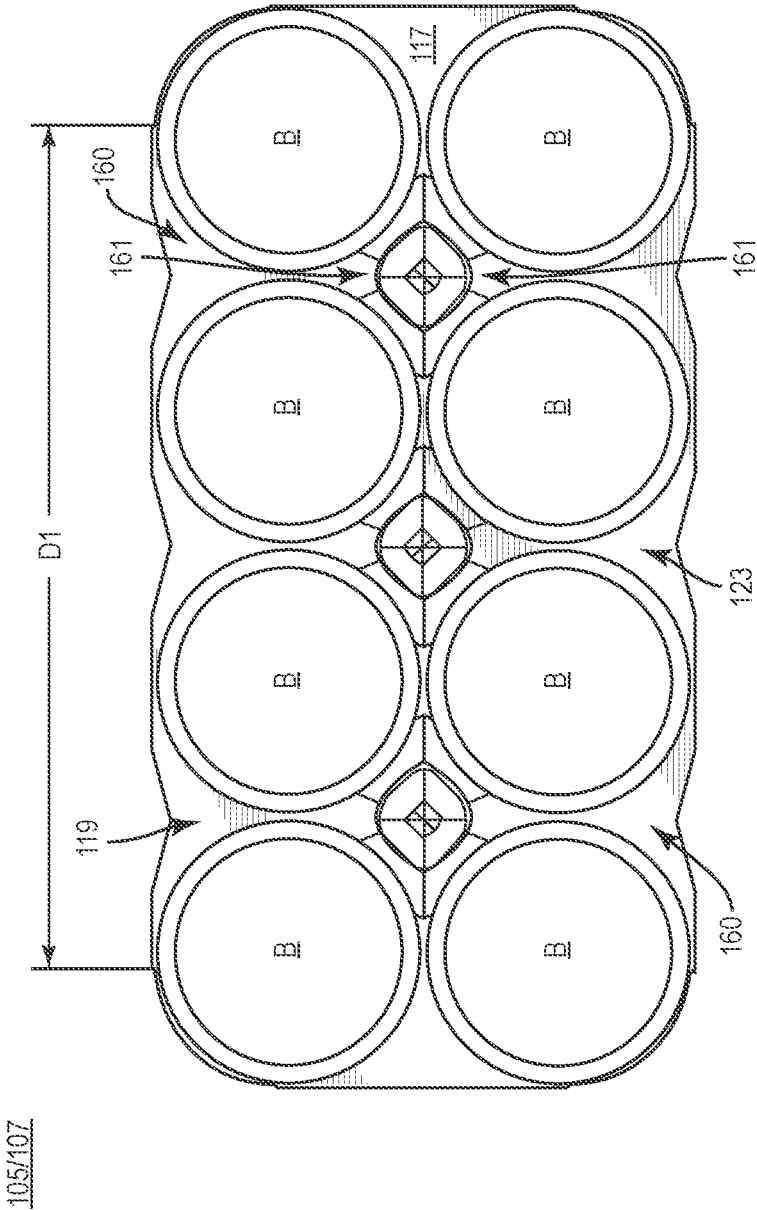


FIG. 3

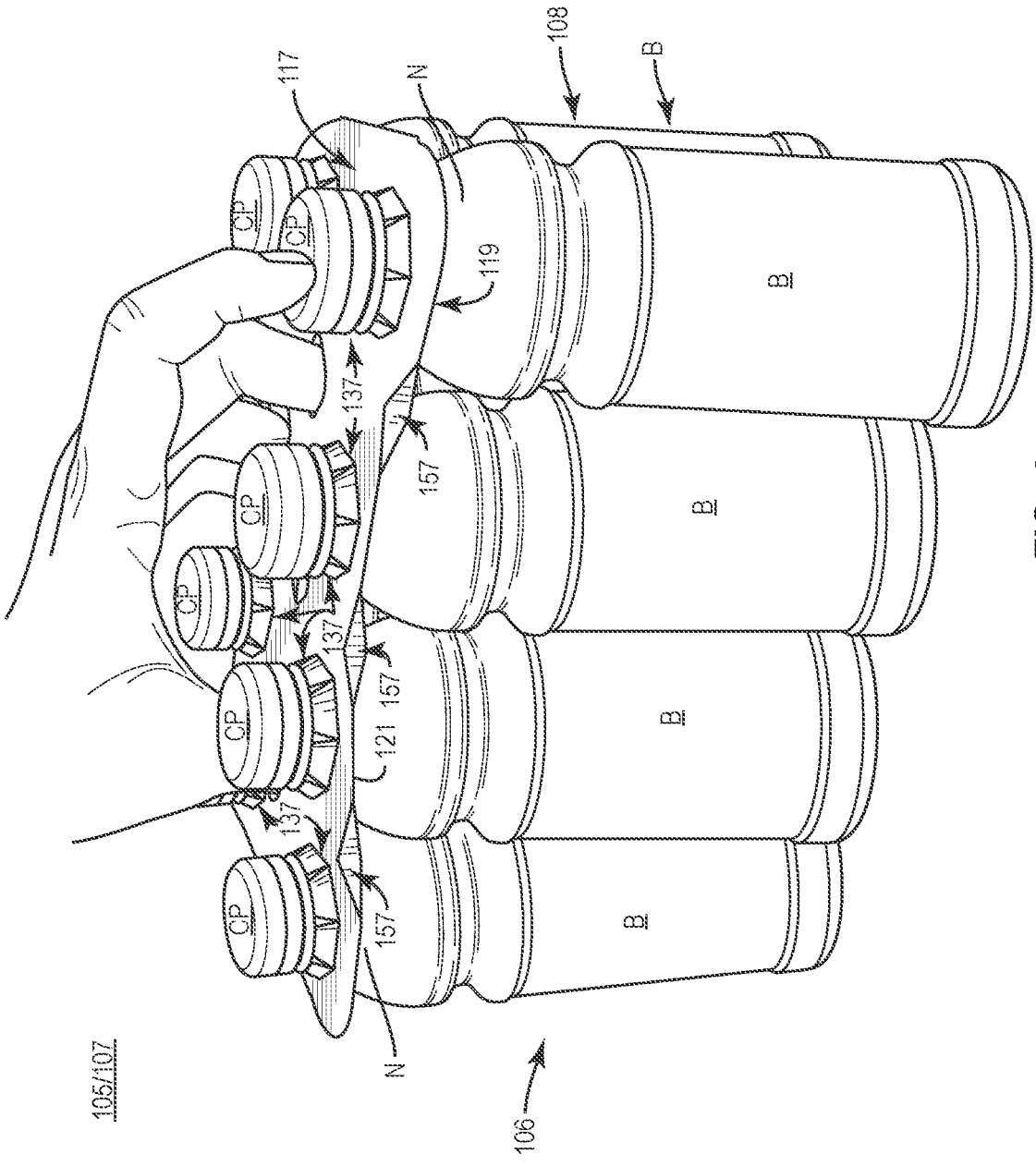


FIG. 4

105/107

117

N

108

B

B

B

B

B

CP

CP

CP

CP

CP

137

157

121

157

N

106

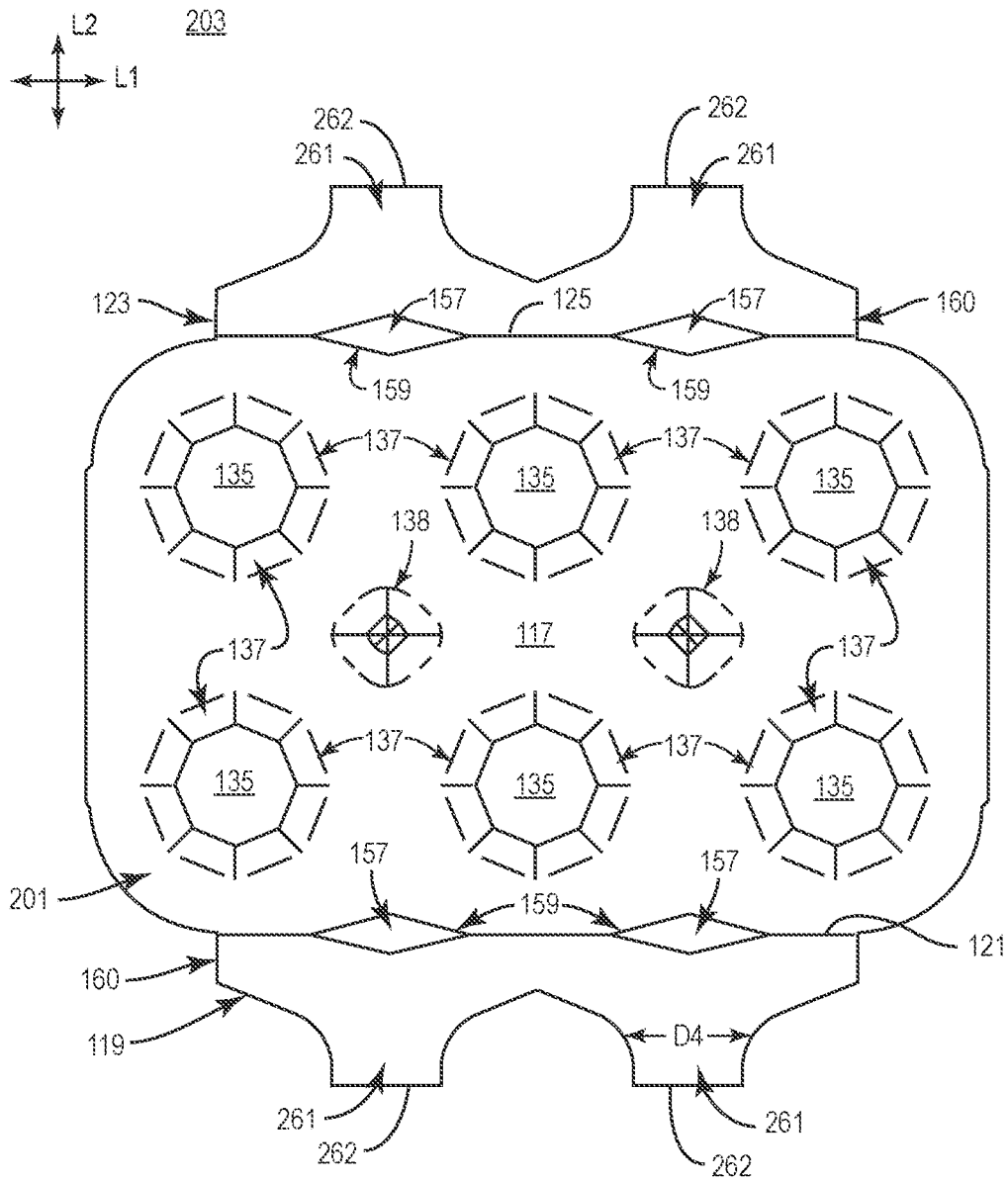


FIG. 5

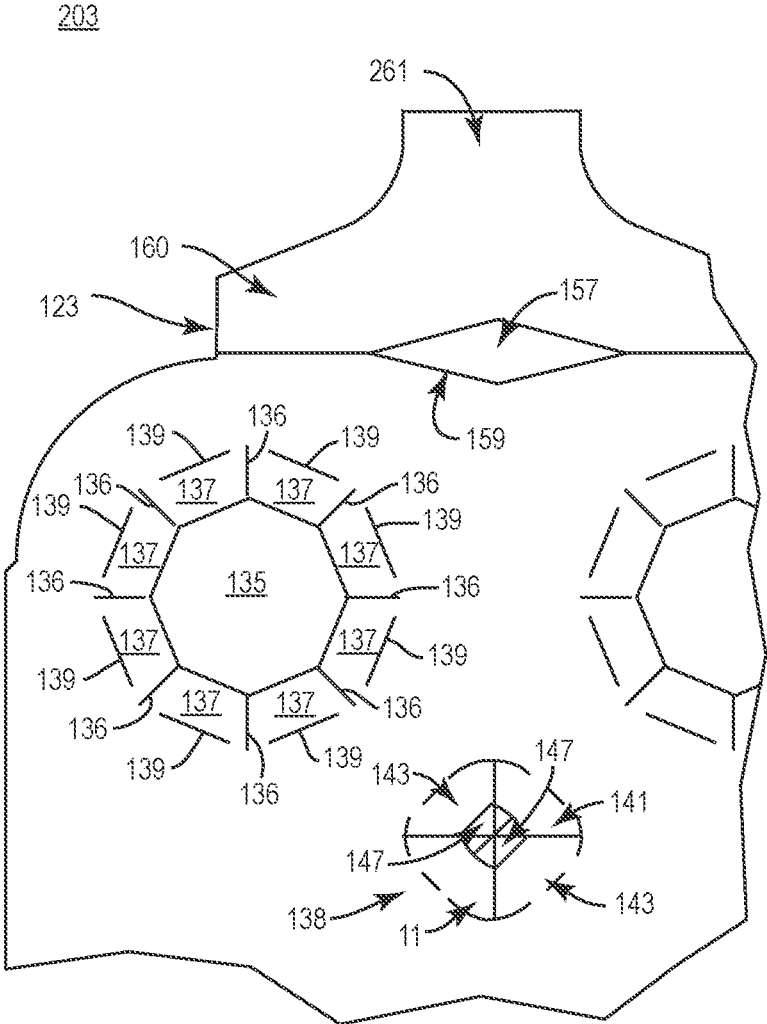


FIG. 5A

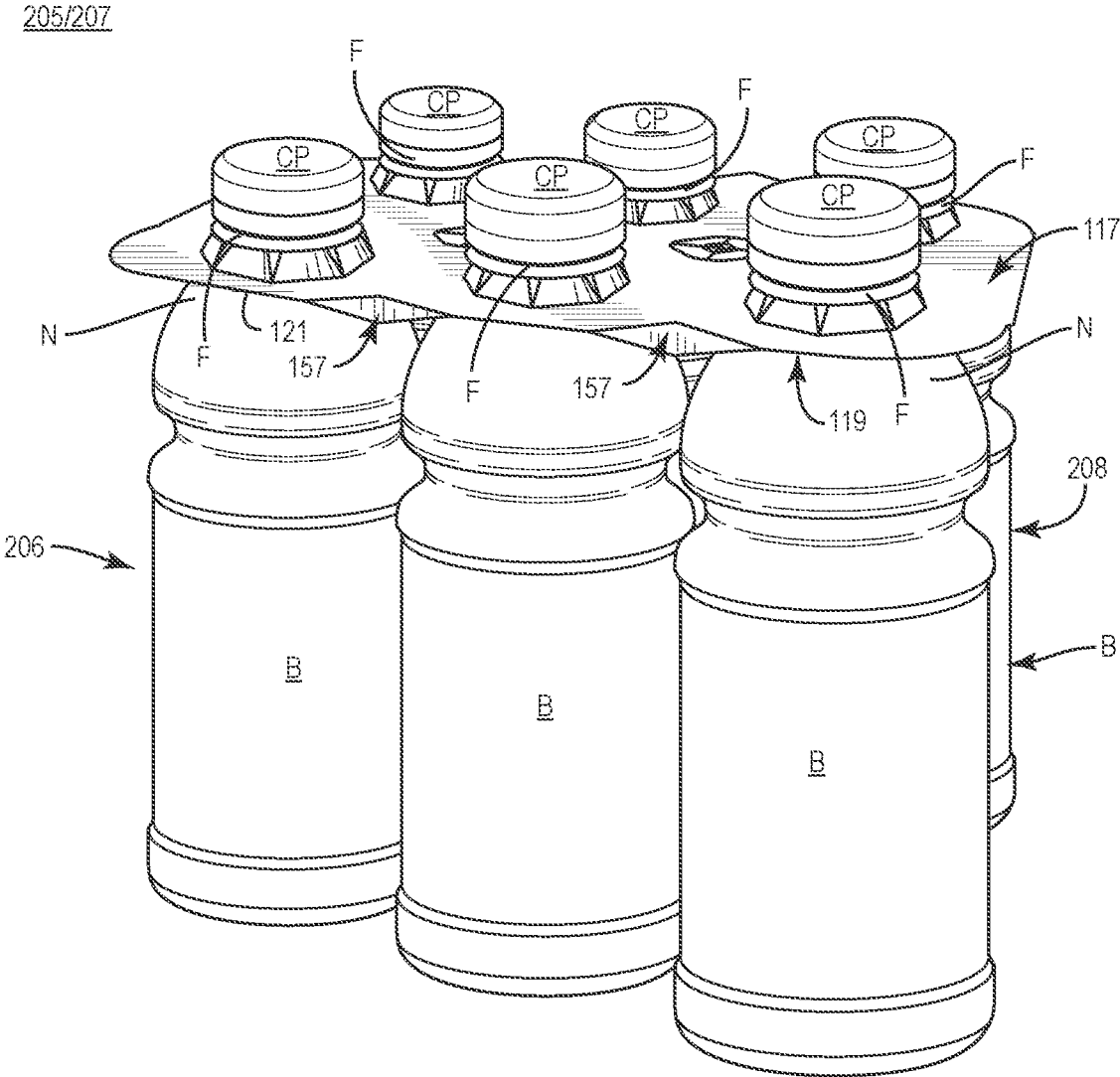


FIG. 6

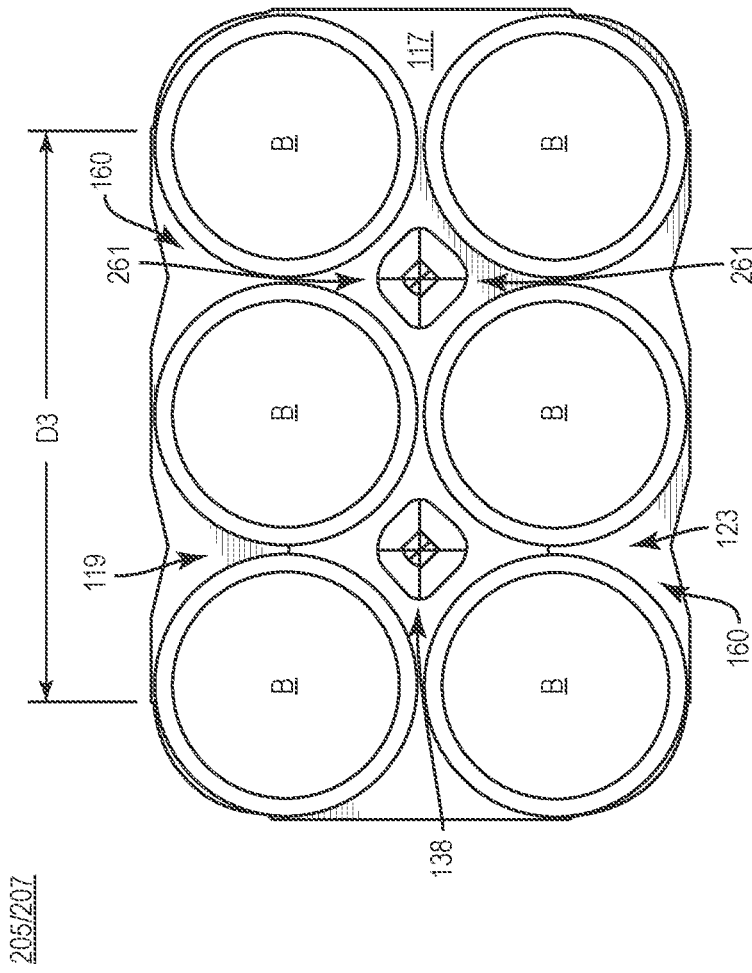


FIG. 7

205/207

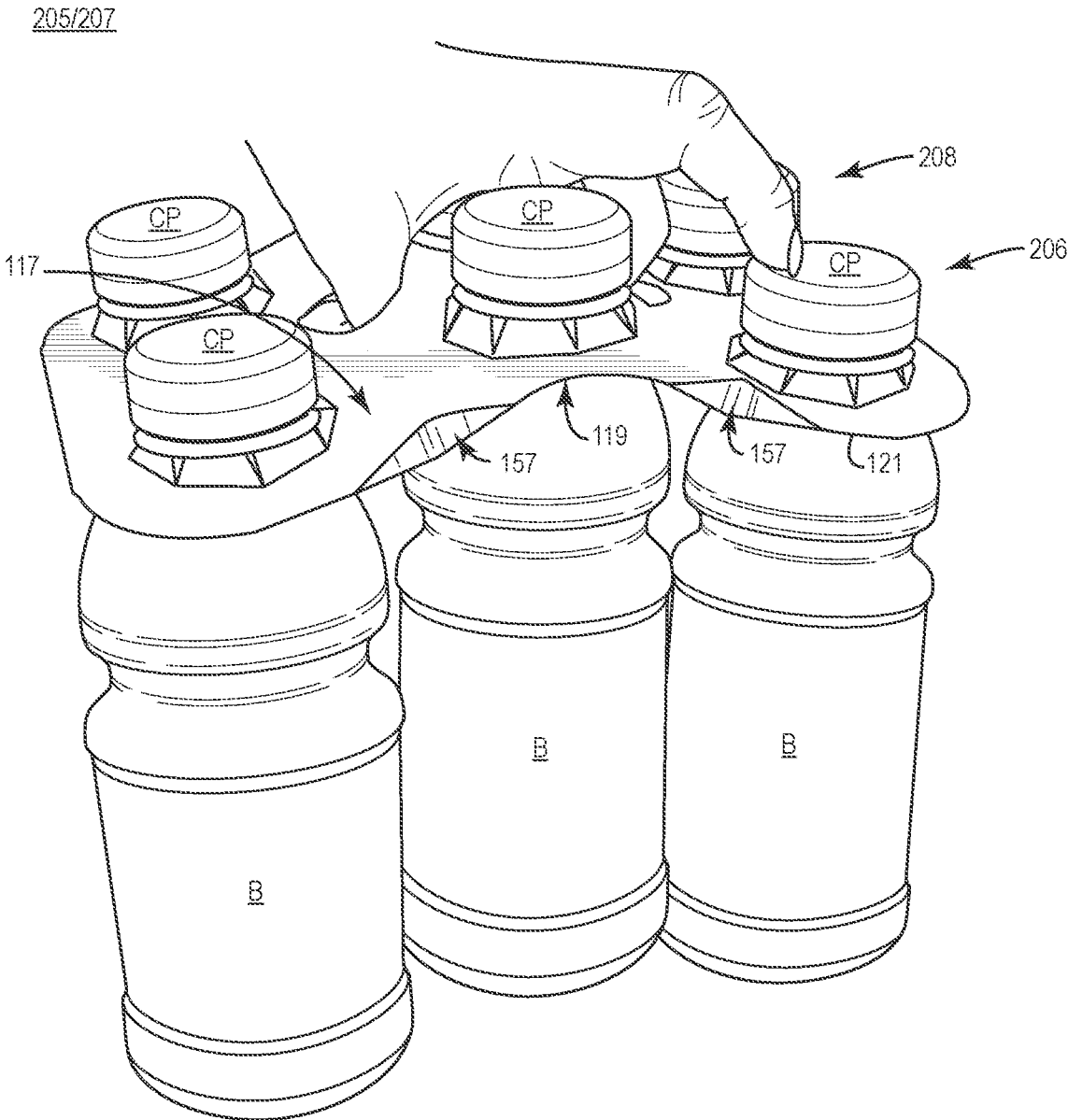


FIG. 8

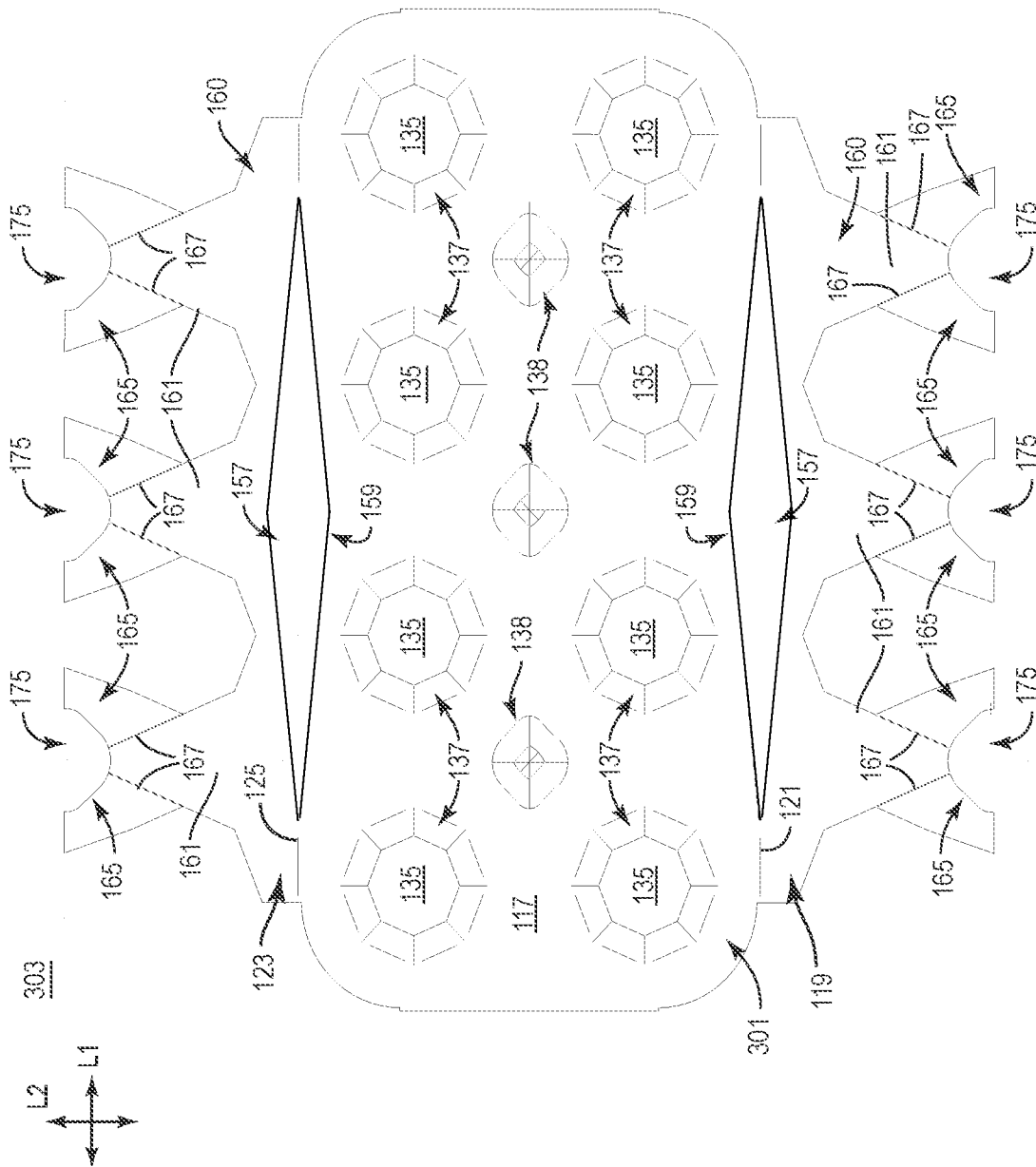


FIG. 9

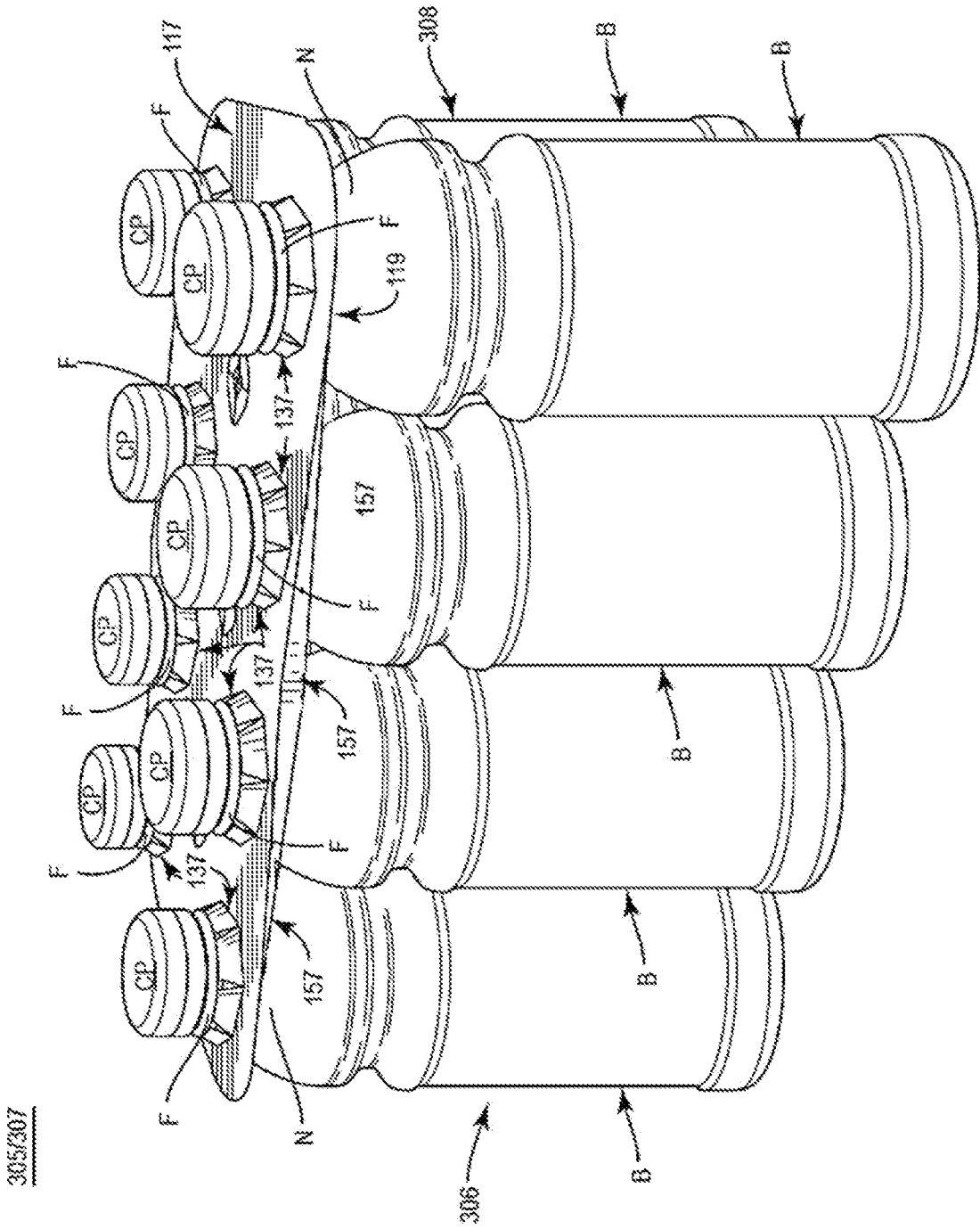


FIG. 10

CARRIER FOR CONTAINERS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of each of U.S. Provisional Patent Application No. 63/346,494, filed on May 27, 2022, and U.S. Provisional Patent Application No. 63/324,264, filed on Mar. 28, 2022.

INCORPORATION BY REFERENCE

[0002] The disclosures of each of U.S. patent application Ser. No. 17/487,131, filed on Sep. 28, 2021, U.S. patent application Ser. No. 17/487,113, filed on Sep. 28, 2021, U.S. Design patent application Ser. No. 29/775,557, filed on Mar. 24, 2021, U.S. Design patent application Ser. No. 29/775,558, filed on Mar. 24, 2021, U.S. Design patent application Ser. No. 29/775,559, filed on Mar. 24, 2021, U.S. Design patent application Ser. No. 29/775,560, filed on Mar. 24, 2021, U.S. patent application Ser. No. 17/487,262, filed on Sep. 28, 2021, U.S. patent application Ser. No. 17/835,127, filed on Jun. 8, 2022, U.S. Design patent Application Ser. No. 29/838,182, filed on May 11, 2022, U.S. Provisional Patent Application No. 63/346,494, filed on May 27, 2022, and U.S. Provisional Patent Application No. 63/324,264, filed on Mar. 28, 2022, are hereby incorporated by reference for all purposes as if presented herein in their entirety.

BACKGROUND OF THE DISCLOSURE

[0003] The present disclosure generally relates to cartons or carriers for holding, displaying, and/or transporting containers.

SUMMARY OF THE DISCLOSURE

[0004] According to one aspect, the disclosure is generally directed to a carrier for holding a plurality of containers, the carrier comprising a central panel comprising a plurality of container retention openings for at least partially receiving a respective container of the plurality of containers, at least one reinforcement flap foldably connected to the central panel at a fold line, the at least one reinforcement flap comprising a base portion and a plurality of spaced extents extending from the base portion for being positioned between respective containers of the plurality of containers, and at least one reinforcement feature interrupting the fold line and positioned between the central panel and the at least one reinforcement flap.

[0005] According to another aspect, the disclosure is generally directed to a blank for forming a carrier for holding a plurality of containers, the blank comprising a top panel comprising a plurality of container retention openings for at least partially receiving a respective container of the plurality of containers when the carrier is formed from the blank, a central panel comprising a plurality of container retention openings for at least partially receiving a respective container of the plurality of containers, at least one reinforcement flap foldably connected to the top panel at a fold line, the at least one reinforcement flap comprising a base portion and a plurality of spaced extents extending from the base portion for being positioned between respective containers of the plurality of containers when the carrier is formed from the blank, and at least one reinforcement feature interrupting the fold line and positioned between the central panel and the at least one reinforcement flap.

[0006] According to another aspect, the disclosure is generally directed to a method of forming a carrier for holding a plurality of containers, the method comprising obtaining a blank comprising a central panel comprising a plurality of container retention openings, at least one reinforcement flap foldably connected to the central panel at a fold line, the at least one reinforcement flap comprising a base portion and a plurality of spaced extents extending from the base portion, and at least one reinforcement feature interrupting the fold line and positioned between the central panel and the at least one reinforcement flap. The method further comprises folding the at least one reinforcement flap such that the plurality of container retention openings are positioned for at least partially receiving a respective container of the plurality of containers and such that the plurality of spaced extents are for being positioned between respective containers of the plurality of containers.

[0007] According to another aspect, the disclosure is generally directed to a package, the package comprising a plurality of containers and a carrier holding the plurality of containers. The carrier comprises a central panel comprising a plurality of container retention openings at least partially receiving a respective container of the plurality of containers, at least one reinforcement flap foldably connected to the central panel at a fold line, the at least one reinforcement flap comprising a base portion and a plurality of spaced extents extending from the base portion and positioned between respective containers of the plurality of containers, and at least one reinforcement feature interrupting the fold line and positioned between the central panel and the at least one reinforcement flap.

[0008] Those skilled in the art will appreciate the above stated advantages and other advantages and benefits of various additional embodiments reading the following detailed description of the embodiments with reference to the below-listed drawing figures. It is within the scope of the present disclosure that the above-discussed aspects be provided both individually and in various combinations.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] According to common practice, the various features of the drawings discussed below are not necessarily drawn to scale. Dimensions of various features and elements in the drawings may be expanded or reduced to more clearly illustrate the embodiments of the disclosure.

[0010] FIG. 1 is a plan view of an outer surface of a blank for forming a carrier according to a first exemplary embodiment of the disclosure.

[0011] FIG. 1A is an enlarged view of a portion of the blank of FIG. 1.

[0012] FIG. 1B is another enlarged view of a portion of the blank of FIG. 1.

[0013] FIG. 2 is a perspective view of a package including a carrier formed from the blank of FIG. 1 and a plurality of containers according to the first exemplary embodiment of the disclosure.

[0014] FIG. 3 is a bottom plan view of the package and carrier of FIG. 2.

[0015] FIG. 4 is a perspective view of the package and carrier of FIG. 2 being lifted by a user.

[0016] FIG. 5 is a plan view of an outer surface of a blank for forming a carrier according to a second exemplary embodiment of the disclosure.

[0017] FIG. 5A is an enlarged view of a portion of the blank of FIG. 5.

[0018] FIG. 6 is a perspective view of a package including a carrier formed from the blank of FIG. 5 and a plurality of containers according to the second exemplary embodiment of the disclosure.

[0019] FIG. 7 is a bottom plan view of the package and carrier of FIG. 6.

[0020] FIG. 8 is a perspective view of the package and carrier of FIG. 6 being lifted by a user.

[0021] FIG. 9 is a plan view of an outer surface of a blank for forming a carrier according to a third exemplary embodiment of the disclosure.

[0022] FIG. 10 is a perspective view of a package including a carrier formed from the blank of FIG. 9 and a plurality of containers according to the third exemplary embodiment of the disclosure.

[0023] Corresponding parts are designated by corresponding reference numbers throughout the drawings.

DETAILED DESCRIPTION

[0024] The present disclosure generally relates to carriers, packages, constructs, sleeves, cartons, or the like, for holding and displaying containers such as jars, bottles, cans, etc. The containers can be used for packaging food and beverage products, for example. The containers can be made from materials suitable in composition for packaging the particular food or beverage item, and the materials include, but are not limited to, glass; plastics such as PET, LDPE, LLDPE, HDPE, PP, PS, PVC, EVOH, and Nylon; and the like; aluminum and/or other metals; or any combination thereof.

[0025] Packages according to the present disclosure can accommodate containers of numerous different shapes. For the purpose of illustration and not for the purpose of limiting the scope of the disclosure, the following detailed description describes beverage containers (e.g., generally cylindrical containers such as aluminum cans) at least partially disposed within the package embodiments. In this specification, the terms “lower,” “bottom,” “upper” and “top” indicate orientations determined in relation to fully erected packages.

[0026] FIG. 1 is a plan view of an exterior surface 101 of a blank 103 for forming a carrier 105 (FIG. 2) according to a first exemplary embodiment of the disclosure. FIGS. 1A and 1B are detail views of portions of the blank 103. As described further herein, the carrier 105 can be configured for holding/supporting/retaining/receiving a plurality of containers. The carrier 105 can be provided with one or more containers to form a package 107 (FIG. 2).

[0027] As shown in FIG. 2, the carrier 105 is sized to contain or support eight containers B, with four containers B being attached to a front portion 106 of the carrier 105 and four containers B being attached to a back portion 108 of the carrier 105. In the illustrated embodiment, the containers B can be bottles, e.g., plastic bottles formed of polyethylene terephthalate (PET) or another polymer, and having upper portions that include an at least partially tapered neck portion N intersecting a flange F that at least partially supports a cap CP. In other embodiments, the containers B could be beverage cans or another suitable type and size of container. The carrier 105 can be provided together with one or more of the containers B as a package 107.

[0028] Still referring to FIGS. 1, 1A, and 1B, the blank 103 has a longitudinal axis L1 and a lateral axis L2. In one

embodiment, the axis L1 can be a lateral axis and the axis L2 can be a longitudinal axis. The blank 103 comprises an attachment panel or central panel 117 that includes container retention features for engaging containers B when the carrier 105 is formed from the blank 103, as described further herein.

[0029] In the illustrated embodiment, the blank 103 also comprises a first reinforcement panel or first reinforcement flap 119 foldably connected to the central panel 117 at a longitudinal fold line 121 (broadly, “first fold line”), and a second reinforcement panel or second reinforcement flap 123 foldably connected to the central panel 117 at a longitudinal fold line 125 (broadly, “second fold line”). As described further herein, one or both of the reinforcement flaps 119, 123 can include reinforcement features for at least partially reinforcing one or more portions of the carrier 105/package 107 formed from the blank 103. In some embodiments, one or both of the reinforcement flaps 119, 123 can also form part of the container retention features of the blank 103/carrier 105/package 107.

[0030] The container retention features of the blank 103/central panel 117 can include at least container retention openings 135 (broadly, “first plurality of container retention openings”). As shown, the container retention openings 135 can be provided in a column and row arrangement in a number that corresponds to a desired number of containers to be held by the carrier 105 formed from the blank 103. While the central panel 117 is shown having container retention openings 135 provided in two rows/columns of four openings 135 each, it will be understood that a different number and/or arrangement of container retention openings 135 can be provided without departing from the disclosure.

[0031] As shown in FIGS. 1 and 1A, the container retention openings 135 can have a generally circular configuration, with container retention tabs 137 (broadly, “first container retention tabs” or “first container retention protrusions”) at least partially foldably connected to the central panel 117 at respective oblique fold lines 139 and positioned extending into/toward the container retention opening 135 on laterally and longitudinally opposite sides thereof. Adjacent container retention tabs 137 can be at least partially separated at a respective oblique cut 136. It will be understood that one or more of the container retention tabs 137 can have a different configuration or arrangement without departing from the disclosure. For example, in one embodiment, the container retention tabs 137 can have the form of edges of the central panel 117 that protrude into the respective container retention openings 135.

[0032] As shown in detail in FIG. 1B, the blank 103/carrier 105 can also have handle features that include a plurality of handle openings 138 defined in the central panel 117 by a pair of laterally opposed curved edges 140, a pair of longitudinally opposed curved edges 142, and a plurality of oblique edges 144 extending from an endpoint of a respective curved edge 140 to an endpoint of a respective adjacent curved edge 142.

[0033] Respective pairs of handle flaps 141, 143 can be foldably connected to the central panel 117 at respective oblique fold lines 145 and positioned extending at least partially into each respective handle opening 138. The handle tabs 141, 143 can be arranged in respective adjacent pairs, with each pair of handle tabs 141 positioned in generally opposed relation and adjacent a respective pair of handle tabs 143 that are in opposed relation, with adjacent

handle tabs **141**, **143** separated at a respective cut **146**. In the illustrated embodiment, the oblique fold lines **145** can be at least partially coextensive with the respective oblique edges **144** of the respective handle openings **138**.

[0034] In this regard, and as shown, a set of four alternating and generally opposed handle tabs **141**, **143** can be provided at selected locations and/or selected intervals along the central panel **117**. It will be understood that a different number and arrangement of handle features can be provided without departing from the disclosure.

[0035] As shown, the handle tabs **141** can have generally concave curved free edges that extend from an endpoint of a respective adjacent cut **146** to an endpoint of another respective adjacent cut **146**. Handle reinforcement flaps **147**, as shown, can be foldably connected to respective handle tabs **143** at respective oblique fold lines **149** and having at least partially curved edges that correspond to the respective concave curved edges of the handle tabs **141**. The handle reinforcement flaps **147** can be at least partially bisected by respective cuts **146**, and adjacent handle reinforcement flaps **147** can be separated at respective oblique cuts **151**.

[0036] With continued reference to FIGS. **1**, **1A**, and **1B**, the blank **103**/carrier **105** formed therefrom can be configured to stiffen/inhibit relative movement of portions of the blank **103**/carrier **105** when in use. As shown, a series of three laterally-spaced reinforcement panels **157** (broadly, “first reinforcement feature” or “first plurality of spaced apart reinforcement features”) can be positioned interrupting the fold line **121**. Each reinforcement panel **157**, as shown, can be a region of the blank **103**/carrier **105** between the central panel **117** and the reinforcement flap **119** and that is defined by a line of weakening **159** extending between endpoints of segments of the fold line **121**.

[0037] The line of weakening **159**, as shown, can include a plurality of intersecting oblique segments **159a**, **159b**, **159c**, **159d**. In the illustrated embodiment, each of the segments **159a**, **159b**, **159c**, **159d** can be arranged so as to form a generally rhomboid/diamond-shaped reinforcement panel **157**. In one embodiment, each of the segments **159a**, **159b**, **159c**, **159d** of the line of weakening **159** can be arranged at an angle of about 45° relative to each of the axes **L1**, **L2**. It will be understood that one or more of the lines of weakening **159**/reinforcement panels **157** can have one or more different features, e.g., curved and/or longitudinal/lateral portions, without departing from the disclosure.

[0038] As shown, a series of three longitudinally-spaced reinforcement panels **157** (broadly, “second reinforcement feature” or “second plurality of spaced apart reinforcement features”) can also be provided interrupting the fold line **125** so as to be positioned between the central panel **117** and the reinforcement flap **123**. It will be understood that a different number and/or arrangement of the reinforcement panels **157** can be provided without departing from the disclosure.

[0039] Still referring to FIGS. **1**, **1A**, and **1B**, reinforcement features of the blank **103**/carrier **105**/package **107** can include one or more portions of the reinforcement flaps **119**, **123**. As shown, the reinforcement flap **119** includes a base portion **160** having the general form of a plurality of longitudinally-spaced apart and tapering lateral extents **161** defining a generally curved free edge **163**. As shown, the base portions **160** of the respective reinforcement flaps **119**, **123** of the blank **103** and carrier **105** formed therefrom can

define a first longitudinal width **D1** (FIG. **3**) that is greater than a second longitudinal width **D2** defined by each extent **161**.

[0040] A pair of reinforcement tabs **165**, as shown, can be foldably connected to opposed free edges of the respective extents **161** at respective oblique fold lines **167**. Each reinforcement tab **165**, as shown, defines a respective oblique outer free edge **169** intersecting a respective longitudinal free edge **171**, and a respective interior curved free edge **173** intersecting the respective longitudinal free edge **171**. Each interior curved free edge **173** intersects an endpoint of the reinforcement edge **163** of the adjacent extent **161** so as to form a recessed portion or generally continuous concave edge **175** formed by each set of extents **161** and reinforcement tabs **165**.

[0041] Similarly, the second reinforcement flap **123** can include a base portion **160** having a plurality of longitudinally-spaced extents **161**, as well as the reinforcement tabs **165** and associated features.

[0042] Any of the panels, flaps, fold lines, cuts, or other features could be otherwise shaped, arranged, and/or omitted from the blank **103** without departing from the disclosure. The blank **103** could be sized and/or shaped to accommodate more or less than eight containers without departing from this disclosure.

[0043] With additional reference to FIGS. **2** and **3**, according to one exemplary embodiment of forming the carrier **105**/package **107**, the blank **103** can be positioned above a group of containers **B** and the reinforcement flaps **119**, **123** can be folded toward the interior surface/underside of the blank **103** at the respective fold lines **121**, **125** such that the concave curved edges **175** presented by each reinforcement flap **119**, **123** and associated reinforcement tabs **165** are generally aligned with respective portions of the respective curved edges **140**, **142** and respective adjacent oblique edges **144** of the respective handle openings **138**. Furthermore, in such an arrangement, the respective extents **161** extending from the respective reinforcement flaps **119**, **123** are positioned for extending between respective containers **B** of the plurality of containers **B**.

[0044] In such an arrangement, the central panel **117** can be in at least partial face-to-face contact with respective portions of the reinforcement flaps **119**, **123**, and the blank **103** can be lowered upon the containers **B** such that at least the respective caps **CP** and flanges **F** of the respective containers **B** can be at least partially received through the respective container retention openings **135**. In one embodiment, at least a portion of the neck portion **N** of one or more of the containers **B** can be received through a respective container retention opening **135**.

[0045] Such movement of the respective upper portions of the respective containers **B** through the respective container retention openings **135** can cause the container retention tabs **137** to be urged upwardly at the respective fold lines **139** so as to extend at least partially upwardly relative to the central panel **117**. In this regard, the container retention tabs **137** can extend from the central panel **117** to contact the underside of the respective flanges **F** or other structure of the top portion of the respective containers **B** to take up/fill any spacing therebetween and contribute to a stiff and stable engagement of the central panel **117** with the respective containers **B**.

[0046] In addition, and with reference to FIG. **4**, the overlapping relationship of respective portions of the central panel **117** with the reinforcement flaps **119**, **123** is such that

the reinforcement flaps 119, 123 provide an underlying support or shelf-like feature that can minimize/resist bending, buckling, flexion, torsion, etc. and provide a stable platform from which the central panel 117 and container retention tabs 137 extending upwardly therefrom are supported. In one embodiment, the foldable connection of the reinforcement tabs 165 to the respective extents 161 can facilitate relative movement of the reinforcement tabs 165 to the respective extents 161, for example, to provide stress relief during movement of the carrier 105/package 107.

[0047] Further to the support provided by the 2-ply/overlapping engagement of the central panel 117 with the reinforcement flaps 119, 123, the reinforcement panels 157 are presented in an outward-facing arrangement relative to the central panel 117 and the reinforcement flaps 119, 123 so as to form a generally upright/vertical structure that further minimizes/resists bending, buckling, flexion, torsion, etc. of the carrier 105/package 107 relative to a plane defined by the central panel 117 and/or the reinforcement flaps 119, 123, e.g., such that the carrier 105/package 107 minimizes/resists such forces/movement along both the longitudinal axis L1 and the lateral axis L2.

[0048] The package 107/carrier 105 can be grasped by a consumer by separating selected adjacent handle tabs 141, 143 from one another at the respective cuts 146 and folding the handle tabs 141, 143 downwardly at the respective fold lines 145 to expose one or more portions of respective handle openings 138 through which the user can insert one or more of his or her fingers. As described above, the recessed portions 175 of the respective reinforcement flaps 119, 123 can be positioned abutting/surrounding the respective handle openings 138 such that a user can engage the underside of the respective reinforcement flaps 119, 123, adjacent reinforcement tabs 165, and/or a portion of the central panel 117, e.g., adjacent the respective recessed portions 175 in order to engage and lift/carry or otherwise move the carrier 105/package 107.

[0049] Such engagement of the underside of the carrier 105 can include at least partial separation of the handle reinforcement flaps 147 at the cut 151 and folding thereof at the respective fold lines 149. In one embodiment, one or more of the handle reinforcement tabs 147 can be folded into at least partial face-to-face contact with the respective reinforcement flaps 119, 123 so as to be positioned between a respective reinforcement flap 119, 123 and a respective handle flap 141, 143 to form a 3-ply reinforced region adjacent one or more of the handle openings 138.

[0050] Upon formation of the package 107/carrier 105, respective containers B can be removed from the carrier 105 by disengaging the container B the central panel 117 and respective reinforcement flap 119, 123, for example, by withdrawing the flange F and cap CP of a respective container B through a respective container retention opening 135.

[0051] It will be understood that the carrier 105/package 107 can have a different configuration without departing from the disclosure.

[0052] Turning to FIGS. 5 and 5A, an exterior surface 201 of a blank 203 for forming a carrier 205 and package 207 (FIG. 6) according to a second exemplary embodiment of the disclosure is illustrated. The blank 203 and carrier/package formed therefrom can have one or more features that are the same or similar to those described above with

respect to the blank 103/carrier 105/package 107, and like or similar features are designated with like or similar reference numerals.

[0053] As shown, the blank 203 can have features that are generally similar to that of the blank 103 described above, except that the reinforcement flaps 119, 123 can be provided without the reinforcement tabs 165 attached to the extents 161. Furthermore, respective pluralities of longitudinally spaced extents 261 extend from the respective base portions 160 of the respective reinforcement flaps 119, 123.

[0054] As shown, the extents 261 of the blank 203 and carrier 205 formed therefrom can have an at least partially truncated/flattened free edge 262, though the extents 261 of the blank 203/carrier 205 can incorporate one or more of curved edges, angled edges, tapers, etc., without departing from the disclosure. In this regard, the base portions 160 of the respective reinforcement flaps 119, 123 of the blank 203 and carrier 205 formed therefrom can define a first longitudinal width D3 that is larger than a longitudinal width D4 defined by the respective extents 261.

[0055] In addition, the handle openings 138 and associated features in the blank 203/carrier 205 can have an orientation that is rotated generally 90° clockwise or counterclockwise from that of the blank 103/carrier 105 described above.

[0056] Furthermore, the blank 203 and carrier 205/package 207 formed therefrom can be sized and configured to hold two rows/columns of three containers B, e.g., such that two rows/columns of container retention openings 135 and associated features are provided, such that a respective pair of longitudinally-spaced reinforcement panels 157 are provided interrupting the respective fold lines 121, 125, and such that a respective pair of longitudinally spaced handle openings 138 and associated features can be provided. It will be understood that the blank 203 and carrier 205/package 207 can be provided with a different configuration and/or arrangement of features corresponding to a desired number of containers B to be supported.

[0057] With additional reference to FIGS. 6 and 7, the blank 203 can be formed into a carrier 205 and attached to one or more containers B to form a package 207 in a manner similar to that described above with regard to the blank 103/carrier 105/package 107, without the presence of the reinforcement tabs 165 on the underside of the central panel 117. In this regard, the reinforcement flaps 119, 123 can be folded at the respective fold lines 121, 125 into at least partial face-to-face contact with the central panel 117, and the containers B can be at least partially received by/attached to the carrier 205 in a manner similar to that described above with regard to the blank 103/carrier 105/package 107. The extents 161 of the respective reinforcement flaps 119, 123 can thus be positioned extending between respective containers B of the plurality of containers B.

[0058] The carrier 205/package 207 can thus be provided with a front portion 206 supporting three containers B and a back portion 208 supporting three containers B.

[0059] With reference to FIG. 8, the overlapping relationship of respective portions of the central panel 117 with the reinforcement flaps 119, 123 is such that the reinforcement flaps 119, 123 provide an underlying support or shelf-like feature that can minimize/resist bending, buckling, flexion, torsion, etc. and provide a stable platform from which the central panel 117 and container retention tabs 137 extending upwardly therefrom are supported.

[0060] Further to the support provided by the 2-ply/overlapping engagement of the central panel 117 with the reinforcement flaps 119, 123, the reinforcement panels 157 are presented in an outward-facing arrangement relative to the central panel 117 and the reinforcement flaps 119, 123 so as to form a generally upright/vertical structure that further minimizes/resists bending, buckling, flexion, torsion, etc. of the carrier 105/package 107 relative to a plane defined by the central panel 117 and/or the reinforcement flaps 119, 123, e.g., such that the carrier 205/package 207 minimizes/resists such forces/movement along both the longitudinal axis L1 and the lateral axis L2 in a manner similar to that described above with respect to the carrier 105/package 107.

[0061] Turning to FIG. 9, an exterior surface 301 of a blank 303 for forming a carrier 305 and package 307 (FIG. 10) according to a third embodiment of the disclosure is illustrated. The blank 303 and carrier/package formed therefrom can have one or more features that are the same or similar to those described above with respect to the blank 103/carrier 105/package 107 and blank 203/carrier 205/package 207, and like or similar features are designated with like or similar reference numerals.

[0062] As shown, the blank 303 can have features that are generally similar to that of the blank 103 described above, except that a single reinforcement panel 157 is provided interrupting each of the respective fold lines 121, 125, the reinforcement panel 157 having a longitudinal width generally greater than that of a respective reinforcement panels 157 of the blank 103/carrier 105/package 107 and blank 203/carrier 205/package 207 described above.

[0063] In some embodiments, a portion of the fold line 159 associated with one or both of the reinforcement panels 157 can be at least partially interrupted by a cut to facilitate formation of the carrier 305/package 307 in the manner described herein. In some embodiments, such cut can be positioned along a portion of the respective fold line 159 proximate a respective reinforcement flap 119, 123.

[0064] With additional reference to FIG. 10, the blank 303 can be formed into a carrier 305 and attached to one or more containers B to form a package 307 in a manner similar to that described above with regard to the blank 103/carrier 105/package 107 and blank 203/carrier 205/package 207. In this regard, the reinforcement flaps 119, 123 can be folded at the respective fold lines 121, 125 into at least partial face-to-face contact with the central panel 117, and the containers B can be at least partially received by/attached to the carrier 305 in a manner similar to that described above with regard to the blank 103/carrier 105/package 107 and blank 203/carrier 205/package 207. The extents 161 of the respective reinforcement flaps 119, 123 can thus be positioned extending between respective containers B of the plurality of containers B.

[0065] The carrier 305/package 307 can thus be provided with a front portion 306 supporting three containers B and a back portion 308 supporting three containers B.

[0066] The overlapping relationship of respective portions of the central panel 117 with the reinforcement flaps 119, 123 is such that the reinforcement flaps 119, 123 provide an underlying support or shelf-like feature that can minimize/resist bending, buckling, flexion, torsion, etc. and provide a stable platform from which the central panel 117 and container retention tabs 137 extending upwardly therefrom are supported.

[0067] Further to the support provided by the 2-ply/overlapping engagement of the central panel 117 with the reinforcement flaps 119, 123, the reinforcement panels 157 are presented in an outward-facing arrangement relative to the central panel 117 and the reinforcement flaps 119, 123 so as to form a generally upright/vertical structure that further minimizes/resists bending, buckling, flexion, torsion, etc. of the carrier 105/package 107 relative to a plane defined by the central panel 117 and/or the reinforcement flaps 119, 123, e.g., such that the carrier 205/package 207 minimizes/resists such forces/movement along both the longitudinal axis L1 and the lateral axis L2 in a manner similar to that described above with respect to the carrier 105/package 107 and carrier 205/package 207.

[0068] It will be understood that one or more of the blanks 103, 203, 303 carriers 105, 205, 305 and packages 107, 207, 307 described herein can have one or more features that are differently configured or arranged without departing from the disclosure.

[0069] In general, the blank may be constructed from paperboard having a caliper so that it is heavier and more rigid than ordinary paper. The blank can also be constructed of other materials, such as cardboard, or any other material having properties suitable for enabling the carrier to function at least generally as described above. The blank can be coated with, for example, a clay coating. The clay coating may then be printed over with product, advertising, and other information or images. The blanks may then be coated with a varnish to protect information printed on the blanks. The blanks may also be coated with, for example, a moisture barrier layer, on either or both sides of the blanks. The blanks can also be laminated to or coated with one or more sheet-like materials at selected panels or panel sections.

[0070] As an example, a tear line can include: a slit that extends partially into the material along the desired line of weakness, and/or a series of spaced apart slits that extend partially into and/or completely through the material along the desired line of weakness, or various combinations of these features. As a more specific example, one type tear line is in the form of a series of spaced apart slits that extend completely through the material, with adjacent slits being spaced apart slightly so that a nick (e.g., a small somewhat bridging-like piece of the material) is defined between the adjacent slits for typically temporarily connecting the material across the tear line. The nicks are broken during tearing along the tear line. The nicks typically are a relatively small percentage of the tear line, and alternatively the nicks can be omitted from or torn in a tear line such that the tear line is a continuous cut line. That is, it is within the scope of the present disclosure for each of the tear lines to be replaced with a continuous slit, or the like. For example, a cut line can be a continuous slit or could be wider than a slit without departing from the present disclosure.

[0071] In accordance with the exemplary embodiments, a fold line can be any substantially linear, although not necessarily straight, form of weakening that facilitates folding therealong. More specifically, but not for the purpose of narrowing the scope of the present disclosure, fold lines include: a score line, such as lines formed with a blunt scoring knife, or the like, which creates a crushed or depressed portion in the material along the desired line of weakness; a cut that extends partially into a material along the desired line of weakness, and/or a series of cuts that extend partially into and/or completely through the material

along the desired line of weakness; and various combinations of these features. In situations where cutting is used to create a fold line, typically the cutting will not be overly extensive in a manner that might cause a reasonable user to incorrectly consider the fold line to be a tear line.

[0072] The above embodiments may be described as having one or more panels adhered together by glue during erection of the carrier embodiments. The term “glue” is intended to encompass all manner of adhesives commonly used to secure carrier panels in place.

[0073] The foregoing description of the disclosure illustrates and describes various exemplary embodiments. Various additions, modifications, changes, etc., could be made to the exemplary embodiments without departing from the spirit and scope of the disclosure. It is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. Additionally, the disclosure shows and describes only selected embodiments of the disclosure, but the disclosure is capable of use in various other combinations, modifications, and environments and is capable of changes or modifications within the scope of the inventive concept as expressed herein, commensurate with the above teachings, and/or within the skill or knowledge of the relevant art. Furthermore, certain features and characteristics of each embodiment may be selectively interchanged and applied to other illustrated and non-illustrated embodiments of the disclosure.

What is claimed is:

1. A carrier for holding a plurality of containers, the carrier comprising:

a central panel comprising a plurality of container retention openings for at least partially receiving a respective container of the plurality of containers;

at least one reinforcement flap foldably connected to the central panel at a fold line, the at least one reinforcement flap comprising a base portion and a plurality of spaced extents extending from the base portion for being positioned between respective containers of the plurality of containers; and

at least one reinforcement feature interrupting the fold line and positioned between the central panel and the at least one reinforcement flap.

2. The carrier of claim 1, wherein the at least one reinforcement feature is generally upright relative to the central panel.

3. The carrier of claim 2, wherein the at least one reinforcement feature is formed by a line of weakening.

4. The carrier of claim 3, wherein the line of weakening includes a plurality of oblique line segments, each oblique line segment of the plurality of oblique line segments intersecting at least one other oblique line segment of the plurality of oblique line segments.

5. The carrier of claim 4, wherein the at least one reinforcement feature is a generally diamond-shaped panel.

6. The carrier of claim 2, wherein at least one container retention tab is foldably connected to the central panel at a respective fold line, the at least one container retention tab positioned extending into a respective container retention opening of the plurality of container retention openings.

7. The carrier of claim 6, wherein the at least one reinforcement flap is a first reinforcement flap, the fold line is a first fold line, the at least one reinforcement feature is a first reinforcement feature interrupting the first fold line, and

the carrier further comprises a second reinforcement flap foldably connected to the central panel at a second fold line, the carrier further comprising a second reinforcement feature interrupting the second fold line.

8. The carrier of claim 7, wherein the first reinforcement feature is a first reinforcement feature of a first plurality of spaced apart reinforcement features interrupting the first fold line, and the second reinforcement feature is a second reinforcement feature of a second plurality of spaced apart reinforcement features interrupting the second fold line.

9. The carrier of claim 2, wherein the base portion of the at least one reinforcement flap has a first width, and each extent of the plurality of extents has a second width, the first width is greater than the second width.

10. The carrier of claim 9, wherein at least one extent of the plurality of extents has a tapered configuration.

11. The carrier of claim 9, further comprising at least one reinforcement tab foldably connected to a respective extent of the plurality of extents.

12. The carrier of claim 11, further comprising a plurality of handle openings, wherein each extent of the plurality of extents defines a curved free edge aligned with a respective handle opening of the plurality of handle openings.

13. A blank for forming a carrier for holding a plurality of containers, the blank comprising:

a top panel comprising a plurality of container retention openings for at least partially receiving a respective container of the plurality of containers when the carrier is formed from the blank;

a central panel comprising a plurality of container retention openings for at least partially receiving a respective container of the plurality of containers;

at least one reinforcement flap foldably connected to the top panel at a fold line, the at least one reinforcement flap comprising a base portion and a plurality of spaced extents extending from the base portion for being positioned between respective containers of the plurality of containers when the carrier is formed from the blank; and

at least one reinforcement feature interrupting the fold line and positioned between the central panel and the at least one reinforcement flap.

14. The blank of claim 13, wherein the at least one reinforcement feature is for being positioned generally upright relative to the central panel when the carrier is formed from the blank.

15. The blank of claim 14, wherein the at least one reinforcement feature is formed by a line of weakening.

16. The blank of claim 15, wherein the line of weakening includes a plurality of oblique line segments, each oblique line segment of the plurality of oblique line segments intersecting at least one other oblique line segment of the plurality of oblique line segments.

17. The blank of claim 16, wherein the at least one reinforcement feature is a generally diamond-shaped panel.

18. The blank of claim 14, wherein at least one container retention tab is foldably connected to the central panel at a respective fold line, the at least one container retention tab positioned extending into a respective container retention opening of the plurality of container retention openings.

19. The blank of claim 18, wherein the at least one reinforcement flap is a first reinforcement flap, the fold line is a first fold line, the at least one reinforcement feature is a first reinforcement feature interrupting the first fold line, and

the blank further comprises a second reinforcement flap foldably connected to the central panel at a second fold line, the blank further comprising a second reinforcement feature interrupting the second fold line.

20. The blank of claim 19, wherein the first reinforcement feature is a first reinforcement feature of a first plurality of spaced apart reinforcement features interrupting the first fold line, and the second reinforcement feature is a second reinforcement feature of a second plurality of spaced apart reinforcement features interrupting the second fold line.

21. The blank of claim 14, wherein the base portion of the at least one reinforcement flap has a first width, and each extent of the plurality of extents has a second width, the first width is greater than the second width.

22. The blank of claim 21, wherein at least one extent of the plurality of extents has a tapered configuration.

23. The blank of claim 21, further comprising at least one reinforcement tab foldably connected to a respective extent of the plurality of extents.

24. The blank of claim 23, further comprising a plurality of handle openings, wherein each extent of the plurality of extents defines a curved free edge for being aligned with a respective handle opening of the plurality of handle openings when the carrier is formed from the blank.

25. A method of forming a carrier for holding a plurality of containers, the method comprising:

obtaining a blank comprising a central panel comprising a plurality of container retention openings, at least one reinforcement flap foldably connected to the central panel at a fold line, the at least one reinforcement flap comprising a base portion and a plurality of spaced extents extending from the base portion, and at least one reinforcement feature interrupting the fold line and positioned between the central panel and the at least one reinforcement flap; and

folding the at least one reinforcement flap such that the plurality of container retention openings are positioned for at least partially receiving a respective container of the plurality of containers and such that the plurality of spaced extents are for being positioned between respective containers of the plurality of containers.

26. The method of claim 25, wherein the at least one reinforcement flap is folded such that the at least one reinforcement feature is generally upright relative to the central panel.

27. The method of claim 26, wherein the at least one reinforcement feature is formed by a line of weakening.

28. The method of claim 27, wherein the line of weakening includes a plurality of oblique line segments, each oblique line segment of the plurality of oblique line segments intersecting at least one other oblique line segment of the plurality of oblique line segments.

29. The method of claim 28, wherein the at least one reinforcement feature is a generally diamond-shaped panel.

30. The method of claim 26, wherein at least one container retention tab is foldably connected to the central panel at a respective fold line, the at least one container retention tab positioned extending into a respective container retention opening of the plurality of container retention openings.

31. The method of claim 30, wherein the at least one reinforcement flap is a first reinforcement flap, the fold line is a first fold line, the at least one reinforcement feature is a first reinforcement feature interrupting the first fold line, and the blank further comprises a second reinforcement flap

foldably connected to the central panel at a second fold line, the blank further comprising a second reinforcement feature interrupting the second fold line.

32. The method of claim 31, wherein the first reinforcement feature is a first reinforcement feature of a first plurality of spaced apart reinforcement features interrupting the first fold line, and the second reinforcement feature is a second reinforcement feature of a second plurality of spaced apart reinforcement features interrupting the second fold line.

33. The method of claim 26, wherein the base portion of the at least one reinforcement flap has a first width, and each extent of the plurality of extents has a second width, the first width is greater than the second width.

34. The method of claim 33, wherein at least one extent of the plurality of extents has a tapered configuration.

35. The method of claim 33, wherein the blank further comprises at least one reinforcement tab foldably connected to a respective extent of the plurality of extents.

36. The method of claim 35, wherein the blank further comprises a plurality of handle openings and each extent of the plurality of extents defines a curved free edge, and wherein the at least one reinforcement flap is folded such that the curved free edge of a respective extent of the plurality of extents is aligned with a respective handle opening of the plurality of handle openings.

37. A package, the package comprising:

a plurality of containers; and

a carrier holding the plurality of containers, the carrier comprising:

a central panel comprising a plurality of container retention openings at least partially receiving a respective container of the plurality of containers;

at least one reinforcement flap foldably connected to the central panel at a fold line, the at least one reinforcement flap comprising a base portion and a plurality of spaced extents extending from the base portion and positioned between respective containers of the plurality of containers; and

at least one reinforcement feature interrupting the fold line and positioned between the central panel and the at least one reinforcement flap.

38. The package of claim 37, wherein the at least one reinforcement feature is generally upright relative to the central panel.

39. The package of claim 38, wherein the at least one reinforcement feature is formed by a line of weakening.

40. The package of claim 39, wherein the line of weakening includes a plurality of oblique line segments, each oblique line segment of the plurality of oblique line segments intersecting at least one other oblique line segment of the plurality of oblique line segments.

41. The package of claim 40, wherein the at least one reinforcement feature is a generally diamond-shaped panel.

42. The package of claim 38, wherein at least one container retention tab is foldably connected to the central panel at a respective fold line, the at least one container retention tab positioned extending into a respective container retention opening of the plurality of container retention openings.

43. The package of claim 42, wherein the at least one reinforcement flap is a first reinforcement flap, the fold line is a first fold line, the at least one reinforcement feature is a first reinforcement feature interrupting the first fold line, and the carrier further comprises a second reinforcement flap

foldably connected to the central panel at a second fold line, the carrier further comprising a second reinforcement feature interrupting the second fold line.

44. The package of claim **43**, wherein the first reinforcement feature is a first reinforcement feature of a first plurality of spaced apart reinforcement features interrupting the first fold line, and the second reinforcement feature is a second reinforcement feature of a second plurality of spaced apart reinforcement features interrupting the second fold line.

45. The package of claim **38**, wherein the base portion of the at least one reinforcement flap has a first width, and each extent of the plurality of extents has a second width, the first width is greater than the second width.

46. The package of claim **45**, wherein at least one extent of the plurality of extents has a tapered configuration.

47. The package of claim **45**, further comprising at least one reinforcement tab foldably connected to a respective extent of the plurality of extents.

48. The package of claim **47**, further comprising a plurality of handle openings, wherein each extent of the plurality of extents defines a curved free edge aligned with a respective handle opening of the plurality of handle openings.

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