



US 20100102074A1

(19) **United States**(12) **Patent Application Publication**  
**Parikh et al.**(10) **Pub. No.: US 2010/0102074 A1**(43) **Pub. Date: Apr. 29, 2010**(54) **TAMPER EVIDENT CONTAINER WITH  
FRANGIBLE HINGE****Publication Classification**(51) **Int. Cl.**  
**B65D 43/16**

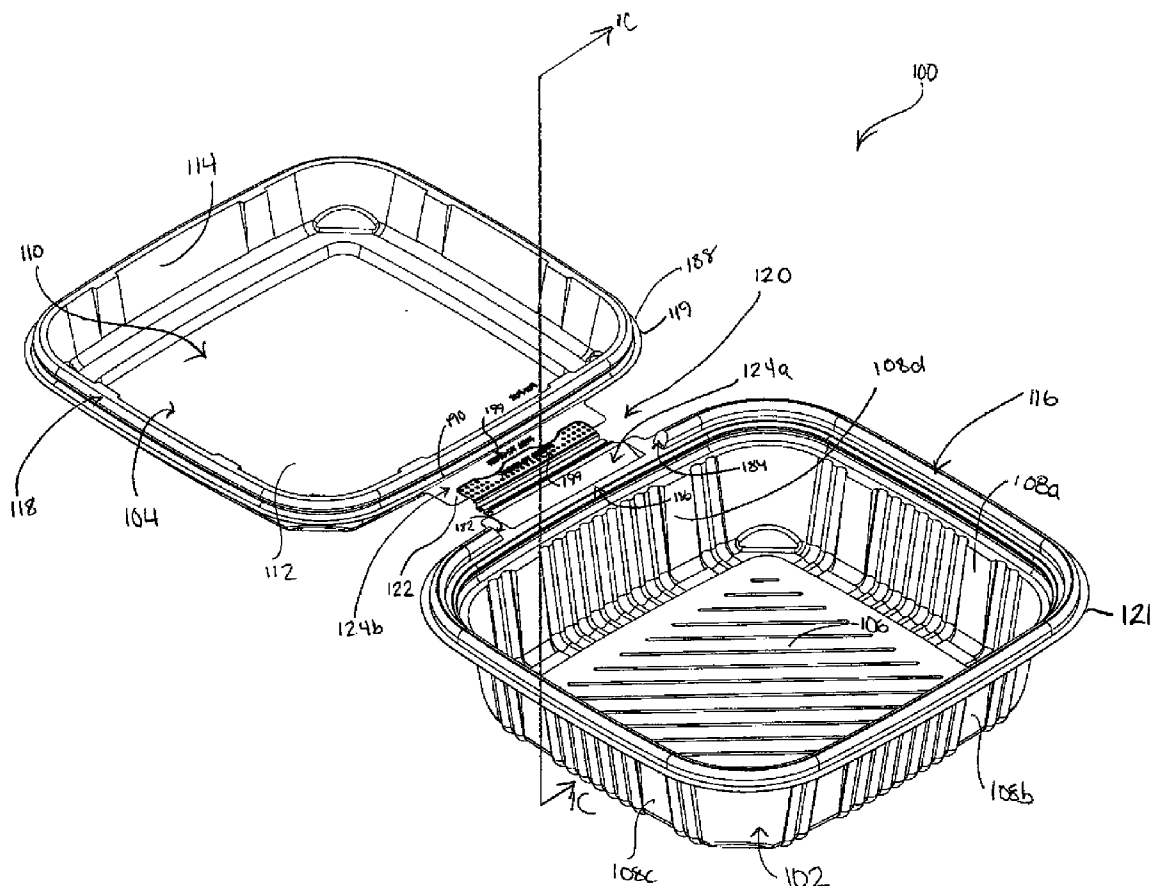
(2006.01)

(52) **U.S. Cl.** ..... **220/810**(57) **ABSTRACT**(75) **Inventors:** **Samir R. Parikh**, Brampton (CA);  
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**MCKEESPORT, PA 15131**(73) **Assignee:** **PAR-PAK LTD.**, Brampton (CA)(21) **Appl. No.:** **12/606,770**(22) **Filed:** **Oct. 27, 2009****Related U.S. Application Data**(60) **Provisional application No. 61/108,968, filed on Oct.**  
**28, 2008.**

A container includes a base having a base peripheral portion and a lid having a lid peripheral portion. The lid peripheral portion is mountable to the base peripheral portion to mount the lid to the base for closing the container. A frangible hinge member pivotally joins the base to the lid. The hinge member includes a base hinge panel joined to the base peripheral portion, and a lid hinge panel joined to the lid peripheral portion. The base and lid hinge panels are pivotally joined together at a pivot region. One of the base hinge panel and the lid hinge panel has a line of weakness extending at least partially thereacross. At least a portion of the line of weakness is spaced from and positioned inwardly of the pivot region. The one of the base hinge panel and the lid hinge panel is separable along the line of weakness into a grasping portion connected to one of the base and the lid, and a flap portion connected to the pivot region.



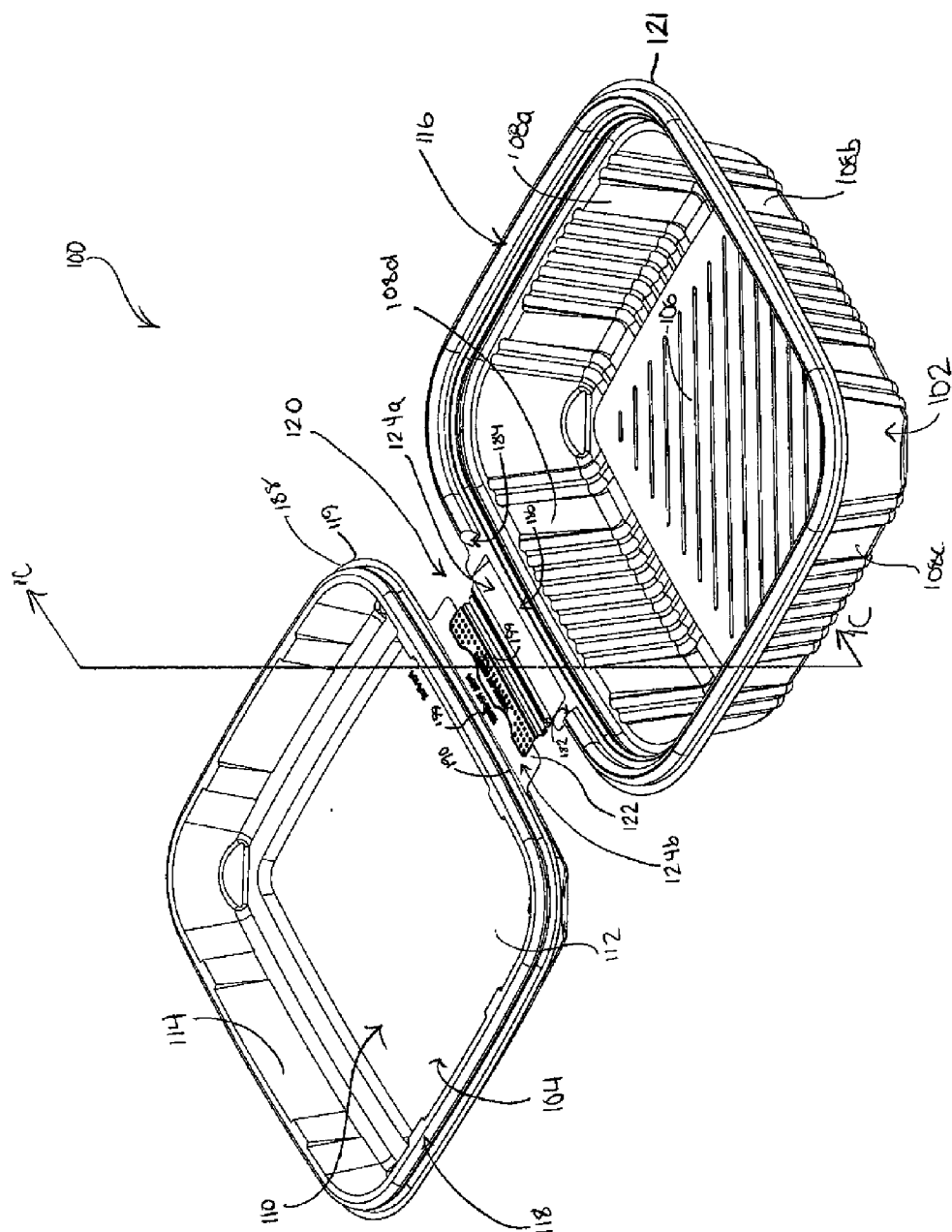


Fig. 1A

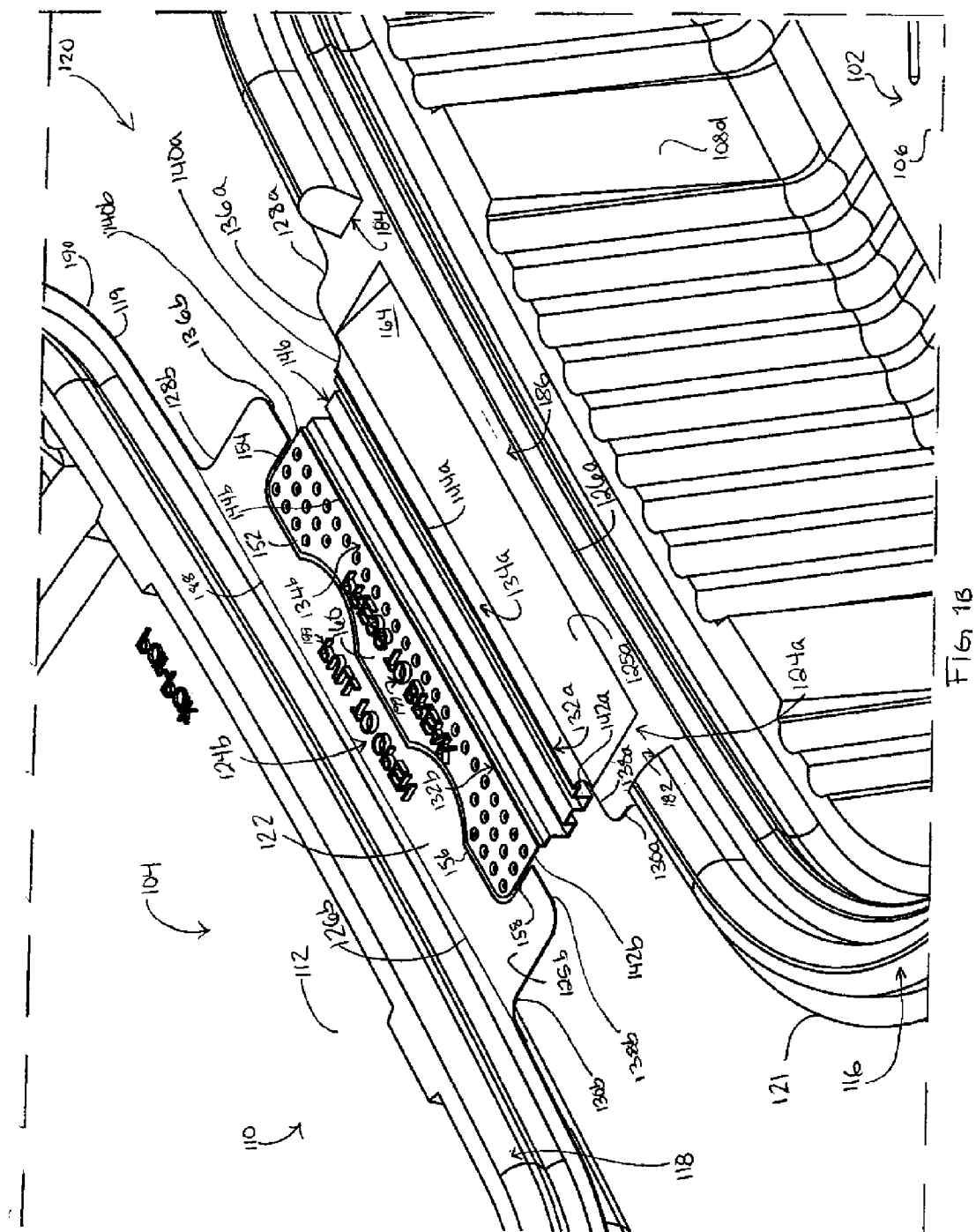


Fig. 1B

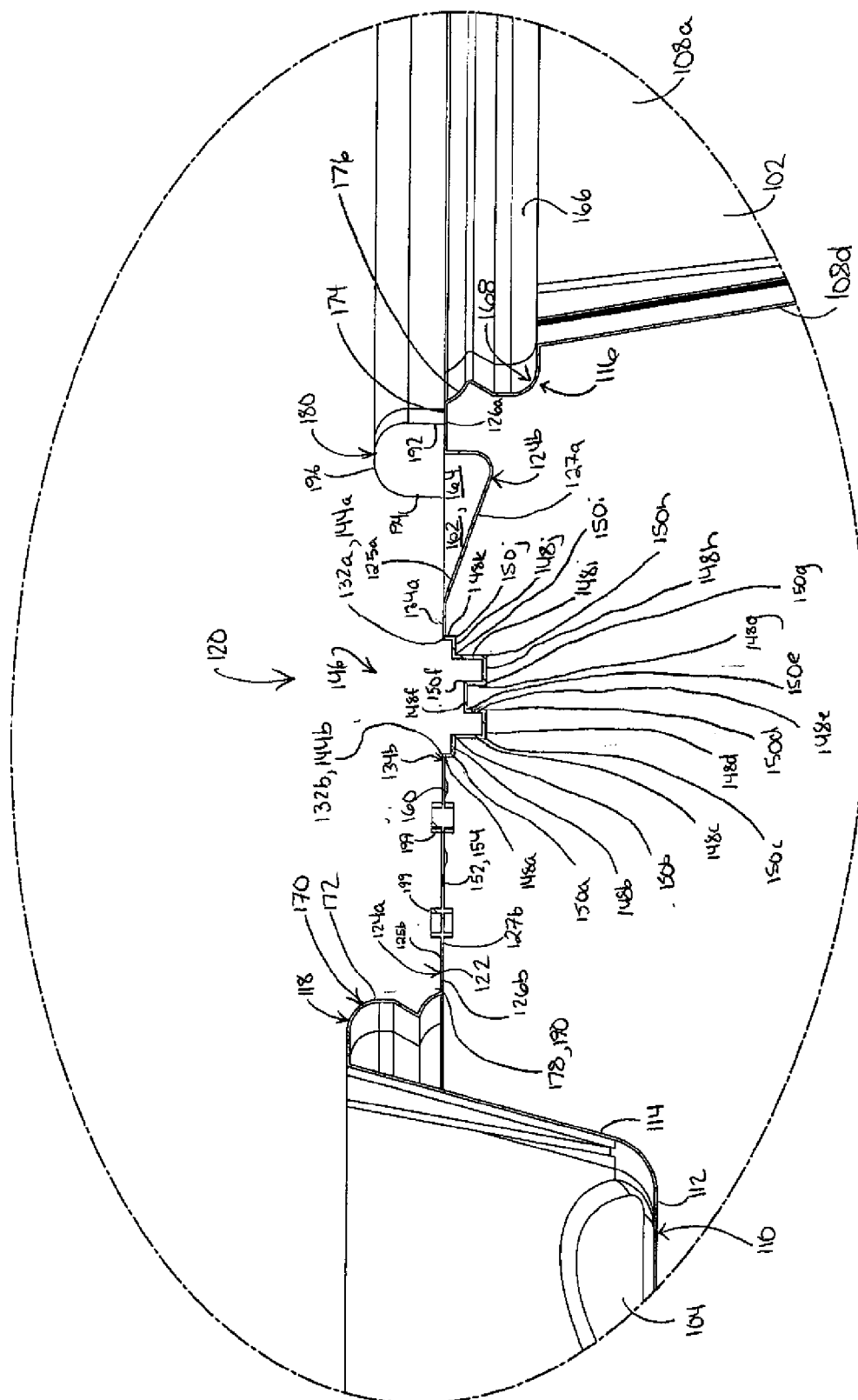


Fig 1C

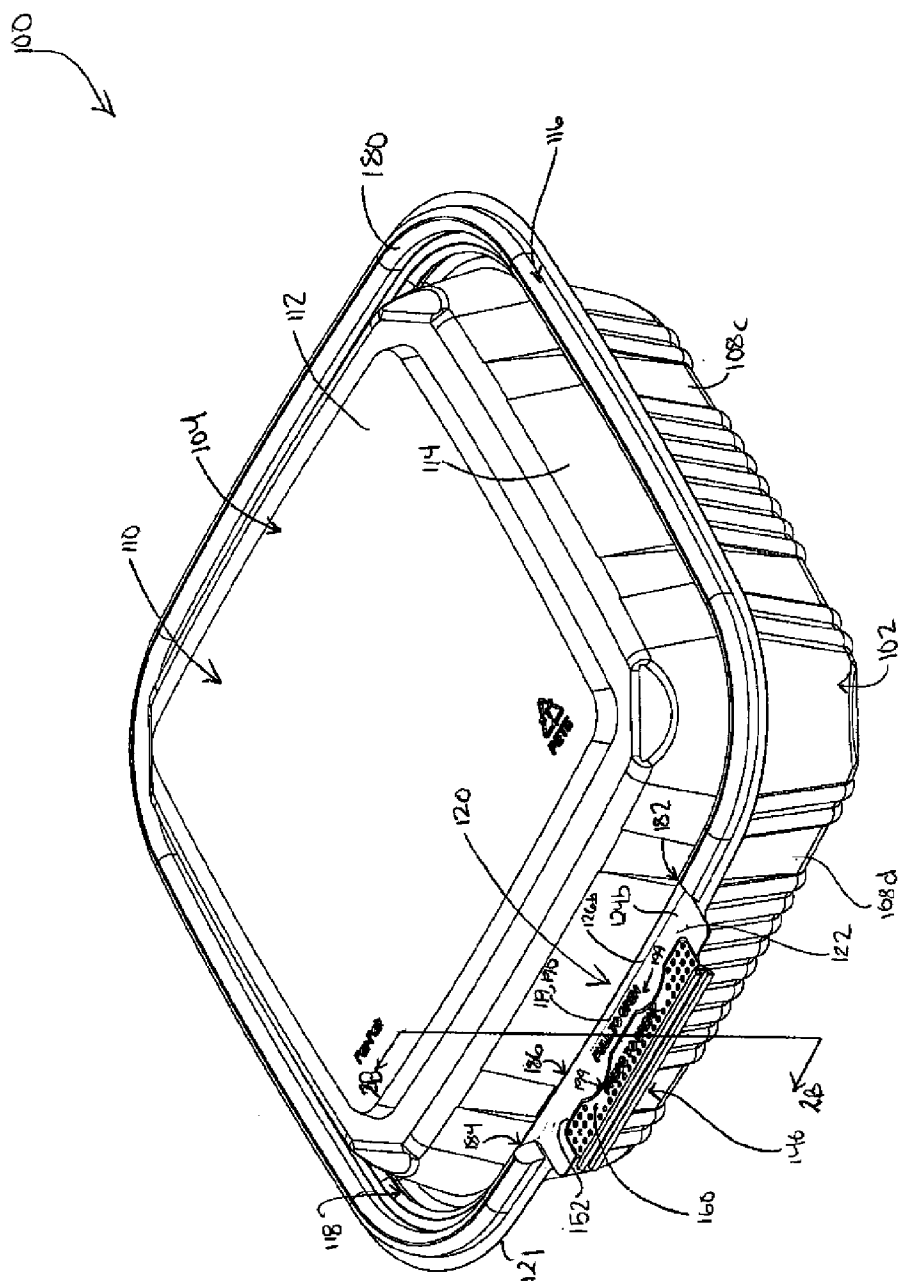


Fig 2A

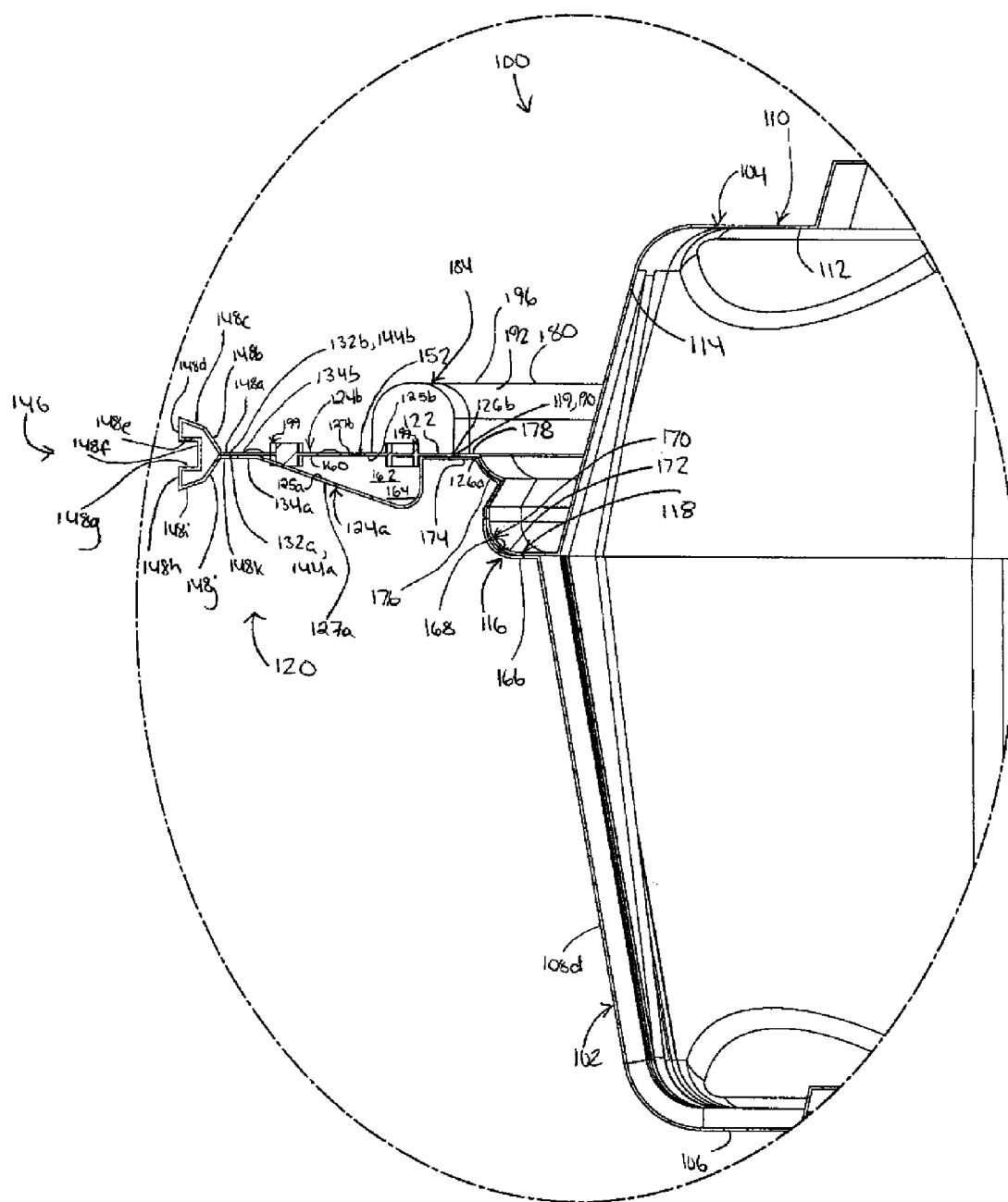


FIG. 2B

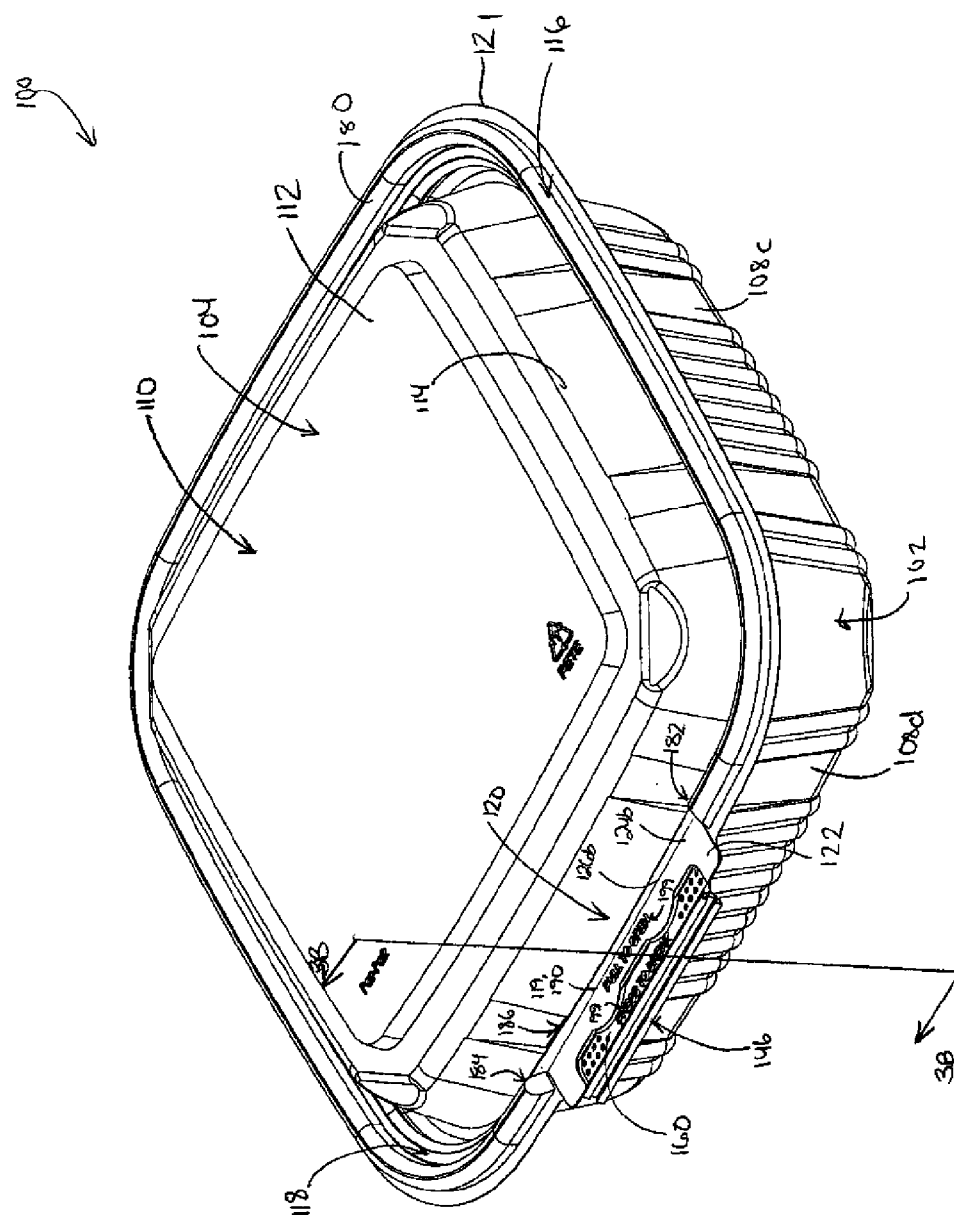


Fig. 39

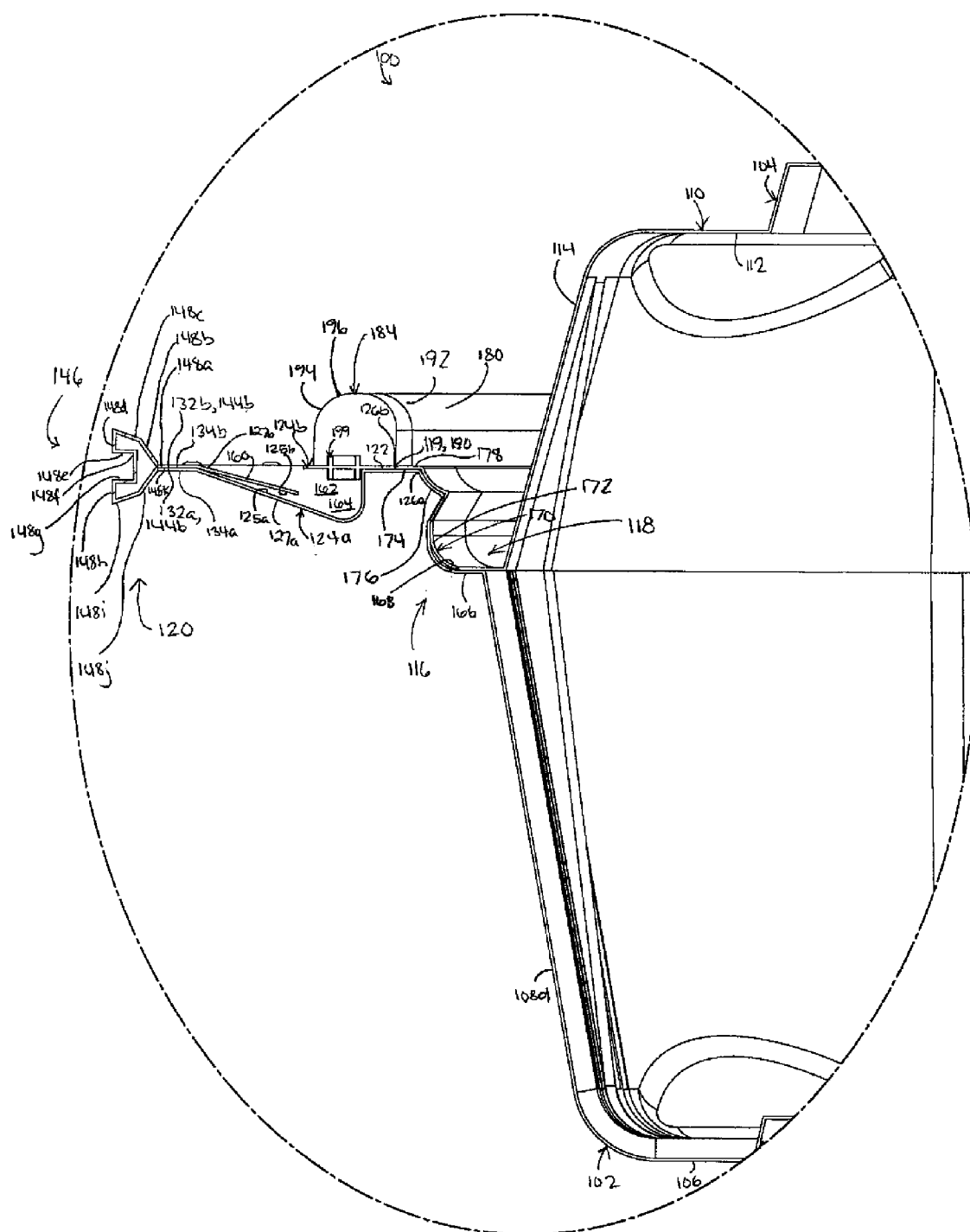


FIG 3B



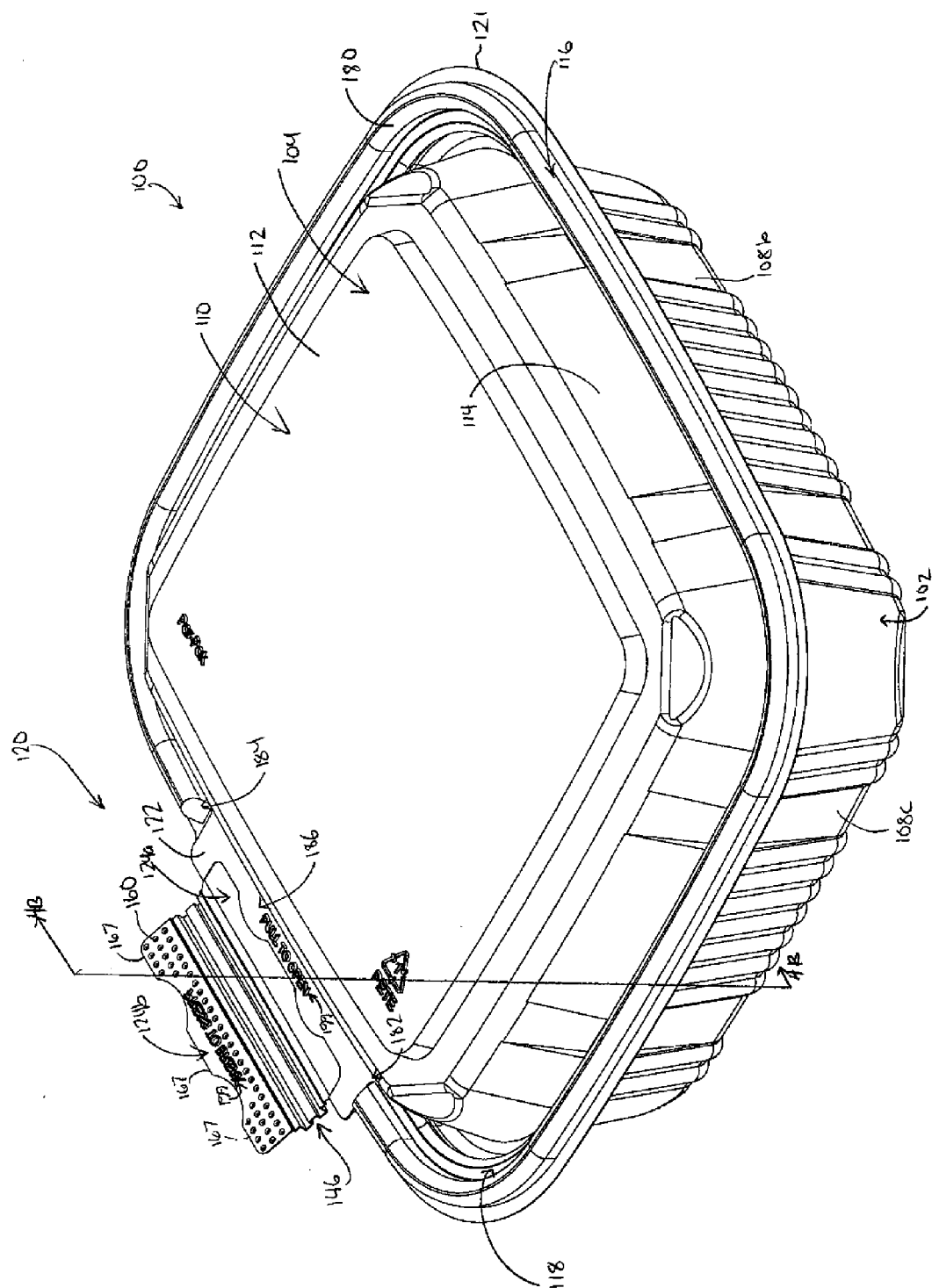


FIG. 4A

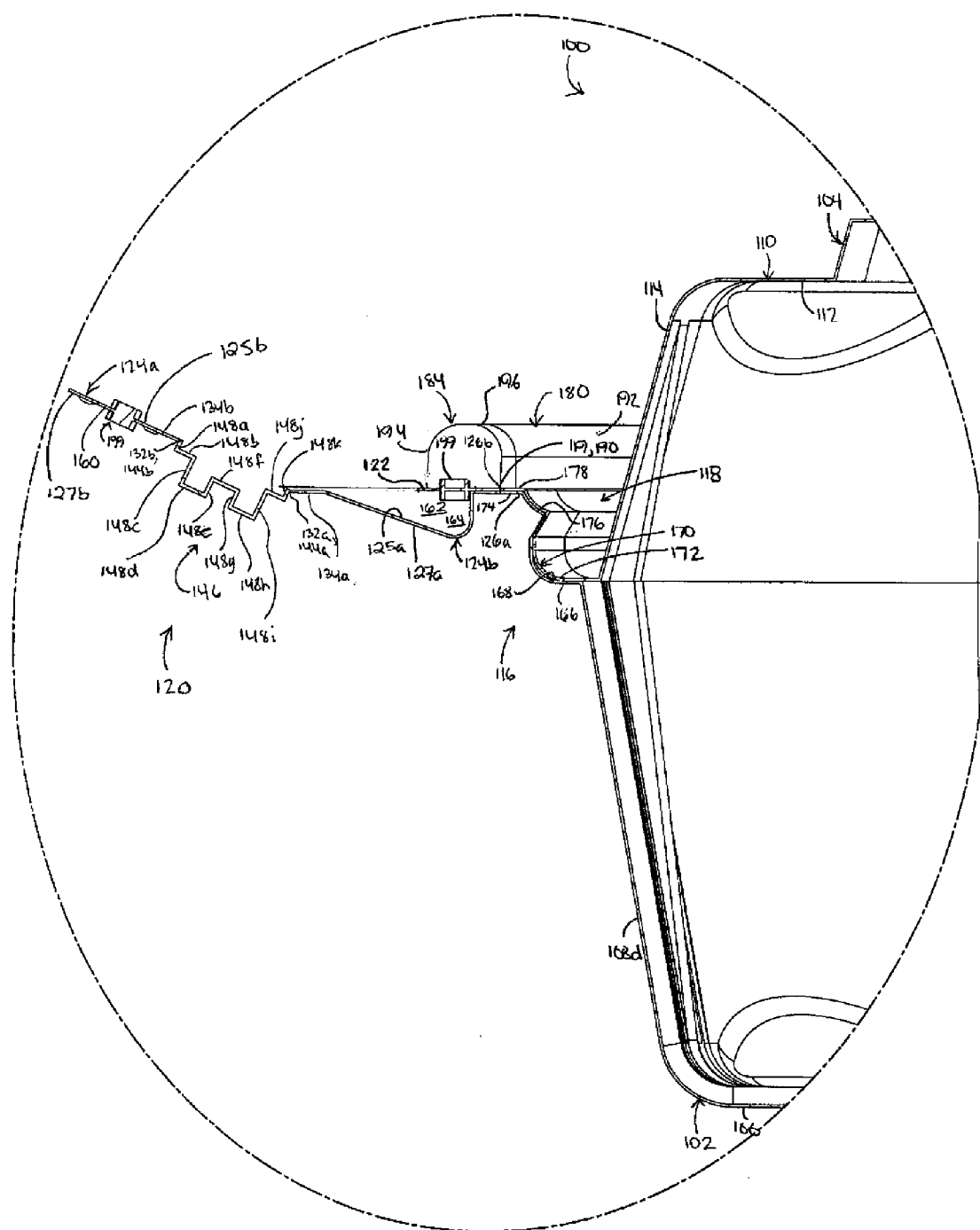


FIG. 4B

## TAMPER EVIDENT CONTAINER WITH FRANGIBLE HINGE

[0001] This application claims the benefit of Provisional Application No. 61/108,968, filed Oct. 28, 2008, which is hereby incorporated herein by reference.

### FIELD

[0002] The specification relates to containers. More specifically, the specification relates to containers that are configured to provide a visual indication that the container has been previously opened.

### INTRODUCTION

[0003] The following is not an admission that anything discussed below is prior art or part of the common general knowledge of persons skilled in the art.

[0004] Containers are used to store many types of items, such as foodstuffs, medicine, or numerous other types of materials.

[0005] U.S. Pat. No. 7,073,680 (Boback et al.) discloses a tamper-resistant container with tamper-evident features which includes a cover portion defining an outwardly extending peripheral flange, a base portion defining an upper peripheral edge, a hinge joining the outwardly extending peripheral flange with the base portion and an engagement mechanism for maintaining the peripheral flange adjacent to the upper peripheral edge when the container is closed. The upper peripheral edge includes an upwardly projecting bead extending substantially about the perimeter of the base portion that is configured to render the outwardly extending flange of the cover portion relatively inaccessible when the container is closed. The hinge includes a frangible section, which upon severing, provides a projection that extends out beyond the upwardly projecting bead of the upper peripheral edge of the base portion, for facilitating the disengagement of the engagement mechanism and removal of the cover portion from the base portion to open the container.

[0006] United States Patent Application Publication 2006/0289549 (Vovan) discloses a food container formed from plastic and can be loaded with food and then closed by a clerk, and thereafter cannot be opened without tearing apart first sides of the base and lid. The container is formed by a single sheet of plastic that forms a base and lid with second sides that are latched together and with adjacent first sides that are joined by a joint line in the plastic that is creased and that has slits. At the joint line, the lid has a projecting lid tab and the base has a projecting base tab. A person grasps both tabs, and lifts only the lid tab to tear apart the first sides of the base and lid along the joint line. Thereafter, the lid can be easily closed and reopened on the base.

### SUMMARY

[0007] The following summary is provided to introduce the reader to the more detailed discussion to follow. The summary is not intended to limit or define the claims.

[0008] According to one broad aspect, a container is provided. The container comprises a base having a base peripheral portion. The container further comprises a lid having a lid peripheral portion. The lid peripheral portion is mountable to the base peripheral portion to mount the lid to the base. A hinge member pivotally joins the base to the lid. The hinge

member includes a base hinge panel joined to the base peripheral portion, and a lid hinge panel joined to the lid peripheral portion. The base and lid hinge panels are pivotally joined together at a pivot region. One of the base hinge panel and the lid hinge panel has a line of weakness extending at least partially thereacross. At least a portion of the line of weakness is spaced from and positioned inwardly of the pivot region. The one of the base hinge panel and the lid hinge panel is separable along the line of weakness into a grasping portion connected to one of the base and the lid, and a flap portion connected to the pivot region.

[0009] In some examples, the lid hinge panel has the line of weakness extending at least partially thereacross, and the lid hinge panel is separable along the line of weakness into the grasping portion connected to the lid, and the flap portion connected to the pivot region.

[0010] In some examples, the lid hinge panel seats on at least a portion of the base hinge panel.

[0011] In some examples, the pivot region comprises a plurality of non-frangible pivot edges, including a lid pivot edge and a base pivot edge that are each spaced laterally apart from the respective lid and base, and which pivot edges are connected along a line about which the lid can pivot relative to the base.

[0012] In some examples, the base and lid hinge panels have respective inner surfaces facing each other when the container is closed, and at least a portion of the inner surfaces are spaced apart to form a gap therebetween. The line of weakness can overlie the gap. The lid hinge panel can be separable into the grasping portion and the flap portion by displacement of at least a portion of the flap portion downwardly into the gap. The base hinge panel can comprise a downwardly extending recess (or hollow) defining the gap.

[0013] In some examples, the line of weakness defines a plurality of curves, and when the one of the lid hinge panel and the base hinge panel is separated into the grasping portion and the flap portion, the plurality of curves provide a plurality of grasping protrusions along the grasping portion. The curves present an edge surface that can be gripped by a user, by inserting a finger into the gap underneath the curved edge, and urging the curved edge upward to separate the lid from the base.

[0014] In some examples, the pivot region is biased to pivot the flap portion away from the grasping portion when the one of the lid hinge panel and the base hinge panel is separated into the grasping portion and the flap portion.

[0015] In some examples, the lid peripheral portion defines a lid peripheral edge, and the lid peripheral edge is generally in accessible to a user when the lid is mounted to the base.

[0016] In some examples, the base comprises a bottom panel, at least one sidewall extending upwardly from a periphery of the bottom panel, and the base peripheral portion extends from the at least one sidewall. Further, the lid can comprise a covering portion and the lid peripheral portion can extend from the covering portion.

[0017] In some examples, the base peripheral portion comprises at least one engagement surface extending from an upper portion of the at least one side wall to define an inwardly open recess. A seating surface may be positioned above the recess, and a barrier wall may extend upwardly from an outer portion of the seating surface and extend from a first position to a second position spaced perimetrically from the first position. The base hinge panel may be provided between the first position and the second position and may be

joined to and extend outwardly from the seating surface. The lid peripheral portion may comprise a projection receivable in the recess, and a flange positioned above and outwardly of the projection. The flange may be seatable on the seating surface, and may have a first portion having an outer edge in perimetrical registration with the barrier wall and a second portion extending between the first position and the second position when the projection is received in the recess. The lid hinge panel may be provided between the first position and the second position and extends outwardly from the second position.

[0018] Other aspects and features of the present specification will become apparent, to those ordinarily skilled in the art, upon review of the following description of the specific examples of the specification.

### DRAWINGS

[0019] The drawings included herewith are for illustrating various examples of articles, methods, and apparatuses of the present specification and are not intended to limit the scope of what is taught in any way. In the drawings:

[0020] FIG. 1A is a perspective illustration of an example of a container, wherein the container is in an open configuration;

[0021] FIG. 1B is an enlarged perspective illustration of the hinge member shown in FIG. 1A;

[0022] FIG. 1C is a cross-section taken along line 1C-1C in FIG. 1A;

[0023] FIG. 2A is a perspective illustration of the container of FIG. 1A, wherein the container is in a closed and locked configuration;

[0024] FIG. 2B is a cross-section taken along line 2B-2B in FIG. 2A;

[0025] FIG. 3A is a perspective illustration of the container of FIG. 1A, wherein the container is in the process of being unlocked;

[0026] FIG. 3B is a cross-section taken along line 3B-3B in FIG. 3A;

[0027] FIG. 4A is a perspective illustration of the container of FIG. 1A, wherein the container is closed and unlocked;

[0028] FIG. 4B is a cross-section taken along line 4B-4B in FIG. 4A;

### DESCRIPTION

[0029] Various apparatuses or processes will be described below to provide an example of an embodiment of each claimed invention. No embodiment described below limits any claimed invention and any claimed invention may cover processes or apparatuses that are not described below. The claimed inventions are not limited to apparatuses or processes having all of the features of any one apparatus or process described below or to features common to multiple or all of the apparatuses described below. It is possible that an apparatus or process described below is not an embodiment of any claimed invention. Any invention disclosed in an apparatus or process described below that is not claimed in this document may be the subject matter of another protective instrument, for example, a continuing patent application, and the applicants, inventors or owners do not intend to abandon, disclaim or dedicate to the public any such invention by its disclosure in this document.

[0030] Referring to FIGS. 1A-4B, an example of a container 100 is shown. The container 100 has an initial configuration,

shown in FIGS. 1A to 1C, in which it is generally open and may be filled. The container 100 may be provided to a food preparation site in the initial configuration, such that it may be filled with food. The container 100 further has a second configuration, shown in FIGS. 2A and 2B, in which it is closed and locked. For example, after the container is filled at the food preparation site, it may be closed and locked, and provided to a distributor and/or seller in this configuration. The container 100 further has a third configuration, shown in FIGS. 4A and 4B, in which it is closed and unlocked. For example, after an end user such as a consumer purchases the container 100, they may unlock it, such that the container 100 may be then opened and the contents of the container 100 may be accessed. FIGS. 3A and 3B show the container in the process of being unlocked. As will be described further hereinbelow, the container 100 is generally configured such that after it has been unlocked for the first time, it provides visual evidence that it has been previously unlocked. Accordingly, the container 100 may be substantially tamper-resistant, tamper-evident, and/or tamper-proof. Further the container 100 is generally re-closeable, but not re-lockable, such that a user may re-close the container 100 as desired after it has been opened for the first time.

[0031] In the example shown, the container 100 comprises a base 102 and a lid 104. The base 102 generally defines a receptacle, which may receive various items to be stored in the container 100. The lid 104 generally serves to cover the base 102. Further, the base has a base peripheral portion 116, and the lid has a lid peripheral portion 118. The lid peripheral portion 118 is mountable to the base peripheral portion 116 to mount the lid 104 to the base 102.

[0032] In the example shown, the base 102 comprises a bottom panel 106, and a plurality of sidewalls 108 extending upwardly from a periphery of the bottom panel 106. In the example shown, the base 102 is generally square, and comprises four sidewalls 108a-108d extending upwardly from the bottom panel 106. In alternate examples, the base may be another shape, and may comprise another number of sidewalls. For example the bottom panel 106 may be generally circular, and a single rounded sidewall may extend upwardly therefrom. In alternate examples, the bottom panel and sidewalls may be substantially integral with each other, with out a clear delineation therebetween. For example, the base 102 may be generally hemi-spherical. The peripheral portion 116 of the base, to which the peripheral portion of the lid 118 is mounted, extends from the upper portion of the sidewalls 108. The peripheral portion 116 of the base 102 defines a peripheral edge 121 of the base.

[0033] Further, in the example shown, the lid 104 comprises a covering portion 110, which generally serves to cover the receptacle 102. The covering portion 110 includes an upper panel 112, and a skirt 114 extending downwardly from the upper panel 112. In alternate examples, the lid 104 may comprise only the upper panel, and a skirt may not be provided. The peripheral portion 118 of the lid 104, which mounts to the peripheral portion 116 of the base, extends outwardly from the skirt 114. The peripheral portion 118 of the lid 104 defines a peripheral edge 119 of the lid.

[0034] The container 100 is generally configured such that after it has been unlocked for the first time, it provides visual evidence that it has been previously unlocked. Accordingly, if an unauthorized user unlocks and opens the container, for example to tamper with the contents, and then closes the container, the container may not be relocked (i.e. cannot be

returned to its original pre-opened state), and will provide visual evidence to the next user that the container has been previously unlocked. In the example shown, a hinge member 120 is provided, which pivotably joins the base 102 to the lid 104. The container 100 is generally configured such that after the lid 104 is mounted to the base 102 for the first time as shown in FIGS. 2A and 2B (i.e. after the container has been filled and placed in the closed and locked configuration), the lid 104 can generally not be removed from the base 102 without separating the hinge member 120 into two portions, as shown in FIGS. 3A to 4B. That is, when the lid 104 is mounted to the base 104, the peripheral edge 119 of the lid 104 is concealed, as will be described further hereinbelow. Accordingly, a user may not grasp the peripheral edge 119 to remove the lid 104 from the base 102. However, when the hinge member 120 is separated (i.e. when the container is unlocked), a grasping portion 122 of the hinge member 120 becomes accessible to a user, and the user may grasp the grasping portion 120 to remove the lid 104 from the base 102. The separation of the hinge member 120 generates the visual evidence that the lid 104 has been removed.

[0035] It will be appreciated that in alternate examples, the container may be configured such that when the lid 104 is mounted to the base 104, the peripheral edge 121 of the base 102 is concealed, such that a user may not grasp the peripheral edge 121 to remove the lid 104 from the base 102.

[0036] Referring to FIGS. 1A-4B, in the example shown, the hinge member 120 comprises a base hinge panel 124a joined to the base peripheral portion 116, and a lid hinge panel 124b joined to the lid peripheral portion 118. The hinge panels 124a, 124b are pivotally joined together, to allow the lid 104 to pivot with respect to the base 102.

[0037] The panels 124a, 124b may be of a variety of shapes. In the example shown, each panel 124a, 124b has an inner surface 125a, 125b, and an outer surface, 127a, 127b. Further, each panel 124a, 124b is generally rectangular, and has, respectively, an inner edge 126a, 126b, first 128a, 128b, and second 130a, 130b opposed side edges, and an outer edge, 132a, 132b (shown in FIG. 1C). In the example shown, the lid hinge panel 124b is joined to the lid peripheral portion 118 along its inner edge 126b. Accordingly, the lid hinge panel 124b extends outwardly of the lid peripheral portion 118. Further, in the example shown, the base hinge panel 124a is joined to the base peripheral portion 116 along its inner edge 126a, and along a portion of the first 128a and second 130a side edges. Accordingly, the base hinge panel 124a extends partially outwardly of the base peripheral portion 116. When the container 100 is in the closed and locked configuration (i.e. after it has been filled and closed for the first time), the base hinge panel 124a and the lid hinge panel 124b are generally in vertical registration. That is, when the container 100 is in the closed and locked configuration, the lid hinge panel 124b seats above the base hinge panel 124a, and the inner surfaces 125a, 125b generally face each other and bear against each other.

[0038] In the example shown, each panel 124a, 124b, comprises a tab portion 134a, 134b extending outwardly therefrom. That is, the outer edge 132a, 132b of each panel defines a plurality of edges: a first 136a, 136b lateral edge extending inwardly from the first 128a, 128b side edge, a second 138a, 138b lateral edge extending inwardly from second 130a, 130b side edge, a first 140a, 140b protruding edge extending outwardly from the first 136a, 136b lateral edge, a second protruding edge 142a, 142b extending outwardly from the

second 138a, 138b lateral edge, and a central edge 144a, 144b extending between the first 140, 14b, and second 142a, 142b protruding edges, respectively (shown in FIG. 1C).

[0039] In alternate examples, the panels 124a, 124b may be otherwise shaped, and may not extend outwardly or partially outwardly of the base peripheral portion 116 and lid peripheral portion 118, respectively. For example, one or both of the panels 124a, 124b may be joined to the base peripheral portion 116 and lid peripheral portion 118, respectively, along the inner edges 126a, 126b, and along the entirety of the side edges 128a, 128b, 130a, 130b. In such an example, one or both of the panels 124a, 124b may seat inwardly of the base peripheral portion 116 and lid peripheral portion 118, respectively.

[0040] As previously mentioned, the hinge panels 124a, 124b are pivotally joined together, to allow the lid 104 to pivot with respect to the base 102. In the example shown, the lid hinge panel 124a and the base hinge panel 124b are joined together at a pivot region 146. In the example shown, the pivot region 146 comprises a plurality of surfaces 148a-148k (shown in FIGS. 1C and 2B-4B), provided between the outer edge 132a of the base hinge panel 124a and the outer edge 132b of the lid hinge panel 124b. The surfaces are joined together along a plurality of pivot edges 150a-150j (shown in FIG. 1C), which are generally weakened, although generally not frangible, such that the pivot region 146 may be bent along these edges 150a-150j to pivot the lid 104 away from the base 102 when the container 100 is unlocked.

[0041] In the example shown, the pivot region 146 extends only partially along the outer edges 132a, 132b of the panels 124a, 124b. That is, the pivot region extends along the central edge 144a, 144b of each panel 124a, 124b. However, in alternate examples, for example wherein tab portions 134a, 134b are not provided, and the outer edges 132a, 132b comprise a single edge extending between the first 128a, 128b, and second 130a, 130b side edges, respectively, the pivot region 146 may extend along the entirety of the outer edges 132a, 132b.

[0042] Referring to FIGS. 1A-4B, one of the base hinge panel 124a and the lid hinge panel 124b has a line of weakness 152 extending at least partially thereacross. In the example shown, the lid hinge panel 124b has the line of weakness 152. Further, in the example shown, the line of weakness 152 extends only partially across the lid hinge panel 124b. That is, the line of weakness 152 has a first portion 154 extending inwardly from the junction of the first lateral edge 136b and the first protruding edge 140b, a second portion 156 extending laterally across the panel 124b, and a third portion 158 extending outwardly towards the junction of the second lateral edge 138b and the second protruding edge 142b.

[0043] In alternate examples, the line of weakness may extend in another manner. For example, the line of weakness 152 may comprise only a single portion extending entirely across the panel 124b, from the first side edge 128b to the second side edge 130b. Further, in alternate examples, the base hinge panel 124a may comprise the line of weakness.

[0044] Referring to FIGS. 1A-4B, at least a portion of the line of weakness 152 is spaced from and positioned inwardly of the pivot region 146. As used herein 'inwardly' refers to a direction towards a central portion of the container. In the example shown, each of the first 154, second 156, and third 158 portions of the line of weakness 152 are spaced from and positioned inwardly of the pivot region 146. That is, the first 140b and second 142b protruding edges are positioned

between second **156** and third **158** portions of the line of weakness **152** and the pivot region **146**, respectively. In alternate examples, only one or only some portions of the line of weakness **152** may be spaced from and positioned inwardly of the pivot region **146**. By providing at least a portion of the line of weakness **152** spaced from and inwardly of the pivot region **146**, the risk of accidental separation of the lid hinge panel **124b** along the line of weakness, for example during shipping, may be prevented, minimized, or reduced.

[0045] The amount that each portion of the line of weakness **152** is spaced from the pivot region **146** may vary. In the example shown, the first **154** and third **158** portions of the line of weakness are spaced from the pivot region by about 0.5 cm, and the second **156** portion of the line of weakness **152** is spaced from the pivot region by about 1 cm. In alternate examples, any of the portions may be spaced from the line of weakness by another amount, for example between about 0.1 cm and 2 cm.

[0046] Referring to FIGS. 3A-4B, the lid hinge panel **124b** is separable along the line of weakness **152**. That is, the line of weakness **152** generally defines a frangible portion of the lid hinge panel **124b**, which may be broken or torn. The lid hinge panel **124b** is separable along the line of weakness **152** into a grasping portion **122** connected to the lid **104**, and a flap portion **160** connected to the pivot region **146**. When the lid hinge panel **124b** has been separated along the line of weakness **152**, the user may grasp the grasping portion **122** to remove the lid **104** from the base **102**. That is, in order to unlock the container **100**, the user may separate the lid hinge panel **124b** along the line of weakness **152**. The separation of the lid hinge panel **124b** provides visual evidence that the container **100** has been previously opened.

[0047] The user may separate the lid hinge panel **124b** in a variety of ways. In some examples, when the container is in the closed and locked configuration, at least a portion of the inner surface **125a** of the base hinge panel **124a** and at least a portion of the inner surface **125b** of the lid hinge panel **124b** are spaced apart to form a gap **162** therebetween, and at least a portion of the line of weakness **152** overlies the gap **162**. For example, as shown, the base hinge panel **124a** may comprise a downwardly extending recess **164**, which defines the gap **162**. Further, in the example shown, the second portion **156** of the line of weakness **152** overlies the gap. In order to separate the lid hinge panel **124b**, a user may displace at least a portion of either the flap portion **160** or the grasping portion **122** downwardly into the gap, as shown in FIGS. 3A-3B. For example, a user may apply pressure to the flap portion **160** to displace at least a portion of the flap portion into the gap **162**. As the flap portion **160** displaces, the lid hinge panel **124b** may break or sever at the line of weakness **152**. While the flap **160** is still displaced downwardly, the user may grasp the grasping portion to lift the lid **104** off of the base **102**. Alternatively, the user may release the flap portion, and allow it to automatically pivot away from the grasping portion, as will be described further hereinbelow, and then grasp the grasping portion **122** to lift the lid **104** off of the base **102**.

[0048] In alternate examples, the lid hinge panel **124b** may be separated in other ways. For example a pull-tab may be provided on the flap **160**, which the user may grasp in order to pull the flap **160** upwardly and sever the lid hinge panel **124b** at the line of weakness.

[0049] In the example shown, the second portion **156** of the line of weakness **152** defines a plurality of curves. When the lid hinge panel **124b** is separated into the grasping portion **122**

and the flap portion **160**, the plurality of curves provide a plurality of grasping protrusions **167** along the grasping portion **122** (shown in FIG. 4A). The grasping protrusions **167** may aid a user in grasping the grasping portion **122**.

[0050] In alternate examples, the line of weakness may not comprise any curves. For example, the second portion **156** may extend in a substantially straight manner.

[0051] As mentioned hereinabove, the separation of the lid hinge panel **124b** provides visual evidence that the container **100** has been previously opened. Furthermore, in the example shown, the hinge member **120** is configured such that the pivot portion **146** is biased to pivot the flap portion **160** away from the grasping portion **122** when the lid hinge panel **124b** has been separated into the grasping portion **122** and the flap portion **160**. That is, referring to FIG. 1C, the pivot surfaces **148a-148k** are configured such that in the absence of external forces, for example when the container is in the open configuration, the pivot surfaces **148a-148k** extend from each other at approximate right angles. However, when the lid is mounted to the receptacle and the container is in the closed and locked configuration, the pivot surfaces **148a-148k** are compressed towards each other, as shown in FIGS. 2A to 3B, and extend from each other at acute angles. Referring to FIGS. 4A and 4B, when the lid hinge panel **124b** is separated along the line of weakness and the user releases the flap portion **160**, the pivot surfaces **148a-148k** flex back to their original configuration, wherein they extend from each other at approximate right angles. This causes the flap portion **160** to pivot away from grasping portion **122**. The flap portion **160** therefore protrudes from the container **100**, and this provides an additional visual indication to the user that the container has previously been unlocked.

[0052] As mentioned hereinabove, in the example shown, when the lid **104** is mounted to the base **104**, the peripheral edge **119** of the lid **104** is concealed. Accordingly, a user may not grasp the peripheral edge **119** to remove the lid **104** from the base **102**, and generally must separate the lid hinge panel **124b** in order to grasp the grasping portion **122** and lift the lid off of the receptacle. The peripheral edge **119** of the lid may be concealed in a variety of ways, and the lid may be mounted to the receptacle in a variety of ways.

[0053] In the example shown, the peripheral portion **116** of the base **102** comprises at least one engagement surface **166** defining an inwardly open recess **168**. Further, in the example shown, the lid peripheral portion **118** comprises a projection **170**. The projection **170** is snapably receivable in recess **168**, such that the lid **104** may be securely mounted to the receptacle **102**. For example, if container **100** is inverted, projection **170** and recess **168** may prevent lid **104** from falling off of receptacle **102**.

[0054] In the example shown, the inwardly open recess is defined by a first engagement surface **166a** extending outwardly from the upper portion of the sidewalls **108**, a second engagement surface **166b** extending upwardly from the first surface **166a**, and a third engagement **166c** surface extending inwardly and upwardly from the second surface **166b**. Accordingly, the recess **168** is inwardly and upwardly open. In alternate examples, the recess **168** may otherwise be configured. For example, the at least one engagement surface **166** may comprise a single rounded surface extending sequentially outwardly, upwardly, and inwardly from the upper portion of the at least one sidewall **108**. Furthermore, the recess may be only inwardly open.

[0055] In the example shown, recess 168 extends around the entire periphery of the base 102, and extends outwardly from the skirt 114. However, in alternate examples, recess 168 may extend around only a portion of the periphery of the base 102. Furthermore, a plurality of recess portions may be provided, which may be located at various positions around the periphery of the base 102.

[0056] In the example shown, the projection 170 is defined by a first outwardly extending surface 172a, a second upwardly extending surface 172b, and a third inwardly and upwardly extending surface 172c. In alternate examples, projection 170 may be otherwise shaped, in order to mate with recess 168. For example, if recess 168 is rounded, projection 170 may also be rounded. Furthermore, if recess 168 extends around only a portion of the periphery of the base 102, projection 170 may extend around a corresponding portion of the lid 104.

[0057] In the example shown, the base peripheral portion 118 further comprises a seating surface 174 positioned above the recess 168. Further, in the example shown, the lid 104 comprises a flange 178 positioned outwardly of projection 170. Flange 178 has an outer edge, which defines the peripheral edge 119 of lid 102. Flange 178 is generally configured to seat on the seating surface 174 when the projection 170 is received in the recess 168, or when the lid 14 is otherwise secured to the receptacle 12.

[0058] In the example shown, the seating surface 174 is positioned indirectly above the recess 168. That is, in the example shown, an intermediate surface 176 is positioned between recess 168 and seating surface 174. In alternate examples, seating surface 174 may be positioned directly above recess 168 and extend directly from surface 166.

[0059] In the example shown, seating surface 174 is positioned outwardly of recess 168. However, in some examples, seating surface 174 and recess 168 may at least partially overlap. Further, in some examples, flange 74 and projection 70 may at least partially overlap.

[0060] Seating surface 174 may be of a variety of configurations. In the example shown, seating surface 174 comprises a generally planar surface defining a flange extending about the peripheral portion 116 of the base. In other examples, seating surface 174 may extend around only a portion of the receptacle or a plurality of seating surface portions may be provided, which may extend from various positions around the peripheral portion 116 of the base 102.

[0061] Flange 178 may be of a variety of configurations. In the example shown, the flange 178 comprises a generally flat outwardly extending surface which extends about the entire peripheral portion 116 of the lid 104. In other examples, flange 178 may be otherwise configured. For example, flange 178 may extend about only a portion of the peripheral portion of the lid 104, or a plurality of flange portions may be provided.

[0062] In order to prevent a user from accessing the peripheral edge 119 of the lid 104 when the lid is mounted to the receptacle, a barrier wall 180 is provided on the peripheral portion 116 of the base 102, which extends upwardly from an outer portion of the seating surface 174. The barrier wall 180 extends about a portion of the peripheral portion 116 of the base 102, from a first position 182 to a second position 184. The first position 182 and the second position 184 are spaced perimetricaly apart, such that a gap region 186 is positioned therebetween. The base hinge panel 124a is provided

between the first position 182 and the second position 184, and extends outwardly from the seating surface 174.

[0063] When the lid is mounted to the base, a first portion 188 of the peripheral edge 119 of the lid 102 is in perimetrical registration with the barrier wall 180. Accordingly, the user may generally not access or grasp the first portion 188 to remove the lid 104 from the base 102. A second portion 190 of the peripheral edge 119, (i.e. the remainder of the peripheral edge 119) is at the gap region 186, and extends between the first position 182 and the second position 184. The lid hinge panel 124b extends outwardly from the second portion, and is provided between the first position 182 and the second position 184. Accordingly, the user may generally not access or grasp the second portion 190 to remove the lid 104 from the base 102.

[0064] In the example illustrated, the barrier wall 180 extends generally perpendicularly from the outer portion of the seating surface 174. Accordingly, when the base 102 is viewed from above, along an axis extending perpendicularly to the seating surface 174, the outer portion of the seating surface 174 is visible. In other examples, the barrier wall 180 may be at an angle  $\theta$  of less than 90° with respect to the outer portion of the seating surface 174.

[0065] In the example shown, the barrier wall 180 is three-dimensional, having an inner wall portion 192, an outer wall portion 194, and a top wall portion 198 extending therebetween. In alternate examples, the barrier wall may comprise, for example, only inner wall portion 192. In the example shown, base peripheral portion 116 further comprises a lip 198 extending outwardly from the barrier wall 180. The lip extends about the base peripheral portion 118 from the first position 182 to the second position 184, and is integrally joined with the base hinge panel 124a.

[0066] In use, the container 100 may be provided in the open configuration, as shown in FIGS. 1A to 1C. That is, the lid 104 may be pivotally mounted to base 102 by hinge member 120. The container 100 may then be filled, for example with food. The container may then be closed and locked, as shown in FIGS. 2A and 2B. That is, lid 104 may be pivoted downwardly and force may be applied to mount the lid peripheral portion 118 to the base peripheral portion 116. For example, force may be applied to snap projection 170 into recess 168. In this closed and locked configuration, the peripheral edge 119 of the lid 104 is concealed. That is, a first portion 188 of the peripheral edge 119 is in perimetrical registration with the barrier wall, and therefore cannot be grasped, and a second portion 190 of the peripheral edge 119 is concealed by the lid hinge panel 124b, which extends integrally outwardly therefrom, and therefore cannot be grasped. The container 100 may be shipped, stored, and sold in the closed and locked configuration. When a user purchases the container, the container may be inspected to see if it has been previously opened, for example to see if it has been tampered with. That is, the user may inspect the hinge member 120 to see if the lid hinge panel 124b has been separated along the line of weakness 152. If the lid hinge panel 124b has not been separated along the line of weakness 152, the container 100 may be purchased. In order to unlock the container 100, the user may separate the lid hinge panel 124b along the line of weakness. For example, the user may apply pressure to the flap portion 160 to displace the flap portion 160 into gap 162 and sever the lid hinge panel 124b along the line of weakness, as shown in FIGS. 3A-3B. The user may then release the flap portion 160, and the flap portion 160 may

automatically pivot away from the grasping portion 122, as shown in FIGS. 4A-4B. The user may then grasp the grasping portion 122 to lift the lid 104 off of the base 102. If the user wishes to re-close the container 100, the user may place lid 104 back onto the base 102, and apply pressure to snap the projection 170 into the recess 168.

[0067] In any of the above examples, the container 100 may comprise instructions provided on the container for aiding the user in operating the container. For example, as shown, the container 100 comprises lettering 199 embossed on the hinge member, instructing a user how to operate the container 100.

[0068] While the above description provides examples of one or more processes or apparatuses, it will be appreciated that other processes or apparatuses may be within the scope of the accompanying claims.

1. A container comprising:

- a) a base having a base peripheral portion defining a base peripheral edge;
- b) a lid having a lid peripheral portion defining a lid peripheral edge, the lid peripheral portion mountable to the base peripheral portion to mount the lid to the base, and at least one of the base peripheral edge and lid peripheral edge being generally inaccessible to a user when the lid is mounted to the base to inhibit grasping thereof to separate the lid from the base;
- c) a hinge member pivotably joining the base to the lid, the hinge member including:
  - i) a base hinge panel joined to the base peripheral portion, and a lid hinge panel joined to the lid peripheral portion,
  - ii) the base and lid hinge panels pivotally joined together at a pivot region;
  - iii) one of the base hinge panel and the lid hinge panel having a line of weakness extending at least partially thereacross, at least a portion of the line of weakness being spaced from and positioned inwardly of the pivot region;
  - iv) the one of the base hinge panel and the lid hinge panel being separable along the line of weakness into a grasping portion connected to one of the base and the lid, and a flap portion connected to the pivot region.

2. The container of claim 1, wherein the line of weakness extends at least partially across the lid hinge panel, the lid hinge panel being separable along the line of weakness into the grasping portion and the flap portion, the grasping portion connected to the lid, and the flap portion connected to the pivot region.

3. The container of claim 1, wherein the lid hinge panel bears against at least a portion of the base hinge panel when the lid is mounted to the base.

4. The container of claim 1, wherein the pivot region comprises a plurality of pivot surfaces joined together at a plurality of non-frangible pivot edges.

5. The container of claim 1, wherein the base and lid hinge panels have respective inner surfaces facing each other when the container is closed, and at least a portion of the inner surfaces are spaced apart to form a gap therebetween.

6. The container of claim 5, wherein the line of weakness overlies the gap.

7. The container of claim 6, wherein the lid hinge panel is separable into the grasping portion and the flap portion by displacement of at least a portion of the flap portion downwardly into the gap.

8. The container of claim 6, wherein the base hinge panel comprises a planar portion adjacent the lid hinge panel when the lid is mounted on the base, and wherein the gap comprises a hollow extending downwardly from the planar portion, away from the lid hinge panel.

9. The container of claim 1, wherein the line of weakness defines a plurality of curves.

10. The container of claim 9, wherein the plurality of curves provide a plurality of grasping protrusions along the grasping portion when the one of the lid hinge panel and the base hinge panel is separated into the grasping portion and the flap portion.

11. The container of claim 1, wherein the pivot region is biased to pivot the flap portion away from the grasping portion when the one of the lid hinge panel and the base hinge panel is separated into the grasping portion and the flap portion.

12. The container of claim 1, wherein the lid peripheral edge is generally inaccessible to a user when the lid is mounted to the base.

13. The container of claim 12, wherein the base comprises a bottom panel, at least one sidewall extending upwardly from a periphery of the bottom panel, and the base peripheral portion extends from the at least one sidewall.

14. The container of claim 13, wherein the lid comprises a covering portion and the lid peripheral portion extends from the covering portion.

15. The container of claim 14, wherein the base peripheral portion comprises at least one engagement surface extending from an upper portion of the at least one sidewall to define an inwardly open recess.

16. The container of claim 15, wherein the lid peripheral portion comprises a projection receivable in the recess.

17. The container of claim 16, wherein the base peripheral portion comprises a seating surface positioned above the recess.

18. The container of claim 17, wherein the lid peripheral portion comprises a flange positioned above and outwardly of the projection, the flange being seatable on the seating surface.

19. The container of claim 18, wherein the base peripheral portion comprises a barrier wall extending upwardly from an outer portion of the seating surface and extending from a first position to a second position spaced perimetricaly from the first position.

20. The container of claim 19, wherein the flange has a first portion and having an outer edge in perimetrical registration with the barrier wall and a second portion extending between the first position and the second position when the projection is received in the recess.

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