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MEAL PRODUCTS AND METHODS OF
PACKAGING FOOD PRODUCTS****Publication Classification**

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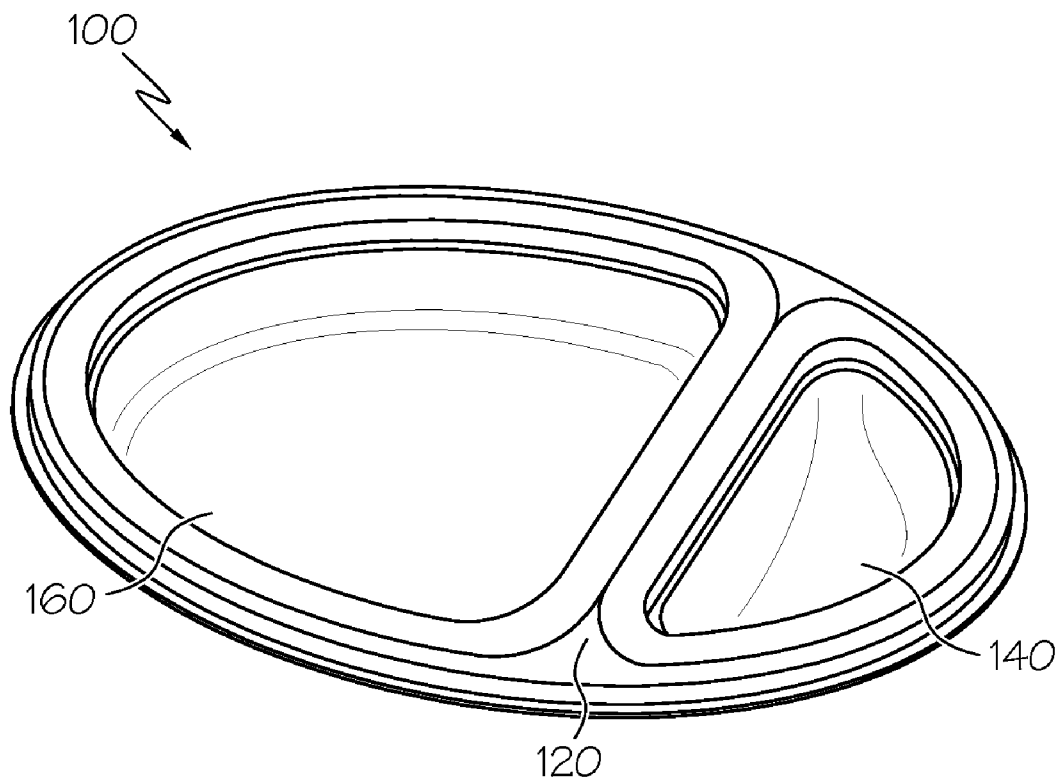
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426/397**

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Cincinnati, OH (US)(21) **Appl. No.:** **12/692,363**(22) **Filed:** **Jan. 22, 2010****Related U.S. Application Data**(60) **Provisional application No. 61/146,510, filed on Jan.
22, 2009.****ABSTRACT**

Food tray assemblies, consumer food products and methods of packaging food products are provided. In one embodiment, a food tray assembly includes a retaining structure, a first tray, and a second tray. The retaining structure has a first engaging region and the first tray is removeably engaged with the retaining structure at the first engaging region. The first tray may be removed from the retaining structure by the application of a force to the first tray in a first direction and may be engaged with the retaining structure by the application of a force to the first tray in a second direction. The second tray may be removeably engaged with the retaining structure or be an integral component with the retaining structure. The retaining structure may further comprise a living hinge that separates the first tray and the second tray.



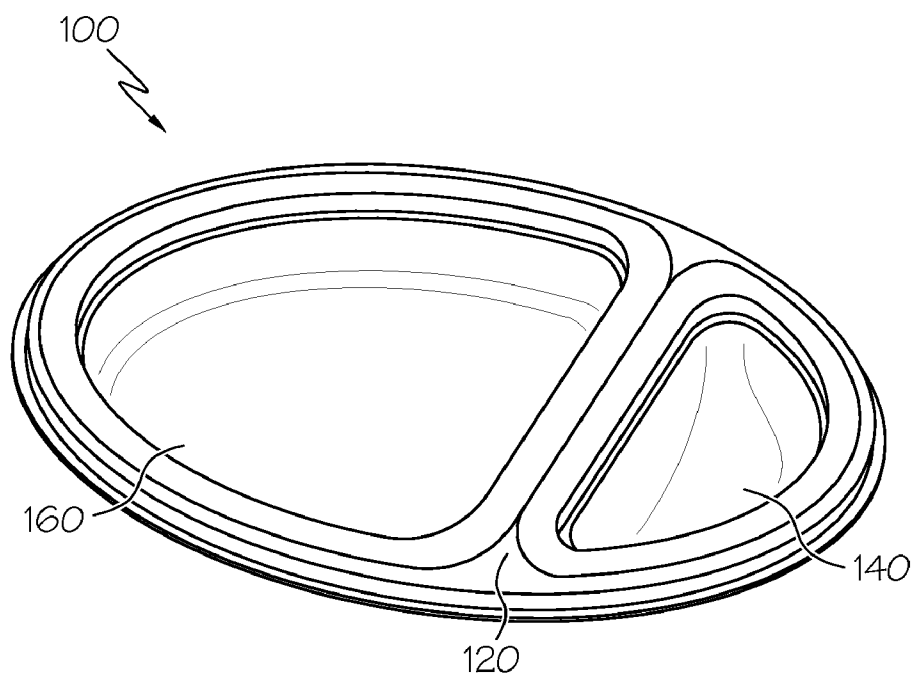


FIG. 1

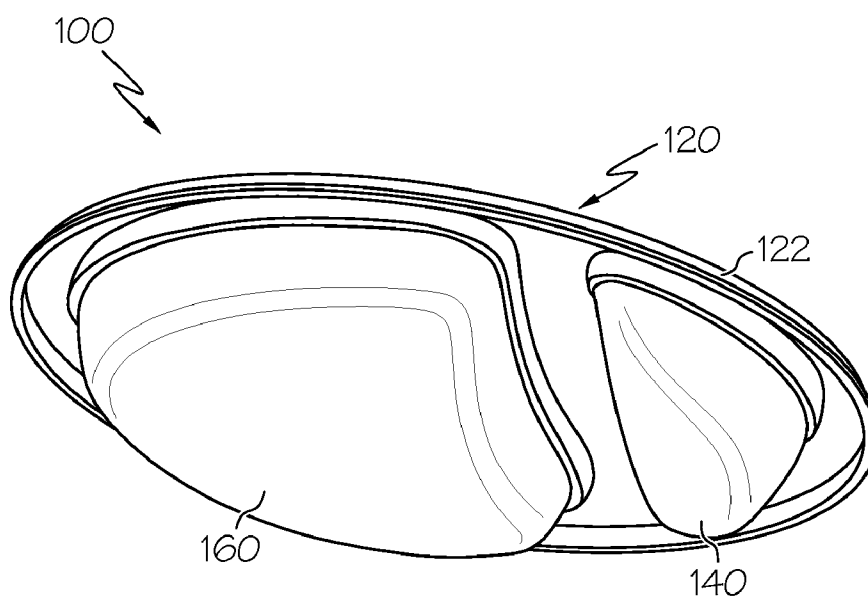


FIG. 2

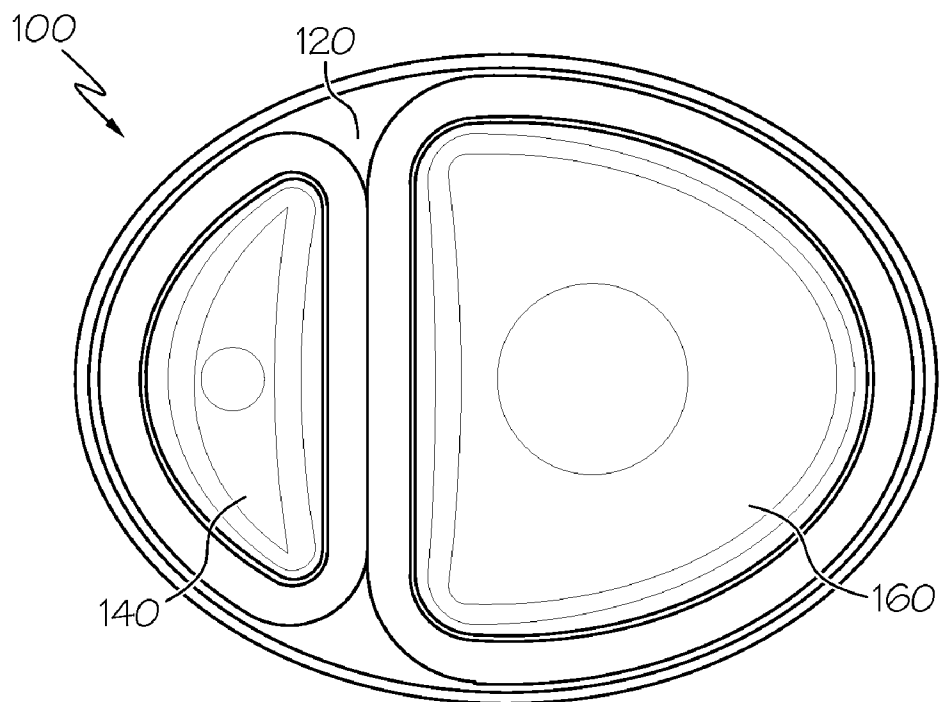


FIG. 3

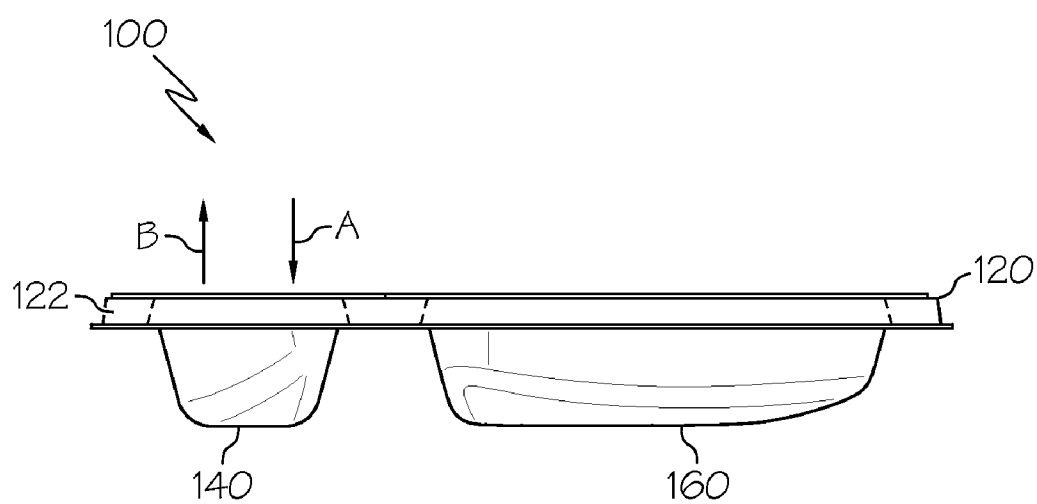


FIG. 4

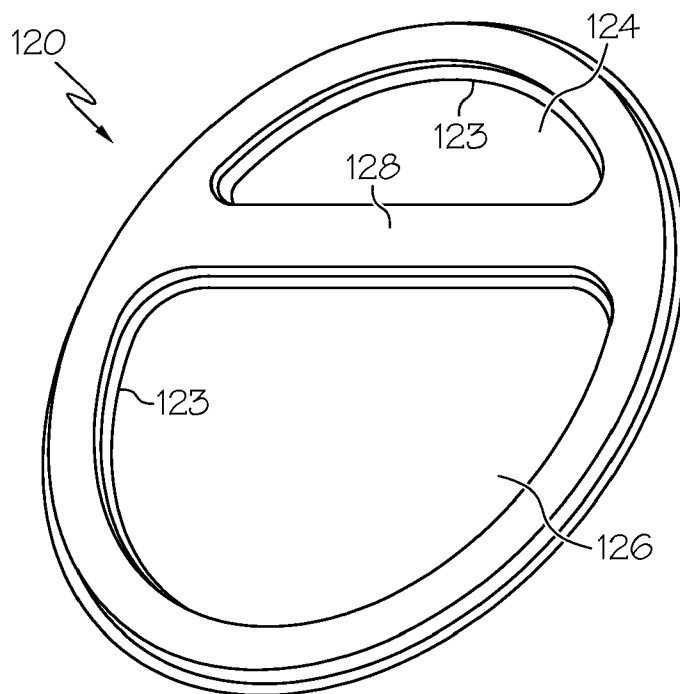


FIG. 5

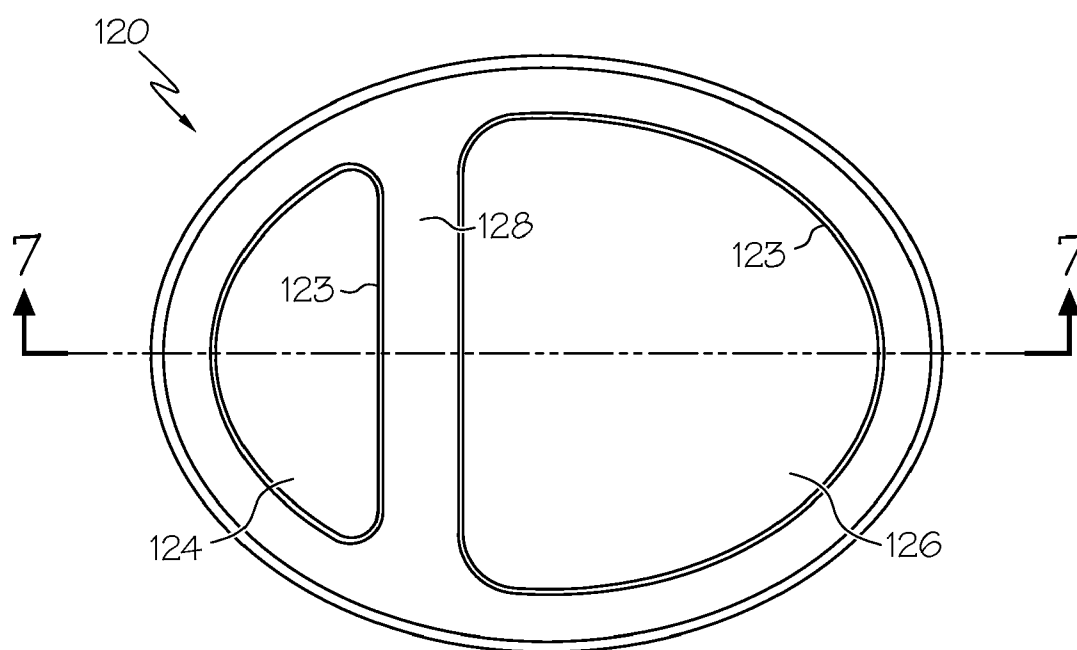


FIG. 6

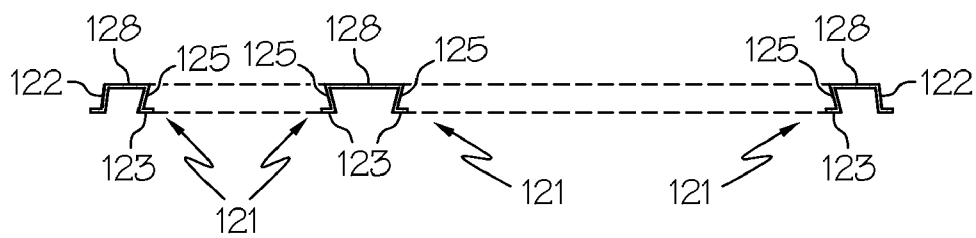


FIG. 7

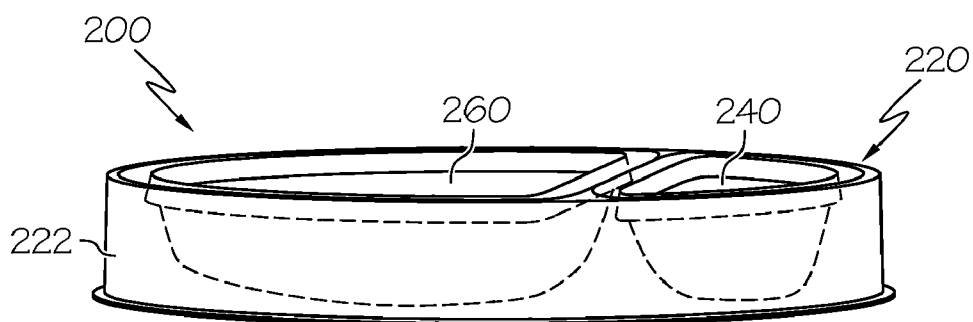


FIG. 8

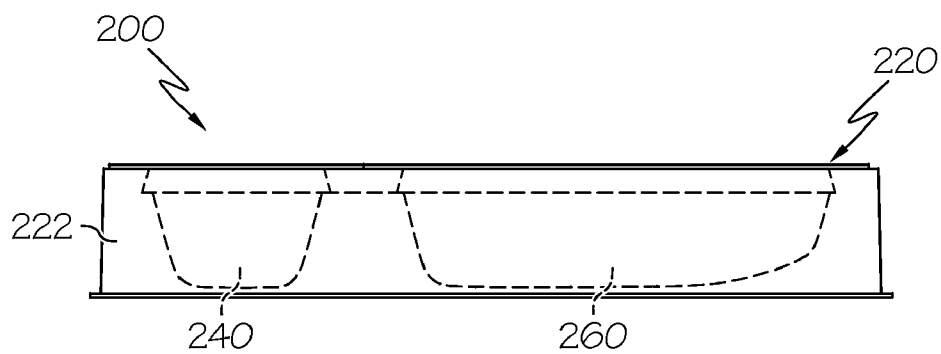


FIG. 9

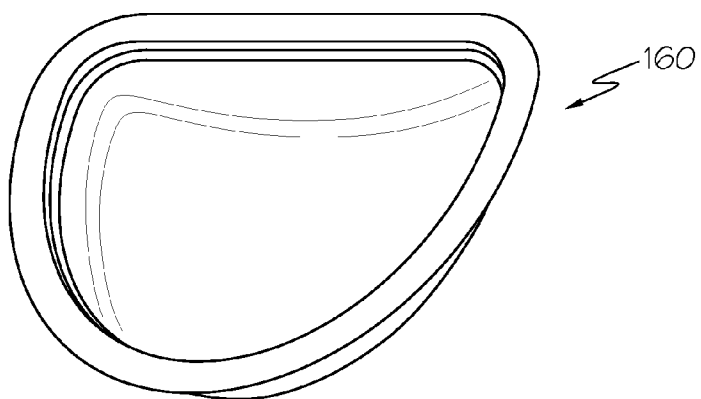


FIG. 10

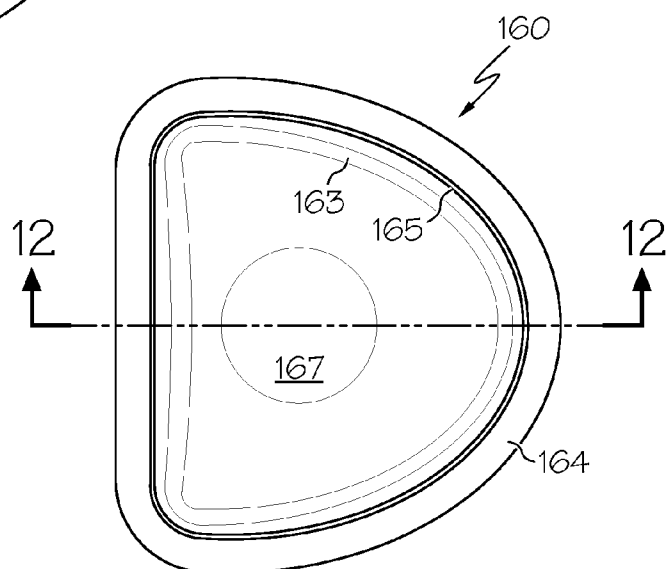


FIG. 11

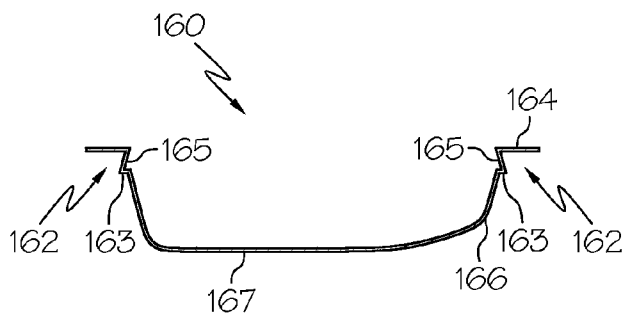


FIG. 12

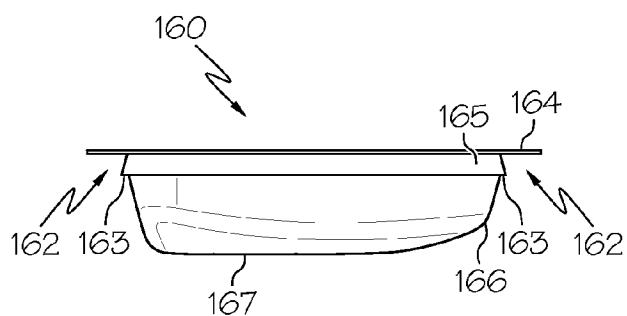


FIG. 13

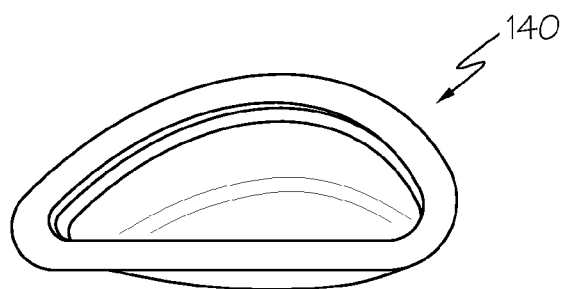


FIG. 14

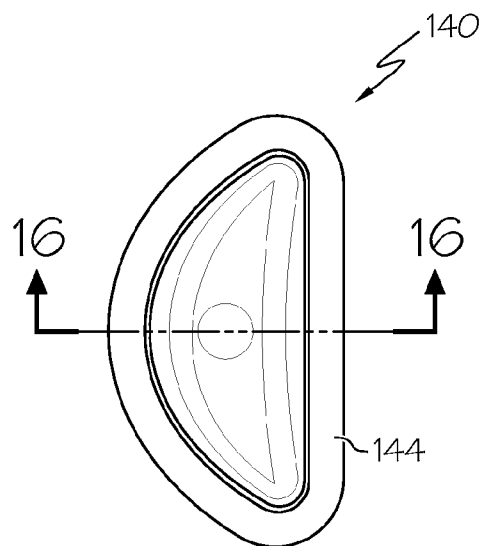


FIG. 15

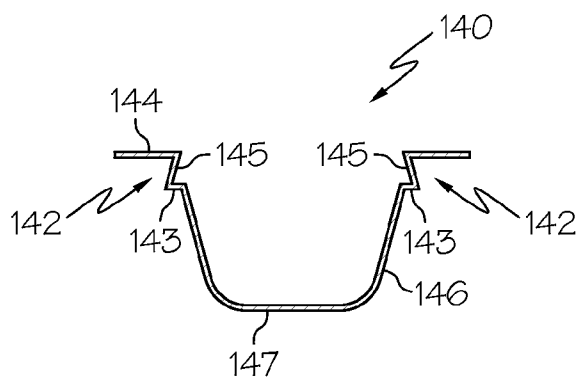


FIG. 16

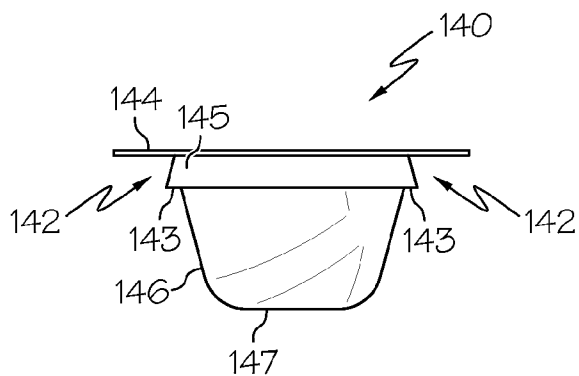


FIG. 17

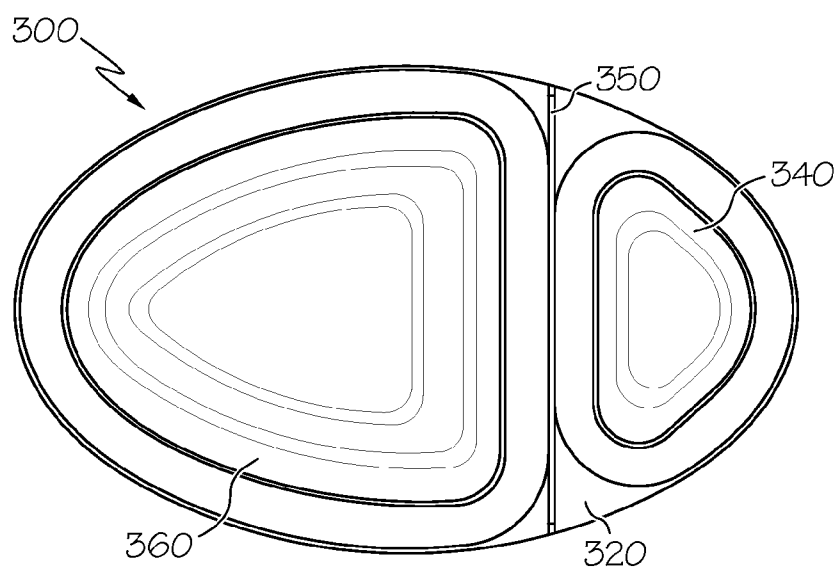


FIG. 18

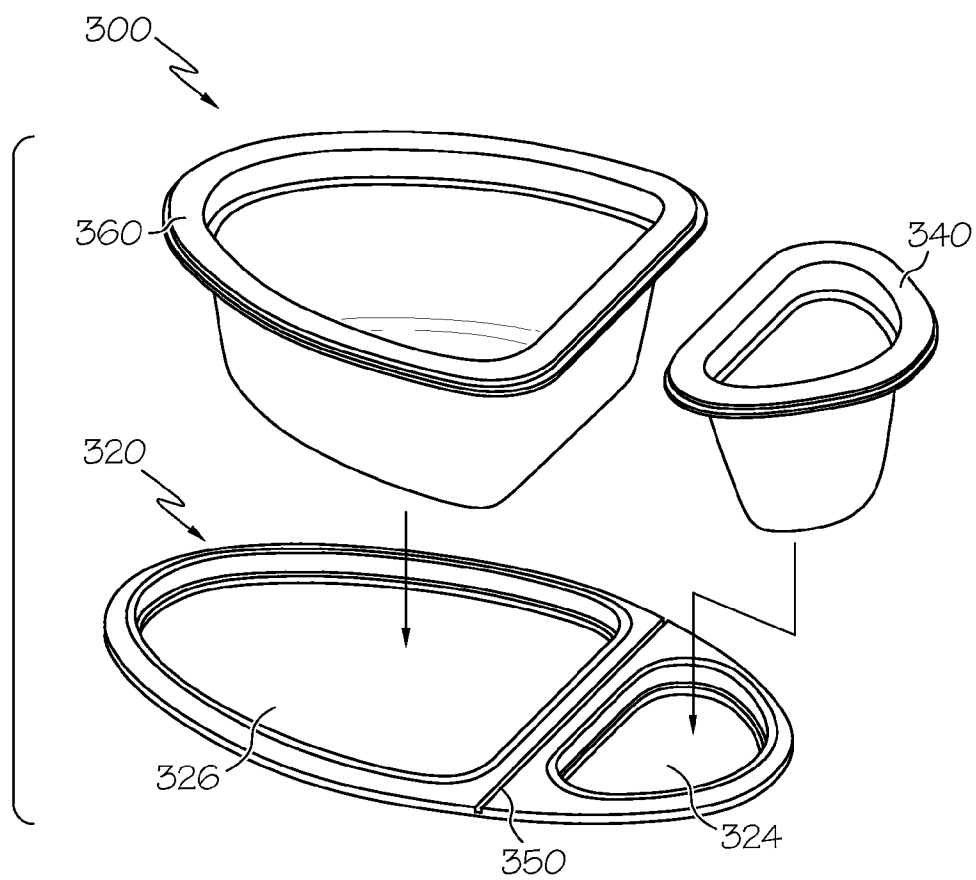


FIG. 19

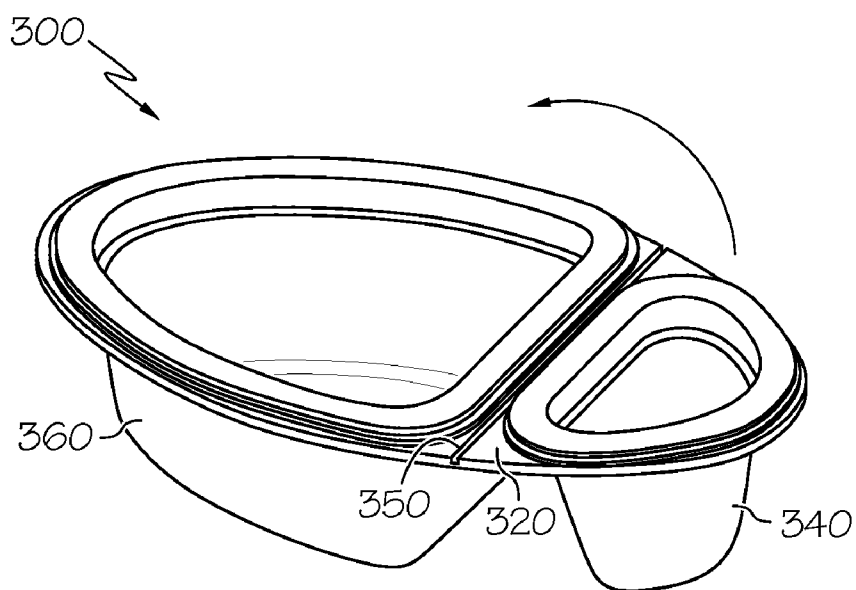


FIG. 20

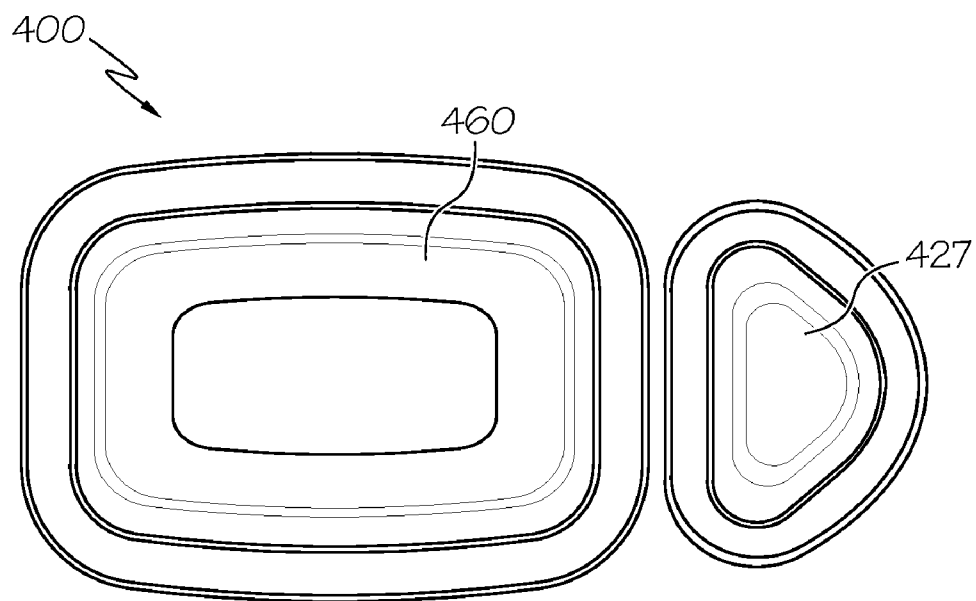


FIG. 21

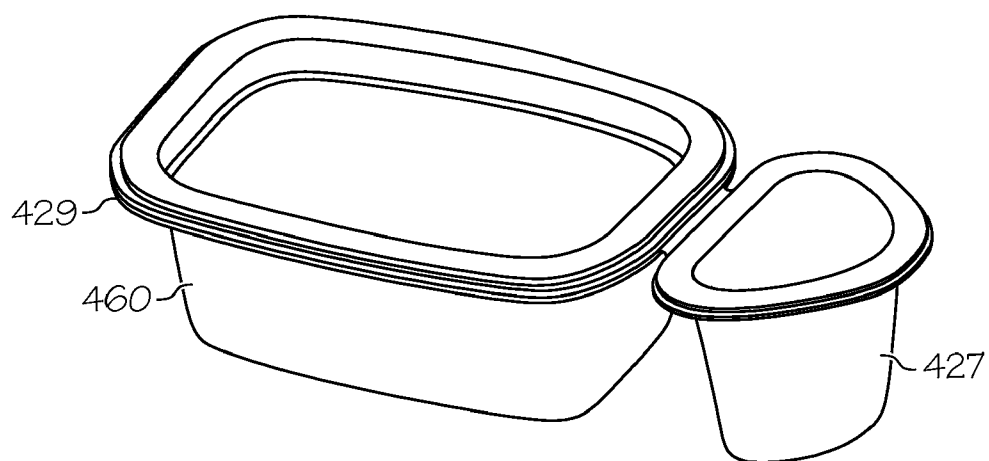
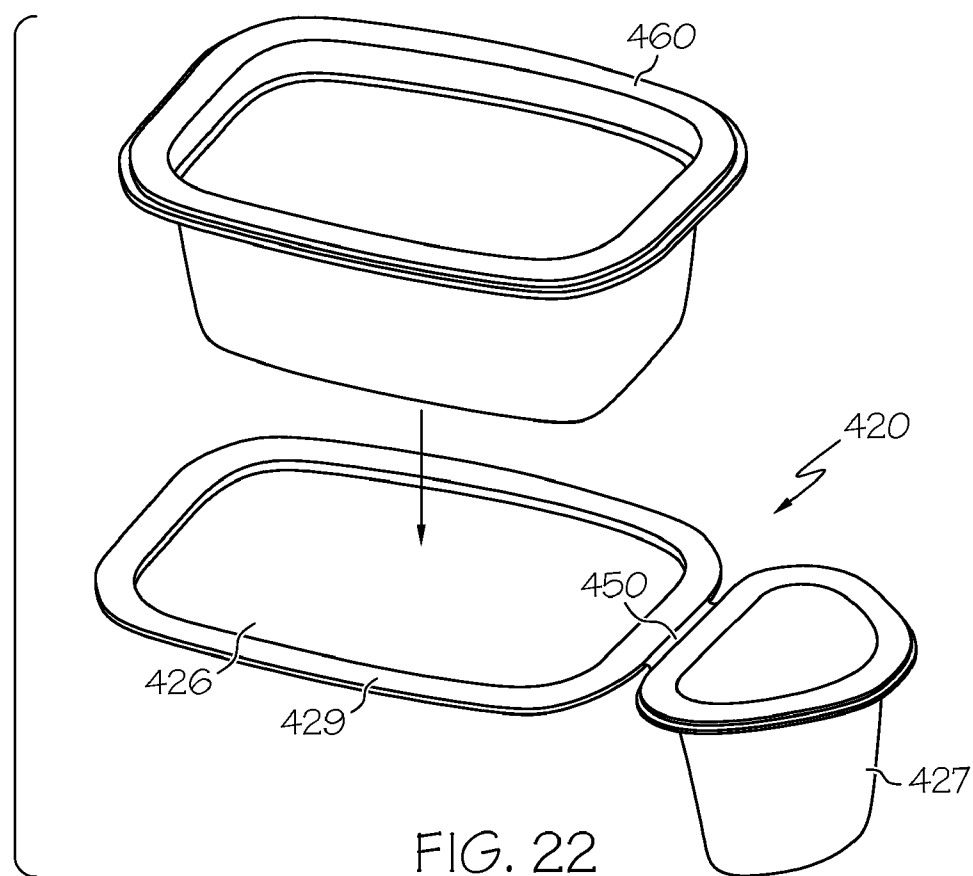


FIG. 23

FOOD TRAY ASSEMBLIES, CONSUMER MEAL PRODUCTS AND METHODS OF PACKAGING FOOD PRODUCTS

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Application Ser. No. 61/146,510 filed on Jan. 22, 2009, for Tray Assemblies, the entirety of which is hereby incorporated herein.

TECHNICAL FIELD

[0002] Embodiments of the present disclosure generally relate to food tray assemblies and, more particularly, removable food trays, consumer food products and methods of packaging food products.

BACKGROUND

[0003] Food products of all varieties may be packaged in tray assemblies for later consumption. Tray assemblies may have one or more integral trays that hold the food products. In some cases, two trays may be included in the tray assembly wherein each tray holds a food product that must be heated in a microwave, such as a side of corn in a smaller tray and a main entrée such as meat loaf in larger tray. However, some food courses may require a tray that holds a product that is to be heated and another tray that holds an product that is not to be heated, such as dry product.

[0004] During packaging of tray assemblies that hold both a hot and a dry food product (e.g., a “cool” food product), the hot food product may be deposited into a first tray of the tray assembly at an elevated temperature. The dry food product may be deposited into a second tray of the tray assembly at room temperature. Because the hot food product is at an elevated temperature, the tray assembly must be cooled prior to further packaging and assembly. Therefore, the tray assembly may be subjected to a cooling process where the entire assembly is cooled. The dry food product may absorb moisture during the cooling process causing mold to grow, rendering the food inedible.

[0005] Accordingly, alternative food tray assemblies and consumer food products are desired.

SUMMARY

[0006] In one embodiment, a food tray assembly includes a retaining structure, a first tray, and a second tray. The retaining structure has a first engaging region and the first tray is removeably engaged with the retaining structure at the first engaging region. The first tray may be removed from the retaining structure by the application of a force to the first tray in a first direction and may be engaged with the retaining structure by the application of a force to the first tray in a second direction.

[0007] In another embodiment, a consumer food product includes a retaining structure, a first food product, a second food product, a first tray, and a second tray. The first and second food products are sealed within the first and second trays by a first and second sealing wrapper. The first tray is removeably engaged with the retaining structure by an interference fit such that the first tray may be removed from the retaining structure by the application of a force to the first tray

in a first direction and may be engaged with the retaining structure by the application of a force to the first tray in a second direction.

[0008] In yet another embodiment, a method of packaging food products into a packaging assembly includes populating a first tray with a first food product, populating a second tray with a second food product and engaging the first tray with a retaining structure. The first tray is engaged with the retaining structure by an interference fit in a first engaging region.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] The embodiments set forth in the drawings are illustrative and exemplary in nature and not intended to limit the inventions defined by the claims. Moreover, the individual features of the drawings will be more fully apparent and understood in view of the detailed description. The following detailed description of specific embodiments can be best understood when read in conjunction with the following drawings, where like structure is indicated with like reference numeral and in which:

[0010] FIG. 1 depicts a schematic illustration of a perspective top view of an exemplary food tray assembly according to one or more embodiments illustrated and described herein;

[0011] FIG. 2 depicts a schematic illustration of a perspective bottom view of an exemplary food tray assembly according to one or more embodiments illustrated and described herein;

[0012] FIG. 3 depicts a schematic illustration of a top view of an exemplary food tray assembly according to one or more embodiments illustrated and described herein;

[0013] FIG. 4 depicts a schematic illustration of a side view of an exemplary food tray assembly according to one or more embodiments illustrated and described herein;

[0014] FIG. 5 depicts a schematic illustration of a perspective top view of an exemplary retaining structure according to one or more embodiments illustrated and described herein;

[0015] FIG. 6 depicts a schematic illustration of a top view of an exemplary retaining structure according to one or more embodiments illustrated and described herein;

[0016] FIG. 7 depicts a schematic illustration of a cross sectional view taken along line 7-7 of the exemplary retaining structure illustrated in FIG. 6;

[0017] FIG. 8 depicts a schematic illustration of a perspective side view of an exemplary food tray assembly according to one or more embodiments illustrated and described herein;

[0018] FIG. 9 depicts a schematic illustration of a side view of an exemplary food tray assembly according to one or more embodiments illustrated and described herein;

[0019] FIG. 10 depicts a schematic illustration of a top perspective view of an exemplary second tray according to one or more embodiments illustrated and described herein;

[0020] FIG. 11 depicts a schematic illustration of a top view of an exemplary second tray according to one or more embodiments illustrated and described herein;

[0021] FIG. 12 depicts a schematic illustration of a cross sectional view taken along line 12-12 of the exemplary second tray illustrated in FIG. 10;

[0022] FIG. 13 depicts a schematic illustration of a side view of an exemplary second tray according to one or more embodiments illustrated and described herein;

[0023] FIG. 14 depicts a schematic illustration of a top perspective view of an exemplary first tray according to one or more embodiments illustrated and described herein;

[0024] FIG. 15 depicts a schematic illustration of a top view of an exemplary first tray according to one or more embodiments illustrated and described herein;

[0025] FIG. 16 depicts a schematic illustration of a cross sectional view taken along line 16-16 of the exemplary first tray illustrated in FIG. 14;

[0026] FIG. 17 depicts a schematic illustration of a side view of an exemplary first tray according to one or more embodiments illustrated and described herein;

[0027] FIG. 18 depicts a schematic illustration of a top view of an exemplary tray assembly according to one or more embodiments illustrated and described herein;

[0028] FIG. 19 depicts a schematic illustration of an exploded view of an exemplary tray assembly according to one or more embodiments illustrated and described herein;

[0029] FIG. 20 depicts a schematic illustration of a perspective top view of an exemplary tray assembly according to one or more embodiments illustrated and described herein;

[0030] FIG. 21 depicts a schematic illustration of a top view of an exemplary tray assembly according to one or more embodiments illustrated and described herein;

[0031] FIG. 22 depicts a schematic illustration of an exploded view of an exemplary tray assembly according to one or more embodiments illustrated and described herein; and

[0032] FIG. 23 depicts a schematic illustration of a perspective top view of an exemplary tray assembly according to one or more embodiments illustrated and described herein.

DETAILED DESCRIPTION

[0033] Embodiments of the present disclosure relate generally to food tray assemblies for storing food products. The food tray assemblies of particular embodiments may comprise one or more trays that are removably maintained within a retaining structure. The trays may be repeatedly removed from and put back into the food tray assembly such that a consumer may remove one or more trays from the assembly and heat the remaining trays of the assembly in the microwave. Conversely, one or more trays may be removed from the food tray assembly and heated in the microwave while the trays that are remaining in the assembly are not heated. The tray or trays holding the non-heated food may be removed from the assembly and the contents emptied into the tray or trays that have been heated or vice-versa. Additionally, as described in detail below, embodiments may enable trays containing hot food products and trays containing room temperature food products (e.g., dry food products) to be populated separately during the packaging process. After the tray containing the hot product is cooled by a cooling process, both the hot and cold/dry product trays may be assembled into the final food tray assembly.

[0034] Referring to FIGS. 1-4, an exemplary food tray assembly 100 is illustrated in an assembled state. Generally, the illustrated food tray assembly 100 comprises a retaining structure 120, a first tray 140 and a second tray 160. The first and second trays 140 and 160 are engaged with the retaining structure 120 by an interference fit such that the retaining structure 120 may be populated with trays 140, 160 during the packaging process, and a consumer may repeatedly snap the trays 140, 160 into and out of the retaining structure 120. It should be understood that the retaining structure 120 and trays 140, 160 are not limited to the shapes and configurations as those illustrated throughout the figures. The trays and retaining structure may be of any size and/or configuration.

Further, although embodiments may be illustrated and described as having two trays, embodiments may have any number of trays or bowls. As described in more detail below, food products may be individual sealed within the first and second trays 140, 160.

[0035] Referring now to FIGS. 5-7, an exemplary retaining structure 120 of a food tray assembly is illustrated. The retaining structure comprises a first engaging region 124 and a second engaging region 126 configured to receive the first and second trays 140 and 160, respectively. The illustrated retaining structure 120 has a first surface 128 and is configured as a ring. The first and second engaging regions 124 and 126 are open areas within the ring. The first and second engaging regions 124 and 126 share the same shape as the first and second trays 140 and 160. The retaining structure 120, as well as the first and second trays 140, 160, may be made of any flexible or semi-flexible material capable of being heated in a microwave, such as plastic (e.g., polyethylene and polyester, among others).

[0036] FIG. 7 is a cross-sectional view of the retaining structure 120 along line 7-7 in FIG. 6. The engaging regions 124, 126 are defined by an engaging seat 121 that runs around the perimeter of both engaging regions. The engaging seat 121 comprises a beveled wall 125 that extends from the first surface 128 of the retaining structure 120 and terminates in a ledge 123 that is substantially parallel to the first surface 128. The beveled wall 125 may be angled away from a center of the engaging region 124, 126 to provide for an interference fit with the first and second trays 140, 160 as described below.

[0037] The retaining structure 120 also comprises a perimeter outer wall 122 that extends from the first surface 128. In the embodiments illustrated in FIGS. 1-7, the perimeter outer wall 122 partially extends from the first surface 128 toward a plane defined by the bottom surfaces of the engaged first and second trays 140, 160, thereby providing a reduction of material for the retaining structure 120. FIGS. 8 and 9 illustrate an embodiment in which a perimeter outer wall 222 of an exemplary retaining structure 220 extends completely to or beyond a horizontal plane defined by the bottom surfaces of engaged first and second trays 240, 260. In this manner, the retaining structure 220 may support the entire food tray assembly 200 on a surface (e.g., a table or a counter) even when one or more of the trays 240, 260 are disengaged from the retaining structure 220.

[0038] FIGS. 10-13, illustrate an exemplary second tray 160 configured to engage with the retaining structure at the second engaging region 126. FIG. 12 is a cross-sectional view of the second tray 160 along line 12-12 in FIG. 11. The second tray 160 is configured as a bowl having an outwardly extending flange 164, a beveled neck portion 162 and lower bowl wall 166. The beveled neck portion 162 comprises a neck wall 165 that extends from the outwardly extending flange 164 toward the bowl wall 166 and terminates at a notch portion 163. The neck wall 165 is angled outwardly from a center of the second tray 160 to form a beveled neck portion 162 having a bevel angle. The notch portion 163 is substantially parallel to the outwardly extending flange 164 and extends from the neck wall 165 to the bottom surface 167. In another embodiment, the notch portion 163 may not be substantially parallel to the outwardly extending flange 164 but rather may comprise a curved surface that extends between the neck wall 165 and the bowl wall 166. As illustrated in FIGS. 10-13, the bowl wall 166 may taper inwardly until reaching a bottom surface 167, thereby giving the second tray 160 a bowl-shaped con-

figuration. It should be understood that other configurations are also possible and that embodiments are not limited to the bowl-shaped configuration illustrated in the figures. For example, the bowl wall 166 may be configured as a straight, non-tapered tray wall that extends toward a bottom surface, thereby providing a tray shape. Further, the overall shape of the second tray may be on any geometric configuration, such as, for example and not limitation, circular, rectangular, square, or irregular.

[0039] FIGS. 14-17, illustrate an exemplary first tray 140 configured to engage with the retaining structure at the first engaging region 124. FIG. 16 is a cross-sectional view of the first tray 140 along line 16-16 in FIG. 15. Similar to the second tray 160 described above, the first tray 160 is configured as a bowl having an outwardly extending flange 144, a beveled neck portion 142 and lower bowl wall 146. The beveled neck portion 142 comprises a neck wall 145 that extends from the outwardly extending flange 144 toward the bowl wall 146 and terminates at a notch portion 143. The neck wall 145 is angled outwardly from a center of the first tray 140 to form a beveled neck portion 142 having a bevel angle. The notch portion 143 is substantially parallel to the outwardly extending flange 144 and extends from the neck wall 145 to the bottom surface 147. In another embodiment, the notch portion 143 may not be substantially parallel to the outwardly extending flange 144 but rather may comprises a curved surface that extends between the neck wall 145 and the bowl wall 146. As illustrated in FIGS. 14-17, the bowl wall 166 may taper inwardly until reaching a bottom surface 147, thereby giving the first tray 140 a bowl-shaped configuration. As described above with respect to the second tray 160, it should be understood that other configurations are also possible and that embodiments are not limited to the bowl-shaped configuration illustrated in the figures. Additionally, although the first tray of the illustrated embodiment is smaller in size than the second tray 160, it should be understood that the two trays 140, 160 (or additional trays if such additional trays are present in the assembly) may be equal in size, or the second tray 160 may be smaller in size than the first tray 140.

[0040] The first and second trays 140 and 160 are configured to snap into and out of the retaining structure 120 at engaging regions 124 and 126, respectively. The beveled neck portions 142 and 162 of the first and second trays 140 and 160 are configured to mate with the engaging seats 121 of the retaining structure 120 and lock the first and second trays 140 and 160 into the retaining structure 120 by an interference fit. For example, to install the first tray into the first engaging region 124 of the retaining structure 120, the first tray 140 is placed above the first engaging region 124 and a force is applied to the first tray 140 in a first direction as indicted by arrow A in FIG. 4. As the force in the first direction is applied, the neck wall 145 of the first tray 140 presses against the beveled wall 125 of the engaging seat 121 of the retaining structure such that the neck wall 145 flexes slightly inward and the beveled wall 125 flexes slightly outwardly until the two walls are aligned and the first tray 140 snaps into place. The shape of the neck wall 145 and beveled wall 125 are such that the first tray 140 is maintained within the first engagement region of the retaining structure 120 by friction of an interference fit. To remove the first tray 140 from the retaining structure, a second force may be applied to the first tray 140 in a direction indicated by arrow B in FIG. 4. As the force in the second direction is applied, the neck wall 145 of the first tray 140 presses against the beveled wall 125 of the engaging seat

121 of the retaining structure such that the neck wall 145 flexes slightly inward and the beveled wall 125 flexes slightly outwardly until the two walls are no longer engaged and the first tray is removed from the retaining structure 120. Similar actions may be performed to install and remove the second tray 160 into the second engaging region 126.

[0041] The retaining structure may also comprise one or more weakened portions that separate the engagement regions. FIGS. 18-20 illustrate an exemplary food tray assembly 300 comprising a retaining structure 320 having a weakened portion 350 positioned between a first and second engaging region 324, 236. The weakened portion 350 may be perforated such that the first and second engaging regions 324, 326 (and first and second trays 340, 360 positioned therein) may be separated along the weakened, perforated portion 350 into two pieces. The weakened portion 350 may also be configured as a hinge, such as a living hinge, for example. The hinge may enable a user to tip a tray such that the contents of the tipped tray may be emptied into another tray of the food tray assembly. For example, a user may tip the first tray 340 toward the second tray 360 by rotating the first tray 340 about the weakened portion 350 as indicated by the arrow of FIG. 20. In this manner, a user may add the food contents of the first tray 340 to the food contents of the second tray 360 without removing the first or second tray from the retaining structure 360.

[0042] As illustrated in FIGS. 21-23, a retaining structure 420 may also comprise one or more integral trays (e.g., integral tray 427) wherein the internal trays are not removable from the retaining structure. In the embodiment illustrated in FIG. 22, the retaining structure 420 comprises an engaging region 426 that is configured to accept a removable tray 460, and an integral tray 427. The removable tray 460 may be repeatedly snapped into and out of the retaining structure 420 as described above. The integral tray 427 and engaging region 426 may be formed by a molding process, for example. Additionally, the food tray assembly 400 illustrated in FIGS. 21-23 also comprises a weakened portion 450 configured as a living hinge to enable the ability to tip the integral tray 427 toward the removable tray 460 to mix the content of both trays.

[0043] Exemplary operations of the food tray assemblies will now be described. A user (e.g., a consumer) may desire to consume the contents of the food tray assembly, which may be configured as a consumer meal product, such as a microwave dinner or dessert, for example. The consumer meal product may comprises food products maintained within a tray assembly as described above. For example, the consumer meal product may comprise a tray assembly having a first tray, a second tray and a retaining structure. A first food product may be sealed within the first tray and a second food product may be sealed within the second tray. Additional food products may also be provided in additional food trays. One of the food products may require heating (e.g., microwave heating) prior to consumption while the other may not. The consumer may selectively remove one or more trays from of the retaining structure to heat or not heat the food products maintained therein.

[0044] As an example and not a limitation, the second food product may be an apple pie filling while the first food product may be crumbled pie crust. Rather than concurrently heating both the apple pie filling and the crumbled pie crust, the consumer may pop the first tray that holds the crumbled pie crust out of the retaining structure by applying a force to the first tray as described above. The consumer may then place

the retaining structure and engaged second tray holding the pie filling into the microwave. After the microwave heating, the consumer may add the crumbled pie crust of the first tray to the pie filling of the second tray. Or, the user may pop the first tray back into the retaining structure as described above and mix the crumbled pie crust and pie filling as desired. In another example, the consumer may selectively remove the first and/or second tray to apply microwaves to the first food product for one duration and separately apply microwaves to the second food product for a different duration to optimally cook the first and second food products.

[0045] Embodiments described herein may streamline the packaging of food products (e.g., consumer meal products) by adding flexibility to the production process such that different products may be packaged in individual trays and then later brought together into a single tray assembly. It should be understood that any type of product (food or non-food products) may be packaged in one or more individual trays. For example and not limitation, products that may be packaged in the trays may include, but are not limited to, shelf stable food products, aseptic food products, dry food products, hot fill food products, frozen food products, eating utensils, napkins, seasonings, toys/novelties, and many others. Empty trays may also be populated into the tray assembly for the consumer's use.

[0046] For example, rather than concurrently adding hot and cool food products to a single packaging assembly, the removability of the trays from the retaining structure of the food tray assemblies enable different food products to be packaged in the respective trays in separate production lines. Embodiments of packaging food products may comprise providing a tray assembly as described above. During the step of providing a tray assembly, the tray assembly may be fully assembled (i.e., all trays populated into the retaining structure), partially assembled (i.e., some but not all trays populated into the retaining structure) or fully unassembled (i.e., no trays populated into the retaining structure). A first food product may be populated into first trays in a first production process while a second food product may be populated into second trays of a second production process that may be different from that of the first production process. Depending on the specifications of the production process, the first trays may be populated at one location and the second trays may be populated at a second location.

[0047] As an example, the second food product may be a dry food product that is added to the second tray at a cool temperature (i.e., room temperature or below). The first food product may be cooked during the production process and have an elevated temperature when it is populated into the first tray. After the addition of the hot first food product to the first tray, the first production process may further include a cooling process to cool the first food product to a desired temperature. At the conclusion of the first and second production processes, the first and second trays may be sealed by a sealing wrapper and then populated into a retaining structure as described above. In this manner, exposure of the cool second food product to the elevated temperatures of the hot first food product and cooling process may be avoided, which may also avoid such problems such as condensation and mold growth. The retaining structure, first tray, and second tray may then be packaged into an outer package.

[0048] Although the example described above refers to trays containing hot and cool food products, embodiments are not limited thereto. According to some embodiments, only

cool food products may be contained within the trays of the food tray assembly. According to other embodiments, the trays may contain only hot food products.

[0049] Additionally, different food products may be added to the trays to achieve various food product pairings using the same tray assembly. Several production lines may populate different food products into trays which may then be added to retaining structures depending on the production schedule. This may greatly enhance flexibility to the production process and may enable the manufacture to quickly switch from the assembly of one prepackaged consumer product to another.

[0050] The foregoing description of the various embodiments and principles thereof has been presented for the purpose of illustration and description. It is not intended to be exhaustive or to limit the subject matter to the precise forms disclosed. Many alternatives, modifications and variations will be apparent to those skilled in the art. Moreover, although many inventive aspects have been presented, such aspects need not be utilized in combination, and various combinations of inventive aspects are possible in light of the various embodiments provided above. Accordingly, the above description is intended to embrace all possible alternatives, modifications, combinations and variations that have been discussed or suggested herein, as well as others that fall within the principles, spirit, and broad scope of the various inventions as defined by the claims.

[0051] Having described the subject matter of the present disclosure in detail and by reference to specific embodiments thereof, it will be apparent that modifications and variations are possible without departing from the scope of the invention defined in the appended claims. More specifically, although some aspects of the present disclosure are identified herein as preferred or particularly advantageous, it is contemplated that the present disclosure is not necessarily limited to these aspects.

What is claimed is:

1. A food tray assembly comprising:

a retaining structure comprising a first engaging region; a first tray removeably engaged with the retaining structure at the first engaging region, wherein the first tray is removable from the retaining structure by the application of a force to the first tray in a first direction and is engagable with the retaining structure by the application of a force to the first tray in a second direction; and a second tray.

2. The food tray assembly as claimed in claim 1 wherein: the retaining structure comprises a second engaging region; and

the second tray is removeably engaged with the retaining structure at the second engaging region such that the second tray is removable from the retaining structure by the application of a force to the second tray in a first direction and is engagable with the retaining structure by the application of a force to the second tray in a second direction.

3. The food tray assembly as claimed in claim 2 wherein the first and second trays are removeably engaged with the retaining structure at the first and second engaging regions by an interference fit.

4. The food tray assembly as claimed in claim 1 wherein the second tray is integral with the retaining structure.

5. The food tray assembly as claimed in claim 4 wherein the first engaging region and the second tray are separated by

living hinge and the second tray is movable toward the first engaging region by a rotation of the second tray about the living hinge.

6. The food tray assembly as claimed in claim 1 wherein: the first tray comprises an outwardly extending flange and an beveled neck portion extending from the outwardly extending flange and terminating in a notch portion; the first engaging region comprises a first engaging seat extending from a first surface of the retaining structure, the first engaging seat further comprising a beveled wall terminating in a ledge; and

the notch portion of the first tray contacts the ledge of the first engaging seat and the outwardly extending flange of the first tray contacts the first surface of the retaining structure.

7. The food tray assembly as claimed in claim 1 further comprising one or more additional trays.

8. The food tray assembly as claimed in claim 1 wherein: the retaining structure comprises a first surface and an outer wall extending from the first surface; and

the outer wall is operable to support the food tray assembly.

9. A consumer meal product comprising:

a first food product;

a second food product; and

a tray assembly further comprising:

a first tray, wherein the first food product is sealed within the first tray by a first sealing wrapper;

a second tray, wherein the second food product is sealed within the second tray by a second sealing wrapper; and

a retaining structure, wherein the first tray is removeably engaged with the retaining structure by an interference fit such that the first tray is removable from the retaining structure by the application of a force to the first tray in a first direction and is engagable with the retaining structure by the application of a force to the first tray in a second direction.

10. The consumer meal product as claimed in claim 9 wherein the second tray is removeably engaged with the retaining structure by an interference fit such that the second tray is removable from the retaining structure by the application of a force to the second tray in a first direction and is engagable with the retaining structure by the application of a force to the second tray in a second direction.

11. The consumer meal product as claimed in claim 9 wherein the first food product is different from the second food product.

12. The consumer meal product as claimed in claim 9 wherein the second tray is integral with the retaining structure.

13. The consumer meal product as claimed in claim 12 wherein:

the retaining structure comprises a first engaging region;

the first tray is removeably engaged with the retaining structure at the first engaging region; and

the first engaging region and the second tray are separated by living hinge and the second tray is movable toward the first engaging region by a rotation of the second tray about the living hinge.

14. The consumer meal product as claimed in claim 9 further comprising an additional tray, wherein an additional food product is sealed within the additional tray with an additional wrapper.

15. A method of packaging food products into a packaging assembly comprising:

providing a tray assembly having a first tray and a second tray;

populating the first tray with a first food product;

populating the second tray with a second food product; and engaging the first tray with a retaining structure of the tray assembly, wherein the first tray is engaged with the retaining structure by an interference fit in a first engaging region of the retaining structure.

16. The method as claimed in claim 15 further comprising engaging the second tray with the retaining structure, wherein the second tray is engaged with the retaining structure by an interference fit in a second engaging region.

17. The method as claimed in claim 15 further comprising: populating one or more additional trays with one or more additional food products; and

engaging the one or more additional trays with the retaining structure, wherein the one or more additional trays are engaged with the retaining structure by an interference fit in one or more additional engaging regions.

18. The method as claimed in claim 15 wherein the interference fit in the first engaging region is such that the first tray is repeatably removable from the first engaging region of the retaining structure.

19. The method as claimed in claim 15 wherein the second tray is integral with the retaining structure.

20. The method as claimed in claim 15 wherein the method further comprises cooling the first or second food product in the first or second tray prior to engaging the first or second tray with the retaining structure.

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