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Habib

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(54) **VACUUM PACKAGING**

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B65D 1/36 (2006.01)
B65D 1/42 (2006.01)
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CPC ***A47G 19/02*** (2013.01); ***B65B 61/22*** (2013.01); ***B65D 51/26*** (2013.01);
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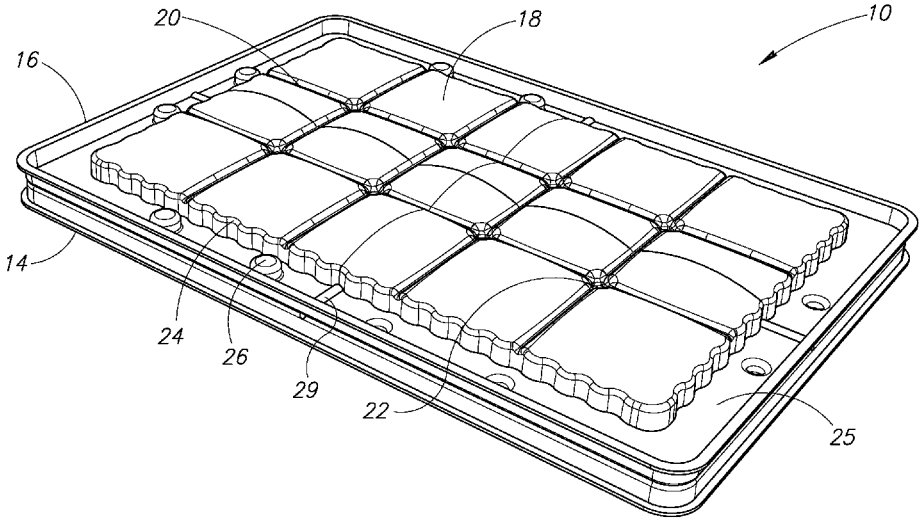
(57) **ABSTRACT**

A vacuum sealable container for baked or cooked food including a base section to receive the food in its entirety, the base section having at least one runner where the at least one runner divides the base section into equally sized portions and a lid shaped to fit the base section, the lid having at least one blade where the at least one blade slots into the at least one runner when the lid is placed over the base to close the container and where the at least one blade performs at least one of: cutting the food into the equally sized portions and holding the food in place between the at least one blade and the at least one runner and where the container is at least one of: sealed with a vacuum when used with a vacuum sealing bag and a vacuum machine and self-sealing.

8 Claims, 17 Drawing Sheets



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(51) **Int. Cl.**

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B65D 81/20	(2006.01)
B65D 85/36	(2006.01)
B65B 61/22	(2006.01)
B65D 1/44	(2006.01)
B65B 31/04	(2006.01)

(52) **U.S. Cl.**

CPC ***B65D 81/2015*** (2013.01); ***B65D 85/36*** (2013.01); *B65B 31/048* (2013.01); *B65D 2585/366* (2013.01)

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USPC 220/555, 507, 653, 4.21, 780, 782, 565, 220/231, 366.1, 556

See application file for complete search history.

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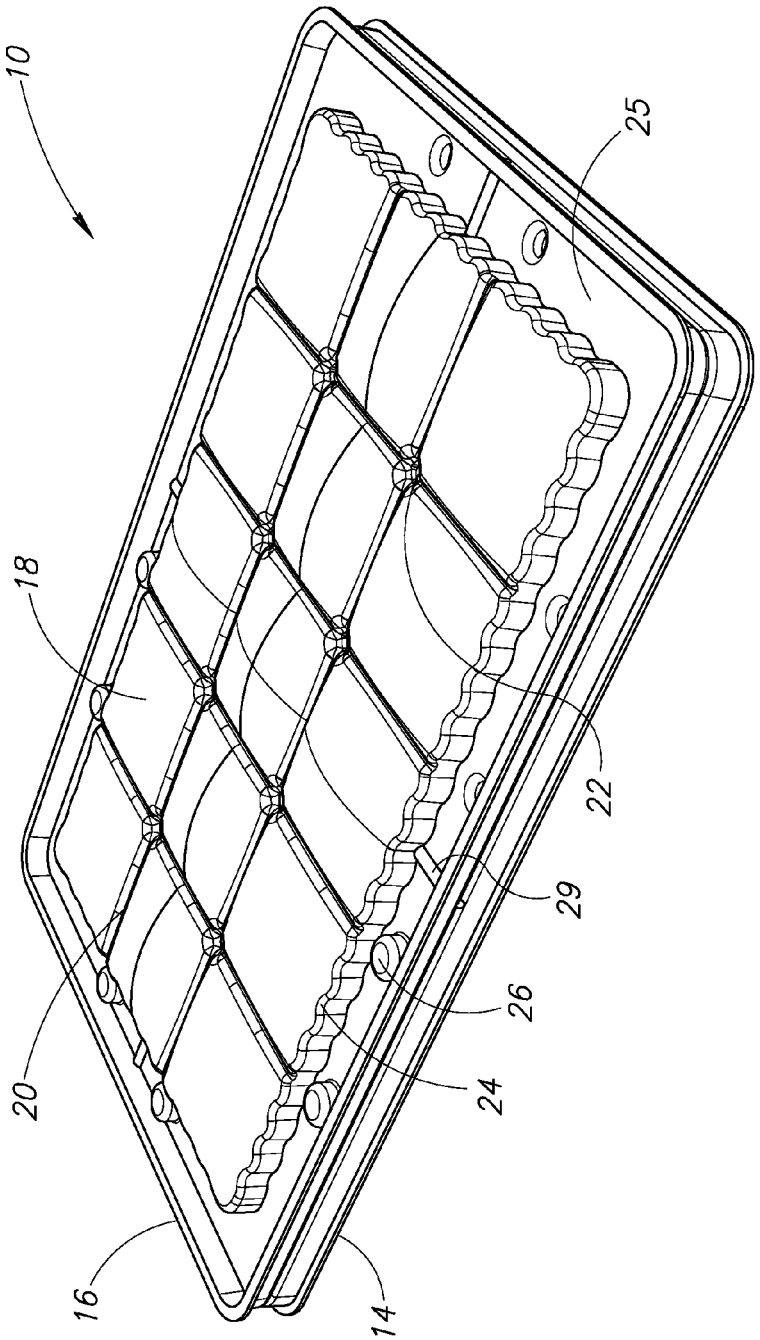

FIG.1

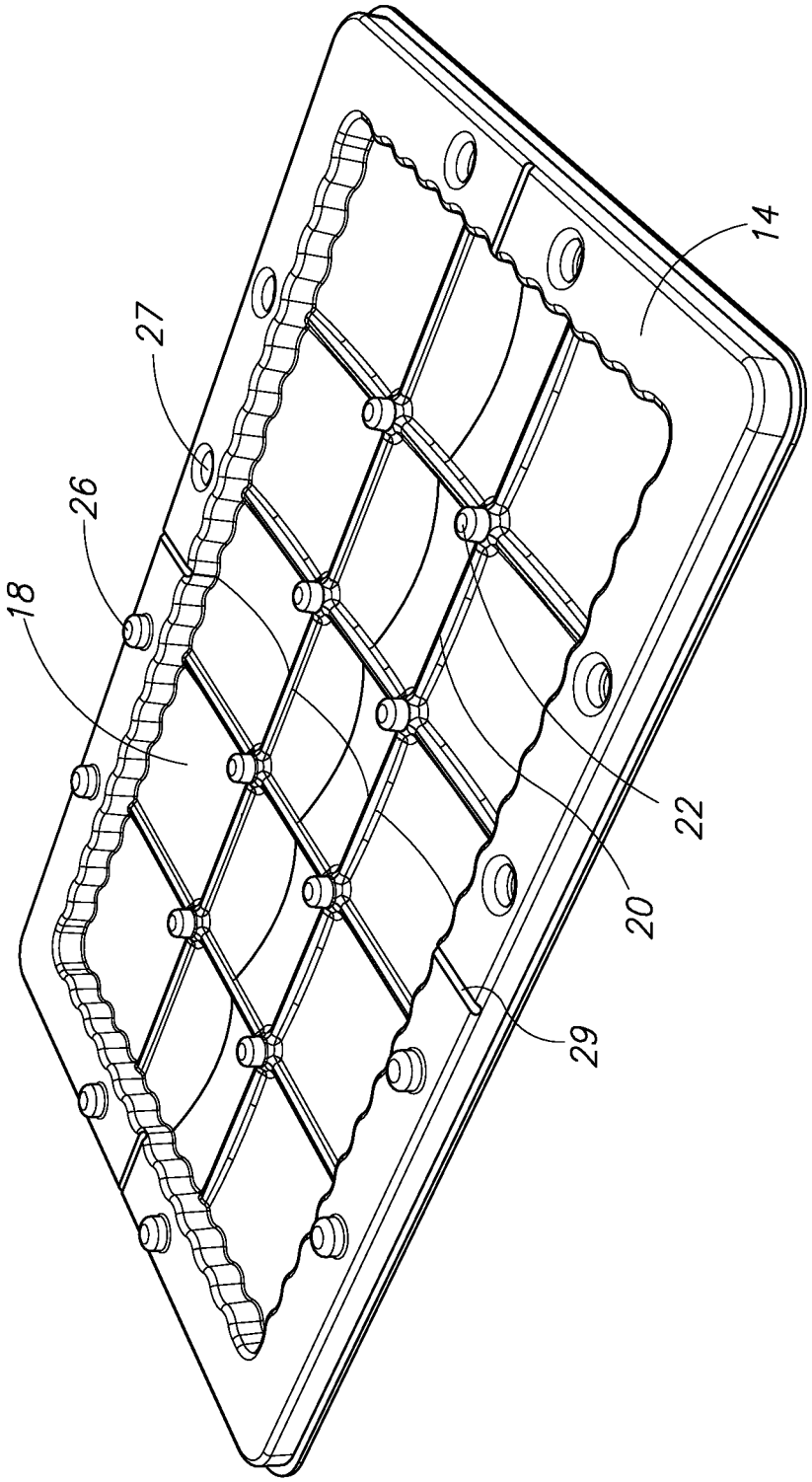

FIG.2

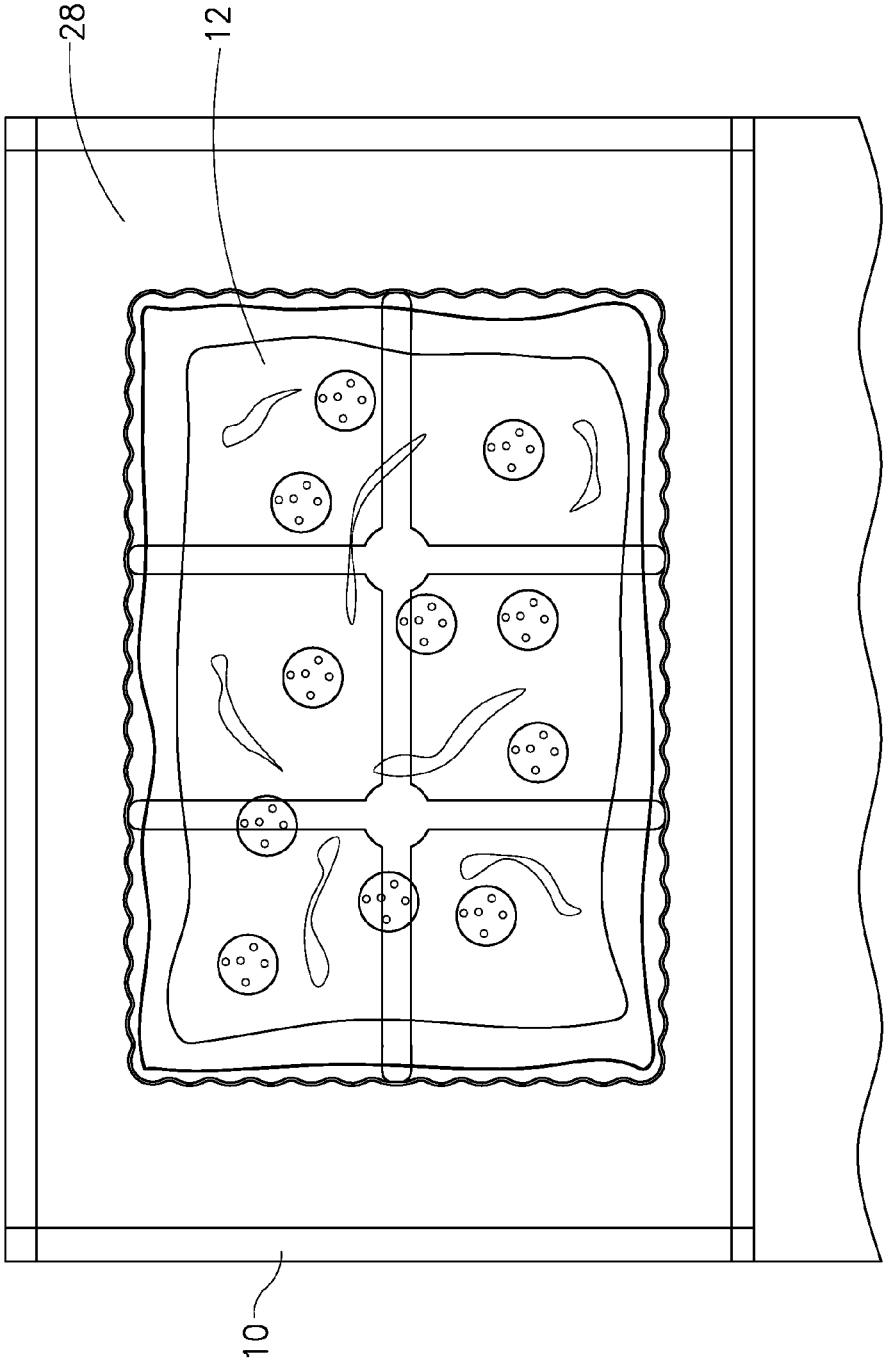

FIG.3

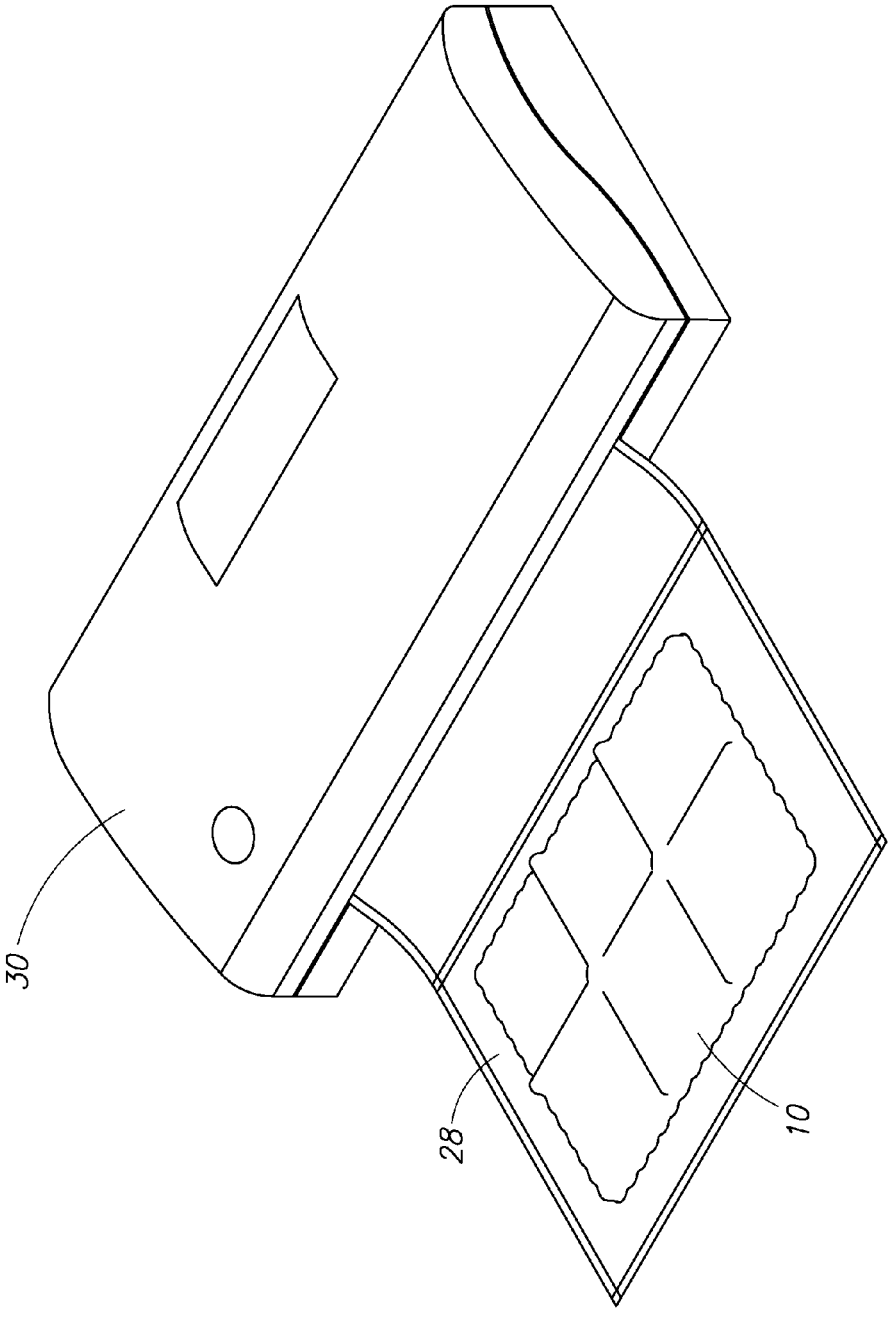

FIG. 4

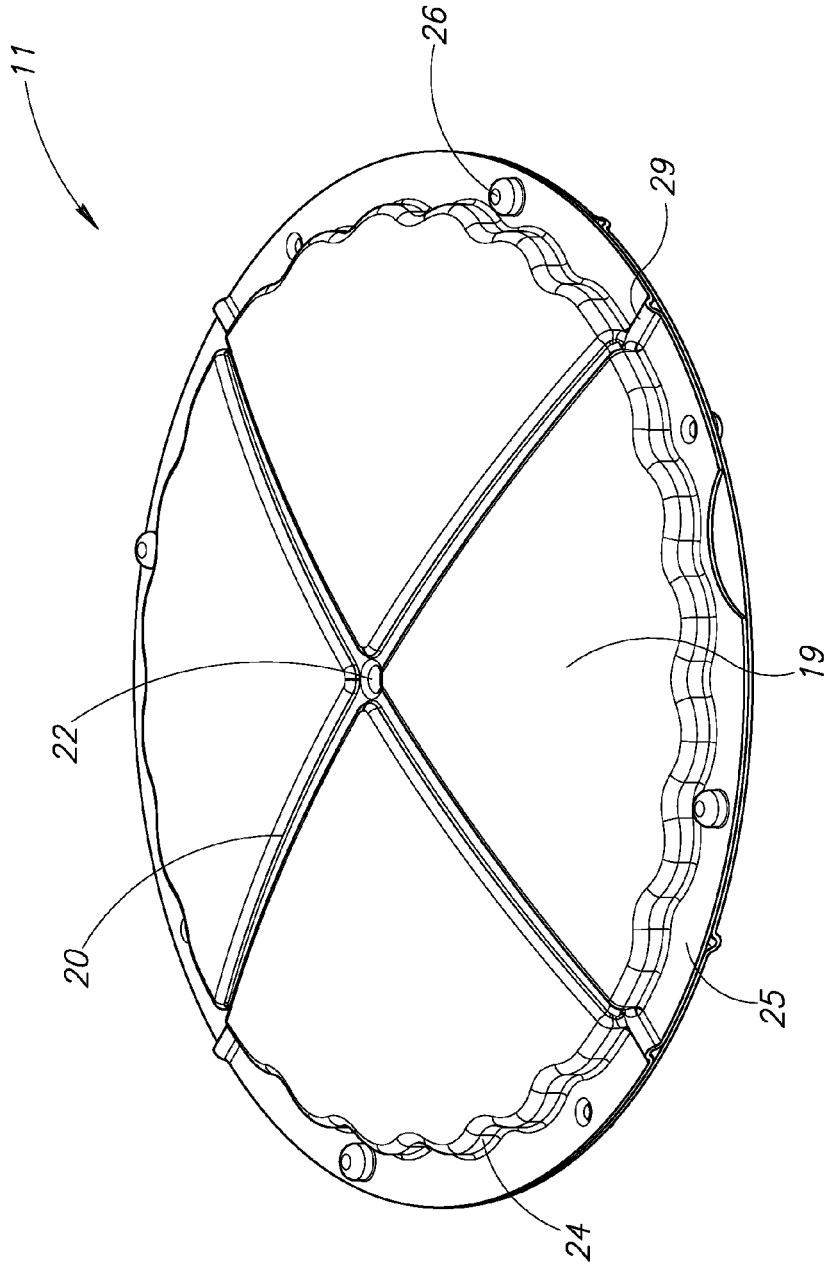

FIG.5

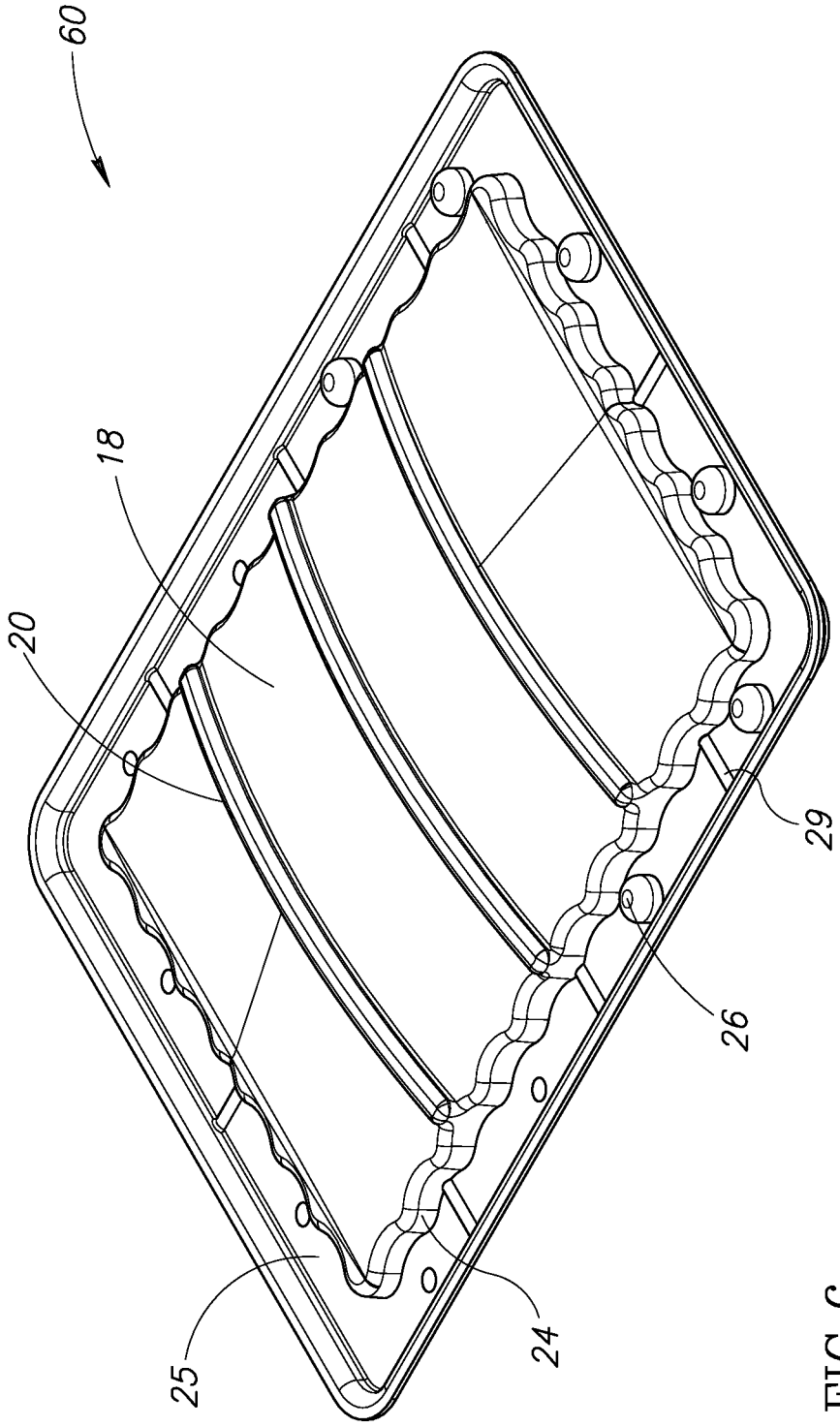

FIG.6

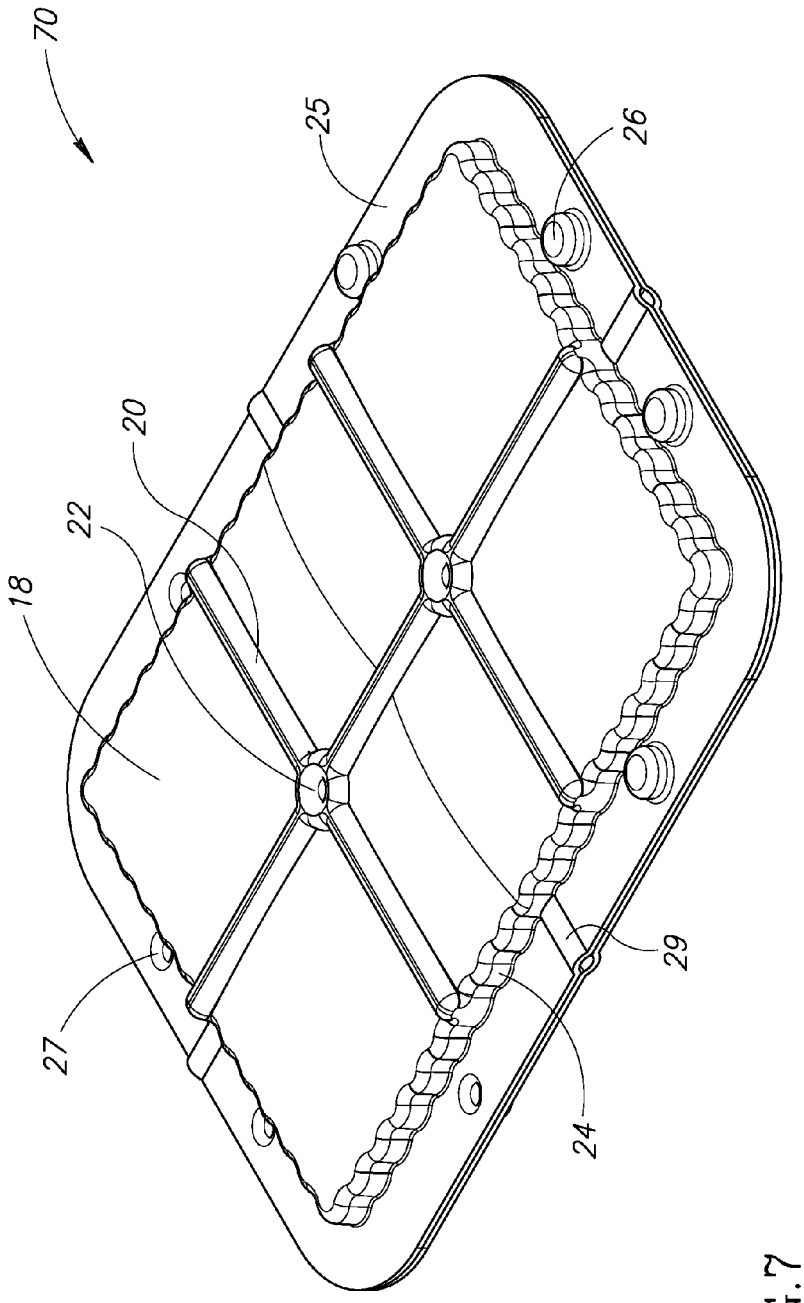

FIG.7

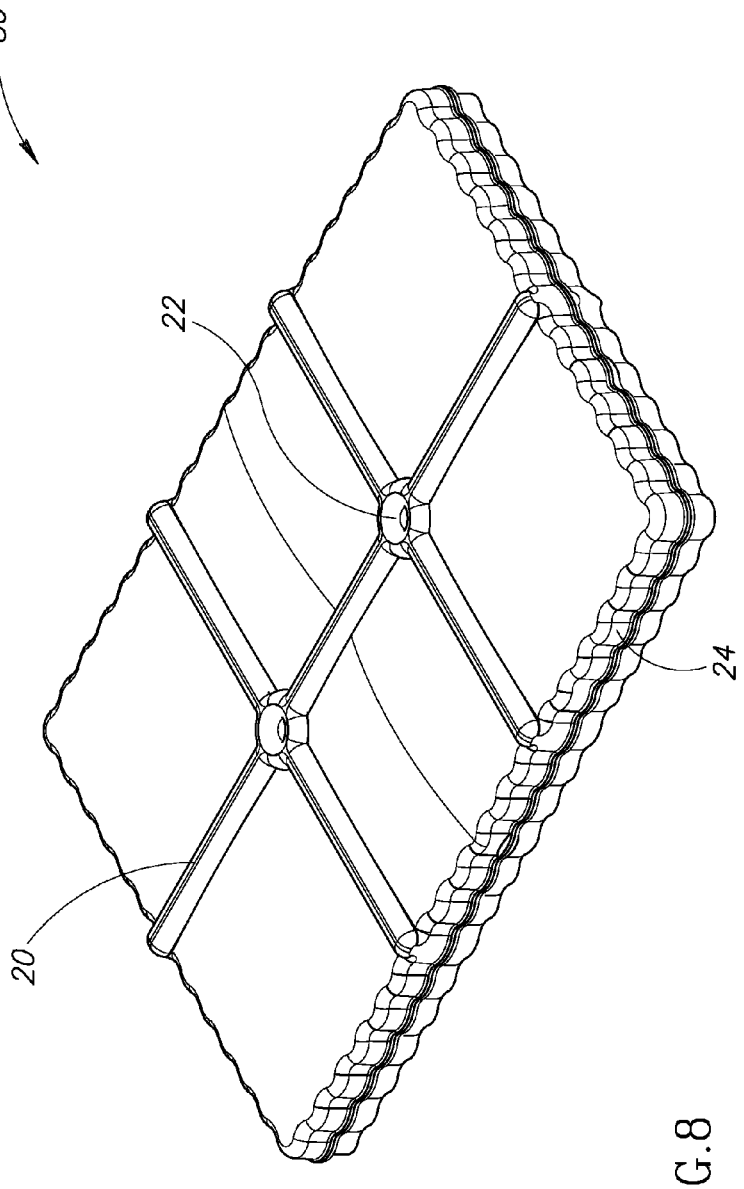

FIG.8

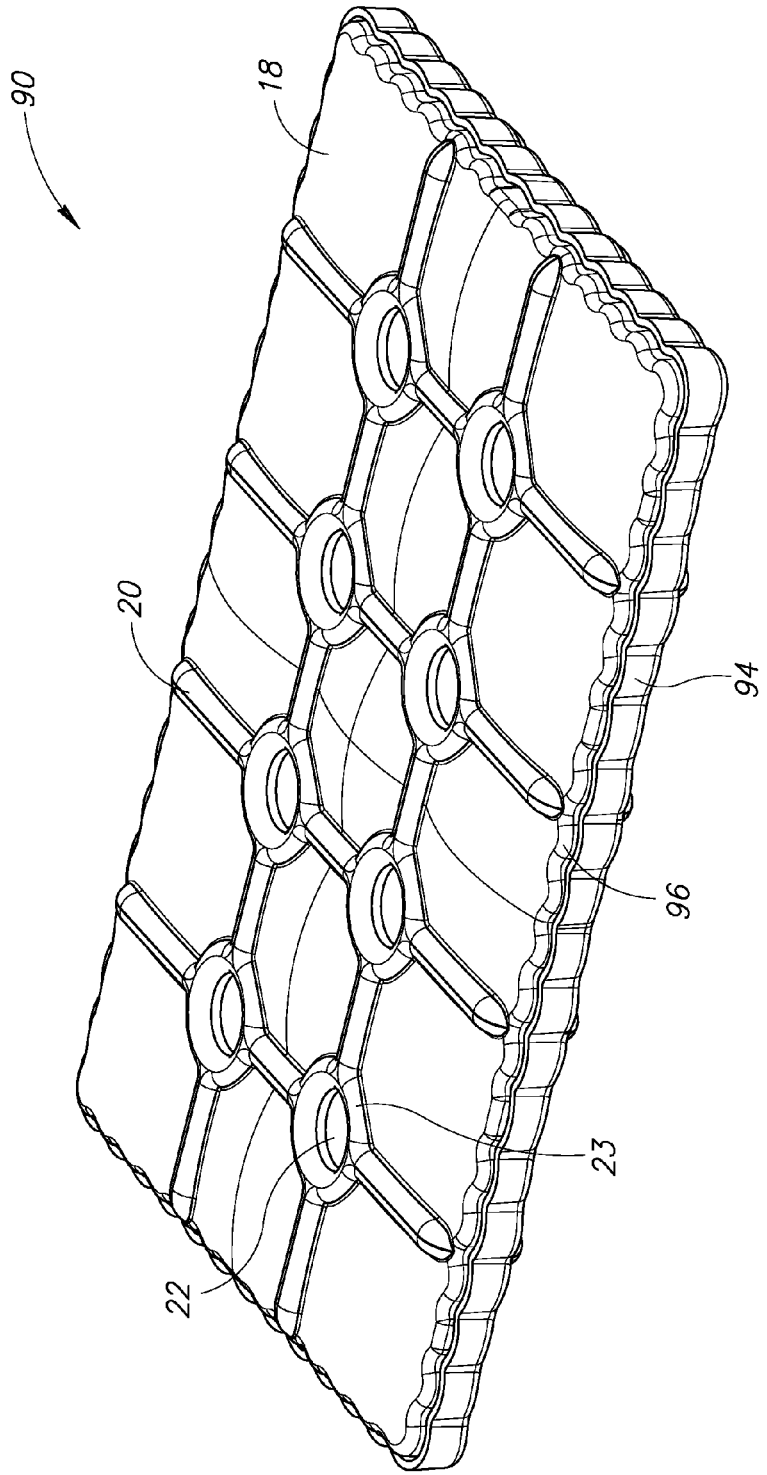

FIG.9

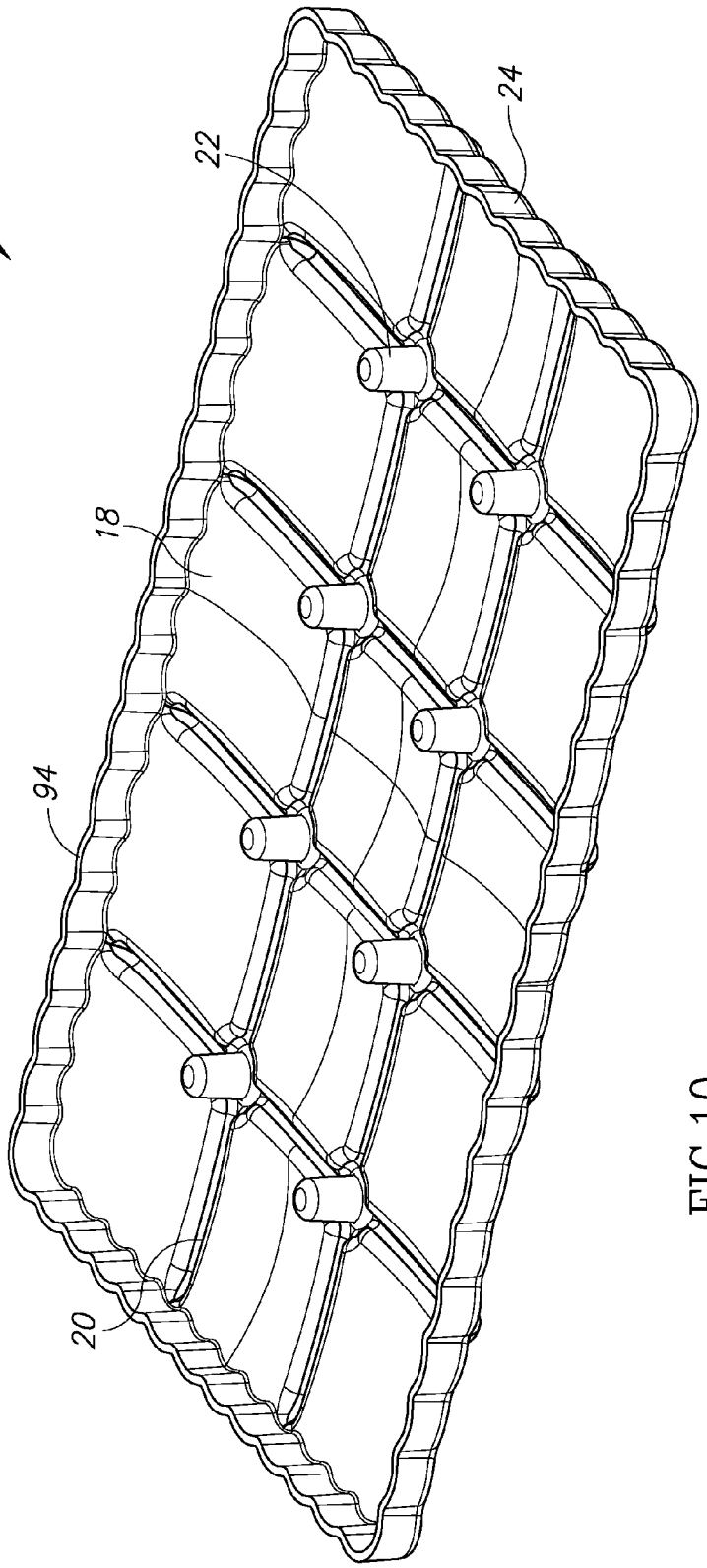

FIG.10

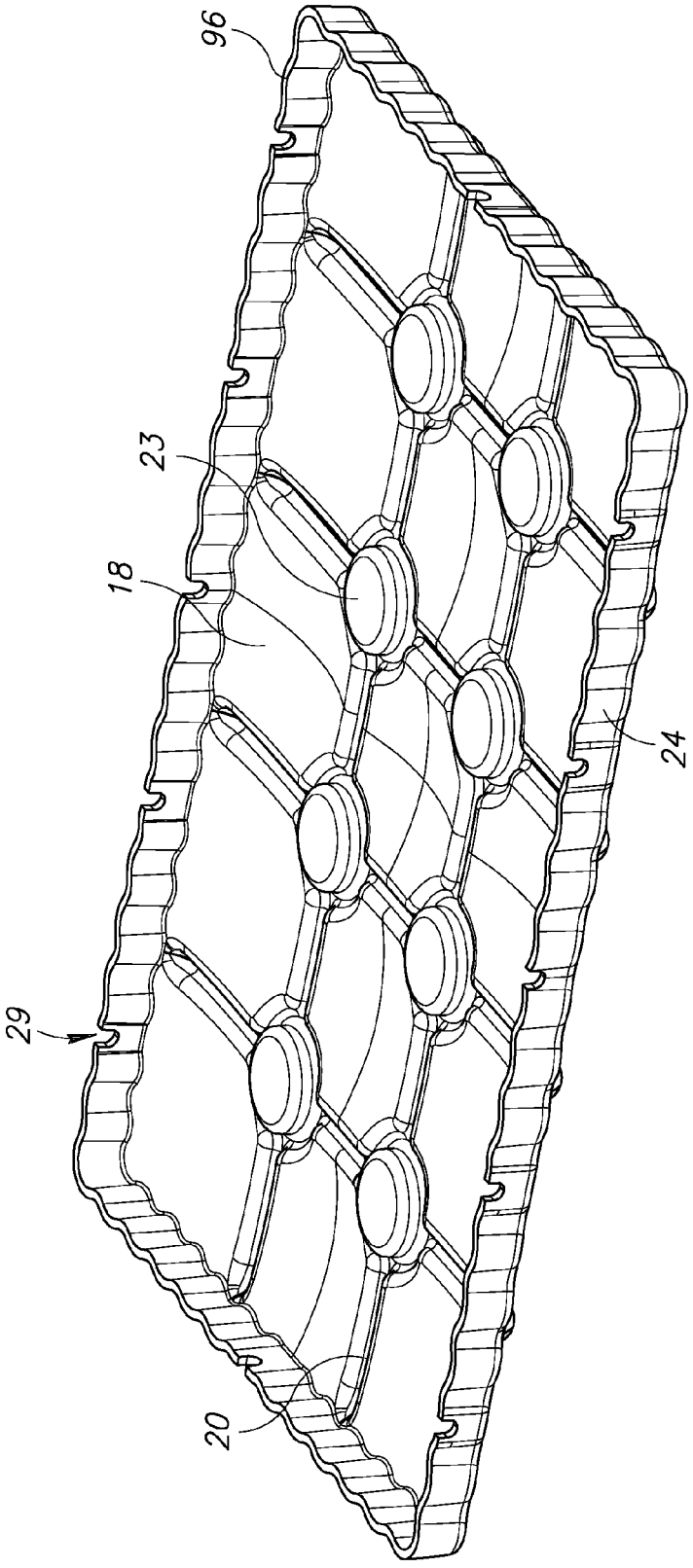

FIG.11

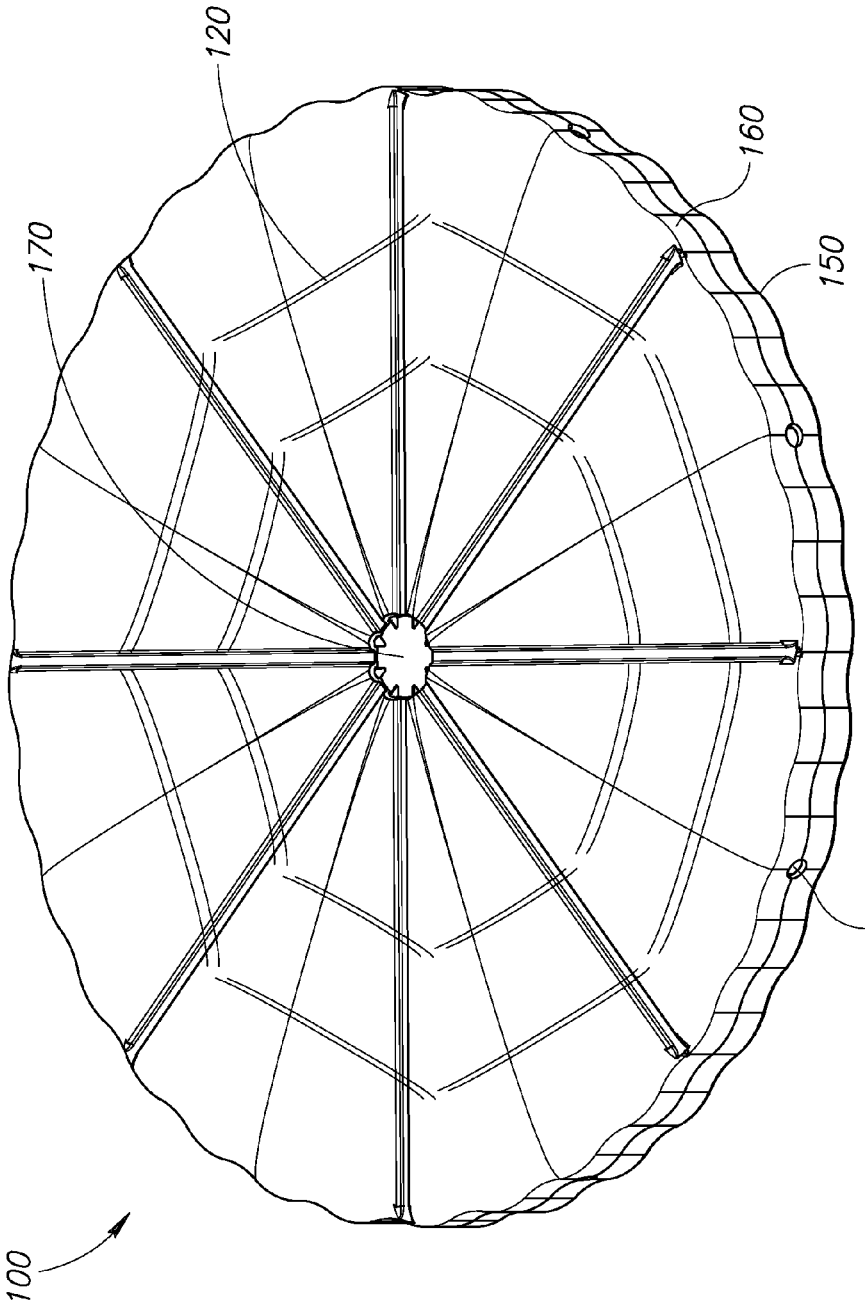

FIG.12

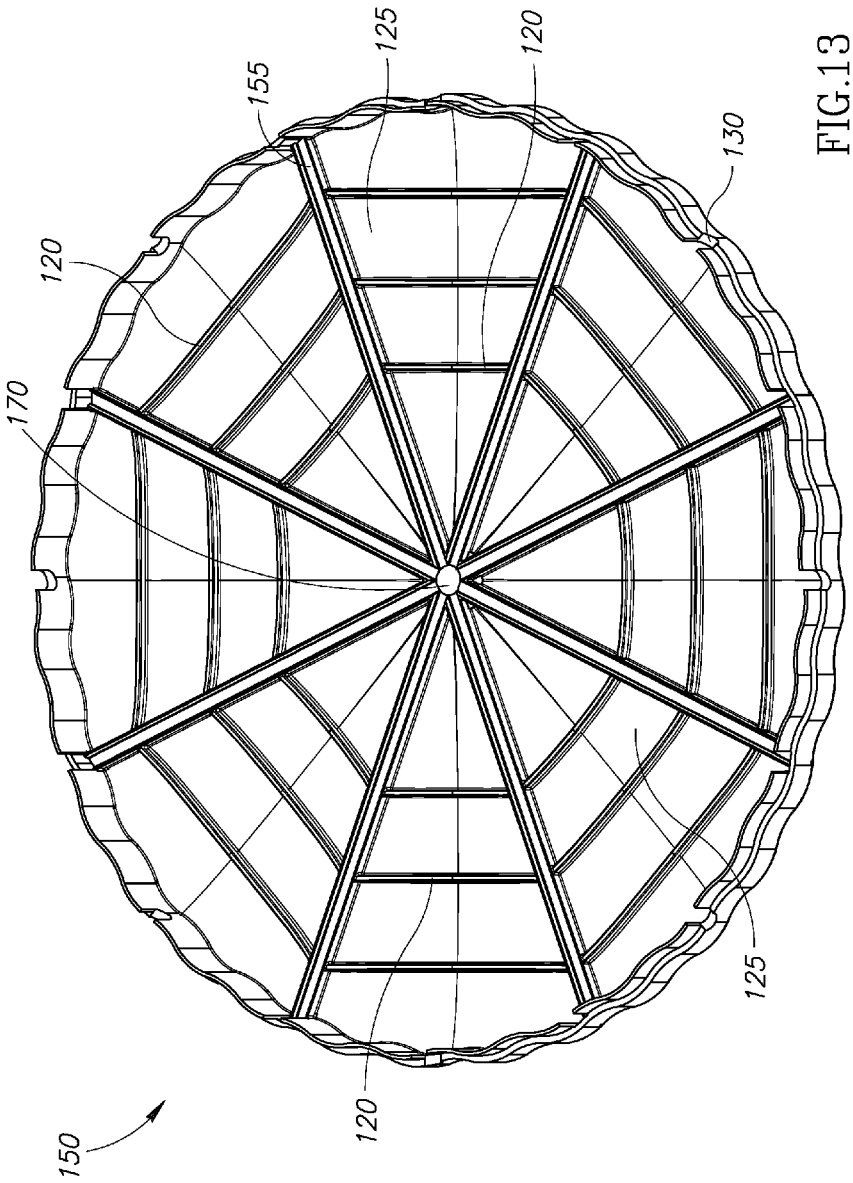

FIG.13

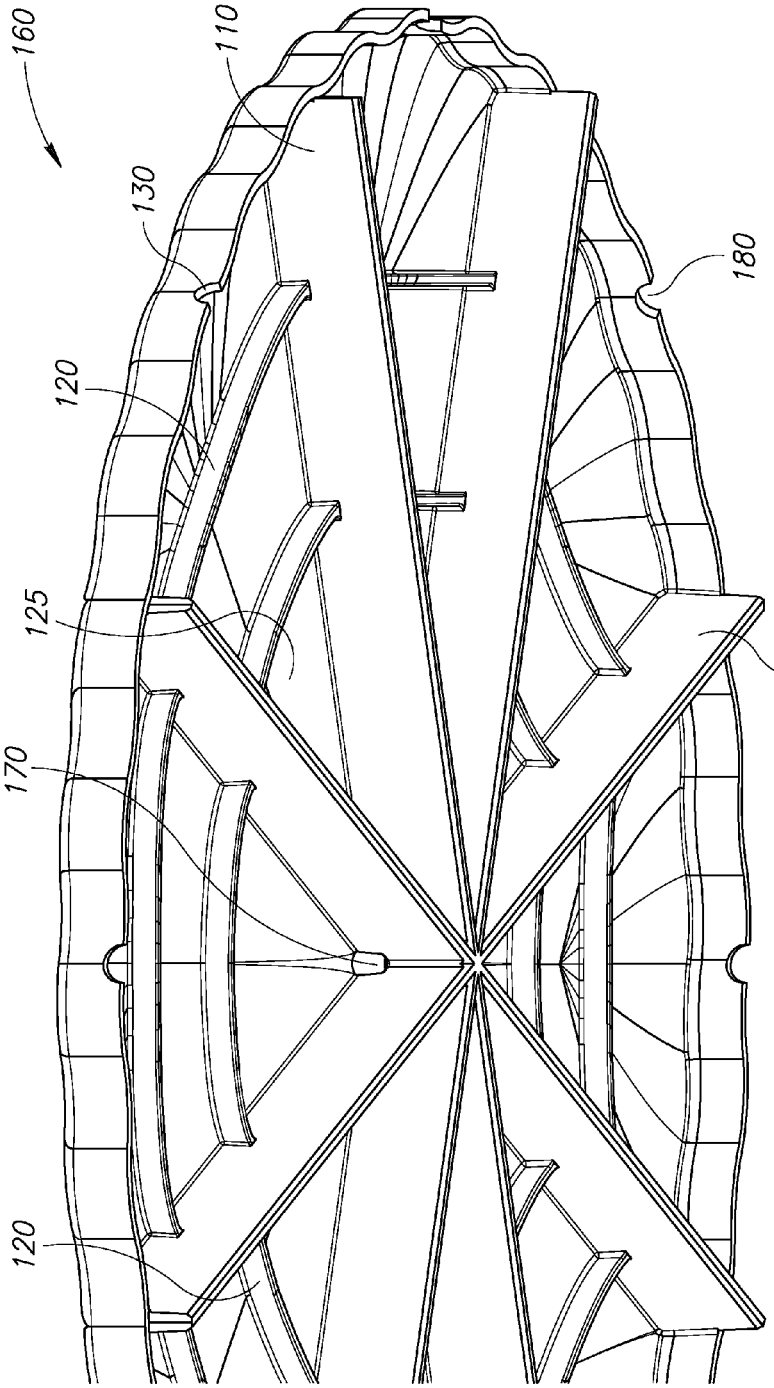

FIG.14

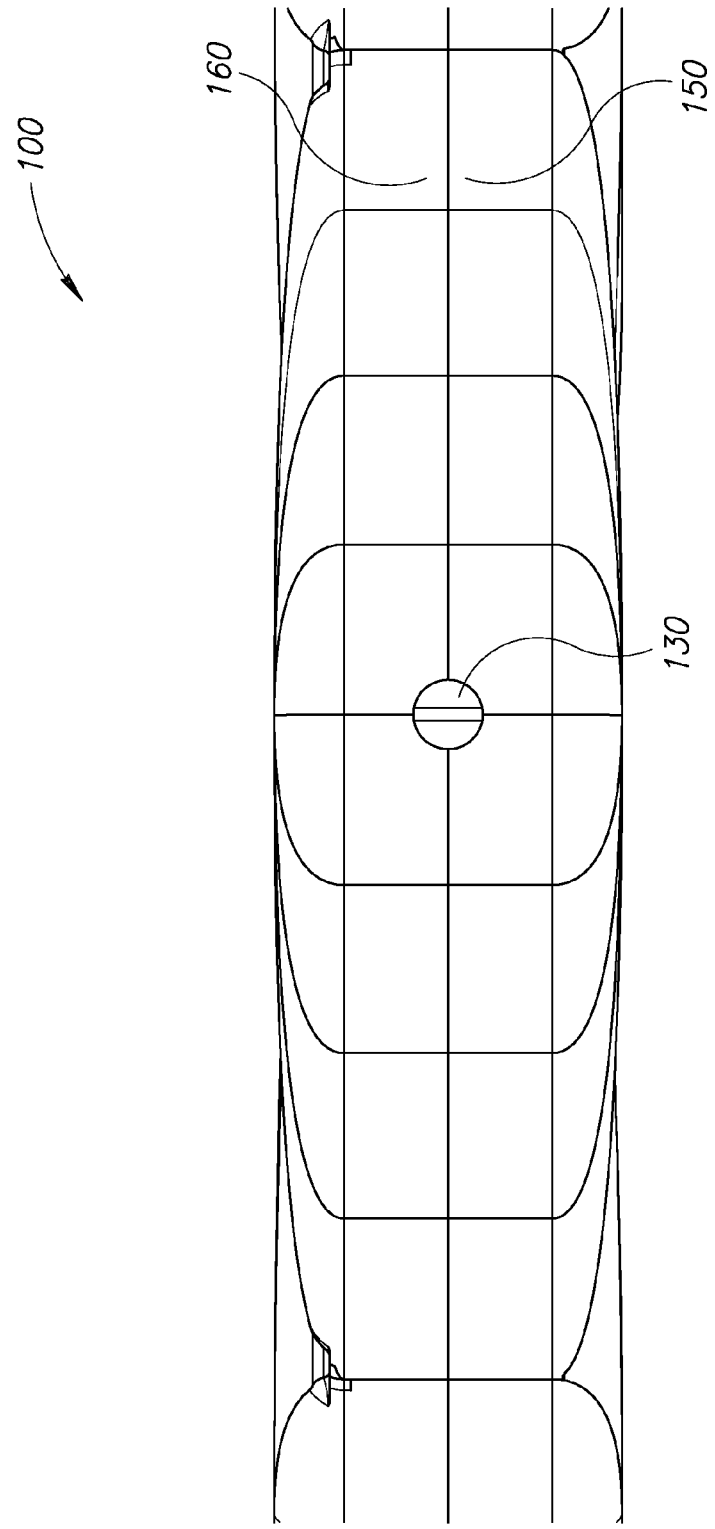

FIG.15

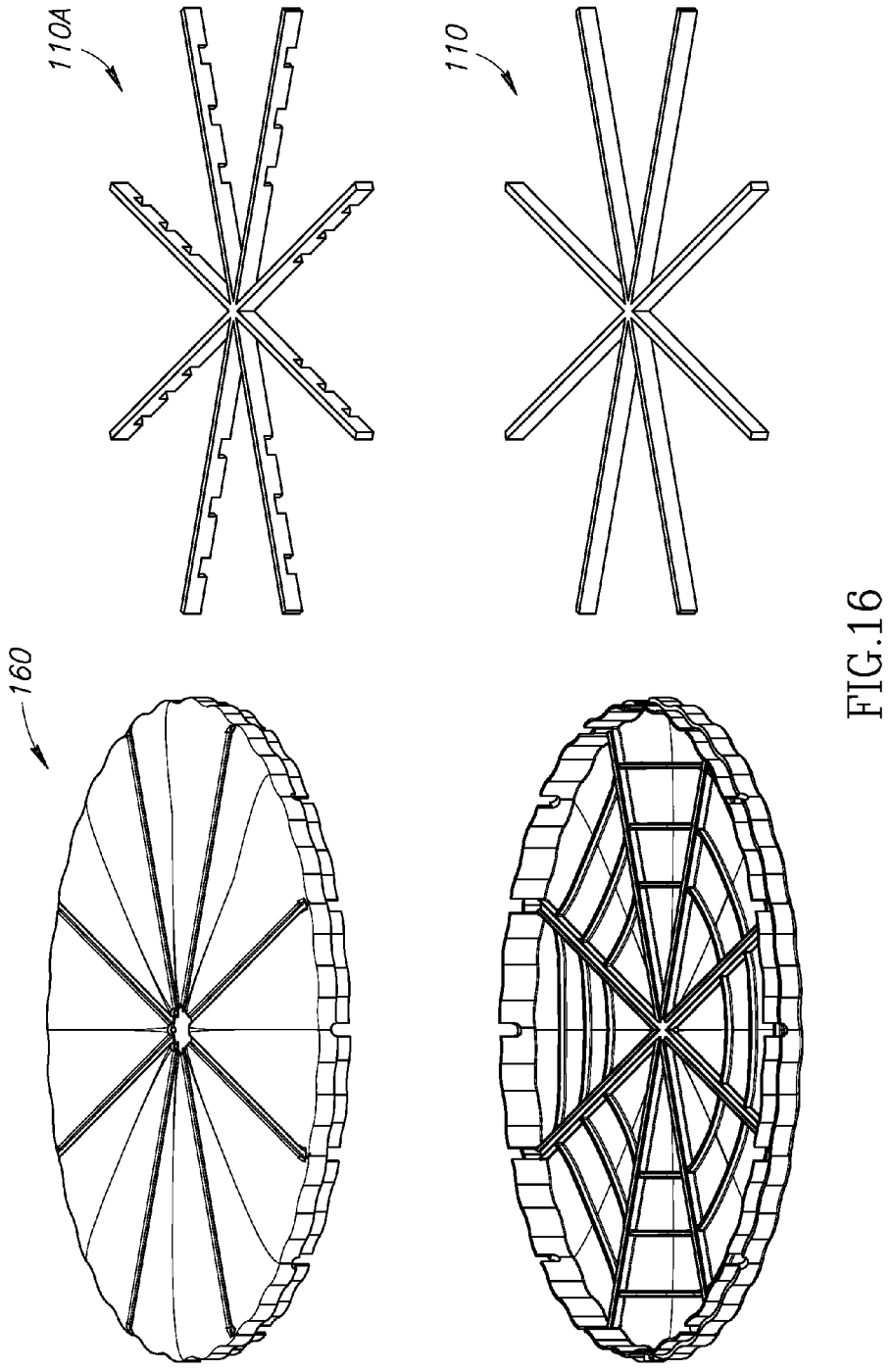

FIG.16

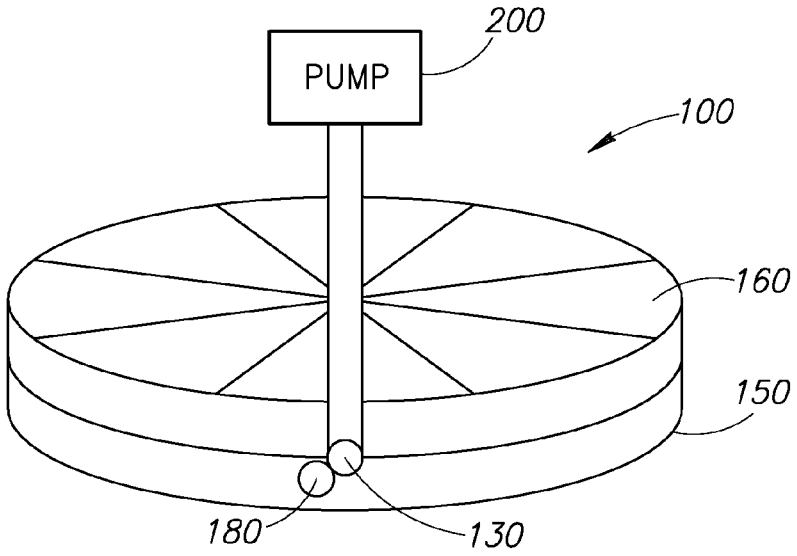

FIG.17A

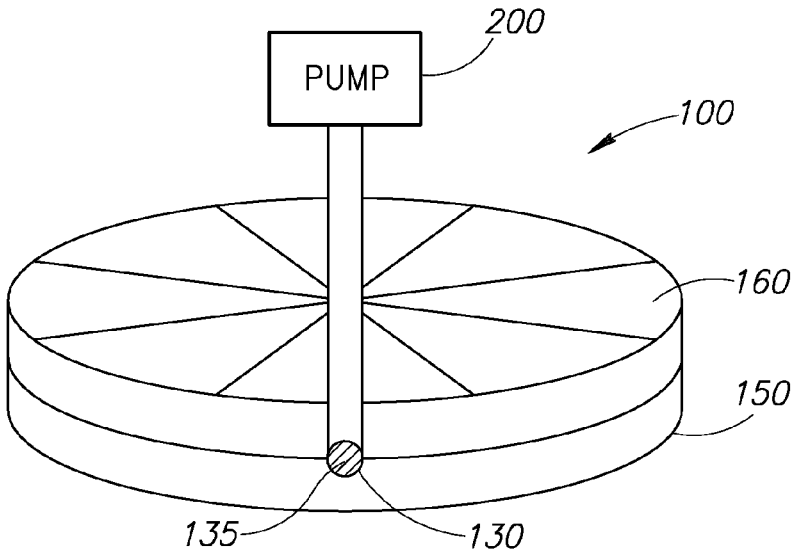

FIG.17B

VACUUM PACKAGING

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is a continuation-in-part application claiming benefit from U.S. patent application Ser. No. 13/897,409, filed May 19, 2013, which is hereby incorporated in its entirety by reference. This application also claims benefit from U.S. Provisional Patent Application No. 61/651,067, filed 24 May 2012, which is hereby incorporated in its entirety by reference.

FIELD OF THE INVENTION

The present invention relates to the packaging of food products generally and in particular, to vacuum packaging of food products.

BACKGROUND OF THE INVENTION

Vacuum packaging is known in the art and provides a convenient solution for extending the shelf life of foods and/or reducing the volume of the package. Vacuum packaging involves removal of air from the package prior to sealing. It reduces the amount of atmospheric oxygen in the packaging and thus inhibits the growth of aerobic bacteria or fungi. It is used for storage of dry foods, such as cereals or coffee, over a long period of time and for storage of fresh foods, such as vegetables, or fish, or meat, over a shorter period of time. Vacuum packaging comes in various shapes and can be rigid or flexible.

SUMMARY OF THE PRESENT INVENTION

There is provided in accordance with a preferred embodiment of the present invention, a vacuum sealable container for baked or cooked food. The container includes a base section to receive the food in its entirety, the base section having at least one runner where the at least one runner divides the base section into equally sized portions and a lid shaped to fit over the base section, the lid having at least one blade where the at least one blade slots into the at least one runner when the lid is placed over the base to close the container and where the at least one blade performs at least one of: cutting the food into the equally sized portions and holding the food in place between the at least one blade and the at least one runner and where the container is at least one of: sealed with a vacuum when used with a vacuum sealing bag and a vacuum machine and self-sealing.

Moreover, in accordance with a preferred embodiment of the present invention, the container also includes least one air hole when the container is closed where the vacuum machine withdraws air via the least one air hole to form the vacuum.

Further, in accordance with a preferred embodiment of the present invention, the container includes at least two reinforcement ribs placed perpendicularly to the at least one runner and the at least one blade.

Still further, in accordance with a preferred embodiment of the present invention, at least one of: the at least one blade, the at least one runner and the at least two reinforcement ribs provide reinforced support against deformation from a pressure differential of up to 2 kg/cm^2.

Additionally, in accordance with a preferred embodiment of the present invention, the vacuum seals the lid against the base.

Moreover, in accordance with a preferred embodiment of the present invention, the blades are at least one of: plain edge and serrated.

Further, in accordance with a preferred embodiment of the present invention, the blades are manufactured from at least one of: polypropylene, polyethylene, polystyrene and ABS.

Still further, in accordance with a preferred embodiment of the present invention, blades are at least one of: permanent and detachable.

Additionally, in accordance with a preferred embodiment of the present invention, the food is at least one of: single and flat and multiple and stacked.

There is provided in accordance with a preferred embodiment of the present invention, a self-sealable vacuum container for baked and cooked food. The container includes a single inlet connectable to a vacuum pump; means for the inlet to maintain a vacuum therein and elements to provide reinforced support against deformation of the container in the presence of the vacuum.

Moreover, in accordance with a preferred embodiment of the present invention, the elements include at least one of: reinforcement units, load bearing units, scalloped edges, blades and runners.

Further, in accordance with a preferred embodiment of the present invention, the means is at least one of: a one-way diaphragm over the surface of the inlet, an attached cap and an attachable cap.

BRIEF DESCRIPTION OF THE DRAWINGS

The subject matter regarded as the invention is particularly pointed out and distinctly claimed in the concluding portion of the specification. The invention, however, both as to organization and method of operation, together with objects, features, and advantages thereof, may best be understood by reference to the following detailed description when read with the accompanying drawings in which:

FIG. **1** is a schematic illustration of a novel food vacuum container, constructed and operative in accordance with an embodiment of the present invention;

FIG. **2** is a schematic illustration of the container of FIG. **1** in which the container is open, in accordance with an embodiment of the present invention;

FIG. **3** is a schematic illustration of the food container of FIG. **1** including vacuum container of FIG. **1** containing food and sealed in a vacuum bag, in accordance with an embodiment of the present invention;

FIG. **4** is a schematic illustration of the vacuum container of FIG. **1** being sealed in a vacuum machine, in accordance with an embodiment of the present invention;

FIGS. **5**, **6** and **7** are schematic illustrations of alternative embodiments of the novel food vacuum container of FIG. **1**, constructed and operative in accordance with alternative embodiments of the present invention; and

FIG. **8** is a schematic illustration of a novel food vacuum container according to another embodiment of the present invention, in which the container does not have rims;

FIG. **9** is a schematic illustration of a rim-less novel food vacuum container according to another embodiment of the present invention;

FIG. **10** is a schematic illustration of a bottom tray of the vacuum container of FIG. **9**, in accordance with an embodiment of the present invention; and

FIG. **11** is a schematic illustration of a lid of the vacuum container of FIG. **9**, in accordance with an embodiment of the present invention.

FIG. **12** is a schematic illustration of an alternative embodiment to the container of FIG. **1**, constructed and operative in accordance with an embodiment of the present invention;

FIG. **13** is a schematic illustration of the base of the container of FIG. **12**, constructed and operative in accordance with an embodiment of the present invention;

FIG. **14** is a schematic illustration of the lid of the container of FIG. **12**, constructed and operative in accordance with an embodiment of the present invention;

FIG. **15** is a schematic illustration of an alternative view of the container of FIG. **12**; constructed and operative in accordance with an embodiment of the present invention;

FIG. **16** is a schematic illustration of the blades of container of FIG. **12**, constructed and operative in accordance with an embodiment of the present invention; and

FIGS. **17**A and **17**B are schematic illustrations of an alternative method of air extraction for the containers of FIGS. **1** and **12**, constructed and operative in accordance with an embodiment of the present invention.

It will be appreciated that for simplicity and clarity of illustration, elements shown in the figures have not necessarily been drawn to scale. For example, the dimensions of some of the elements may be exaggerated relative to other elements for clarity. Further, where considered appropriate, reference numerals may be repeated among the figures to indicate corresponding or analogous elements.

DETAILED DESCRIPTION OF THE PRESENT INVENTION

In the following detailed description, numerous specific details are set forth in order to provide a thorough understanding of the invention. However, it will be understood by those skilled in the art that the present invention may be practiced without these specific details. In other instances, well-known methods, procedures, and components have not been described in detail so as not to obscure the present invention.

Applicants have realized that cooked or baked foods, such as pizzas or pies, if placed directly into vacuum bags for the purpose of vacuum packaging, are condensed under the vacuum pressure and lose their shape and volume. The resultant food may appear unappetizing and may lose its texture and, as a result, cannot be used for display or for sale.

Reference is made to FIGS. **1**, **2** and **3** which illustrate a novel food vacuum container **10** which maintains its shape and volume under vacuum seal conditions. FIG. **1** shows container **10** closed, FIG. **3** shows container **10** with food **12** inside, while FIG. **2** shows container **10** in an open state. Reference is further made to FIG. **4** which shows a vacuum sealing machine **30** connected to a vacuum bag **28** which may seal container **10**.

In accordance with a preferred embodiment of the present invention, container **10** may store food **12** generally in a vacuum state with minimal deformation of the shape and volume of food **12**. It will be appreciated that, because food **12** may be kept within a vacuum, it may be stored for a relatively long period of time and with no need to store the food in chilled or frozen conditions.

Container **10** comprises a bottom **14** and a corresponding lid **16**, each of which comprises a plurality of convex load bearing units **18**, canal shaped reinforcement ribs **20**, circular reinforcement units **22** and scalloped edges **24**. Convex load bearing units **18** may be supported by canal shaped reinforcement ribs **20**, such that there is one circular reinforcement unit **22** at every rib crossing. Convex load bearing units **18** may bear external atmospheric air pressure against the internal vacuum and therefore food may be kept in container **10** without being condensed or smashed despite the internal vacuum conditions. Scalloped edges **24** may further strengthen load bearing units **18**.

It will be appreciated that reinforcement unit **22** may be formed in various shapes and sizes such as horizontal support bars.

In a preferred embodiment of the present invention, bottom **14** and lid **16** may be see-through, so that people may clearly see food **12** that is inside container **10**.

In another preferred embodiment of the present invention, container **10** may comprise rims **25** which have holes **27** and matching pins **26**, such that bottom **14** and lid **16** may be closed and aligned when matching pins **26** go into holes **27**. Rims **25** may include air conduits **29** which lead to the interior of container **10** and facilitate air removal from the interior when vacuum sealing.

As illustrated in FIG. **1**, in a first preferred embodiment of the present invention, bottom **14** and lid **16** may each comprise fifteen convex load bearing units **18** supported by six canal shaped reinforcement ribs **20** with circular reinforcement units **22** at every rib crossing and scalloped edges **24** around the perimeter. Reinforcement ribs **20** may be convex or concave. It may be appreciated that reinforcement ribs **20** may include a solid cross-section, a hollow cross-section, and/or may include other shapes, such as for example, an L-shape, a T-shape, among other possible structural shapes. In some embodiments, reinforcement ribs **20** may be embedded in convex load bearing units **18** and may include a material strength greater than that of the convex load bearing units, and may withstand a pressure loading of up 2 kg/cm^2, for example, for example 0.5 kg/cm^2, 1 kg/cm^2, 1.5 kg/cm^2.

It will be appreciated that container **10** may be implemented as two separated units or connected as a single unit which may be folded over in order to be closed.

As illustrated in FIG. **3**, food **12**, such as a slice of pizza, may be placed into container **10**, which may then be placed into a standard vacuum bag **28**, such as a polyethylene bag available from Orved Corporation. Vacuum bag **28** and container **10** may be placed into a vacuum machine, as illustrated in FIG. **4**, such as a vacuum sealing machine, an automatic vacuum chamber machine or a continuous vacuum machine, which may remove the air from vacuum bag **28** and may seal it, thereby removing the air from container **10**. A suitable vacuum machine may be any of those commercially available from Wenzhou Packing Machinery Co. Ltd. It will be appreciated that, in accordance with a preferred embodiment of the present invention, container **10** may enable food **12** to maintain its shape, volume and position despite the vacuum seal conditions for a relatively long period of time and with no need to store the food in chilled or frozen conditions.

It will be appreciated that food **12** in container **10** may be hung for display or shipped without moving within the container, due to the fact that container **10** may be designed three dimensionally in very similar measurements to food **12** it comprises and due to the circular reinforcement units **22**, which may penetrate throughout food **12** and keep it still.

It will be appreciated that, while the external pressure may be atmospheric, the internal pressure is at or is close to a vacuum so that load bearing units **18** and reinforcement ribs **20** may support a pressure differential of up to 2 kg/cm^2, for example 0.5 kg/cm^2, 1 kg/cm^2, 1.5 kg/cm^2. For example, and as shown in FIG. **1** to which reference is now briefly made, each unit **18** may be 4 cm×4 cm, each canal shaped

reinforcement rib **20** may be 6 mm, with a curved upper or lower surface having a radius of curvature of 53.72 mm, and being formed of a transparent plastic such as, Polypropylene, Polystyrene, Polyethylene or Acrylonitrile Butadiene Styrene (ABS) of 1.2 mm thickness. Other shapes, sizes and thicknesses may be possible and may be incorporated herein in the present invention.

Container **10** may be formed of a disposable plastic or other inexpensive disposable material making the container relatively inexpensive and allows its use as a disposable container.

Reference is now made to FIG. **5**, which illustrates another preferred embodiment of the present invention. FIG. **5** shows a round container **11**, comprising four pie slice shaped, convex load bearing units **19**, which may be supported by two canal shaped reinforcement ribs **20** with a circular reinforcement unit **22** at the rib crossing. As in the previous embodiment, container **11** may comprise scalloped edges **24**. Other round containers may have different number of convex load bearing units **19** and thus different number of canal shaped reinforcement ribs **20** and circular reinforcement units **22**. Container **11** may include a rim **25** with air conduits **29** which lead to the interior of the container and facilitate air removal from the interior when vacuum sealing.

Reference is now made to FIG. **6**, which illustrates another preferred embodiment of the present invention. FIG. **6** shows a container **60** comprising convex load bearing units **18** with no circular reinforcement units **22** as in container **10**. Reinforcement ribs **20** may be thicker in order to strengthen the load bearing units. Reinforcement ribs **20** may be convex or concave. As in the previous embodiments, container **60** may comprise scalloped edges **24**. Container **60** may include a rim **25** with air conduits **29** which lead to the interior of the container and facilitate air removal from the interior when vacuum sealing.

Reference is now made to FIG. **7**, which illustrates a preferred embodiment of the present invention in which a container **70** comprises six convex load bearing units **18** supported by three canal shaped reinforcement ribs **20** with a circular reinforcement unit **22** at each of the two rib crossing, as well as having scalloped edges. Container **70** may include a rim **25** with air conduits **29** which lead to the interior of the container and facilitate air removal from the interior when vacuum sealing. In this embodiment, container **70** may be 12 cm long and 8 cm wide.

Reference is now made to FIG. **8**, which illustrates a preferred embodiment of the present invention in which a container **80** does not have rims **25** as in container **10**.

Reference is now made to FIGS. **9-11**, which schematically illustrate a rim-less food vacuum container **90** with 15 load bearing units **18**, in accordance with an embodiment of the present invention. Container **90** includes a bottom tray section **94** (FIG. **10**) and a cover (lid) **96** which correspondingly fits onto the bottom section. Load bearing units **18** are supported by canal shaped ribs **20**, a total of eighteen used to support the 15 load bearing units. Circular reinforcement units **23** are located at every rib crossing and may serve both to reinforce the ribs and the load bearing units **18**. Circular reinforcement units **23** may include pins **22** which may penetrate into the food to prevent movement. Both bottom tray **94** and cover **96** include scalloped shaped edges **24** which may serve to further reinforce load bearing units **18**. Notches **29** on cover **96** may allow air to be more easily drawn out from inside container **90** during vacuum sealing of the container. Additionally or alternatively, notches **29** may be included in bottom tray **94**.

It will be appreciated that the strength of containers **10-90** may be created by a combination of two or more elements such as the thickness of the containers, the thickness of rims **25**, the width and number of reinforcement ribs **20**, the curve of load bearing units **18**, the size of circular reinforcement units **22**, the size of scalloped edges **24** and the amount of vacuum in the containers.

In a preferred embodiment the thickness of the containers is between 0.5 mm to 2.5 mm.

In another preferred embodiment, the amount of vacuum in the containers is above 90%.

Applicants have realized that for thinner food items such as pizza, quiche and crepes, a flatter container is more desirable in order to preserve shape rather than the higher walled or higher domed container as discussed herein above. Unless the food is held in position by pins **26**, a flat piece of food may move around the container and may become misshapen. It will be appreciated that for stackable food items (such as a pile of pizzas or crepes), a high wall or a high domes container may be more suitable.

It will be appreciated that the design of a flatter thinner container is more challenging in terms of mechanical strength. It is known in the art that a container with a higher wall or a dome shape will resist vacuum pressure more easily than a lower wall with a matching flat wide area top or lid. Applicants have realized that this challenge may be overcome when using a lower walled container, by using specially designed maximum strength area elements with proper reinforcements.

Reference is now made to FIG. **12** which illustrates an alternative container **100** in accordance with an embodiment of the present invention. Container **100** may be round in shape with approximately a 24 cm diameter, a surface area of approximately 452 cm^2 and a wall height of approximately 2-3 cm. It will be appreciated that although the following discussion is for a round container, the principles may be applied to other shaped containers which may be designed accordingly to the shape of the food items to be stored.

Container **100** may further comprise a base **150** and a lid **160** as is illustrated in FIGS. **13** and **14** to which reference is now made. FIG. **13** illustrates base **150** and FIG. **14** illustrates lid **160**.

Base **150** may comprise runners **155** which may divide the entire surface area of base **150** into equally sized triangular portions **125** of approximately 56.5 cm^2. Each runner **115** may be connected to a secondary runner **115** via several reinforcement ribs **120** which may be perpendicular to runners **115**. Likewise, lid **160** may comprise blades **165** which may divide the entire surface area of lid **160** into the same equally sized triangular portions **125**. Each blade **110** may also be connected to a secondary blade **110** via several reinforcement ribs **120** which may perpendicular to blades **110**. When lid **160** is placed over base **150**, blades **165** may slot into runners **115**. In an alternative embodiment, base **150** may comprise a single central runner and lid **160** may comprise a single central blade which may divide the surface areas into 2 equally sized portions.

It will be further appreciated that container **100** may also comprise circular reinforcement units **22** and scalloped edges **24** as discussed herein above and each triangular portion **125** may further comprise multiple load bearing units **118**. In the example of FIG. **13**, each triangular portion **125** is shown to comprise 4 load bearing units **118**. Load bearing units **118** may be arch shaped with a slight curve.

Both base **150** and lid **160** may also comprise semicircular holes **180** evenly placed around their perimeters. When lid

160 is attached to base 150, these holes may form air inlets 130 to extract air from container 100 before a vacuum is created as discussed herein above and as is represented in FIG. 15 to which reference is now made. Both base 150 and lid 160 may also comprise air inlets 170 positioned at each center. It will be appreciated that inlets 130 and 170 may ensure that all the air is extracted from container 100 during the vacuuming process, without affecting the overall mechanical strength of the container. It will be further appreciated that when lid 160 is placed over base 150 and blades 110 and sitting within runners 114 and container 100 is effectively closed. The effect of the vacuum formed within container 100 may ensure that container 100 is airtight and sealed due to the atmospheric pressure build up.

As discussed herein above, while the external pressure may be atmospheric, the internal pressure may be or be close to a vacuum so that load bearing units 18 and reinforcement ribs 20 may support a pressure differential of up to 2 kg/cm^2, for example 0.5 kg/cm^2, 1 kg/cm^2, 1.5 kg/cm^2. Thus each unit 18 may be 4 cm×4 cm. These principles may be applied to container 100, load bearing units 118 and reinforcement ribs 120 (together with reinforcement units 22 and scalloped edges 24).

Thus the area of each load bearing unit 118 may be within the range of 14-19 cm^2. This may be considered approximately equivalent to the 4 cm×4 cm as discussed herein above—the known optimum strength area that resists deformation which may support a pressure differential of up to 2 kg/cm^2.

Therefore a container 100 divided into 8 triangular portions 125, may have a total surface area of 454.4 cm2 with each triangular portion 125 having a surface area of 56.55 cm^2. If triangular portion 125 is divided into 3 load bearing units 118, each load bearing unit may have a surface area 18.85 cm^2. If triangular portion 125 divided into 4 load bearing units 118, each load bearing unit may have a surface area 14.14 cm^2.

As discussed herein above, the strength of container 100 may be a combination of two or more elements such as the thickness of the containers, the thickness of rims 25, the width, curve and number of reinforcement ribs 120, the curve of load bearing units 118, the size of circular reinforcement units 22, and the size of scalloped edges

Another factor that may be taken into account is the tolerance of the plastic used to manufacture container 100 and the thickness of the walls. It will be appreciated that the use of different plastic technologies to manufacture container 100 may allow for changing limits to the optimal dimensions for load bearing units 118 such to a greater surface area such as 25 cm^2.

It will be further appreciated that blades 110 may not only provide reinforced support against vacuum pressure, they may also penetrate the food that is placed in base 150. This penetration may be 2-fold, it may divide the food in question into equally sized portions and it may serve to hold the food in place within container 100 in a similar manner to pins 26 as described herein above.

Thus a piece of food such as a slice of pizza may be placed on base 150 over runners 115. When lid 160 is placed over base 150, in order to close container 100, blades 110 may penetrate the pizza until they slot into runners 115. It will be appreciated that according to the sharpness of blades 110, blades 110 may easily cut through the pizza when sharp edged or may trap part of the pizza between blades 110 and runners 115 if particularly blunt. Blades 110 may be plain edge and manufactured from any form of plastic such as polypropylene, polyethylene, polystyrene and ABS and may be food compatible and environmentally friendly. For a typical flatter container of height of approximately 2-3 cm as described herein above, blades 110 may be 2-3 cm long.

In an alternative embodiment, blades 110 may be used with a higher walled or domed container in which flatter foods (such as pizza, crepes etc. as described herein above) may be stacked. In this scenario, blades 110 may have a longer length in order to cut through and/or hold in place the stacked food as described herein above. It will be appreciated that for a stack of 5 pizzas, blades 110 may typically be 10 cm long.

It will also be appreciated that blades 110 may be a unitary body and molded with lid 160. In an alternative embodiment, blades 110 may be detachable from lid 160 after use as is illustrated in FIG. 16 to which reference is now made. FIG. 16 illustrates how blades 110 and serrated blades 110A are removable from lid 160. It will be appreciated that blades 100 may also be removed for easy washing or rinsing and then returned once they are clean.

It will also be appreciated that the use of detachable blades 110 may also reduce the complexity and/or costs of manufacturing container 100 since lid 160 may be manufactured using vacuum forming instead of injection molding. It will be appreciated that injection molding is a desired manufacturing method if blades 110 are molded to lid 160.

It will be further appreciated that surface area of a cut slice of pizza may be identical to that of triangular area 125 and may fit the area exactly thus staying in place when the container is handled.

Once container 100 is closed, it may be sealed using vacuum sealing machine 30 and vacuum bag 28 as described herein above. It will be appreciated that once vacuum sealed, the pizza in container 100 may be stored at an ambient temperature for approximately 2 months while maintaining its quality. It will be further appreciated that the pizza may keep its quality for approximately another 2 months if container 100 is placed in refrigeration.

In accordance with an alternative embodiment of the present invention, both containers 10 and 100 may be "self-sealing" and may be sealed without vacuum sealing machine 30 and vacuum bag 28. In this embodiment, both containers 10 and 100 when closed may comprise a single conduit 29 (container 10), or a single inlet 130 or 170 (container 100) as is illustrated in FIGS. 17A and 17B to which reference is now made. FIGS. 17A and 17B represent container 100 with a single inlet 130 as a self-sealing container but the principles may also be applied to the use of inlet 170 and container 10. It will be appreciated inlet 130 may be connected accordingly to any simple industrial vacuum pump 200, which, when activated by a user, may withdraw air from containers 10 and 100 as described herein above.

It will be further appreciated that the surface of inlet 130 may be likened to a membrane or one directional diaphragm 135 which may allow for air to pass through it and which may also be sealable using ultrasonic welding or glue as known in the art. Alternatively, containers 10 and 100 may also comprise an attached (or attachable) cap 180 in order to seal inlet 130 once the air has been removed.

Thus not only may a container store fresh and cooked food within a vacuum environment, it may also hold flatter foods, evenly and cleanly slice them without the need for further utensils and may ensure that it is held in place and does not become misshapen when the container is moved.

While certain features of the invention have been illustrated and described herein, many modifications, substitutions, changes, and equivalents will now occur to those of

ordinary skill in the art. It is, therefore, to be understood that the appended claims are intended to cover all such modifications and changes as fall within the true spirit of the invention.

What is claimed is:

1. A vacuum sealable container for baked or cooked food, said container comprising:

a base section to receive said food in its entirety, said base section having at least one runner wherein said at least one runner divides said base section into equally sized portions, wherein each said portion comprises a load bearing unit comprising a slightly outwardly curved, horizontally extended bottom surface supported by a scalloped edge and at least one reinforcement rib, wherein a height of said scalloped edge is significantly smaller than a diameter of said base section;

a lid shaped to fit over said base section, said lid having at least one blade wherein said at least one blade slots into said at least one runner when said lid is placed over said base to close said container and wherein said at least one blade is able to cut said food into said equally sized portions; and

wherein said container is at least one of: sealed with a vacuum when used with a vacuum sealing bag and a vacuum machine and self-sealing; and

wherein at least one of: said at least one blade, said at least one runner and said load bearing units provide reinforced support against deformation from a pressure differential of up to 2 kg/cm^2.

2. The container according to claim **1** and also comprising at least one air hole when said container is closed, wherein said vacuum machine withdraws air via said least one air hole to form said vacuum.

3. The container according to claim **1** and also comprising at least two reinforcement ribs placed perpendicularly to said at least one runner and said at least one blade.

4. The container according to claim **1** wherein said vacuum seals said lid against said base.

5. The container according to claim **1** and wherein said blades are at least one of: plain edge and serrated.

6. The container according to claim **1** and wherein said blades are manufactured from at least one of: polypropylene, polyethylene, polystyrene and ABS.

7. The container according to claim **1** and wherein said blades are at least one of: permanent and detachable.

8. The container according to claim **1** and wherein said food is at least one of: single and flat and multiple and stacked.

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