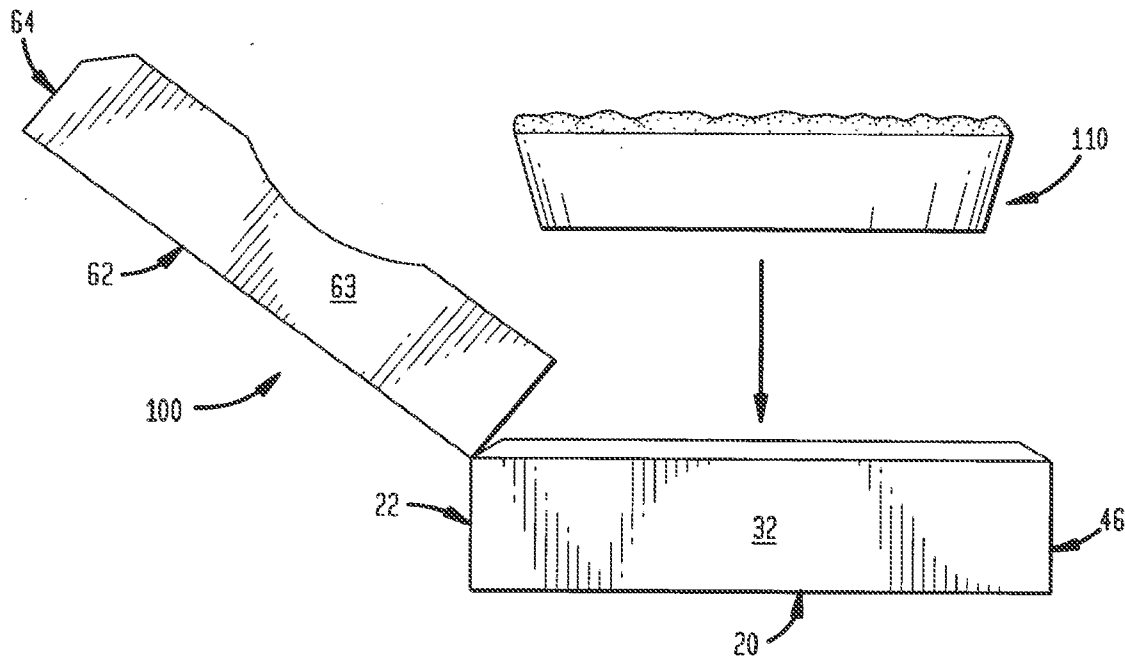




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PESCI(10) **Pub. No.: US 2012/0031898 A1**(43) **Pub. Date: Feb. 9, 2012**(54) **CHAFING DISH TRANSPORTER****Publication Classification**(76) Inventor: **LOUIS GINO PESCI**, Parsippany,
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B65D 6/18 (2006.01)(52) **U.S. Cl.** **220/6**(21) Appl. No.: **13/275,268**(57) **ABSTRACT**(22) Filed: **Oct. 17, 2011****Related U.S. Application Data**(63) Continuation of application No. 11/206,466, filed on
Aug. 18, 2005.(60) Provisional application No. 60/602,407, filed on Aug.
18, 2004.

Embodiments of the present invention relates generally to a high-strength, thermally-insulating receptacle for transporting modular catering containers, such as chafing dishes in general, and disposable aluminum chafing dishes in particular. More particularly, embodiments of the present invention relates to thermally-insulating receptacles for transporting chafing dishes that caterers receive as foldable box blanks and assemble into receptacles prior to transporting the chafing dishes. Embodiments further relate to food-laden chafing dishes disposed in the receptacles of the invention and methods for transporting food laden chafing dishes with the receptacles of the invention and serving food therefrom.



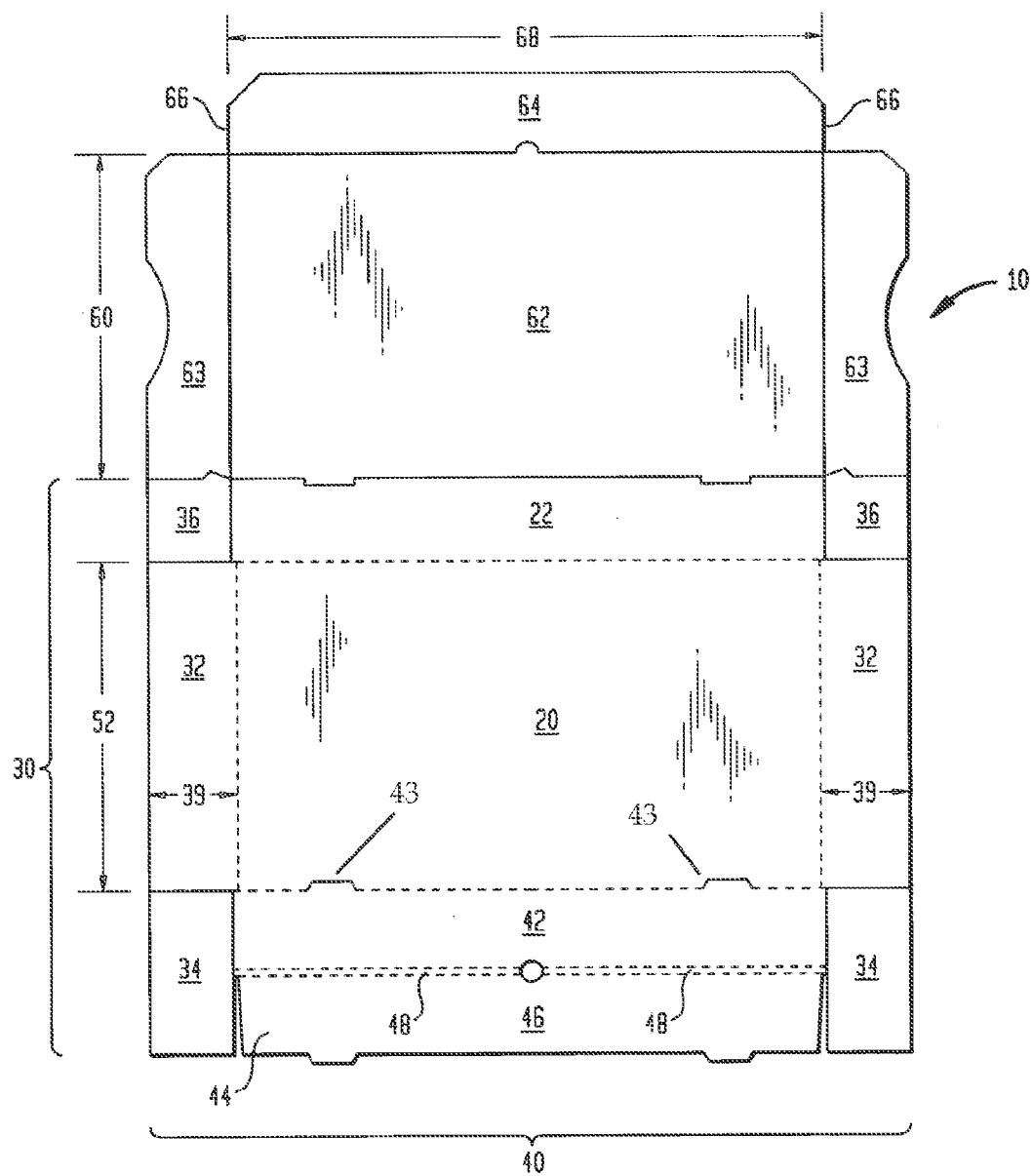
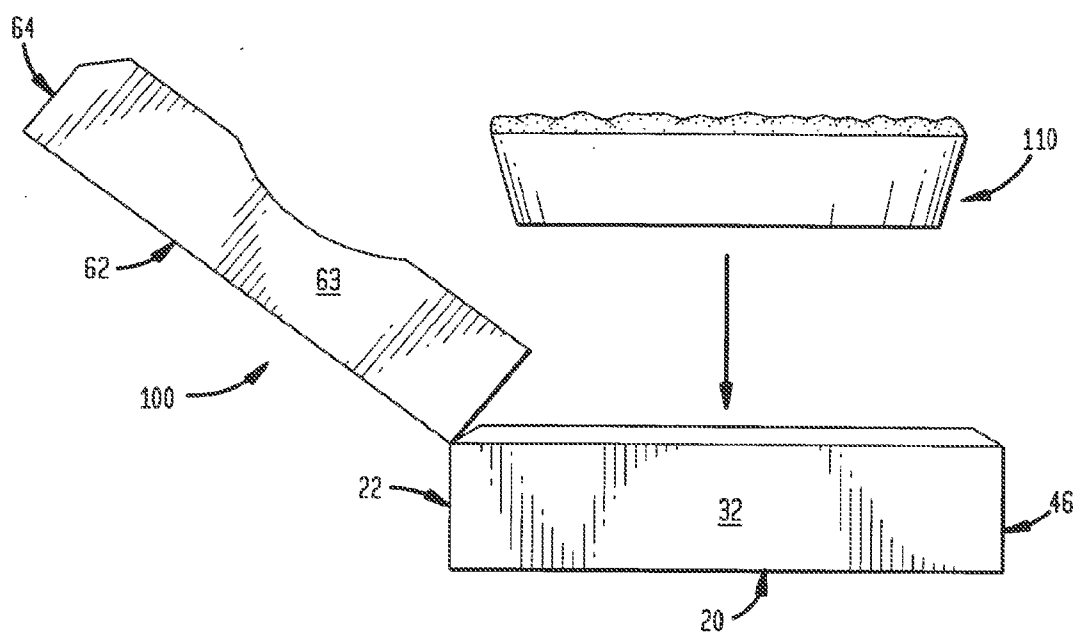


FIG. 2



CHAFING DISH TRANSPORTER

CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present application is a continuation of U.S. patent application Ser. No. 11/206,466, filed Aug. 18, 2005, which claims priority to U.S. Provisional Application Ser. No. 60/602,407, filed Aug. 18, 2004, the disclosures of which are incorporated herein by reference in their entireties.

FIELD OF THE INVENTION

[0002] Embodiments of the present invention relates generally to a high-strength, thermally-insulating receptacle for transporting modular catering containers, such as chafing dishes in general, and disposable aluminum chafing dishes in particular. More particularly, embodiments of the present invention relates to thermally-insulating receptacles for transporting chafing dishes that caterers receive as foldable box blanks and assemble into receptacles prior to transporting the chafing dishes. Embodiments further relate to food-laden chafing dishes disposed in the receptacles of the invention and methods for transporting food laden chafing dishes with the receptacles of the invention and serving food therefrom.

BACKGROUND OF THE INVENTION

[0003] Catering containers such as chafing dishes have long been employed to store and transfer food prior to presenting the food to those persons who will consume it. Generally, a caterer loads the food onto the catering containers after preparation and stores the containers until the time at which the food is to be presented to consumers. The caterer then transfers the food from its preparation location to a dining location. To achieve the best results, it is most desirable to utilize catering containers on which food is easily loaded, stored, transported, and presented to the consumer while maintaining the integrity of the food.

[0004] Most catering containers have easy loading capability since they are flat rectangular trays that are covered with a lid until presentation. However, numerous catering containers are often stacked vertically to use less space in storage. This requires a structurally sound container and lid assembly such that the containers on the bottom are not crushed under the weight of those at the top. Additionally, as the height of the stack increases, the stability of the stack decreases such that those on top may slide out of alignment and fall from the stack. This stacking stability problem is accentuated when a stack of containers is being manually transported by the caterer.

[0005] The container must also be strong enough to carry its contents. Not only is the static holding strength important, but the resistance to dynamic torsional and bending stresses is critical because the container must not become contorted during handling and transportation. If the containers are made of metal or ceramic, the issue of strength becomes secondary. But, many catering containers today are made of less costly disposable thin-gauge aluminum pans, which brings the strength issue to the forefront.

[0006] The predominant advantage of thin-gauge aluminum pan chafing dishes is that they are so inexpensive per unit cost they can be thrown away after a single use, thereby saving the cost of labor required for cleaning, yet at the same time they can be exposed to high cooking temperatures required for cooking entrees. The inexpensiveness of the

chafing dishes produces several disadvantages. Some are sold with narrow gauge fitted aluminum or aluminum-lined chip board lids. Others are sold with no lid and the caterer uses aluminum foil to cover the contents. Neither alternative permits safe stacking of hot entree-laden chafing dishes, which becomes problematic for large events.

[0007] In addition, catering employees typically lift hot entree-laden chafing dishes by grasping the two opposing sides along the width-wise dimension at the rim and lifting. In addition to the risk of burning fingers by grabbing an oven-heated aluminum container, because of the narrow-gauge aluminum construction, this produces dynamic torsional and bending stresses. As a consequence, the chafing dishes frequently fold along a width-wise axis when lifted in this manner and collapse, spilling the contents and often scalding the employee. The narrow-gauge construction also provides virtually no heat insulation, making it difficult, if not impossible, to serve dishes at temperatures desirable to patrons.

[0008] Therefore, there is a need for a chafing dish transporter and methods thereof.

SUMMARY

[0009] Embodiments of the present invention relates generally to a high-strength, thermally-insulating receptacle for transporting modular catering containers, such as chafing dishes in general, and disposable aluminum chafing dishes in particular. More particularly, embodiments of the present invention relates to thermally-insulating receptacles for transporting chafing dishes that caterers receive as foldable box blanks and assemble into receptacles prior to transporting the chafing dishes. Embodiments further relate to food-laden chafing dishes disposed in the receptacles of the invention and methods for transporting food laden chafing dishes with the receptacles of the invention and serving food therefrom.

[0010] According to one embodiment of the present invention, a combination is provided of a food-laden catering container disposed in a transporting container dimensioned to receive it. One combination embodiment according to the present invention includes: at least one catering container assembly for storing, transporting and presenting multiple portions of food in the form of a tray having a base defining length and width dimensions of the tray, substantially continuous side walls extending upwardly from the base to define a height dimension of the tray, and a cover for the tray detachably connected thereto, wherein each catering container has disposed therein multiple portions of a prepared food product at a temperature warmer or colder than ambient conditions; and a transporting receptacle formed from an insulating material and dimensioned to receive the length, width and height dimensions of at least one catering container assembly, wherein the transporting receptacle is in the form of a tray having a base defining length and width dimensions of the tray, substantially continuous sidewalls extending upwardly from the base to define a height dimension of the tray, and an insulating cover for the tray detachably connected thereto; wherein the transporting receptacle has at least one catering container disposed therein.

[0011] The transporting receptacles can be prepared from a wide variety of insulating materials such as cardboard, plastic foam such as Styrofoam, and the like. Chip board reinforced with a sprayed-on layer of plastic foam such as Styrofoam can also be used, which both insulates and strengthens the chip board. The transporting receptacles are preferably prepared from recyclable materials, particularly cardboard. The inte-

rior can also be coated with a liquid impervious barrier layer such as a polymer or wax coating to prevent leakage of spilled contents from the interior.

[0012] The lid can be a separate item of construction or the receptacle can be constructed with an integral lid that is hingedly affixed, for example, along one length-wise dimension. In many embodiments, the upper surfaces of both width-wise dimensions of the receptacle and/or lid contain a hole that is dimensioned for use as a handle for lifting the receptacle when carrying a chafing dish. The receptacle may be provided with perforated dimensions corresponding to such holes that are punched out by the user whenever such a handle is desired. Alternatively, the receptacles may be manufactured with such holes.

[0013] The receptacles are generally supplied as box blanks that are punched out flat sheets scored along fold lines and shipped flat as multiple stacked sheets that are then individually folded into receptacles by the caterer when needed, like a pizza box or a banker's box. This may be done both for receptacles with separate lids and receptacles with integral lids. Non-integral lids can be similarly shipped as flat stacks that are assembled by folding when needed.

[0014] Embodiments also provide methods for transporting food-laden chafing dishes using the transporting receptacles. According to one embodiment, a method is provided for transporting and serving multiple portions of a prepared food product at a temperature warmer or colder than ambient conditions, which method includes the steps of: providing at least one catering container assembly for storing, transporting and presenting multiple portions of food in the form of a tray having a base defining length and width dimensions of the tray, substantially continuous side walls extending upwardly from the base to define a height dimension of the tray, and a cover for the tray detachably connected thereto; filling at least one container at a first location with multiple portions of a prepared food product at a temperature warmer or colder than ambient conditions; disposing at least one container in a transporting receptacle formed from an insulating material and dimensioned to receive the length, width and height dimensions of at least one catering container assembly, wherein the transporting receptacle is in the form of a tray having a base defining length and width dimensions of the tray, substantially continuous sidewalls extending upwardly from the base to define a height dimension of the tray, and an insulating cover for the tray detachably connected thereto; and transporting the container-receptacle combination to a second location.

[0015] Some methods further include the step of serving the food product from each container at the second location. Each container is preferably removed from the receptacle before serving the food product. The filling and disposing steps may optionally be performed simultaneously.

BRIEF DESCRIPTION OF THE DRAWINGS

[0016] So the manner in which the above recited features of the present invention can be understood in detail, a more particular description of embodiments of the present invention, briefly summarized above, may be had by reference to embodiments, several of which are illustrated in the appended drawings. It is to be noted, however, the appended drawings illustrate only typical embodiments of embodiments encompassed within the scope of the present invention, and, there-

fore, are not to be considered limiting, for the present invention may admit to other equally effective embodiments, wherein:

[0017] FIG. 1 depicts a plan view of a box blank that folds to form a chafing dish transporting receptacle according to the present invention; and

[0018] FIG. 2 depicts a side view of an assembled transporting receptacle according to the present invention into which a food-laden chafing dish is disposed.

[0019] The headings used herein are for organizational purposes only and are not meant to be used to limit the scope of the description or the claims. As used throughout this application, the word "may" is used in a permissive sense (i.e., meaning having the potential to), rather than the mandatory sense (i.e., meaning must). Similarly, the words "include", "including", and "includes" mean including but not limited to. To facilitate understanding, like reference numerals have been used, where possible, to designate like elements common to the figures.

DETAILED DESCRIPTION

[0020] FIG. 1 shows a box blank **10** that is erected to form a transporting receptacle according to embodiments of the present invention. Referring to blank **10**, there is a bottom panel **20**, a rear wall **22** hingedly attached to bottom panel **20**, opposing left and right side wall structures **32**, a front wall structure **40** opposing rear wall **22**, and a cover.

[0021] The cover comprises a cover panel **62** hingedly attached to rear wall **22**, side flaps **63** and a cover front flap **64** hingedly attached to a front edge of cover panel **62**. Flap **64** has left and right side edges **66** and a length **68**, which is also the width of bottom panel **20** and opposing rear wall **22**.

[0022] Side wall structure **30** comprises wall panels **32** with a length **52** and a height **39**, and front and rear corner flaps **34** and **36**, respectively. Each of the corner flaps is attached to the wall panel at fold line **38**.

[0023] Front wall structure **40** comprises a front wall **42**, and an ancillary panel structure **44**. Ancillary panel structure **44** comprises an inner wall panel **46** and a pair of connector strips **48** that connect wall panel **46** to the top edge of front wall **42**.

[0024] After blank **10** has been erected into a carton, front wall structure **40** constitutes a double-panel wall structure in which front wall **42** is an outer wall panel that's perpendicular to bottom panel **20**, inner wall panel **46** is an inner panel that's parallel to front wall **42** and disposed interior to it, and connector strips **48** are perpendicular to the front wall and the inner wall panel. In the carton format, corner flaps **34** are disposed between front wall **42** and inner wall panel **46**.

[0025] In order for the transporting receptacle to be dimensioned to receive at least one catering container, the transporting receptacle should have height, width and length dimensions slightly larger than the one or more catering containers disposed therein. This will provide extra room for inserting and removing the catering container and also provide an insulating layer of air. The additional room preferably should not be so great to allow significant movement of the catering container within the transporting receptacle, to the extent that the catering container contents are at risk of spilling out over the interior of the transporting receptacle.

[0026] In the embodiment depicted in FIG. 1, the receptacle is for the transport of full-sized deep disposable aluminum chafing dishes. The receptacle has a height dimension **39** of about 3.5 inches, a width dimension **52** of about 13.5 inches,

and a length dimension **68** of about 22 inches. It should be understood that the proportional size of the components shown in the drawing of blank **10** are not necessarily recommended proportional sizes but, to the contrary, are exaggerated proportions provided for the purpose of clear illustration of embodiments of the invention.

[0027] The receptacles can be manufactured in many sizes to accommodate various sizes in which disposable chafing dishes are manufactured. They can also be dimensioned to carry full-size non-deep disposable aluminum chafing dishes, or one or two small disposable aluminum chafing dishes, such as half-size chafing dishes. Embodiments of the present invention also include transporting receptacles with a significantly higher height dimension to permit the stacking of chafing two, three or more chafing dishes within the receptacle. Furthermore, the receptacles can be dimensioned to carry non-disposable, stainless steel or aluminum chafing dishes.

[0028] The receptacles can also be dimensioned with top perimeters larger than bottom perimeters in a manner that permits the nested stacking of empty receptacles. The lids of such receptacles can be provided with a raised rim having a perimeter larger than the bottom perimeter of the nesting receptacle, so that when transporting chafing dishes, the bottoms of receptacles, when stacked, fit inside the raised rims of the lids of receptacles underneath to deter shifting of stacked receptacles during chafing dish transport. In such embodiments, one or more feet **43** may extend out from the bottom panel **20**, to engage in a gap between the front flap **64** and front wall **42** of an adjacent assembled receptacle.

[0029] Blank **10** is erected into a carton by the caterer at the food preparation location using the same procedure as employed for erecting a standard cardboard pizza box having a double-panel, or roll-over, front wall. That procedure may be performed as follows. First, fold side wall panels **32** to an upright position and fold front corner flaps **34** inward. Second, fold front wall **42** to an upright position and then fold inner wall panel **46** downward until the outer edge of the panel engages with bottom panel **20** and, thereby, holds panel **46** parallel to front wall **42**. Third, fold rear corner flaps **36** inward. Finally, pull cover panel **62** forward and insert cover side flaps interior to wall panels **32** and front flap **64** interior to inner wall panel **46**.

[0030] FIG. **2** depicts the combination of an erected transporting receptacle according to the present invention **100**, with a food-laden chafing dish **110** disposed therein. The food is preferably added to the chafing dish before the chafing dish is disposed in the transporting receptacle. However, it is possible to first dispose the chafing dish in the transporting receptacle and then add the food to it. The chafing dish receptacle combination is then transported to the location where the food is served. In some embodiments, the chafing dish is removed from the receptacle prior to serving. However, it is possible to serve food from the chafing dish without removing it from the transporting receptacle. The receptacles can be designed for a single use or for several uses before disposal without being cost prohibitive for use in addition to disposable chafing dishes.

[0031] While the foregoing is directed to embodiments of the present invention, other and further embodiments of the invention may be devised without departing from the basic scope thereof. It is understood that various embodiments

described herein may be utilized in combination with any other embodiment described, without departing from the scope contained herein.

What is claimed is:

1. A chafing dish transporter comprising:

a bottom portion having a bottom panel, a rear wall hinged to the bottom panel, a pair of opposing side walls, and a front wall opposing the rear wall; and a cover portion having a cover panel, a pair of opposing side flaps, and a cover front flap hinged to a front edge of the cover panel.

2. The chafing dish transporter of claim 1, wherein the cover panel is hinged to the rear wall about a distal edge of the cover panel.

3. The chafing dish transporter of claim 1, wherein the pair of opposing side walls each comprise a front corner flap and a rear corner flap hinged to opposing ends of each of the side walls.

4. The chafing dish transporter of claim 1, wherein the front wall comprises a front wall panel and an ancillary panel structure.

5. The chafing dish transporter of claim 4, wherein the ancillary panel structure comprises an inner wall panel and a pair of connector strips that connect the inner wall panel to a top edge of the front wall panel.

6. The chafing dish transporter of claim 1, wherein the front wall comprises a double-panel wall structure in which the front wall is an outer wall panel positioned perpendicular to the bottom panel.

7. The chafing dish transporter of claim 1, wherein, when assembled in a closed position, the chafing dish transporter comprises a gap between the front edge of the cover panel and the front wall.

8. The chafing dish transporter of claim 7, wherein the bottom panel further comprises one or more feet extending out therefrom.

9. The chafing dish transporter of claim 8, wherein the one or more feet are sized to fit within the gap between the front edge of the cover panel and the front wall.

10. A chafing dish transporter comprising:

a bottom portion having a bottom panel, a rear wall hinged to the bottom panel, a pair of opposing side walls, and a front wall opposing the rear wall, wherein the pair of opposing side walls each comprise a front corner flap and a rear corner flap hinged to opposing ends of each of the side walls; and

a cover portion having a cover panel hinged to the rear wall about a distal edge of the cover panel, a pair of opposing side flaps, and a cover front flap hinged to a front edge of the cover panel.

11. The chafing dish transporter of claim 10, wherein the front wall comprises a front wall panel and an ancillary panel structure.

12. The chafing dish transporter of claim 11, wherein the ancillary panel structure comprises an inner wall panel and a pair of connector strips that connect the inner wall panel to a top edge of the front wall panel.

13. The chafing dish transporter of claim 10, wherein the front wall comprises a double-panel wall structure in which the front wall is an outer wall panel positioned perpendicular to the bottom panel.

14. The chafing dish transporter of claim **10**, wherein, when assembled in a closed position, the chafing dish transporter comprises a gap between the front edge of the cover panel and the front wall.

15. The chafing dish transporter of claim **14**, wherein the bottom panel further comprises one or more feet extending out therefrom.

16. The chafing dish transporter of claim **15**, wherein the one or more feet are sized to fit within the gap between the front edge of the cover panel and the front wall.

17. A chafing dish transporter consisting of:

a bottom portion comprising:

a bottom panel comprising one or more feet extending out therefrom;

a rear wall hingedly attached to the bottom panel;

a pair of opposing side walls each comprising a front corner flap and a rear corner flap hingedly attached to opposing ends of each of the side walls; and

a front wall opposing the rear wall, the front wall comprising a front wall panel and an ancillary panel structure to form a double-panel wall structure in which the front wall is an outer wall panel positioned perpendicular to the bottom panel, and the ancillary panel structure comprises an inner wall panel and a pair of connector strips that connect the inner wall panel to a top edge of the front wall panel; and

a cover portion comprising:

a cover panel hingedly attached to the rear wall about a distal edge of the cover panel;

a pair of opposing side flaps; and

a cover front flap hingedly attached to a front edge of the cover panel;

wherein, when assembled in a closed position, the chafing dish transporter comprises a gap between the front edge of the cover panel and the front wall, and the one or more feet are sized to fit within the gap between the front edge of the cover panel and the front wall.

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