United States Patent [19]

Bird

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[54] **PIE CONTAINER**

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[73] Assignee: **Plastronics Corporation,** Salt Lake City, Utah

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[52] **U.S. Cl.** .....**220/60,** 220/4 B

[51] **Int. Cl.** **B65d 43/10**

[58] **Field of Search**.....220/60, 4 B, 97 C, 220/97 F

[56] **References Cited**

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Primary Examiner—George T. Hall

Attorney—B. Deon Criddle

[57] **ABSTRACT**

A container having a base and a lid which are capable of being releasably coupled at their outer circumferences. The base and lid are constructed of a lightweight, semi-rigid material. The base is deformable, within limits, in response to the pressure applied thereon but will return to its original shape when the deforming force is removed. Inclined, stepped sides extend from the bottom of the base and form a plateau to accommodate and support a pie tin and to hold the edges of the container extending past the rim of the pie tin away from the pie crust, filling and topping. When pressure is applied to depress opposite sides of the base at the top the base deforms to squeeze against the slanted sides of a pie tin therein, thereby raising the pie tin above the plateau such that a users fingers can be moved under the edge of the pie plate to lift it from the base.

4 Claims, 7 Drawing Figures

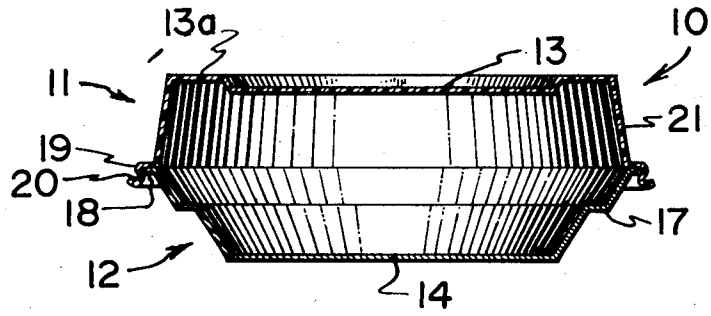


FIG 1

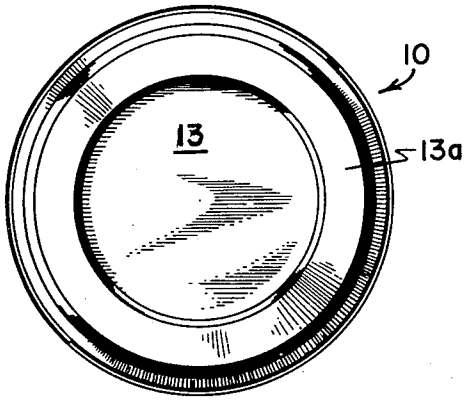


FIG 2

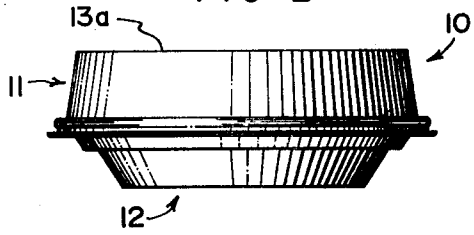


FIG 3

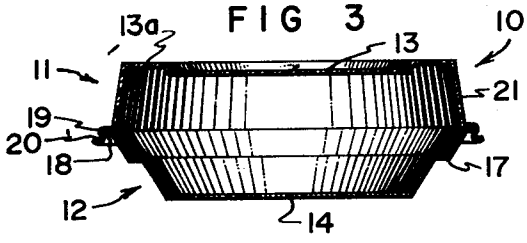


FIG 4

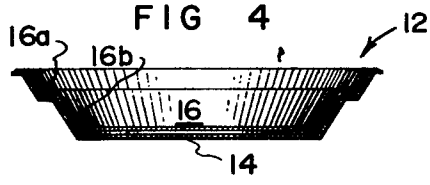


FIG 5

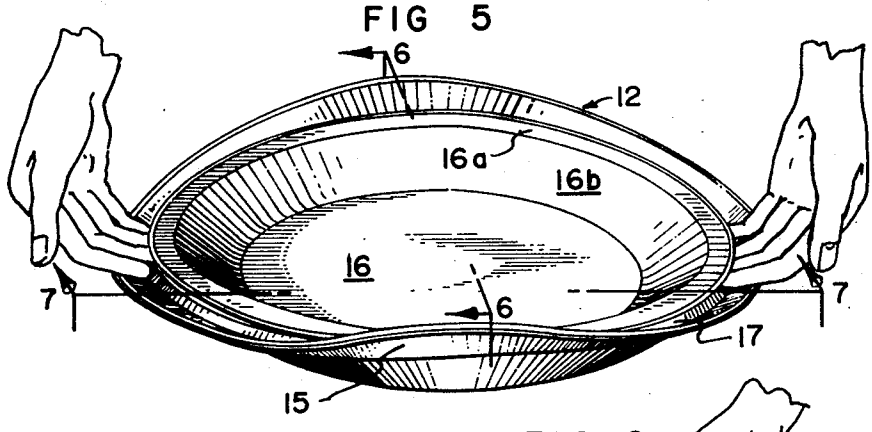


FIG 6

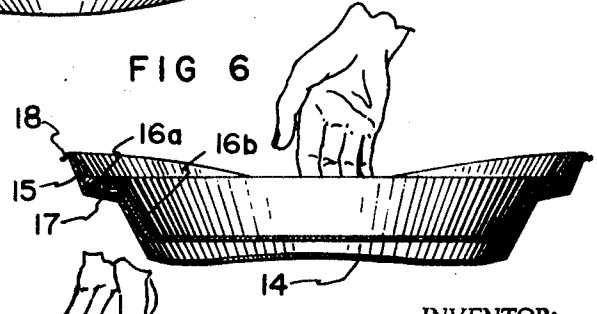
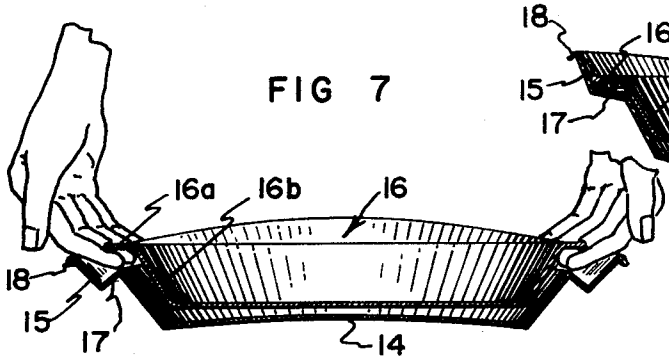


FIG 7



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PIE CONTAINER

BRIEF DESCRIPTION OF THE INVENTION

1. Field of the Invention

This invention relates to containers for the housing, storage and transportation of pies and the like.

2. Prior Art

The need for packages in which pies prepared for commercial sale can be stored, transported and displayed has long been recognized. In the past, cardboard boxes have been used for such packaging and many times plastic window inserts have been provided in the boxes so that at least a portion of a pie inside can be viewed without opening of the box. The cardboard boxes are inexpensive and do provide some protection for the product inside during storage and transport, but they cannot be sealed so as to restrict air passage and they lack structural strength so that filled boxes cannot be stacked one on top of another to the extent desired and a box and its contents are frequently crushed. Frequently, it is difficult to open the cardboard box and to remove a pie therein without sticking a finger in the pie or without damaging the pie edges. Also, in the event the pie tin and contents slides to one side of such a carton, the peripheral crust and pie topping are apt to be damaged.

The cardboard boxes, while providing a measure of protection for the product therein are seldom very attractive and even if provided with plastic window inserts do not attractively exhibit pies placed therein.

The present invention provides a container which is specifically constructed to house and display a pie type food product and that overcomes the deficiencies inherent in the package previously used.

SUMMARY OF THE INVENTION

Principal objects of the present invention are to provide a low-cost container in which a pie-like food product can be stored and transported and from which the product can be easily removed.

Another object is to provide a container having base and lid sections that can be releasably connected such that the connected sections are sufficiently sealed that the passage of air into the container interior is restricted.

Still other objects are to provide a container that will attractively display a pie-type food product and that has sufficient structural strength to allow for safe stacking of the filled containers.

Principal features of the present invention include a plastic base and a plastic lid (preferably transparent) that can be releasably connected at their circumferences is such a manner as to effectively reduce the admission of air into the container interior.

The base has a bottom and a lower section wherein a slanted side wall extends upwardly and outwardly therefrom with an intermediate step therein forming a plateau spaced above the bottom of the container. A pie tin, whether of aluminum foil or other material fits snugly within the slanted side wall and the outermost lip of the tin rests on the plateau and cannot slide with respect thereto, even if the container is tipped somewhat. The side wall, above the plateau, is spaced sufficiently far from the outermost periphery of the pie tin that it does not engage a pie crust on the lip of the tin and extends sufficiently upwardly that the lid section placed thereon does not engage any filler or topping on the pie. The base section is constructed of a deformable plastic material so that when opposite sides of the wall of the section are depressed, portions of the wall between the depressed sides pull inward to squeeze the inclined surface of a pie tin contained therein. This pushes the pie tin upwards until the user can insert his fingers under the outermost flange of the tin to lift it from the base. When the depressing pressure is removed from the side wall, the base returns to its original assigned shape.

The lid section is constructed of a lightweight, semi-rigid plastic material, such as a plastic, in which various designs, lettering, or symbols may be molded, and is preferably transparent, so that the container contents may be viewed.

Additional objects and features of the invention will become apparent from the following detailed description and drawings, disclosing what is presently contemplated as being the best modes of the invention.

THE DRAWINGS

FIG. **1** is a top plan view of the container;

FIG. **2**, a side elevation view of the container;

FIG. **3**, a vertical section taken on the line **3—3** of FIG. **1**;

FIG. **4**, a section as in FIG. **3**, but with the lid of the container removed and showing a cut-away pie tin in the base;

FIG. **5**, a perspective view of the container with the top removed and with a user's hands depressing opposite sides of the base and receiving a raised pie tin;

FIG. **6**, a vertical section taken on the line **6—6** of FIG. **5**; and

FIG. **7**, a section taken along line **7—7** of FIG. **5**.

DETAILED DESCRIPTION

Referring now to the drawings:

In the illustrated preferred embodiment the container, shown generally at **10**, is round and consists of a lid section **11** and a base section **12**. The lid section **11** is shown as having a depression **13** formed in the center of a top surface **13***a*. The ridge forming the depression adds strength to the lid and the depression is shaped to receive the bottom of the base of a similar container stacked thereon. The depression thus helps to stabilize stacks of the container.

Lettering or writing or a design may be formed in the lid to advertise the source of the food product housed therein or for any other desired reason.

The base section **12** has a bottom **14** and a side wall **15** which is inclined upwardly and outwardly from the bottom to accommodate the inclined sides of a pie tin **16**, as shown best in FIG. **4**. The wall **15** is stepped to form a plateau **17** intermediate the height of wall **15** and above the bottom **14**. The outermost flange or lip **16***a* of pie tin **16** rests on plateau **17** and the inclined wall **16***b* of the pie tin engages and rests on the wall **15**.

A lip **18**, which extends around the outer circumference of the base section **12**, is adapted to fit into a groove **19** which is formed in the outermost flange **20** of a depending circumferential wall **21** of the lid section **11**. When the lip **18** is within the groove **19**, the container is effectively sealed against entry of air. However, because of the natural resiliency of the plastic from which lid **11** is constructed the flange **20** can be pulled to release it from the lip **18**.

As shown in FIGS. 5–7, it is a simple matter to remove a pie tin (and a pie therein, not shown) from the container **10.** The lid section **11** is removed, as has been heretofore described, and the user pushes down at the top on opposite sides of the side wall **15.** The side wall **15,** between the points at which the downward pressure is applied squeeze against the inclined wall **16*b*** of the pie tin **16.** This forces the pie tin up until the user can position his fingers beneath the outermost flange **16*a*** of the pie tin and between the flange **16*a*** and the plateau **17.**

The pie tin and its contents are firmly supported by the side wall **15** and plateau **17** during transport, storage and display and can be readily removed from the container without the user having to insert his hands into a container and therefor without damage to the product on the pie plate. The portion of the side wall above the plateau is spaced from the outermost lip of the pie tin such that it does not press against the crust of a pie in the tin or pie filling and extends upwardly a distance to clear any topping put on a pie.

Although a preferred form of my invention has been herein disclosed, it is to be understood that the present disclosure is by way of example and that variations are possible without departing from the subject matter coming within the scope of the following claims, which subject matter I regard as my invention.

I claim:

1. A pie container comprising
a base having
a bottom, and
a side wall surrounding said bottom and extending upwardly and outwardly thereof at an angle corresponding to the side wall angle of a pie-tin said side wall being stepped intermediate its length to form a plateau to receive the outer flange of a pie tin, and a latch means extending around the entire wall at the top thereof; and
a lid having
a top surface, and
a depending wall extending downwardly from the periphery of the top surface and having latch means thereon to cooperate with the latch means on the side wall of the base, whereby when said lid is latched to said base a substantially air tight seal is provided therebetween,
said base being sufficiently flexible to deform when pressure is applied to a portion of the top of the side wall and to return to its originally assigned shape when said pressure is removed.

2. A pie container as in claim **1,** wherein
the top surface of the lid has a central recessed portion just
larger and conforming in shape to the bottom of the base.

3. A pie container as in claim **2,** wherein
the base and the lid are both made from plastic.

4. In combination
a pie tin having
a bottom,
an outwardly inclined side wall extending upwardly from the periphery of the bottom,
an outwardly extending flange around the entire periphery of the top of the wall; and
a container comprising
a base having
a bottom,
a side wall surrounding said bottom and extending upwardly and outwardly thereof at an angle corresponding to the inclination of the side wall of the pie tin from the bottom of the pie tin, the side wall of the pie tin being positioned within the side wall of the base,
a step in the side wall of the base forming a plateau with the flange of the pie tin resting on the plateau, and
a latch means at the top of the side wall of the base and extending fully around the top thereof, and
a lid having
a top surface, and
a depending wall extending downwardly from the periphery of the top surface and having latch means thereon to cooperate with the latch means on the side wall of the base, whereby when said lid is latched to said base a substantially air tight seal is provided,
said base being sufficiently flexible to deform when pressure is applied to a portion of the top of the side wall of the base and to thereby force the pie tin to move upwardly in the base until the flange is spaced above the plateau, and to return to its original assigned shape when said pressure is removed.

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