

May 5, 1953

F. W. BRODERICK

2,637,482

ONE-PIECE COVERED CONTAINER

Filed July 15, 1950

4 Sheets-Sheet 1

Fig 1

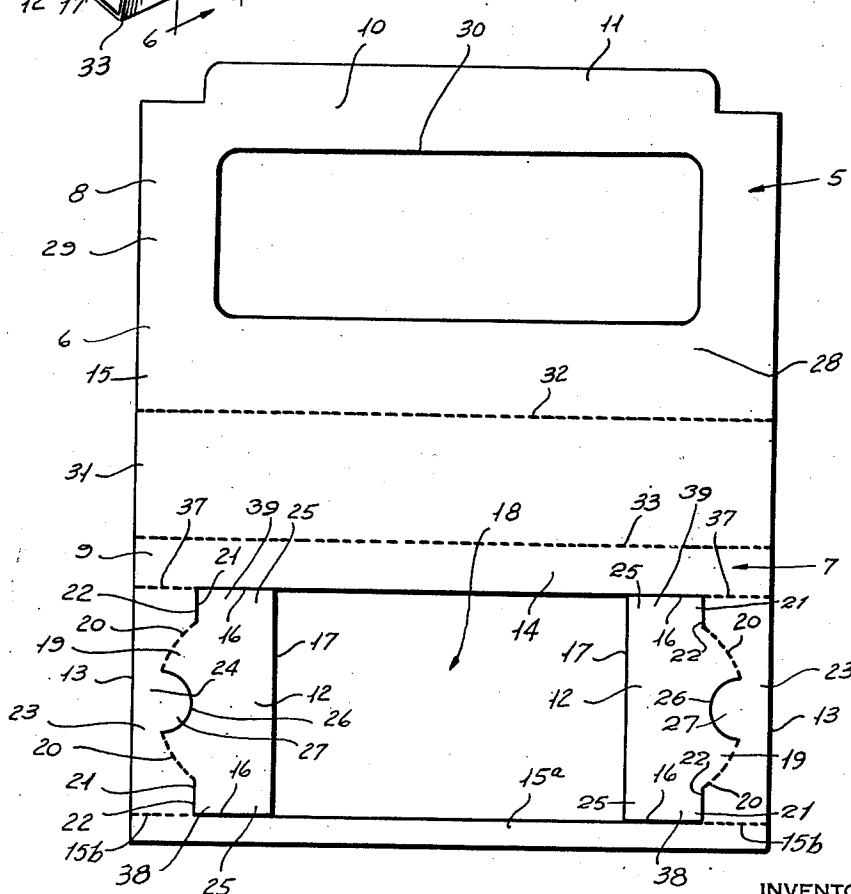
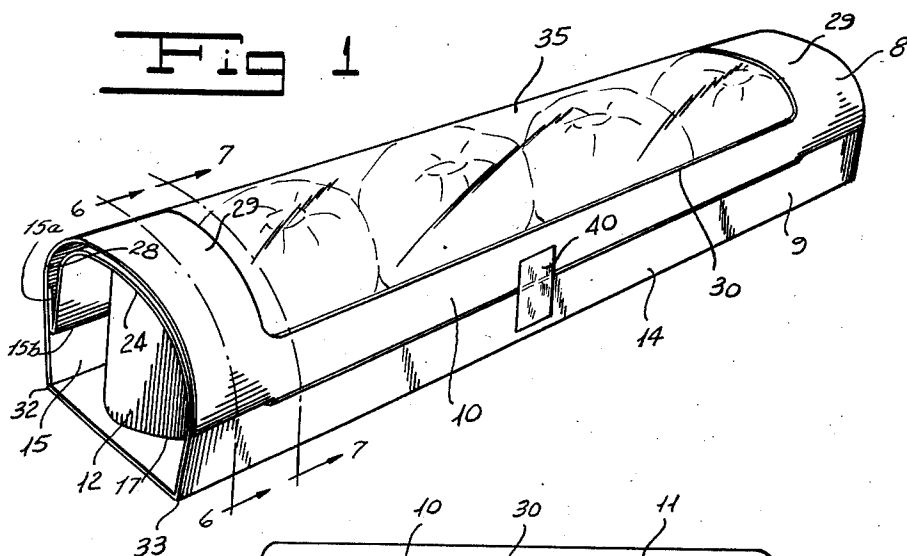


Fig 2

INVENTOR
FRANK W. BRODERICK
BY *Robert F. Beck*
ATTORNEY

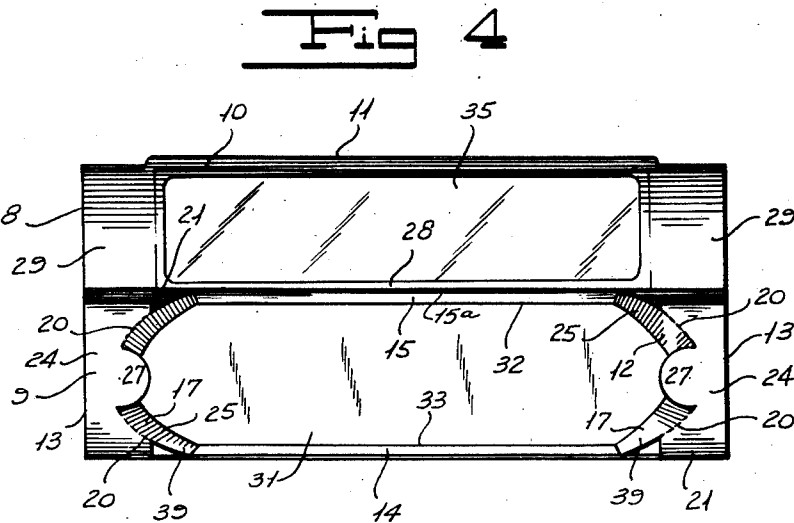
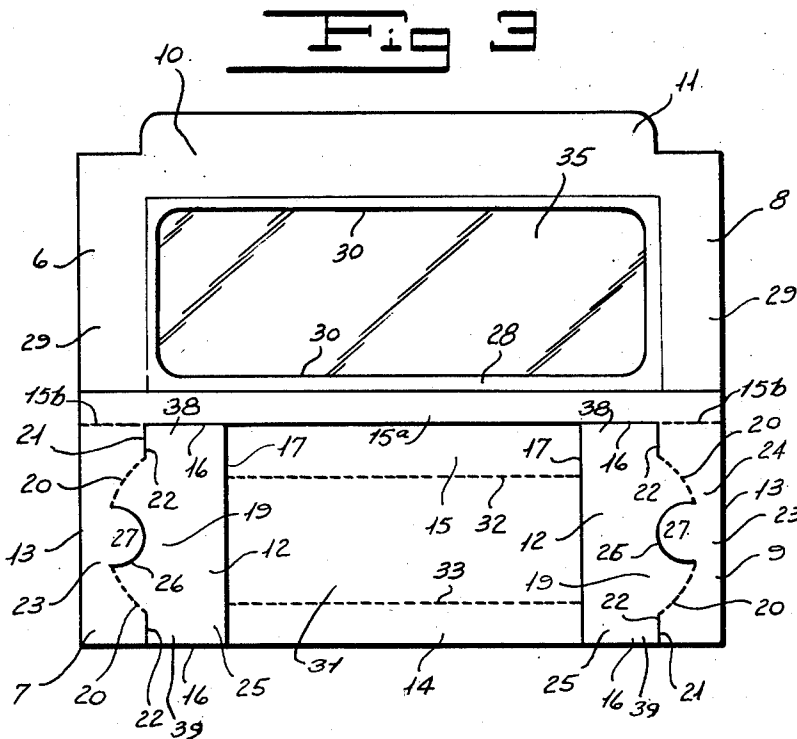
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INVENTOR
FRANK W. BRODERICK
BY *Robert F. Beck*
ATTORNEY

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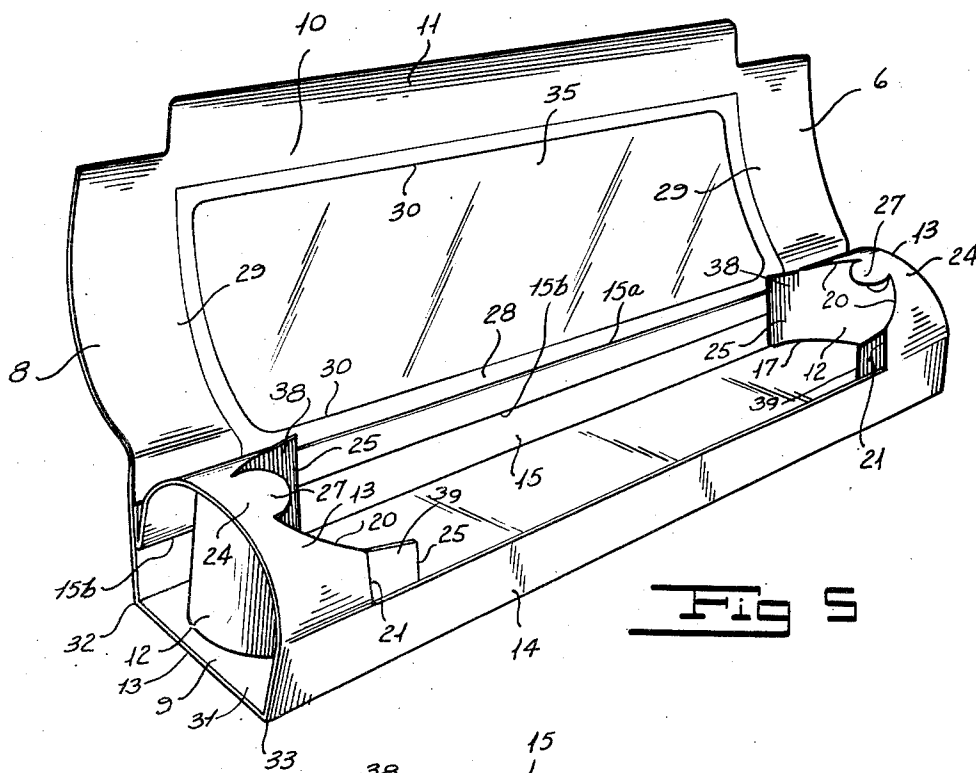


FIG 5

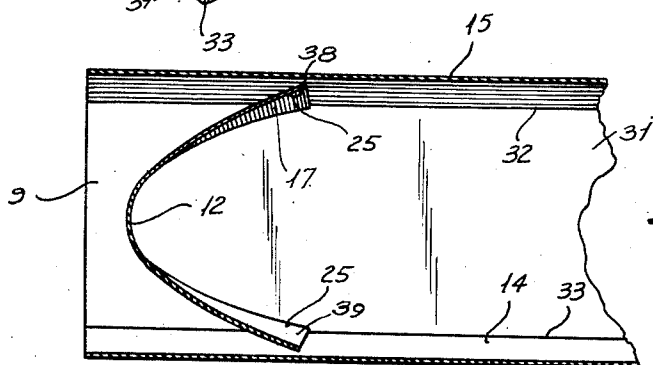


FIG 9

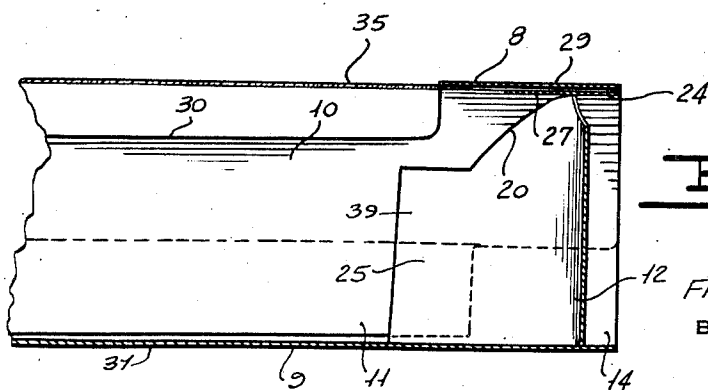


FIG 10

INVENTOR
FRANK W. BRODERICK
BY *Robert F. Beck*
ATTORNEY

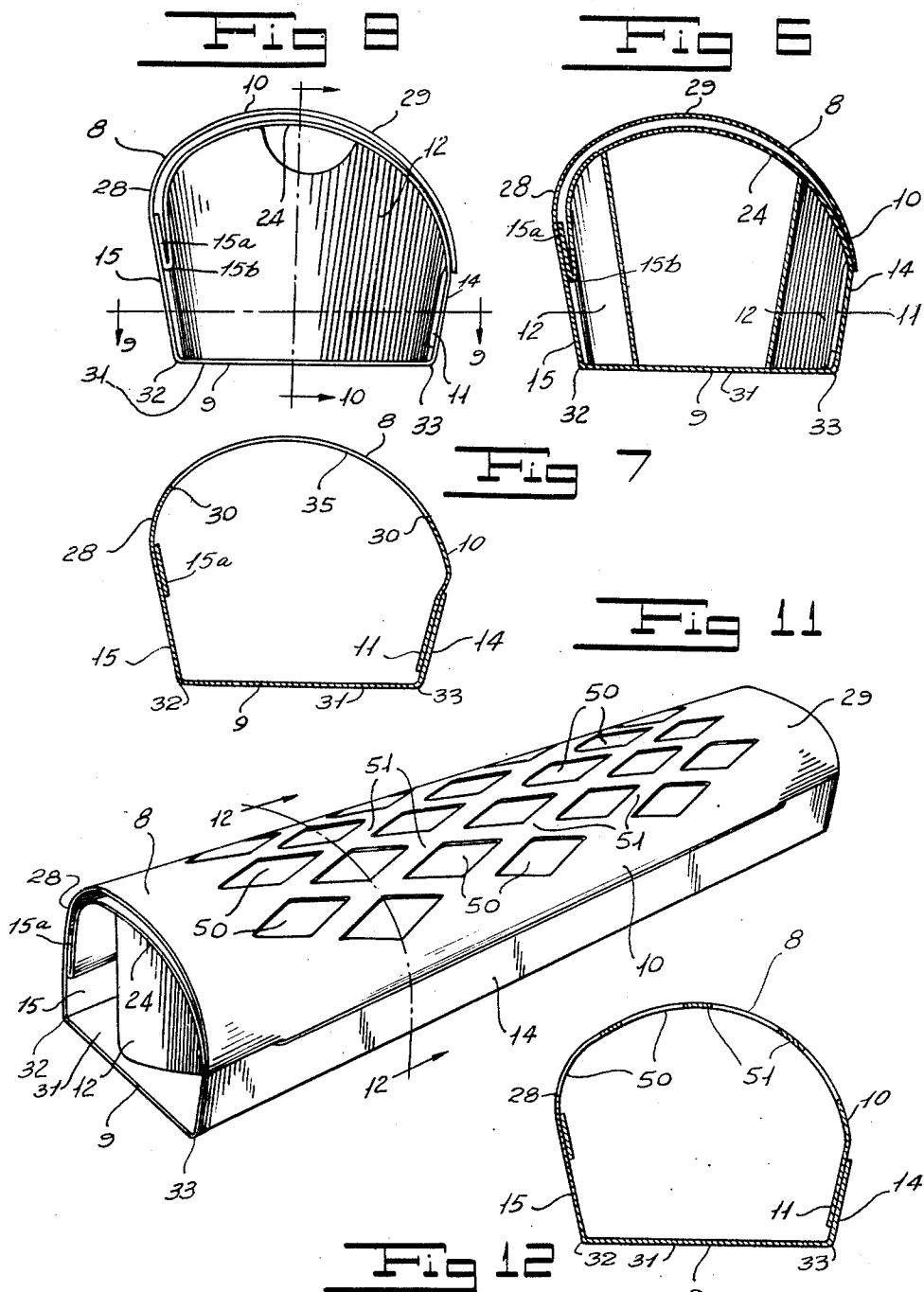
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4 Sheets-Sheet 4



INVENTOR
FRANK W. BRODERICK
BY *Robert F. Beck*
ATTORNEY

UNITED STATES PATENT OFFICE

2,637,482

ONE-PIECE COVERED CONTAINER

Frank W. Broderick, Summit, N. J., assignor to
Berles Carton Company, Inc., a corporation of
New Jersey

Application July 15, 1950, Serial No. 174,108

7 Claims. (Cl. 229—30)

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My invention relates to packages and more particularly to receptacles or containers for various products of the globular or rotund type, for instance, fruits and vegetables, an example of a prior art package being disclosed in United States Patent No. 2,315,368.

One of the objects of my invention is to provide a receptacle or container which is simple in construction, durable in use and economical in manufacture.

Another object of my invention is to provide a receptacle or container of the foregoing described character which is capable of being transported, from the fabricator to the packer in a knocked-down or flat condition, expeditiously arranged or set-up by the packer for the reception of the products, and subsequently manipulated to protectively enclose the products therein for distribution to the consumer.

An important object of my invention is to provide a container of the foregoing described character which is fabricated in a manner to provide means permitting visual inspection or observation of its contents.

Another important object of my invention is to provide a receptacle of the foregoing described character equipped with a cover which coacts with a body section in a manner wherein the cover is restrained in closed position.

With the above and other objects in view, as will hereinafter appear, the invention consists in the combination and arrangement of parts hereinafter set forth and illustrated in the accompanying drawings from which the several features of the invention and the advantages attained thereby will be readily understood by those skilled in the art.

Referring to the drawings wherein like reference characters designate like parts throughout the several views:

Figure 1 is a perspective view of my invention.

Figure 2 is a plan view of the receptacle in knocked-down or flat condition.

Figure 3 is a plan view illustrating the package partly set up for use.

Figure 4 is a top plan view of the container set up for receiving the products and with the cover in open position.

Figure 5 is a perspective view of the container set-up and with the cover in open position.

Figure 6 is a detail sectional view taken on the line 6—6 of Figure 1.

Figure 7 is a transverse sectional view taken on the line 7—7 of Figure 1.

Figure 8 is an end elevation of the container with the cover in closed position.

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Figure 9 is a detail sectional view of one end of the container taken on the line 9—9 of Figure 8.

Figure 10 is a vertical sectional view of one end of the container taken on the line 10—10 of Figure 8.

Figure 11 is a perspective view of a modification.

Figure 12 is a detail sectional view taken on the line 12—12 of Figure 11.

As illustrated in Figure 2 of the drawings, my novel container is initially cut from a flat section of cardboard or the like to provide a relatively flat blank 5 formed with a pair of adjacent sections 6 and 7 constituting the cover and body or tray 8 and 9 of the container, respectively. The cover 8 is formed at its front side 10—distal with respect to the section 7—with a tongue 11 for a purpose herein made apparent. In order to provide the body 9 with a pair of end walls 12, one side of the body, inwardly of its ends 13, is longitudinally slitted adjacent its ultimate front wall 14 and an ultimate inner portion 15a of its rear wall 15 to provide slits 16. The lower edges 17 of the end walls 12 are defined by transverse cuts through the aforementioned side of the body between the slits 16 thus providing an aperture 18 between the edges 17, the front wall 14 and the inner portion 15a of the rear wall 15.

The upper edge of each wall 12 is formed with a centrally disposed arcuate or outwardly bowed portion 19 defined by fold lines 20 and relatively straight end portions 21, defined by slits 22 extending in parallelism with the lower edge 17, maintained in connected relation with the body for a purpose hereinafter made apparent. The arcuate portions 19 of the walls 12, at the fold lines 20, are integrally connected to top wall portions 23 constituting the top wall 24 of the body, while the sides of the walls 12 constitute flaps or wings 25 defined by the edges 17 and slits 16 and 22. The portions 19 are formed with incurvated slits 26 to define inwardly extending tabs 27 to facilitate folding of the end walls 12 along the fold lines 20 as hereinafter more fully described.

The cover 8 is formed with a rear side 28 connected to the front side 10 by an upper wall 29, the latter being apertured to define a window 30. The rear side 28 is integrally connected to the upper portion of the rear wall 15 and constitutes a continuation of the rear wall 15. The lower portion of the rear wall 15 is integrally connected to the rear margin of the bottom wall 31 of the body 9 along the fold line 32 while the front edge of the wall 31 is similarly connected to the

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front wall 14 of the body at the fold line 33. The window 30 is covered by a sheet of transparent material 35, for instance, Pliofilm, the edges of the material being secured about the margins of the window by means of a suitable adhesive. As shown in Figure 3, the top wall portions 23 of the body are folded over the bottom wall on the fold lines 37 to dispose the inner portion 15a in overlying relation with the inner face of the rear wall 15 immediately adjacent the rear side 28 of the cover, the portion 15a being secured to the rear wall 15 by suitable adhesive to maintain the parts in fixed relation. In this knocked-down or flat condition, the container may be readily shipped and/or stored.

When it is desired to package the products for distribution, the container is set-up or made-ready by folding the rear side 28 of the cover together with the rear wall 15 of the body relative to the bottom wall 31 on the fold line 32 and the front wall 14 relative to the bottom wall 31 on the fold line 33 and at the same time pressing the end walls 12 downwardly and outwardly to effect folding on the lines 20 and thus disposed the walls 12 in upright and outwardly bowed positions with the tabs 27 extending inwardly at the upper ends of the walls 12. As the walls are manipulated in the foregoing described manner, the ends of the portion 15a, which is secured to the rear wall 15, will fold relative to the top wall portions 23 along the fold lines 15b. When the walls 12 are thus disposed, the top wall portions 23 of the top wall 24 serve as a connecting means between the front and rear walls 14 and 15 and which portions 23 assume a somewhat arched shape. This positioning of the walls 12 disposes one pair 33 of the flaps or wings 25 in engagement with the rear wall 15 and the other pair, namely, the outer flaps or wings 39 in engagement with the front wall 14 as clearly illustrated in Figure 4 of the drawings.

When the container has thus been set-up in the foregoing described manner, products such as fruit or vegetables of the globular or rotund type may be packed therein between the end walls and enclosed therein by moving the cover over the body with the upper wall 29 being brought into overlapping relation with the top wall portions 23 of the body, the outer face of the tongue being disposed in engagement with the inner face of the front wall between the portions 23. When the tongue is thus positioned, the outer flaps or wings 39 engage the tongue 11 and tend to maintain it in engagement with the front wall 14 against displacement, it being understood that the products bearing against the incurvated faces of the end walls 12 tend to urge the flaps 39 in engagement with the tongue 11. To discourage prospective purchasers from opening the container, a section 40 of adhesive tape may be applied to the body and cover to secure the latter in closed position as illustrated in Figure 1.

In order to secure sufficient ventilation with respect to certain products and/or for reasons of economy, the cover 8, as illustrated in Figures 11 and 12, may be provided with an open grill provided with a multiplicity of ventilating openings 50 in lieu of the window 30 which is covered with the material 35. In this instance, the openings 50 are of a diamond shape and are defined by spaced and intersecting grill-like members or ribs 51. In actual reduction to practice, I have ascertained that by fabricating the grill in a manner wherein the ribs extend at an angle relative to the longitudinally of the cover, I preclude undesirable longitudinal folding, distortion or buckling of the cover which would ordinarily occur, espe-

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cially in cardboard, should the ribs extend lengthwise and crosswise, or the cover be provided with perforations defined by longitudinally and transversely extending portions. Scoring is employed along the transverse fold lines herein disclosed to facilitate folding.

Without further elaboration, the foregoing will so fully explain the invention that others may, by applying current knowledge, readily adapt the same for use under various conditions of service. Moreover, it is not indispensable that all the features of the invention be used conjointly since they may be employed advantageously in various combinations and subcombinations.

It is obvious that the invention is not confined to the herein described use therefore as it may be utilized for any purpose to which it is adaptable. It is therefore to be understood that the invention is not limited to the specific construction as illustrated and described, as the same is only illustrative of the principles involved which are capable of extended application in various forms, and the invention comprehends all construction within the scope of the appended claims.

What I claim is:

1. A container formed from a one-piece blank and comprising a tray adapted to receive globular products and a cover for said tray connected thereto, said tray having side and bottom walls with said bottom wall connecting said side walls together, said tray having an upper wall connecting said side walls together at their upper ends and at the ends of said tray, end walls for said body and constituting integrants of said upper wall and being folded relative to said upper wall along arcuate fold lines to dispose said end walls downwardly from said upper wall and in engagement with said bottom wall, said end walls extending upwardly from said bottom wall and being outwardly bowed and provided with wings engaging said side walls and urged thereagainst by said products when said cover is in open position, said cover being provided with a tongue disposed against the inner face of one of said side walls and between said last mentioned wall and the adjacent wings when said cover is in closed position whereby the latter wings and wall cooperate to restrain said tongue therebetween.

2. A container formed from a one-piece apertured blank and comprising a tray adapted to receive globular products and a cover for said tray connected thereto, said tray having front, rear and bottom walls with said bottom wall connecting said front and rear walls together, said tray having an upper wall connecting said front and rear walls together at their upper ends and at the ends of said tray, end walls for said body and constituting integrants of said upper wall and being folded relative to said upper wall along arcuate fold lines to dispose said end walls downwardly from said upper wall and in engagement with said bottom wall, said end walls extending upwardly from said bottom wall and being outwardly bowed and provided with front and rear wings engaging said front and rear walls respectively, and urged thereagainst by said products when said cover is in open position, said cover being provided with a tongue disposed against the inner face of said front wall and between the latter and said front wings when said cover is in closed position whereby said front wings and said front wall cooperate to restrain said tongue therebetween, said upper wall being apertured between said end walls to permit reception of said products within said tray and against said end walls.

3. A container formed from a one-piece aper-

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tured blank and comprising a cover and a body adapted to receive globular products, said body having side walls with one of the walls being connected to said cover at one side thereof, said body having a bottom wall connected between said side walls and a pair of upper wall portions connecting said side walls together at their upper ends and at the ends of said body, end walls for said body and constituting integrants of said portions and being folded relative to said portions along arcuate fold lines to dispose said end walls downwardly from said portions and in engagement with said bottom wall, said end walls extending upwardly from said bottom wall and being outwardly bowed and provided with wings engaging said side walls and urged thereagainst by said products when said cover is in open position, the opposite side of said cover being provided with a tongue disposed against the inner face of one of said side walls and between said last mentioned wall and the adjacent wings when said cover is in closed position whereby the latter wings and wall cooperate to restrain said tongue therebetween.

4. A container formed from a one-piece apertured blank and comprising a cover and a body adapted to receive globular products, said body having front and rear walls with said rear wall being connected to said cover at one side, said body having a bottom wall connected between said front and rear walls and a pair of arched upper wall portions connecting said front and rear walls together at their upper ends and at the ends of said body, end walls for said body and constituting integrants of said portions and being folded relative to said portions along arcuate fold lines to dispose said end walls downwardly from said portions and in engagement with said bottom wall, said end walls extending upwardly from said bottom wall and being outwardly bowed and provided with wings engaging said front wall and urged thereagainst by said products when said cover is in open position, the opposite side of said cover being provided with a tongue disposed against the inner face of said front wall and between said front wall and said wings when said cover is in closed position whereby said wings and said front wall cooperate to restrain said tongue therebetween.

5. A container formed from a one-piece blank and comprising a tray adapted to receive globular products and a cover for said tray connected thereto, said tray having side and bottom walls with said bottom wall connecting said side walls together, said tray having an upper wall connecting said side walls together at their upper ends and at the ends of said tray, end walls for said body and constituting integrants of said upper wall and being folded relative to said upper wall along arcuate fold lines to dispose said end walls downwardly from said upper wall and in engagement with said bottom wall, said end walls extending upwardly from said bottom wall and

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being outwardly bowed and provided with wings engaging said side walls and urged thereagainst by said products when said cover is in open position, said cover being provided with a tongue disposed against the inner face of one of said side walls and between said last mentioned wall and the adjacent wings when said cover is in closed position whereby the latter wings and wall cooperate to restrain said tongue therebetween, said cover being formed with a grill and with the portions of the cover defining the grill-openings extending at an angle relative to the longitudinality of the cover to preclude lengthwise folding and distortion of the cover.

6. A container formed from a one-piece apertured blank and comprising a cover and a body adapted to receive globular products, said body having front and rear walls with said rear wall being connected to said cover at one side, said body having a bottom wall connected between said front and rear walls and a pair of arched upper wall portions connecting said front and rear walls together at their upper ends and at the ends of said body, end walls for said body and constituting integrants of said portions and being folded relative to said portions along arcuate fold lines to dispose said end walls downwardly from said portions and in engagement with said bottom wall, said end walls extending upwardly from said bottom wall and being outwardly bowed and provided with wings engaging said front wall and urged thereagainst by said products when said cover is in open position, the opposite side of said cover being provided with a tongue disposed against the inner face of said front wall and between said front wall and said wings when said cover is in closed position whereby said wings and said front wall cooperate to restrain said tongue therebetween, said cover being formed with a grill and with the portions of the cover defining the grill-openings extending at an angle relative to the longitudinality of the cover to preclude lengthwise folding and distortion of the cover.

7. The structure as defined in claim 3 including, said upper wall portions being formed with inwardly extending tabs and thus defining arcuate openings in the upper ends of said end walls.

FRANK W. BRODERICK.

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