July 16, 1968 E. E. SANDERS 3,392,877

CONTAINER

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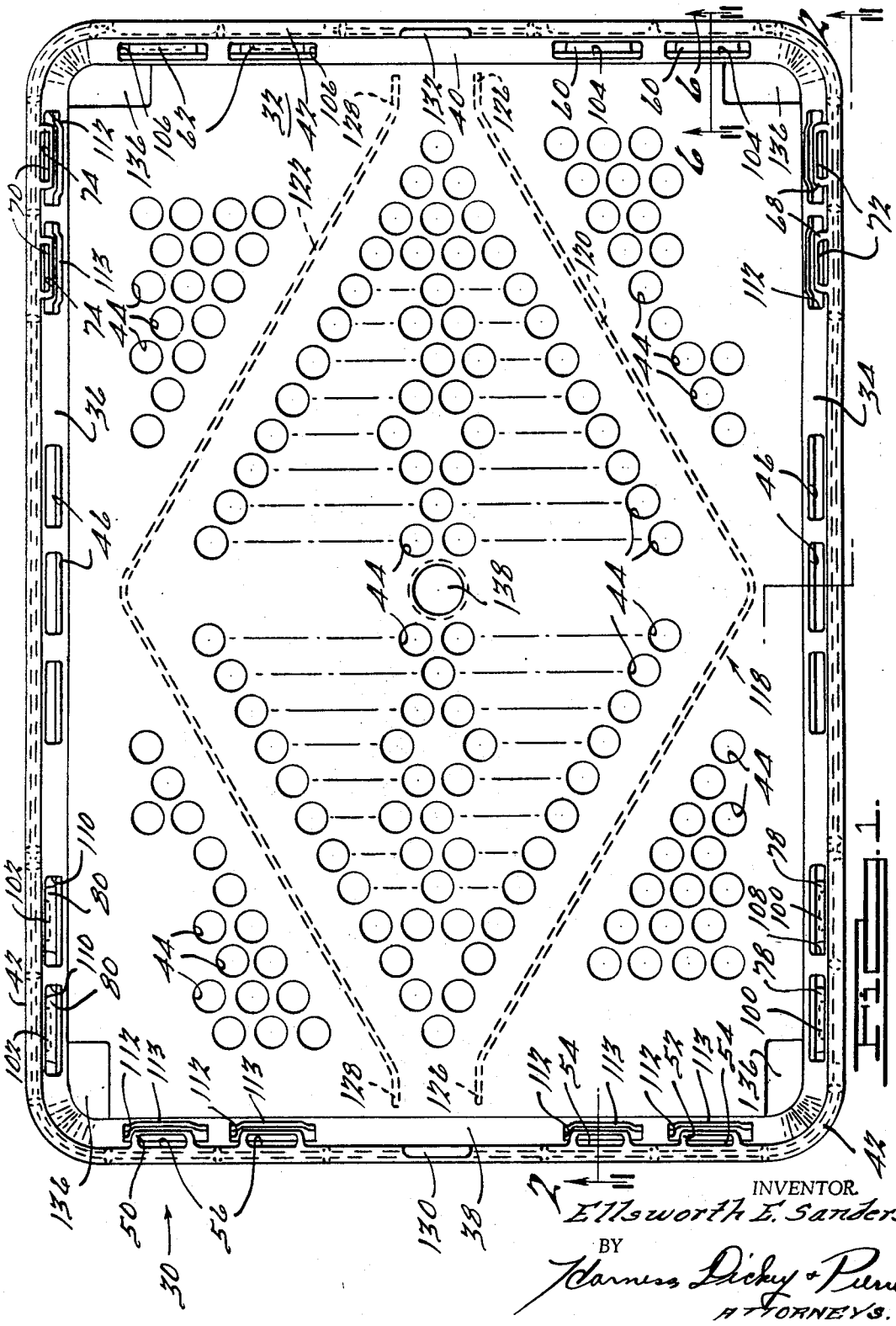

FIG. 1.

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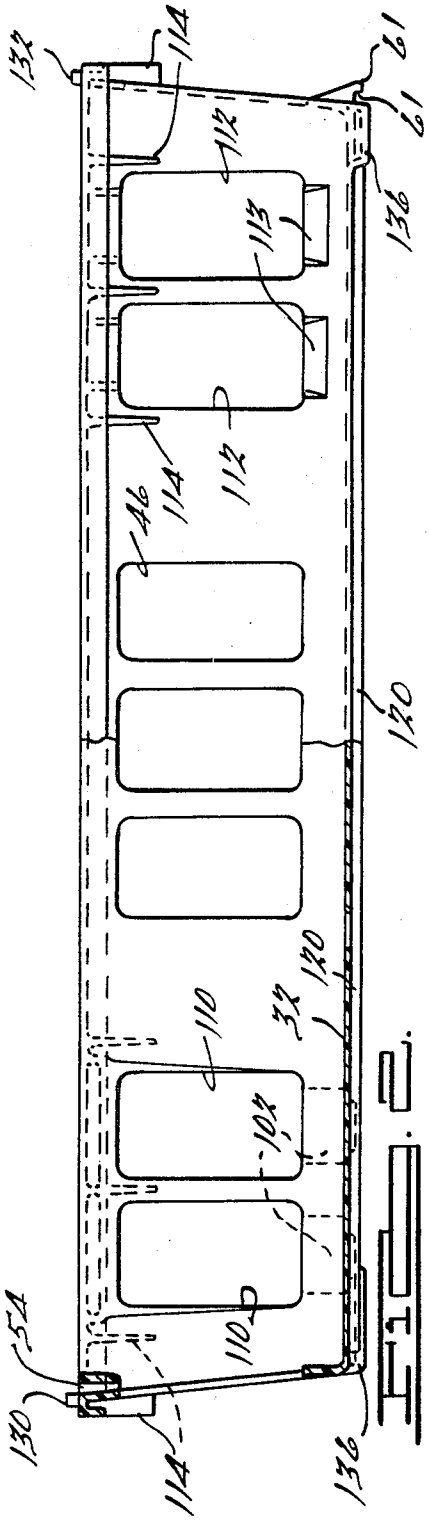

Fig. 2.

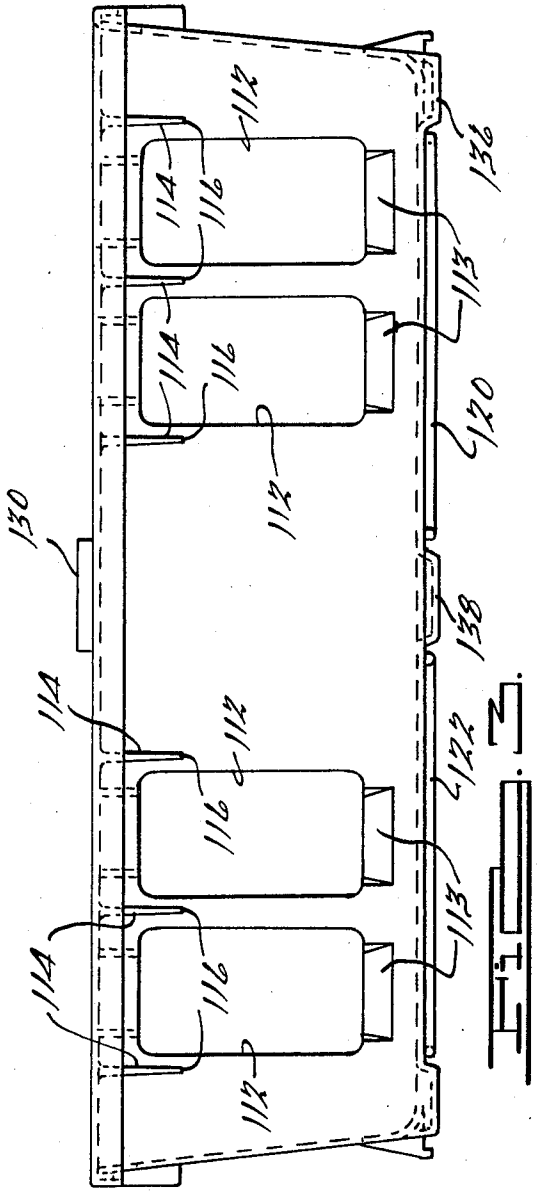

Fig. 3.

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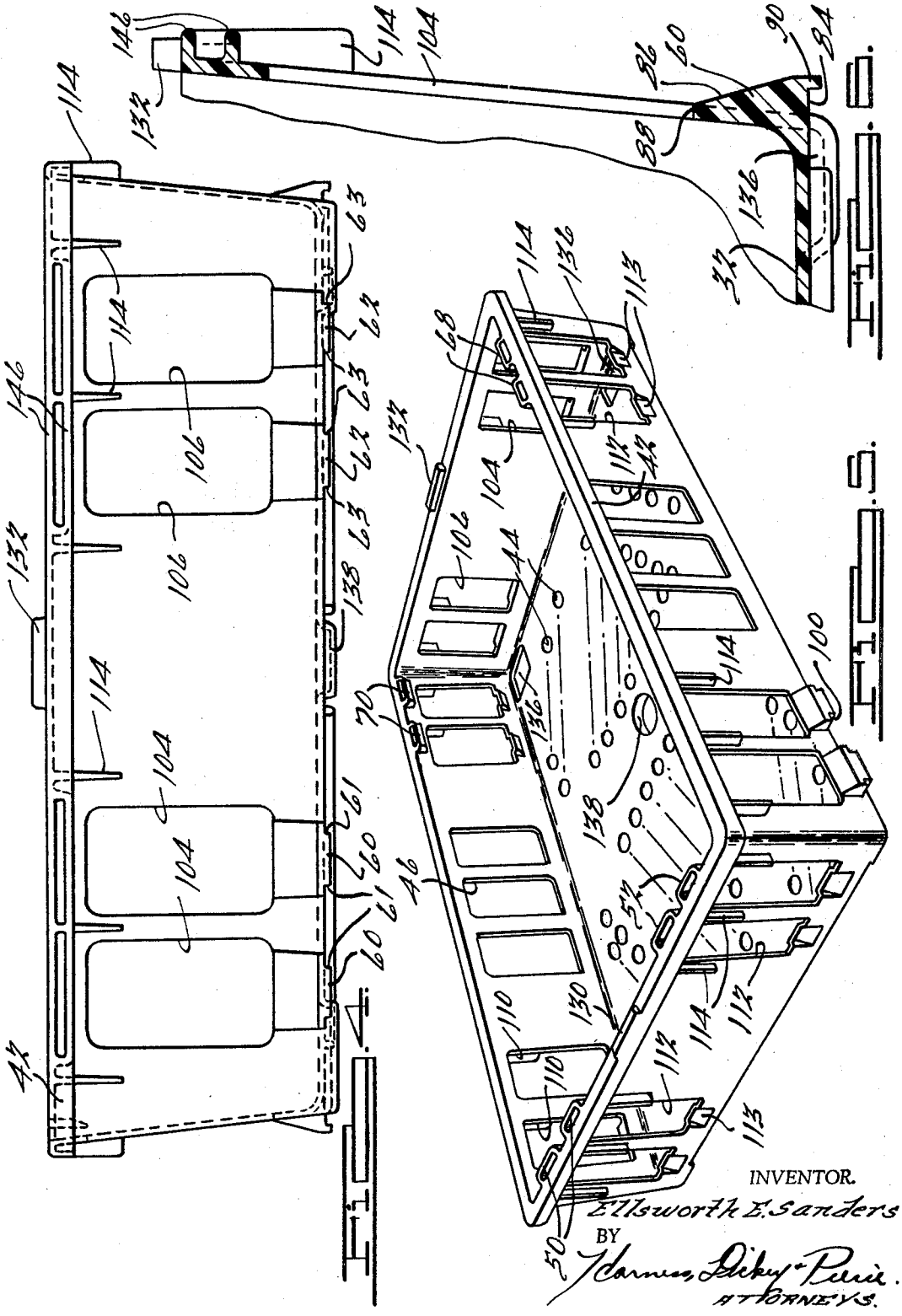

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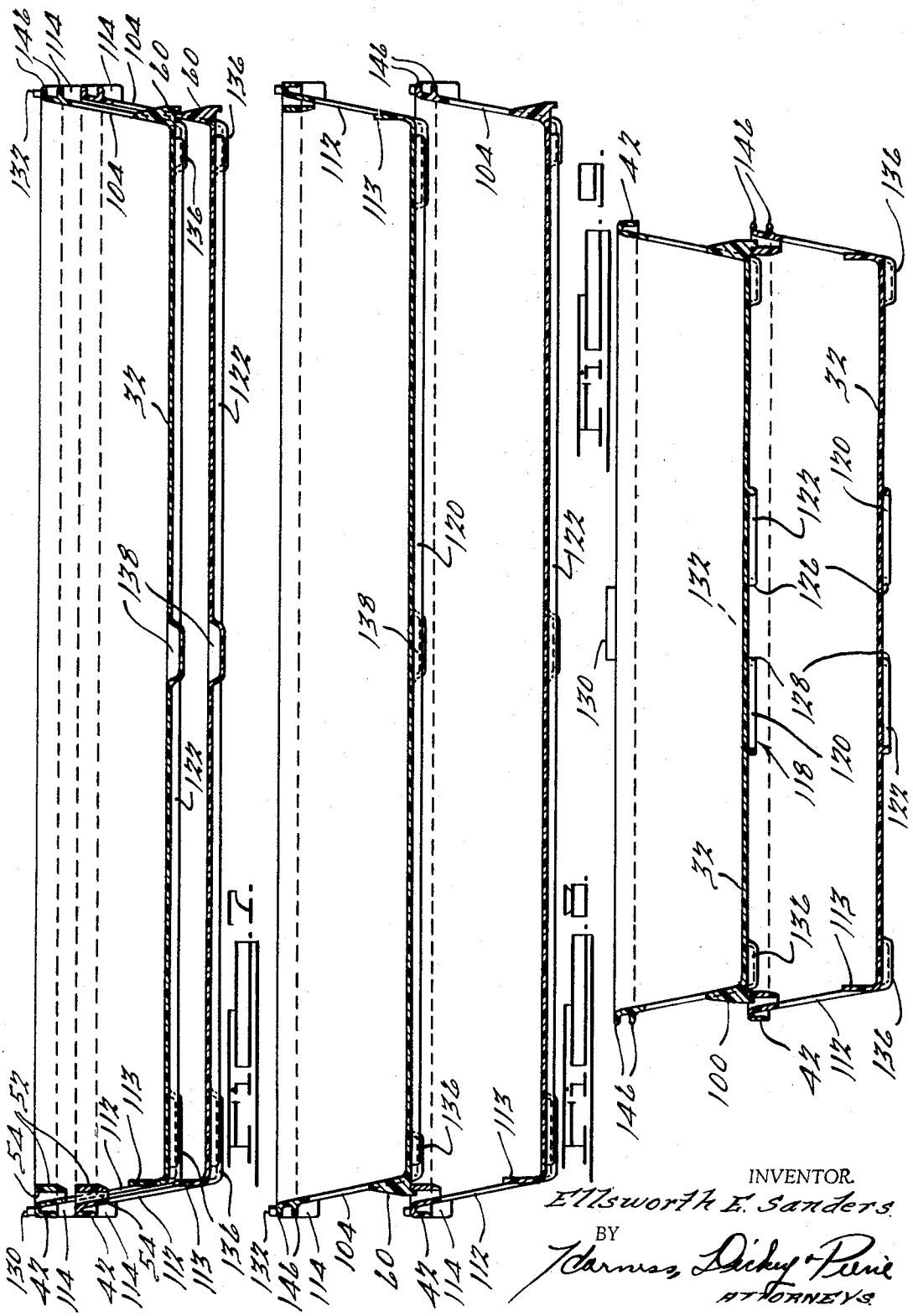
CONTAINER

Filed Sept. 11, 1964 8 Sheets-Sheet 4



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CONTAINER

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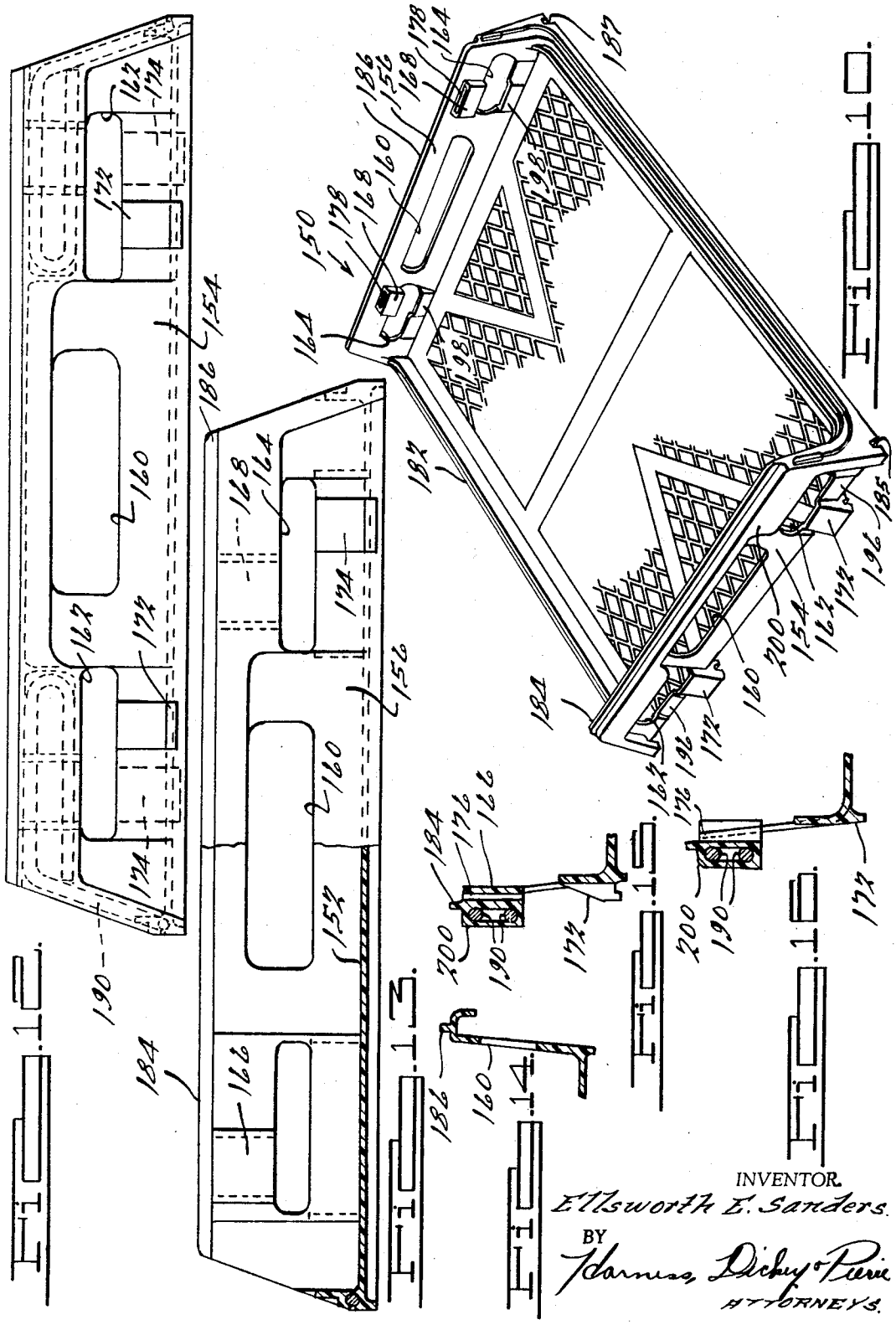

Fig. 12.

Fig. 13.

Fig. 14.

Fig. 15.

Fig. 16.

Fig. 10.

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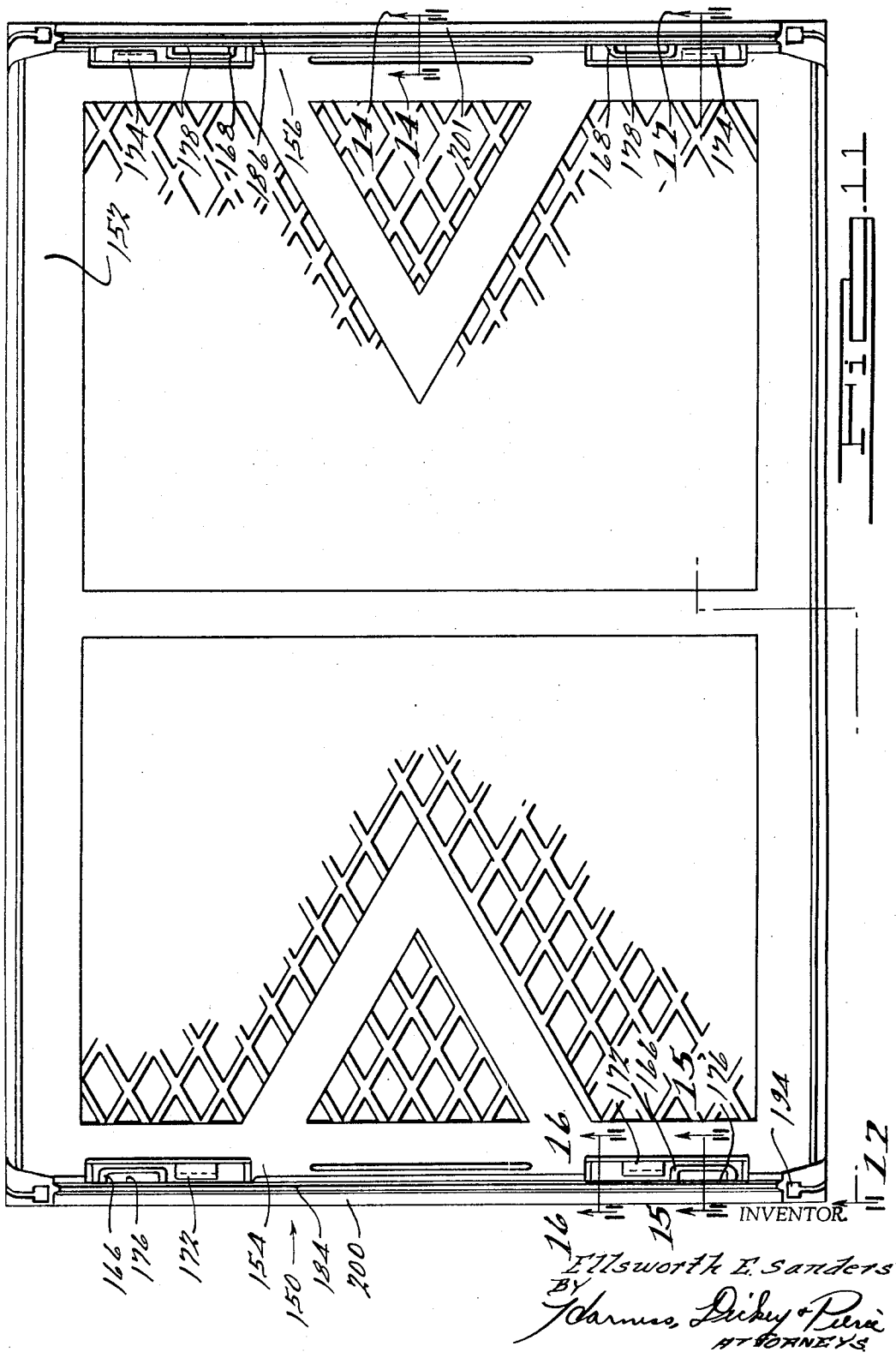

FIG. 11

FIG. 12

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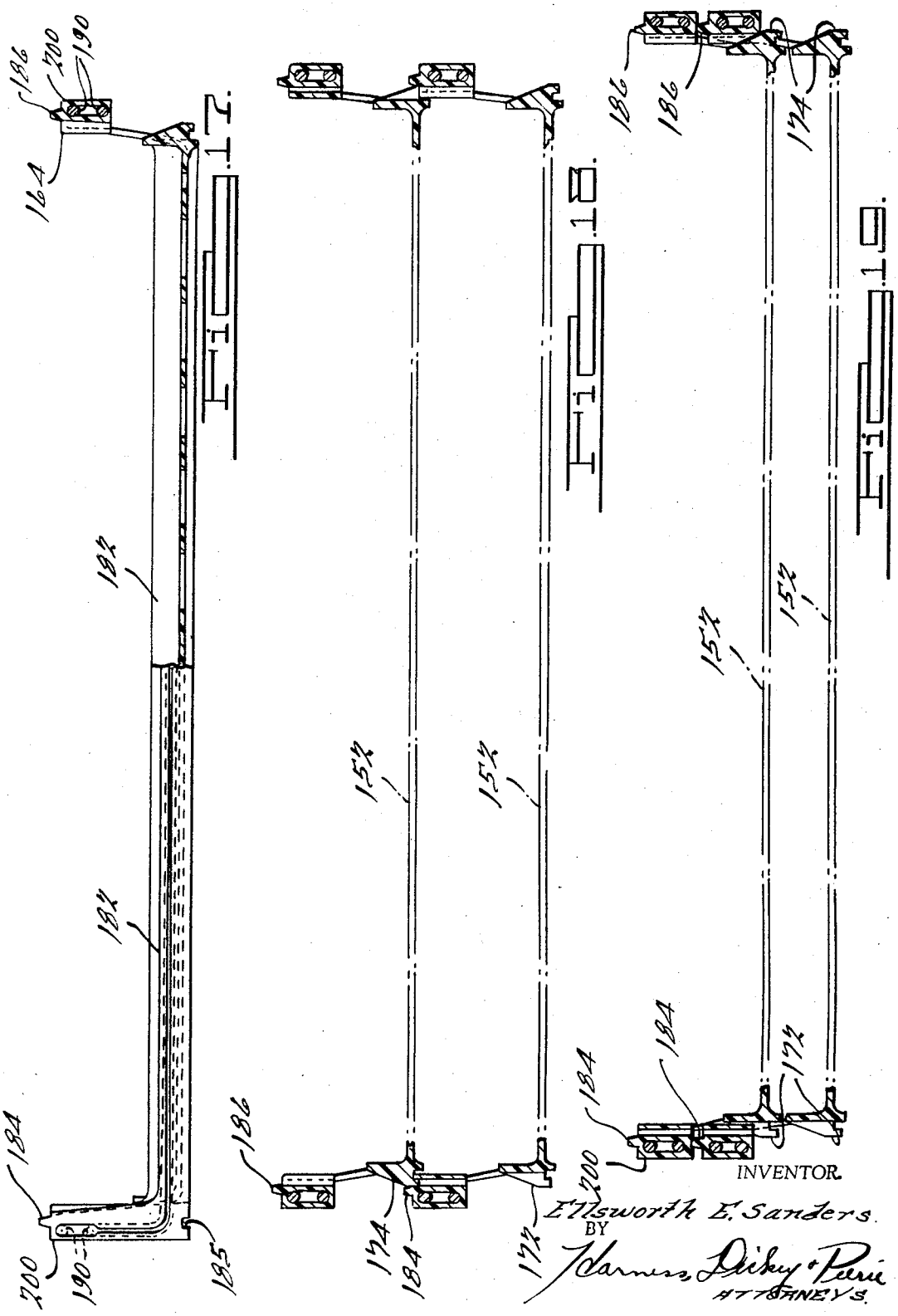

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CONTAINER

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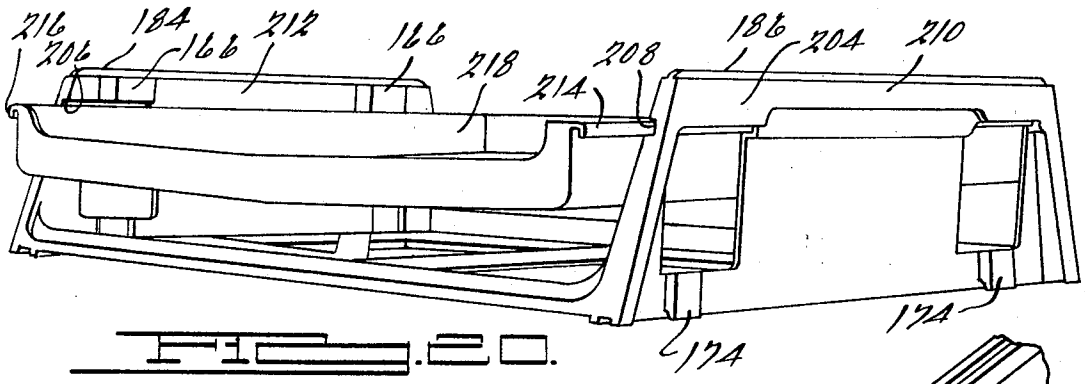

FIG. 20.

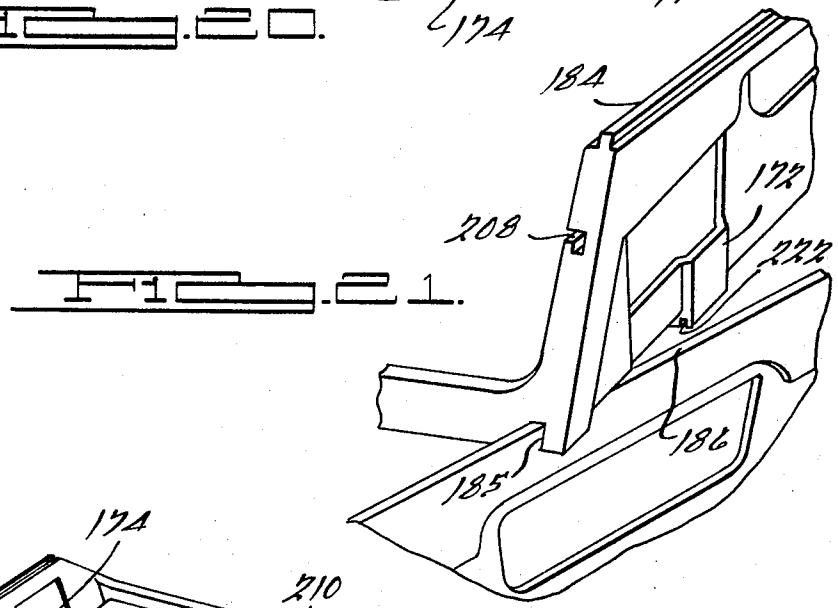

FIG. 21.

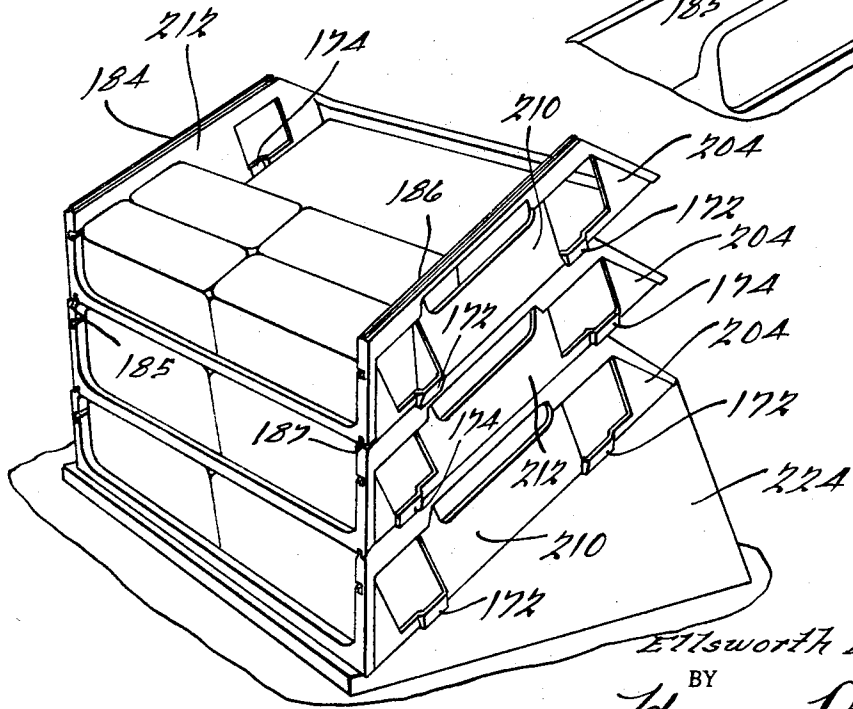

FIG. 22.

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United States Patent Office 3,392,877 Patented July 16, 1968

3,392,877

CONTAINER

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Filed Sept. 11, 1964, Ser. No. 395,862
11 Claims. (Cl. 220—97)

ABSTRACT OF THE DISCLOSURE

A container of the stacking and nesting type which is adapted to be stacked on a like container when turned end-for-end or nested in a like container when oriented in a like direction including an interlocking foot formed adjacent to the lower edge of the container and adapted to engage a support formed adjacent the upper edge of a like container when turned end-for-end relative thereto and stacked thereon.

The purpose of the above abstract is to provide a nonlegal technical statement of the disclosure of the contents of the above instant patent application and thus serve as a searching-scanning tool for scientists, engineers and researchers. Accordingly, this abstract is not intended to be used in understanding or otherwise comprehending the principles of the present invention hereinafter described in detail, nor is it intended to be used in interpreting or in any way limiting the scope or fair meaning of the claims appended hereto.

This invention generally relates to containers, and more specifically relates to containers of the stacking and nesting type.

In dealing with certain small articles, such as produce, bread and the like, it is desirable that the articles be placed in containers for transportation from one place to another or to store the goods while awaiting transportation. In order to most efficiently utilize the space available, the containers should have the capability of being stacked, one on another, during use; and of being nested, one within another, when the containers are not in use.

In this situation, provisions must be made to allow the containers to be stacked to a maximum height consistent with vertical stability while allowing the user to nest the same containers thus providing a compact storage of the containers. While the prior art has provided containers which are adapted to be stacked while in use, and nested for storage, there are certain improvements in these containers which the present invention is designed to supply.

Oftentimes, the transportation of the goods is accomplished by means of large volume trucks, trailers, and the like, wherein the amount of unused space within the containers and within the body of the carrier itself becomes critical in view of the high cost of transportation. Thus, it becomes necessary that the nonusable space within the container be maintained at a minimum and the largest amount of space within the body of the trailer also be available for use.

Accordingly, the containers of the present invention are so constructed as to provide a maximum of usable space within the confines of the container while maintaining the exterior configuration such as to allow the containers to be closely spaced in the horizontal direction as is desired in the transportation of goods. As an example, certain prior art boxes or containers provide a payload which is of the order of eight to ten percent less than the payload which is provided with the container of the instant invention. Thus, the containers of the instant invention achieve a saving in transportation costs which may become critical in determining the ultimate cost of the article.

Furthermore, certain of the prior art boxes are so designed in their interacting elements for the stacking configuration that the stack is not capable of maintaining vertical alignment but rather is staggered wherein the upper box is slightly offset from the lower box in the horizontal direction. With the container of the instant invention, the containers are adapted to be perfectly aligned in a vertical direction providing a uniform stack, thereby increasing the stability thereof.

Certain other concepts of the instant invention are designed to provide the stacking and nesting container art with a container which has side and end walls of a substantially smooth and thin configuration. Thus the interior and exterior surfaces of the walls are free of any inward or outward convolutions and the cross-sectional profile of the walls are maintained at a minimum consistent with strength. Also provided are certain features wherein the nesting box has elements which coact with certain structural details of the lower box thereby stabilizing the nested stack and precluding the nested box from jamming within its receiving container.

Accordingly, a primary object of the present invention is to provide an improved stacking and nesting container.

Another object of the present invention is to provide a stacking and nesting container which, while being light in weight and construction, is adapted to carry a maximum load through certain features of its wall construction.

Another object of the present invention is to provide a stacking and nesting container having improved structural characteristics thereby providing a more rigid stack.

Still another object of the present invention is to provide a stacking and nesting container which is so constructed as to increase the stability of the stack when the containers are nested one within the other and wherein the nested container is jam proof.

Still another object of the present invention is to provide a stacking and nesting container which is easy and inexpensive to manufacture.

A still further object of the present invention is to provide a stacking and nesting container having improved alignment characteristics thus facilitating sliding one container over another into stacking engagement with the lower container.

A still further object of the present invention is to provide a stacking and nesting container having characteristics which improve the stability of the vertical stack when the containers are stacked one upon the other.

Further objects, features and advantages of the present invention will become apparent from a consideration of the following description, the appended claims and the accompanying drawings, in which:

FIGURE 1 is a top plan view of a stacking and nesting container embodying certain principles of the present invention;

FIG. 2 is a side view partially in section and partially in elevation of the container of FIG. 1 taken along line 2—2 thereof;

FIG. 3 is an end view in elevation of the container of FIG. 1 looking toward the right end thereof;

FIG. 4 is an end view in elevation of the container of FIG. 1 looking toward the left end thereof;

FIG. 5 is a perspective view of the container in FIG. 1;

FIG. 6 is a sectional view of the container of FIG. 1 taken along line 6—6 thereof;

FIG. 7 is a sectional view of a plurality of the containers of FIG. 1 in their nested relation;

FIG. 8 is a sectional side view of a plurality of the containers of FIG. 1 in their stacked relation;

FIG. 9 is a sectional end view of a plurality of the containers of FIG. 1 in their stacked relation;

FIG. 10 is a perspective view of an embodiment of the container of FIG. 1 embodying certain other principles of the present invention;

FIG. 11 is a top plan view of the container of FIG. 10;

FIG. 12 is a side elevation view of the container of FIGS. 10 and 11 looking toward the left end thereof;

FIG. 13 is a side view partially in section and partially in elevation of the containers of FIGS. 10 and 11, looking toward the right end thereof;

FIG. 14 is a view in vertical section of a portion of the container of FIG. 11 taken along line **14—14** thereof;

FIG. 15 is another vertical section of another portion of the container of FIG. 11 taken along line **15—15** thereof;

FIG. 16 is a vertical section of still another portion of the container of FIG. 11 taken along line **16—16** thereof;

FIG. 17 is a vertical view partially in section and partially in elevation of the container of FIG. 11, taken along line **17—17** thereof;

FIG. 18 is a side sectional view illustrating a plurality of the containers of FIG. 11 in their stacked relation;

FIG. 19 is a side sectional view of a plurality of the containers of FIG. 11 illustrated in their nested relation;

FIG. 20 is a perspective view of another embodiment of the present invention incorporating certain other features thereof;

FIG. 21 is a partial view of a plurality of the containers of FIG. 20, illustrating the stacked relation thereof; and

FIG. 22 is a perspective view of a plurality of the containers of FIG. 20 in their stacked relation illustrating a display thereof.

Referring now to FIGS. 1 to 6 of the drawings wherein is illustrated a generally rectangular shaped, injection molded, plastic container **30** of the above described stacking and nesting type. The container **30** is fabricated having a bottom **32** integrally formed with a pair of oppositely facing side walls **34**, **36** and a pair of oppositely facing end walls **38** and **40**. It is to be noted that the entire structure is formed as an integral unit in the molding process.

The upper and outer periphery of the container **30** is formed with a outwardly and downwardly extending flange **42** integrally molded with the walls **34–40** which is adapted to reinforce the general structure of the container and to provide a carrying handle for the container. The bottom **32** is illustrated as having a plurality of apertures **44** which serve to facilitate draining the container should any moisture collect therein and also to reduce the overall weight of the container. Similarly, apertures **46** are formed in the side walls **34** and **36** to further reduce the weight of the container and provide visual identification of the contents thereof.

Containers such as that illustrated in the drawings, that is, of a generally rectangular configuration, have been found to be particularly suitable for the purpose of storage and transporting goods due to the inherent ability of a plurality of the containers to be closely spaced. It is further to be noted that the container side and end walls are smooth and free of any inwardly or outwardly extending convolutions, thereby providing the interior of the container with a maximum of usable space. Thus, the available space in both the transporting vehicle or storage area and within the container itself are most efficiently utilized.

As was stated above, the subject container is adapted to be either stacked on a like container when it is desired to store or transport goods within the container and further it is adapted to be nested within a similar container in order to store the containers in a minimum amount of storage space. The nesting relation is accomplished by orienting the containers all in a like direction and for the stacking relation, to alternately turn the containers end-for-end relative to the supporting container on which it is to be stacked.

The container **30** has been provided with a plurality of support means including pairs of pads **50**, **52** which are integrally molded with the end wall **38** at the upper inner edge thereof and serve to support the upper container in the stacking relation. The pads **50**, **52** comprise a generally U-shaped strap forming generally vertically disposed apertures **54**, **56** therein which are adapted to receive a plurality of pairs of projections **60** and **62** integrally molded at an outer, lower edge of the opposite end wall **40**. The pairs of pads **50**, **52** are seen to be cantilevered at the upper edge of the wall **38**, thus freeing the wall **38** from any projections for substantially all of its effective height.

In the stacked relation, the projections **60**, **62** are adapted to be fitted into the apertures **54**, **56** of end wall **38**, thus supporting the upper container in stacked relation thereto. The projections **60**, **62** have a plurality of generally vertically disposed sides **61**, **63**, respectively, which are adapted to positively engage the sides of apertures **54**, **56** thus precluding longitudinal or transverse movement therein. Accordingly, by providing a relatively small clearance between the sides of the apertures **54**, **56** and the projections **60**, **62** a substantially vertical stack may be achieved.

In order to support the opposite end of the stacked container, the container **30** is provided with a pair of pads **68** on side wall **34** and a similar pair of pads **70** on side wall **36**. These pads **68** and **70** are formed with apertures **72**, **74**, respectively, which are adapted to receive a pair of projections **78** which are formed at an outer, lower edge of side wall **34** adjacent the bottom **32** and a second pair of projections **80** which are formed at an outer, lower edge of the end wall **36**. The projections **78**, **80** are adapted to engage apertures **72**, **74** in a manner similar to that described in conjunction with end walls **38**, **40**.

Thus, when a container similar to that illlustrated in FIG. 1 is turned end-for-end and stacked on the container illustrated in FIG. 1, the projections **60**, **62** at the lower right end of container **30** are adapted to be fitted respectively into the apertures **56**, **54** formed in the pads **52**, **50**, projections **78** are adapted to be fitted in apertures **74** and projections **80** fitted into apertures **72**. It is to be noted, in the stacked relation, the upper container is supported at the points on the periphery of the supporting box which has the greatest structural rigidity, that is, adjacnt the corners thereof. This structural advantage is gained through the novel positioning of the support pads about the upper periphery of the walls. Also, by positioning the pads at the upper extremity of the walls, the bottom of the stacked container is supported above the interior confines of the supporting container, thus further increasing the storage cubic.

As is representatively illustrated in the drawings, pads **50**, **52** and **68**, **70** are typically formed of a relatively thin U-shaped portion of plastic material that is cantilevered and integrally molded with the respective wall and having the apertures **54**, **56**, **72** and **74** formed therein during the molding process. Thus, the pads **50**, **52** and **68**, **70** are extremely strong in their attachment to the walls of the container and are of sufficient thickness to preclude their bending downwardly when weight is placed thereon by a container which has been stacked. The upper surfaces of the pads **50**, **52** and **68**, **70** are representatively illustrated as being flat and contiguous with the flange **42** to provide a relatively smooth support surface. As was stated above, the flange **42** is formed outwardly and downwardly of the outer edge of the four walls of the container thereby providing a channel at the edge of the walls adjacent the pads **50**, **52** and **68**, **70** to further strengthen the walls thus precluding the buckling thereof.

The projections **60**, **62** are formed at an outer end of the side walls **40** adjacent the bottom **32** and, as is best illustrated in FIG. 6, are integrally molded with the associated wall. The projections **60**, **62** have a lower surface **84** which forms a continuous projection of the lower surface of the bottom **32** thereby supporting the upper box at a sufficient height relative to the supporting box

to allow the entire volume of the supporting container to be utilized. The projections **60**, **62** are further formed with an upwardly and inwardly inclined surface **86** and have an upper surface **88** thereon which is substantially parallel to the lower continuous surface **84**. The continuous surface **84** is broken at its outer edge thereof by a depending protrusion **90**, which is adapted to fit into apertures **54** and **56** when the container is turned end-for-end and stacked on a lower container. The pairs of projections **78** and **80** are similarly formed with a set of projections **100** and **102** which are adapted to be received in apertures **74** and **72**, respectively.

When it is desired to store the containers **30** by nesting them, one within the other, it is necessary that provisions be made to receive the projections **60**, **62**, **78** and **80** within the container. To this end, the end wall **38** has been provided with a plurality of pairs of apertures **104**, **106**, which are positioned directly above the projections **60** and **62**, thus enabling them to receive the projections **60**, **62** of a like container, when oriented identically to the lower container and nested therein. Similarly, side walls **34** and **36** are provided with pairs of apertures **108** and **110**, respectively, to receive the projections **78** and **80** of a like container when it is nested, as described above. It is to be noted that the inclination of the walls allows the projections to clear the upper edges thereof.

While the sides of the containers are inclined upwardly and outwardly as is necessary in containers of the stacking and nesting type, provisions have been made to provide sufficient clearance for the inwardly projecting pads **50**, **52** and **68**, **70** without excessively inclining the walls of the container. As is seen from FIGS. 1 and 7, the pads **50**, **52** and **68**, **70** extend into the interior a distance such that the portions of the walls extending above the edge of the bottom **32** would not clear the projecting pads **50**, **52** and **68**, **70**. Accordingly, a plurality of apertures **112** have been provided in the walls **34**, **36**, **38** and the portion **113** of the wall between apertures **112** and bottom **32** have been slightly inwardly inclined from inclination of the wall to provide a relatively vertical wall section therebetween. Thus, a strengthened wall portion is provided to allow passage of the pads **50**, **52** and **68**, **70** past the bottom without further increasing the inclination of the walls.

The containers **30** are further provided with a plurality of integrally formed reinforcing ribs **114** which are vertically disposed adjacent either edge of the apertures **104**, **106**, **108**, **110** and **112**. The ribs **114** are provided with substantially flat lower surface **116** which is adapted to engage the upper surface of the flange **42** when the containers are in the nested relation. Thus, the ribs **114** serve to structurally rigidify the containers at the critical load bearing points when the containers are in stacked relation and further provide a support for the nested container when the containers are in the nested relation. This latter function of the ribs **114** prevents the nested containers from jamming as the containers are spaced, one from the other.

As is best seen in FIG. 1, the bottom **32** of the container **30** has a downwardly depending, integrally formed, diamond-shaped projection **118** which is open at either longitudinal end. The projection **118** is formed with a pair of guide portions **120** and **122** having a pair of longitudinally extending portions **126** and **128** respectively. The upper portion of the container **30** is formed with a pair of upwardly extending projections **130**, **132**, which are integrally molded with the flange member **42**. The projections **130**, **132** are adapted to be engaged by the guide portions **120**, **122** and coact therewith when a container is slid across the top of a like container. Thus, the container which is desired to be stacked is turned end-for-end relative to the container on which it is to be supported and placed over the edge of the upper wall of the end wall thereof. The container is then slid across the top of the supporting container with the projection **130** somewhere within the confines of the diamond-shaped member **118**.

As the upper container **30** progresses across the supporting container, the guide members **120** and **122** tend to guide the element **130** into the space between longitudinally extending portions **126** and **128** thereby guiding the upper container into proper vertical alignment with the supporting container. In this manner, with the stack projecting above the visual level of the user, the next container to be stacked is merely placed over the edge of the end of the supporting container and slid thereacross. The projections **120**, **122** will then guide the stacked container into proper alignment without the necessity of the loader visually observing the vertical alignment.

Inasmuch as the lowermost container is to rest on the floor of the storage area, a plurality of pad members **136** have been provided at each corner of the box to provide both ventilation and drainage beneath the box. Also, the upper portion of the pads **136**, as seen from the interior of the container, form drainage troughs to provide a collecting area for water or other moisture that may collect within the box. A central pad member **138** is integrally formed with the bottom of the box and depend therefrom to support the center of the container and also provides an area for the further collection of water or moisture that may collect.

Referring now to FIGS. 7, 8 and 9 wherein is illustrated the specifics of the relationship of the various containers when in their nested and stacked relation. As is seen from FIG. 7, when the containers are nested one within the other, the plurality of ribs **114** formed adjacent the various apertures about the periphery of the container are so positioned and dimensioned that the lower edge of the ribs **114** seat themselves on the upper surface of the flange **42**, thus spacing the bottom of the nested container from the bottom of the supporting container. The ribs resting on the upper surface of the flange portion **42** precludes the nested container from jamming within the supporting container thus enabling the nested container to be easily lifted out for use.

FIG. 7 illustrates a slight modification of the flange **42** in that a pair of horizontally disposed projections **146** are seen to replace the flange portion **42** around the upper periphery of the container **30**. This modification is incorporated into two sides of the box and serves a function of enabling the molds to be drawn away from the container after the molding process is completed and also to provide an indicating means for the users of the containers to easily identify the orientation of the container which is being stacked or nested relative to the supporting container.

In the molding operation the steel mold is so formed that it is received in the cavity disposed between the side wall and the flange portion **42** and, if the flange **42** were provided around the complete periphery of the box, the mold would not be able to be slid longitudinally or transversely away the molded container. Thus, the two sides are provided with the open type horizontally disposed U-shaped member **146**. When the user is desirous of stacking or nesting the containers, the flange area of the container may be used to properly orient the containers. For nesting, the containers will be oriented with the horizontally disposed projections **146** in the same direction or, if stacking is desired, the user alternates the orientation of the containers having the lowermost container with the U-shaped projections in one direction, the next container having the flange in that direction and the next container having the horizontal projections in that same direction, and so forth. Thus, it is not necessary that the user inspect the box to determine the location of the various foot projections or other portions of the container.

FIGS. 8 and 9 illustrate the stacking of the container, one upon the other, and particularly illustrates the orientation of the foot projections relative to the supporting pads. It is seen that the foot is adapted to be received

within an aperture formed in the pads as described above and is so disposed therein as to prevent the inward or outward buckling of the wall. The right end of the containers illustrated in FIG. 8 appears to be unsupported, but it is to be remembered that the sides of the container, as illustrated in FIG. 9, are supported at the ends thereof thus supporting the container at its outermost edge relative to the transverse direction as shown in FIG. 9 and also the outermost edge as compared to its longitudinal direction as shown in FIG. 8.

As illustrated in FIG. 9, the projection **132**, shown in phantom, is seen to be disposed equally spaced between the longitudinally extending portions **126** and **128** of the guide means **118**. Thus, if the container is disoriented relative to the longitudinal axis thereof, the inclined portions of guides **120** and **122** will guide the uppermost container to a position which is vertically oriented relative to the lower container. When the projection **132** emerges from within the confines of the diamond-shaped portion **118**, the upper container will have its foot projections longitudinally aligned with the pad supports allowing the projections to engage the apertures formed in the support pads.

Referring now to FIGS. 11 to 16, illustrating another embodiment of the present invention, there is shown a container **150** having a bottom **152** formed of injection molded plastic and a pair of end walls **154** and **156** formed integrally therewith. The features of the specific embodiment illustrated are particularly suited to the tray or open sided type of container. The bottom **152** is representatively illustrated as having a solid sheet of plastic material formed with a cross hatch design thereon but it is to be understood that the bottom may have suitable holes formed therein to lighten the weight and for drainage purposes as described in conjunction of FIGS. 1 to 9. The container **150** is also formed with a pair of elongated apertures **160** in both sides to further lighten the weight of the container and may provide a handle area for facilitating the individual movement of the container **150**.

As in the containers of FIGS. 1 to 9, both end walls **154, 156** are provided with pairs of apertures **162, 164** respectively. Walls **154** and **156** are also formed with a set of integral support pads **166** and **168** respectively and it is to be noted that the support pads **166** are formed adjacent the outer extremity of the apertures **162** formed in end wall **154** and that support pads **168** are formed closely adjacent the inner vertical edge of the aperture **164** formed in end wall **156**. The purpose of this orientation of elements will be obvious as the description proceeds.

A pair of feet projections **172** are formed integrally with end wall **154** at the lower edge thereof and it is seen that the projections **172** are formed adjacent an inner vertical edge of the apertures **162** formed in end wall **154**. Similarly, a pair of foot projections **174** are formed below the oppositely facing apertures formed in end wall **156** and adjacent an outer vertical edge thereof. Thus, when a container or tray **150** is desired to be stacked on a like container, the container is turned end-for-end relative thereto and projections **172** are fitted into a pair of apertures **178** formed in support pads **168**. Similarly, projections **174** are fitted into a pair of apertures **176** formed in support pads **166**. The projections **172, 174** are shaped in a manner similar to that described in conjunction with FIGS. 1 to 9 and interact with apertures **174, 176** in an identical manner.

The tray or container **150**, is representatively illustrated as having a pair of edge flanges integrally formed at the bottom thereof and adjacent the side edges of the bottom to facilitate the retention of the goods within the confines of the tray **150**. Also, the upper edges of the end walls **154, 156** are provided with upstanding flanges **184** and **186** and a pair of transversely extending slots **185, 187** for a purpose to be hereinafter described. As is particularly illustrated in FIGS. 12, 13, 15 and 16, the container **150** is provided with a reinforcing rod **190** which is adapted to be snapped into the end walls **154, 156** of the container by means of a groove **194** formed in the side of the end walls **154** and **156** during the molding process. See FIGS. 10 and 11. Thus the structural rigidity of the container is further enhanced due to the reinforcing rods **190** which are substantially embedded in the end walls **154, 156** and the edges of the container.

Referring now to FIGS. 18, 19, wherein is illustrated a plurality of the containers of FIGS. 10 and 11 in the stacking and nesting relation, respectively. As was stated above, when the containers are desired to be stacked, the uppermost container is turned end-for-end relative to the supporting container and vertically aligned therewith. Thus, the pairs of projections **172** are adapted to be fitted into the pairs of apertures **178** and the pairs of projections **174** are adapted to be interfitted with the pairs of apertures **176**. Inasmuch as the apertures and projections are similar in configuration to those described in conjunction with FIGS. 1 to 9, the positive interlocking of the two containers is as described above and requires no further description. The container **150** has been provided with a pair of inwardly offset portions **196** formed at the lower edge of apertures **162** and thereby provide a substantially vertical surface to bypass the inwardly projecting supporting pads **166** as a like container is passed down through a supporting container to achieve the nesting configuration. The structural elements just described are similar to those described in conjunction with FIGS. 1 to 9 and are provided for the identical purpose. Similarly, a pair of inwardly extending portions **198** are provided at the lower edge of aperture **164** and beneath support pads **178** for a like purpose.

FIG. 19 particularly illustrates the nesting relation of a pair of containers such as those illustrated in FIGS. 10 and 11 and is particularly illustrative of the interacting features of the two containers. A substantially vertically extending channel shaped flange **200** has been integrally formed on an outer surface of end wall **154** and the lower surface of this flange **200** is adapted to engage the vertically upstanding flange **184** described above. Thus, as the containers are nested one within another and oriented in a like direction, the engagement of the upwardly extending flange **184** with the lower surface of channel **200** achieves the desired degree of spacing between the pairs of bottoms of the nested containers. It is to be noted that the channel **200** is formed with a cavity therein in order to receive the reinforcing cord **190** which has been inserted therein. Again, this interengagement of elements between containers is calculated to prevent jamming.

Referring now to FIGS. 20, 21 and 22, there is illustrated another embodiment of the present invention incorporating certain other features thereof. A container **204**, as illustrated in FIGS. 20, 21 and 22 is seen to be substantially similar to the embodiment of FIGS. 10 to 19 and like parts will be given like numbers. For example, the container **204** is provided with the support pads **166** and **168** which are adapted to be mateable with a plurality of projections **172** and **174**. However, the embodiment illustrates a pair of slots **206, 208** which are formed on an inner surface of the end walls **210** and **212**, and are horizontally disposed therewith. The slots are L-shaped and are designed to cooperate with a pair of L-shaped flanges **214** and **216** which are formed at the longitudinal outer edges of a tray **218** which is adapted to be inserted therein. Thus, the tray is adapted to be used for small articles wherein the vertical height of the main container may be cut in half by providing an auxiliary tray **218** slidably mounted therein.

As is illustrated in FIG. 21, the upper flanges **184** and **186** may be used in the stacking relation wherein a slot **222** formed in the lower edge of the projection **172** may be used in cooperation with the slot **187** described in conjunction with FIGS. 10 to 19 to interact with upwardly extending flange **186** to provide the stacking relation. Like-

wise, the other ends of the stacked and supported containers may cooperate in a manner similar to that shown in FIG. 21 to support the opposite end of the container. The containers **204** are adapted to nest in a manner identical to that described above.

FIG. 22 is a perspective view of one form of displaying the goods in the containers of FIGS. 20 and 21. As is seen, the front inclined edges of the end walls **210** and **212** are all aligned thus presenting a smooth front for displaying a plurality of loaves of bread therein. As the bread is taken from the upper container and the container emptied, it is removed and the goods of the next higher container are displayed, and so forth. If the projection and aperture configuration were used to stack the containers as illustrated in FIG. 18, the front alignment of the inclined surfaces as illustrated in FIG. 22, would not be possible and a less stable stack would be achieved. Thus the slots **187** and **222** engaging upper flange **186** are utilized to offset the stacked containers relative to each other. The stack of containers is adapted to be supported on a generally triangular shaped rack **224** to provide an inclination to the stack, thus best displaying the goods contained in the trays **204**. It is to be noted that the support pads may be omitted for this type of stack, as illustrated in FIG. 22.

While it will be apparent that the embodiments of the invention herein disclosed are well calculated to fulfill the objects of the invention, it will be appreciated that the invention is susceptible to modification, variation and change without departing from the proper scope or fair meaning of the subjoined claims.

What is claimed is:

1. A container of the stacking and nesting type which is adapted to be stacked on a like container when turned end-for-end relative thereto comprising; a bottom, a first wall attached to said bottom having first support means cantilevered from an upper edge thereof, a second wall attached to said bottom having second support means cantilevered from an upper edge thereof, said first and second support means including strap means connected to the respective walls and forming a generally horizontally disposed aperture, said strap means projecting into said container, in its vertical dimension, a miminal distance as compared to the vertical dimension of said container means including projection means formed adjacent the edge of said bottom, said projection means engaging said aperture, for interlocking with the second and first support means, respectively, of a like container when turned end-to-end relative thereto and stacked thereon for supporting the like stacked container.

2. A container as set forth in claim **1** wherein a third wall is attached to said bottom having second support means cantilevered from an upper edge thereof, a fourth wall attached to said bottom opposite to said third wall having third support means cantilevered from an upper edge thereof, and second and third interlocking means formed adjacent a lower edge of said third and fourth walls respectively including projecting means depending therefrom adapted to engage a third and second support means of a like container when turned end-for-end relative thereto and stacked thereon, said first, second and third support means including strap means connected to the respective walls.

3. A container as set forth in claim **2** wherein said strap means are formed of a generally U-shaped strap forming an aperture spaced from said bottom.

4. A container as set forth in claim **1** wherein each of said walls forms a substantially smooth inner and outer surface.

5. A container as set forth in claim **3** wherein interlocking means are formed adjacent a lower edge of said respective walls and include projecting means depending therefrom adapted to engage the support apertures of the opposite walls of a like container when turned end-for-end relative thereto and stacked thereon.

6. A container as set forth in claim **1** wherein substantially vertical ribs are formed on an outer surface of said walls, said ribs adapted to engage the upper edge of a like supporting container when nested therein to space the bottom of said container within the supporting container.

7. A container of the stacking and nesting type which is adapted to be stacked on a like container when turned end-for-end relative thereto comprising a bottom, a pair of oppositely facing end walls having interlocking means formed thereon for nesting a plurality of like containers when alternate containers are turned end-for-end relative to the other containers and stacked thereon, guide means for guiding stacked containers into vertical aligned relation when a stacked container is slid across a supporting container, said guide means including projecting means generally centrally projecting from an upper edge of at least one of said end walls, and guide element means depending from said bottom and adapted to engage the projecting means of a like container when a stacked container is slid across an end wall of a like supporting container, said guide element means including elements extending substantially entirely across a central portion of said bottom, said elements being generally spaced and converging toward at least one edge of said bottom.

8. A container as set forth in claim **7** wherein said guide means include guide elements depending from said bottom and extending substantially the entire longitudinal dimension of said bottom.

9. A container as set forth in claim **8** wherein said guide elements are adapted to engage a projection of a like container when said bottom is slid across the end wall of a like container and guide the projection to said opening, thereby vertically aligning a plurality of containers into stacking relation.

10. A container as set forth in claim **7** wherein said guide element means depend from said bottom include a pair of transversely spaced, continuous guide elements forming a generally diamond-shaped area open at the longitudinal ends thereof and extending substantially the entire longitudinal dimension of said bottom.

11. A container as set forth in claim **10** wherein the said guide elements have a pair of transversely spaced, longitudinally extending, parallel projections formed adjacent a longitudinal outer edge thereof.

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