Sept. 25, 1962 W. J. DE CHELBOR 3,055,531

CARRYING CASE WITH PARTITIONS

Filed May 3, 1960 6 Sheets-Sheet 1

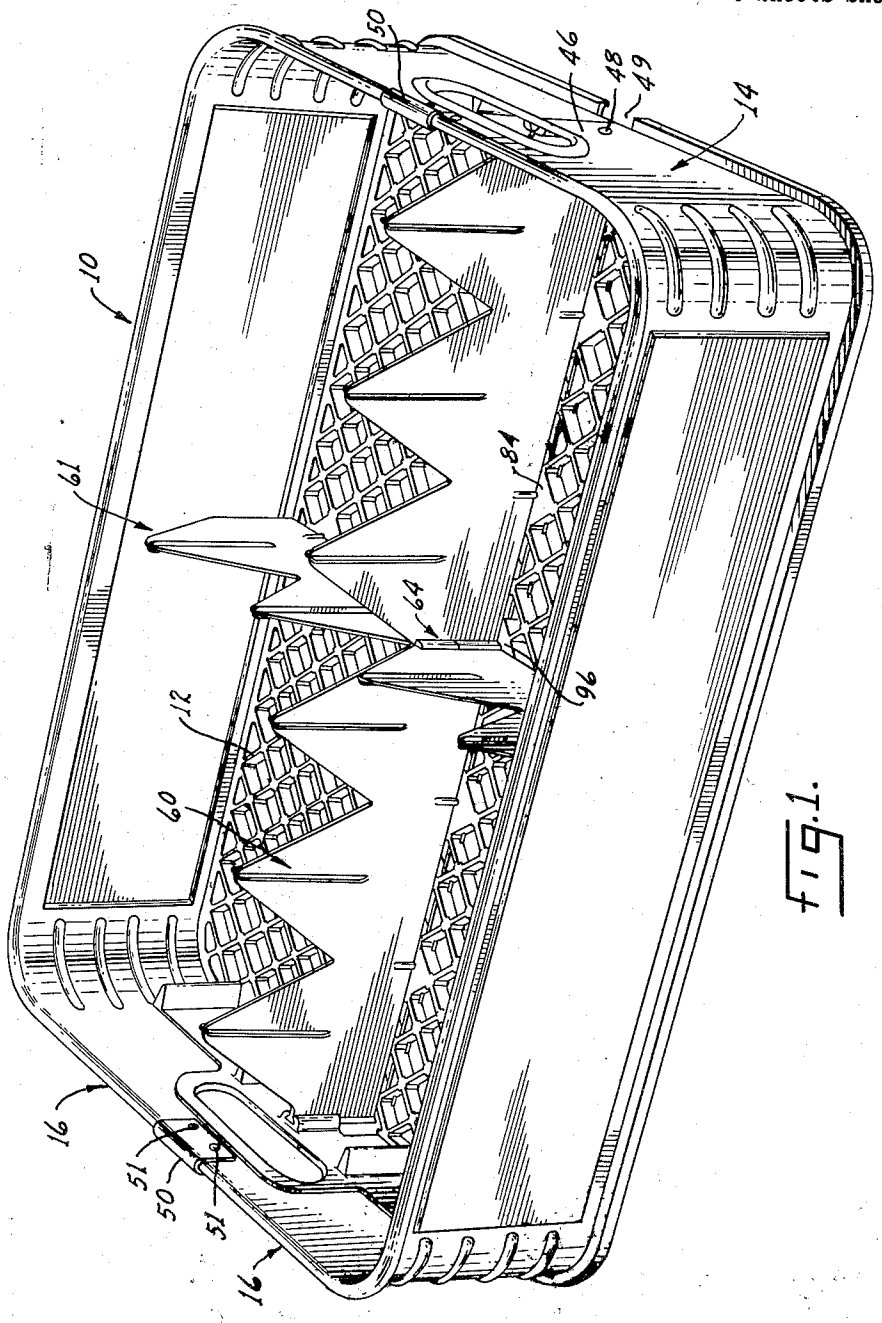


Fig. 1.

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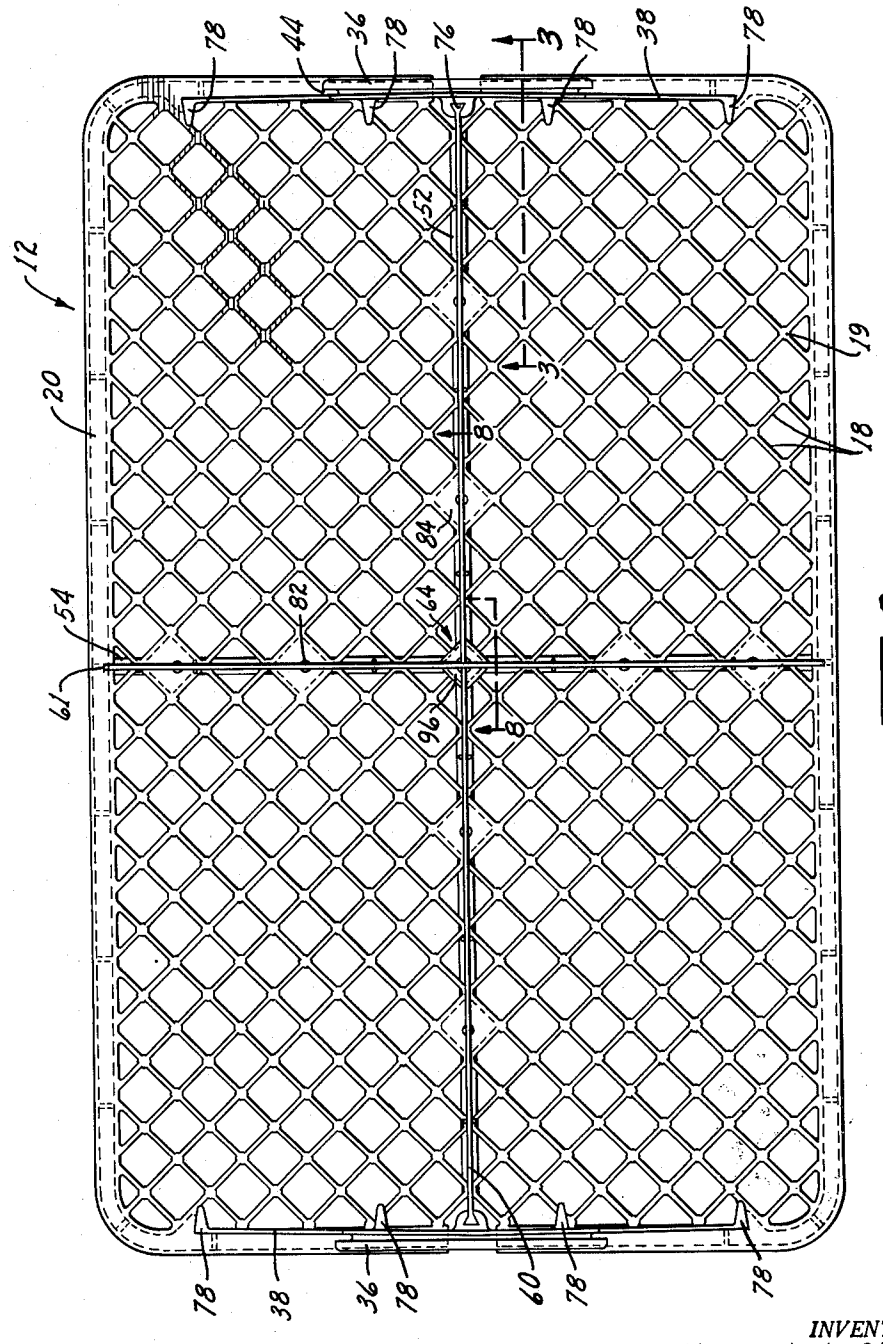


FIG. 2.

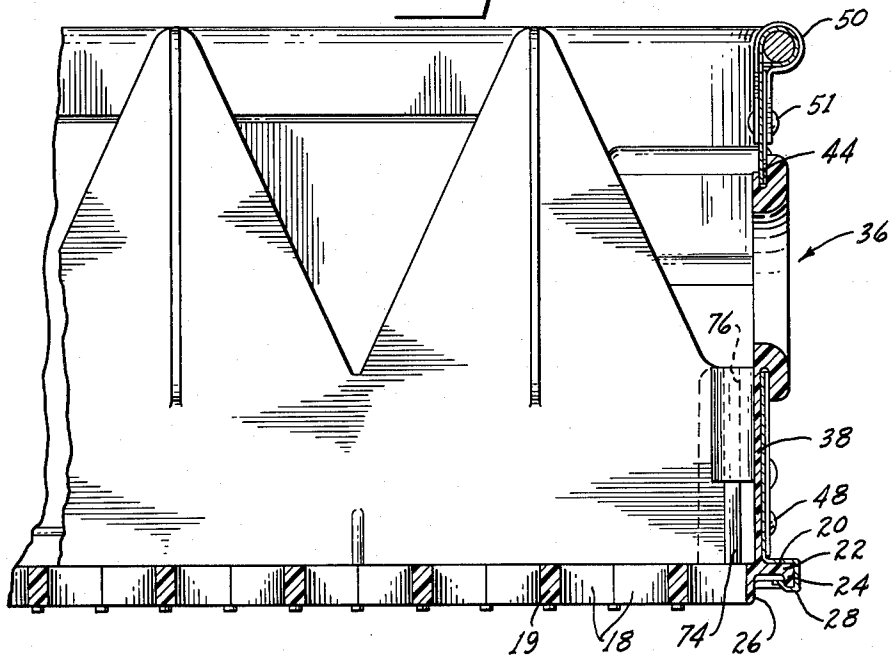
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Fig. 3.



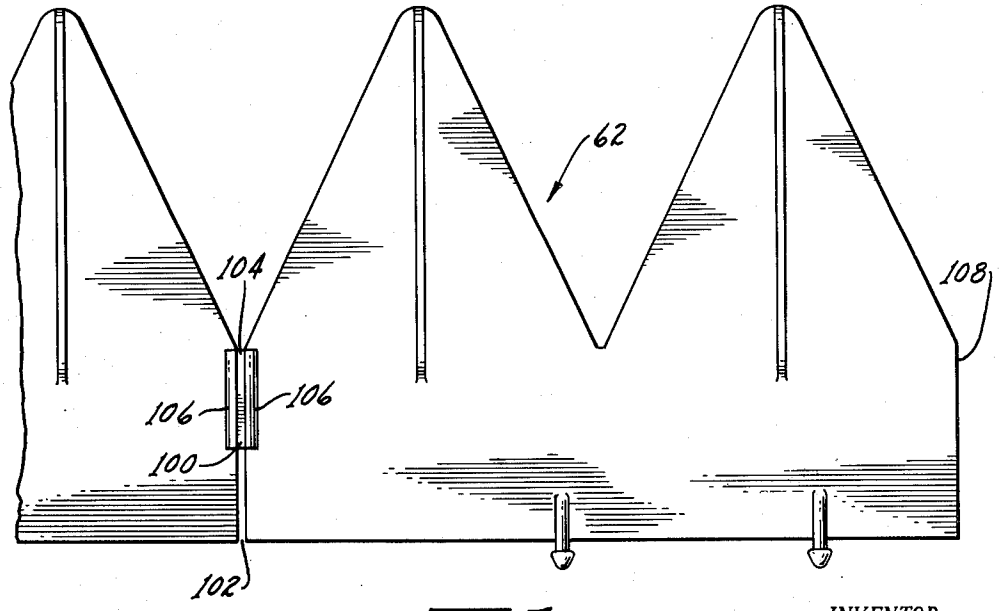


Fig. 7.

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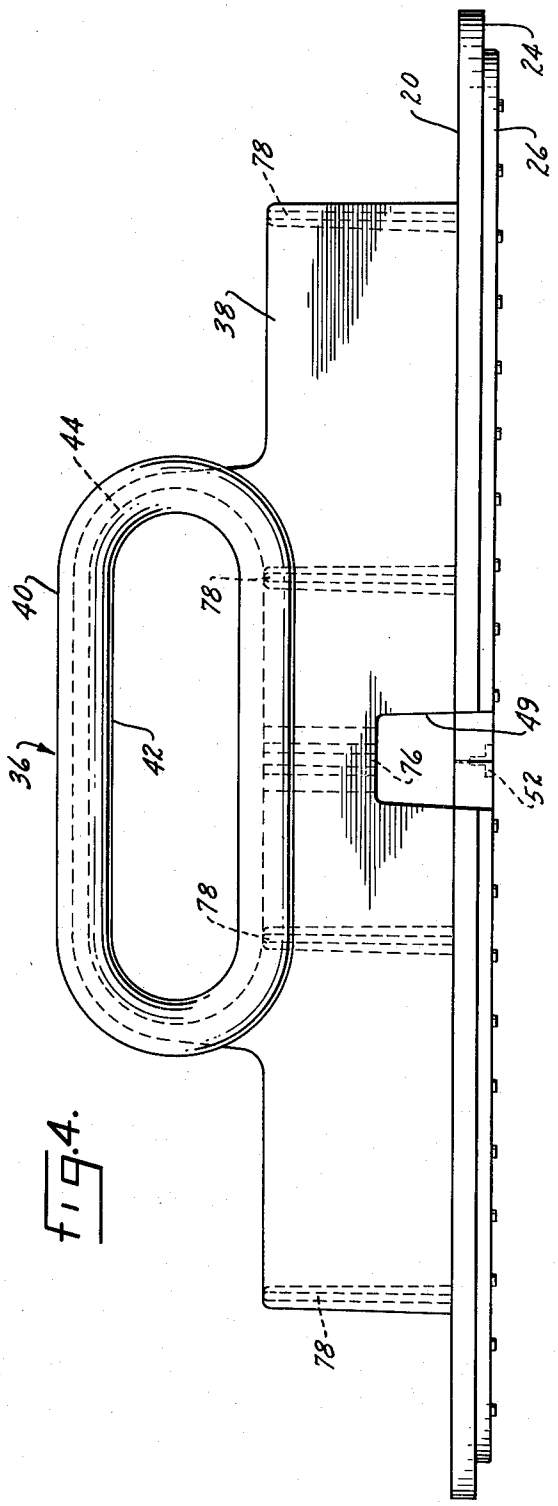


Fig. 4.

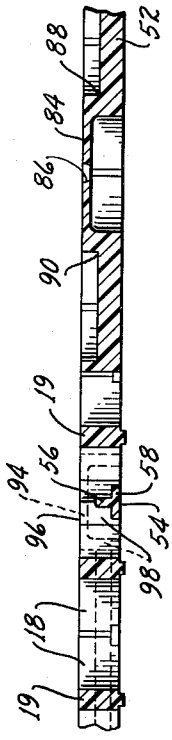


Fig. 8.

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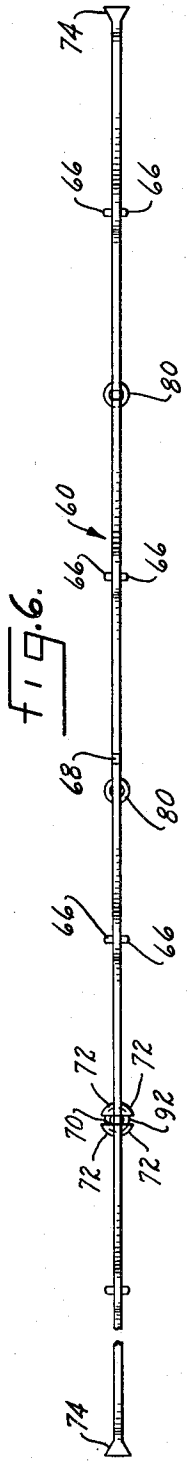


FIG. 6.

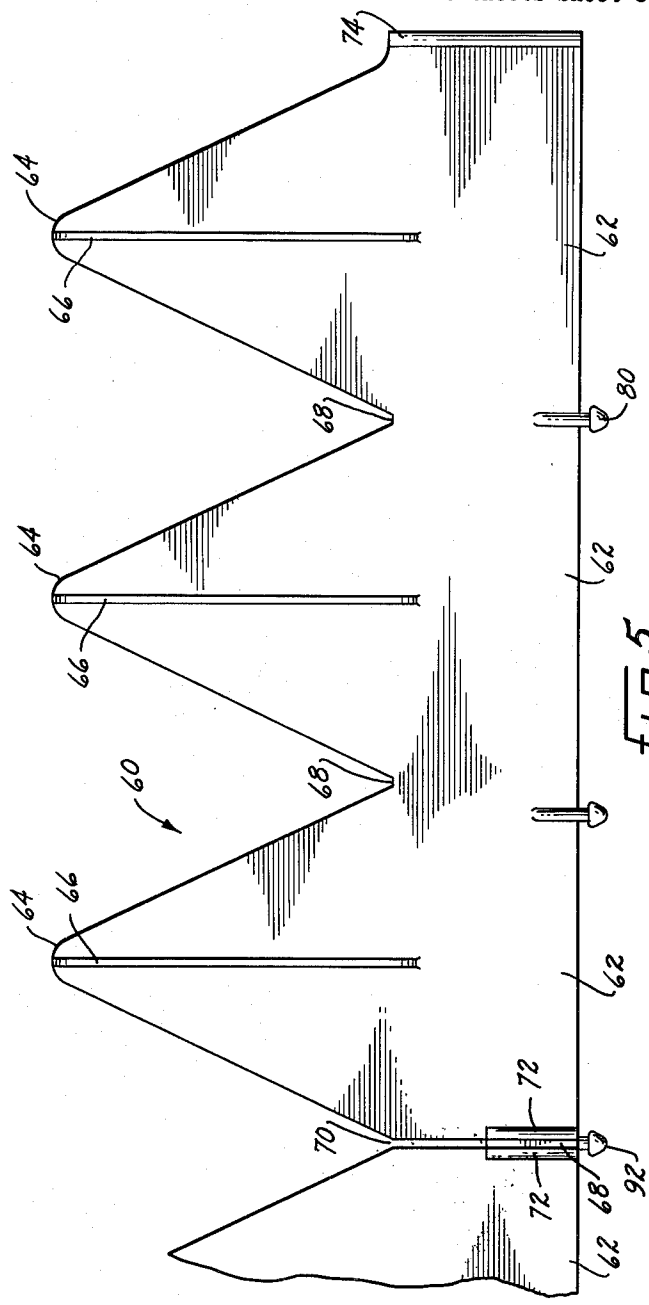


FIG. 5.

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CARRYING CASE WITH PARTITIONS

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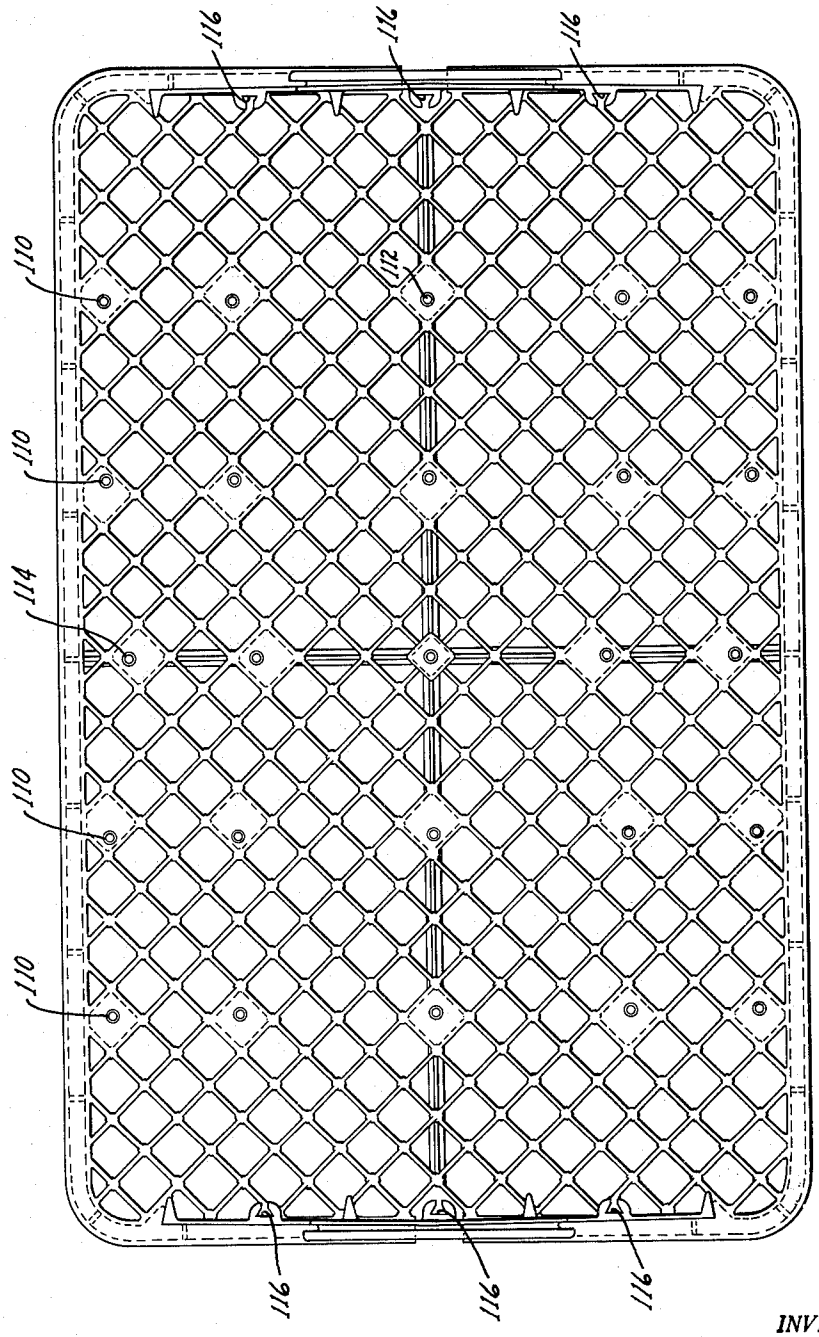


Fig. 9.

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3,055,531

CARRYING CASE WITH PARTITIONS

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Filed May 3, 1960, Ser. No. 26,496
11 Claims. (Cl. 220—21)

This invention is in the field of pop bottle carrying cases and is concerned with a combination plastic and metal carrying case which has versatility and may be used to carry twenty-four individual bottles, three eight-packs or four six-packs.

A primary object of the invention is a carrying case with removable partitions.

Another object is a removable partition structure for the carrying case which does not increase expense appreciably.

Another object is a combination plastic and metal carrying case in which plastic partitions may be used to divide the case into a variable number of individual compartments or pockets.

Other objects will appear from time to time in the ensuing specification and drawings in which:

FIGURE 1 is a perspective view of the carrying case;

FIGURE 2 is a top plan view of the base with the sides or body removed;

FIGURE 3 is a section along line 3—3 of FIGURE 2, on an enlarged scale;

FIGURE 4 is an end view of the base in FIGURE 2, on an enlarged scale;

FIGURE 5 is a side view of a partition;

FIGURE 6 is a top view of FIGURE 5;

FIGURE 7 is a side view of the other partition;

FIGURE 8 is a section along line 8—8 of FIGURE 2, on an enlarged scale; and

FIGURE 9 is a top plan view of a variant form.

In FIGURE 1, the carrying case has been indicated generally at **10** and broadly includes a base **12** surrounded by sides or a body **14**. The body may be divided into two U-shaped sections **16** which may be similar to and formed in and around the base in a manner set forth in my copending application Serial No. 852,853, filed November 13, 1959.

In FIGURES 1 and 2, the base is shown as made up of a grill or grid composed of diagonal struts **18** of plastic. It will be noted that the struts are integrally connected at joints **19** or points of intersection and the entire base is surrounded by a rim **20** which has a flange **22**, as shown in FIGURE 3, turned down at its outer end into an outer leg **24** and an inside leg **26**, shown in cross section in FIGURE 3. The rim also is of plastic and the diagonals or struts merge integrally into the inside leg **26** of the rim, as shown in FIGURE 3. It will be noted that the depth or height of the struts is substantially more than their thickness which provides rigidity and strength against lateral or longitudinal flexing or distortion.

The body sections **16** are generally U-shaped and in assembly are brought in from opposite sides and connected around the handles in the center of the ends, in a manner set forth in my copending application. The sides are preferably made of light gauge metal and the lower edges, as at **28**, are rolled or crimped around or under the outer leg **24** of the plastic rim.

Returning to the base, I provide upstanding handles **36** at each end which are integrally formed with the rim of the base. Each handle has an upstanding partition or panel **38** connected integrally to the rim of the base with an enlargement or bead **40** formed above it defining a laterally elongated handle **42**. The bead has a continuous outwardly opening groove **44** encircling it, possibly best shown in FIGURE 3. Each leg of the U-shaped

body section has a slot cut or otherwise formed therein, and it will be noted in FIGURE 1 that these slots fit in the encircling groove **44** and handle bead. When the U-shaped body sections are brought together from opposite sides, the slots on each section slide in the groove **44** around the handle bead and a degree of overlap, as at **46**, is provided between the sides of the body sections so that a suitable connection may be made both above and below the handle bead. For example, a rivet **48** connected through an opening **49** in panel **38** may hold the ends of the body section together below the handle and a lap over or wrap around bracket **50** with two rivets **51** may be used above, as shown in FIGURE 3.

I provide T-shaped longitudinal and lateral under ribs **52** and **54**. The upstanding portion **56** of each such rib, in FIGURE 8, is between the struts, while the cross piece **58** is more or less flush with the bottom of the struts.

In FIGURE 1, I have shown a longitudinal divider **60** removably positioned in the case generally midway between the sides. I also position a lateral divider **61** midway between the ends and crossing the longitudinal divider at the center, designated generally **64**. Although a different arrangement and number of dividers, both lateral and longitudinal, may be used, as set forth hereinafter, in connection with FIGUGRE 1, I use only one of each to divide the container into four generally equal pockets or compartments, each of which may be large enough to accept a standard six bottle carrying case or six-pack.

Considering the longitudinal divider **60** in detail, as shown in FIGURE 5, it includes a plurality of webs or panels **62** each of which slopes up to a rounded top **64** with a cross bead **66** on each side in the center. The width or extent of the cross beads may be varied to determine spacing of the cartons or bottles. The panels **62** are connected to each other by a joint **68** which may merely be solid. I provide a joint in the center where the two dividers overlap. For example, the upper portion may be open or slotted at **70** with the lower portion **68** closed and flanked on both sides by beads or strips **72** to form an interlock for the lateral panel across it having a symmetrically opposite joint. The end panel has a T or dovetail enlargement **74** which fits in a dovetail groove **76** formed on the inner surface in the center of the end panel **38** between the handle and opening **49**. Thus, the longitudinal divider will be solidly anchored at each end to the handle structure, and I may also provide inwardly extending ribs or spacers **78** at spaced intervals along the inner surface of the handle panel **38**.

As shown in FIGURE 5, the divider has a plurality of spaced buttons or projections **80** on its lower edge, each of which has an enlarged head to button into a socket in the base, such as at **82** in FIGURE 2. The socket includes a top surface **84** closing the top of an opening between the struts with a center hole opening **86** to accept the button with a forced fit. It will be noted that the socket is in line with the under rib **52** and I prefer that the rib stop on each side or merge into the strut junction, as at **88** and **90** in FIGURE 8, but not cross the socket. The divider is provided with a center button **92** which fits into a socket **94** that varies somewhat from the others in that it is at the junction of two struts. So I provide a top plate **96** which is surrounded by a depending rib **98** into which the incoming struts merge. The underside of the socket is open, like the other sockets, so that the head of the button may project through. Also, the under ribs **52** and **54** merge into the skirt **98** and stop.

As shown in FIGURE 7, the lateral divider **62** is similar to the longitudinal divider except that the joint **100** has an open slot **102** at the bottom with the top portion closed, as at **104**, and flanked on each side by strips **106**

which is the reverse or complement of the longitudinal divider. The ends of the lateral divider are merely blunted off, as at 108, and no connection to the side wall is considered necessary. The buttons and sockets between the lower edge of the lateral divider and the base may be the same, and while I have shown five such joints for the longitudinal divider and four for the lateral without a center socket, more or less may be used.

I might provide more than one lateral divider, and also more than one longitudinal divider. For example, in FIGURE 9 I show four lateral rows of sockets 110. Or the sockets might be considered to be arranged in four longitudinal rows. These are in addition to the longitudinal rows of sockets 112 for the center longitudinal divider and the lateral rows of sockets 114 for the center lateral divider. In this case I prefer that the dividers be integral with each other and molded together in the form of a web or grill to be inserted as one piece. All of the buttons would snap into the sockets at once or in sequence. The longitudinal dividers would dovetail into a plurality of T joints 116. For example, I show three at each end somewhat equally spaced on the inside of the handle panel, and I might use any number. Since I divide the case into twenty-four pockets of four longitudinal rows with six pockets in each row, or stated another way, six lateral rows with four pockets in each row, three dovetail connections at each end, one for each divider, is preferred. The entire grid work would be lowered as a unit from above with the dovetails fitting into the end connections and the buttons socketing into the base or grid connections by vertical pressure. I might mold the dividers separately or in units which could be individually inserted and connected. But I prefer that the divider structure be one integral grill which I can insert in one operation. In the FIGURE 9 form, the buttons may be on the lower edge of either the lateral or longitudinal strips or dividers, and in this sense the socket placement shown in FIGURE 9 is not critical.

The use, operation and function of the invention are as follows:

I provide a carrying case with substantial versatility. For example, the case may be used to carry three eight-pack cartons. To do this, only the container itself would be used and no dividers. Three eight-packs could be put inside of the container extending laterally, one next to the other.

Next, if the case is to be used to carry four six-packs or six bottle cartons, the center lateral and longitudinal dividers would be inserted and connected to define four six bottle carton pockets.

Next, if the case is to be used to carry twenty-four individual bottles, three longitudinal and five lateral dividers would be inserted, which would establish twenty-four individual pockets. Or it might be an integral grill. In all cases, the dividers may be made with the ribs, such as at 66, in the center of each panel 62, sticking out far enough to define the size of pocket desired. It should be noted that in all cases, the base and frame or the basic container may be the same. Thus, the molder only needs to have the molding equipment and assembling machinery to make one piece and frame. The dividers or partitions may be separately molded and supplied where necessary. The manufacturer can thus supply three different types of carrying cases from one basic model.

Where the partitions are used, the joints are strong and rigid, and if any partitions are broken or damaged, they can be quickly and easily replaced. When the case is used without partitions for three eight-packs, the grid type base is strong and the carrying thrust or load or bottle weight goes directly through the handle structure from the base. In fact, the U-shaped sides that fit in around the bead of the base and the handle structure can be dimensioned so that they carry a minimum of direct load.

While I have shown and described the preferred form and several modifications of my invention, it should be understood that suitable additional modifications, changes, substitutions and alterations may be made without departing from the invention's fundamental theme. I, therefore, wish that the invention be unrestricted except as by the appended claims.

I claim:

1. In a carrying case for pop bottles and the like, an elongated rectangular base, handles upstanding at each end and being formed integrally with the base, an upstanding body around the base connected to the edges thereof and defining an open top container therewith, the body being formed around the upstanding handles so that lifting forces will be transmitted directly from the handles to the base, and a partition structure in the container including lateral and longitudinal dividers removably connected to the base, the longitudinal dividers being connected to the handles at each end by tongue and groove connections.

2. The structure of claim 1 further characterized in that the dividers are removably connected to the base by spaced socket connections, each such connection including a projecting button on the lower edge of the divider and a socket in the base.

3. The structure of claim 1 further characterized in that the base is formed with intersecting integral diagonally disposed ribs to form the interior of the base into a generally open grid, some of the sockets being formed at the point of intersection between two ribs and others being formed in the opening between adjacent ribs.

4. The structure of claim 1 further characterized in that each handle includes an upstanding plate integral with the base and a laterally elongated opening at the top of the plate defining a handle opening.

5. The structure of claim 1 further characterized by and including a bead extending around the laterally elongated opening and defining a continuous groove, the body of the container including a pair of U-shaped sections disposed along each side and extending inwardly around each end and interlocking around the handle, the body sections being notched and fitted into the continuous groove, both above and below the handle opening and on each side thereof.

6. The structure of claim 5 further characterized in that the handle structure includes at each end upstanding laterally elongated panels integral with the base, a laterally elongated handle opening rising above and integral with the panel, spacers projecting longitudinally from the inner surface of the panel, and an opening through the panel below the handle opening to accept a connection joining the body sections together.

7. The structure of claim 1 further characterized in that the handles at each end include upstanding laterally elongated panels integral with the base, a laterally elongated handle opening rising above and integral with the panel, and spacers projecting longitudinally from the inner surface of the panel.

8. The structure of claim 1 further characterized in that each of the dividers includes a plurality of panels tapered at the top with a right angle rib extending from each side thereof and disposed generally in the center, and a joint between each panel with a vertically opening slot to accept a corresponding but symmetrically reversed joint in a similar such panel.

9. The structure of claim 1 further characterized in that the dividers of the partition structure are integral with each other so that the partition structure is inserted in the base as a unit.

10. In a carrying case for pop bottles and the like, an elongated rectangular plastic base, an upstanding body around the base connected to the edges thereof defining a generally open top container, a plastic partition structure in the container including dividers removably connected

to the base, and means for removably connecting the dividers to the base, including a series of spaced socket connections, each such connection being responsive to pressure directed generally normal to the base for connection and disconnection thereof and including a headed projection on one and a socket on the other providing a snap fit and proportioned to interlock with the projection.

11. The structure of claim 10 further characterized in that the partition structure includes lateral and longitudinal overlapping dividers, the longitudinal divider only being connected to the end walls of the body by vertically sliding dovetail connections.

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