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S. L. BELCHER ET AL

3,353,704

BEVERAGE CASE

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3 Sheets-Sheet 1

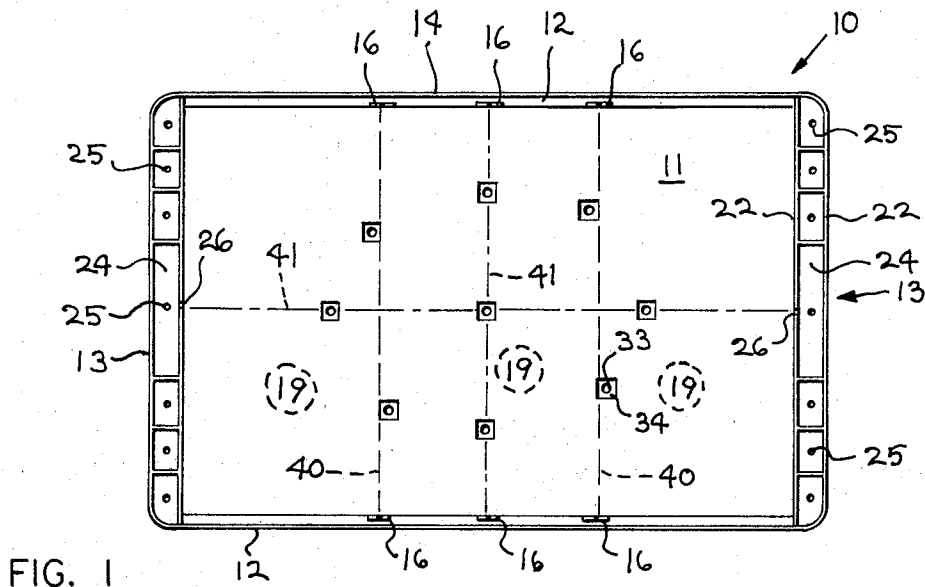


FIG. 1

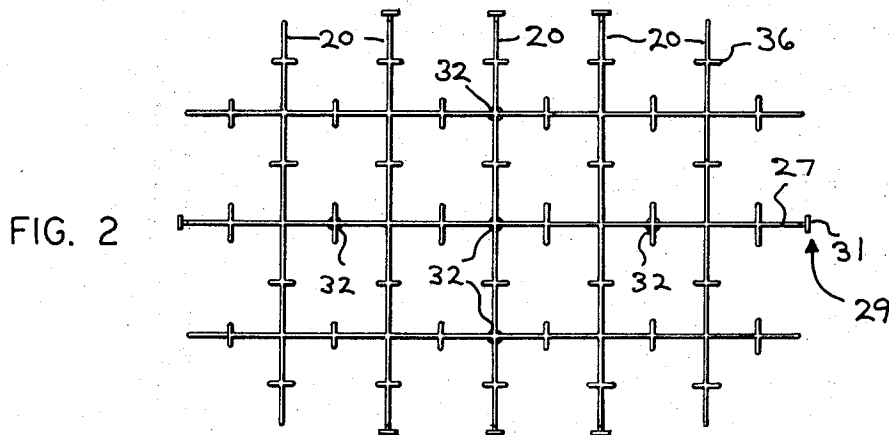


FIG. 2

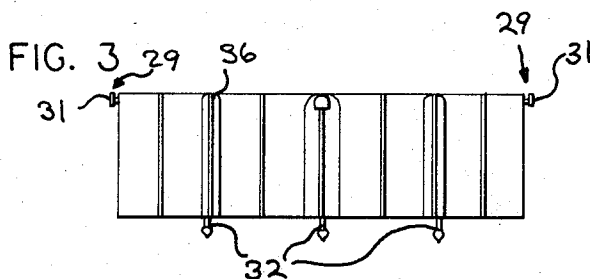


FIG. 3

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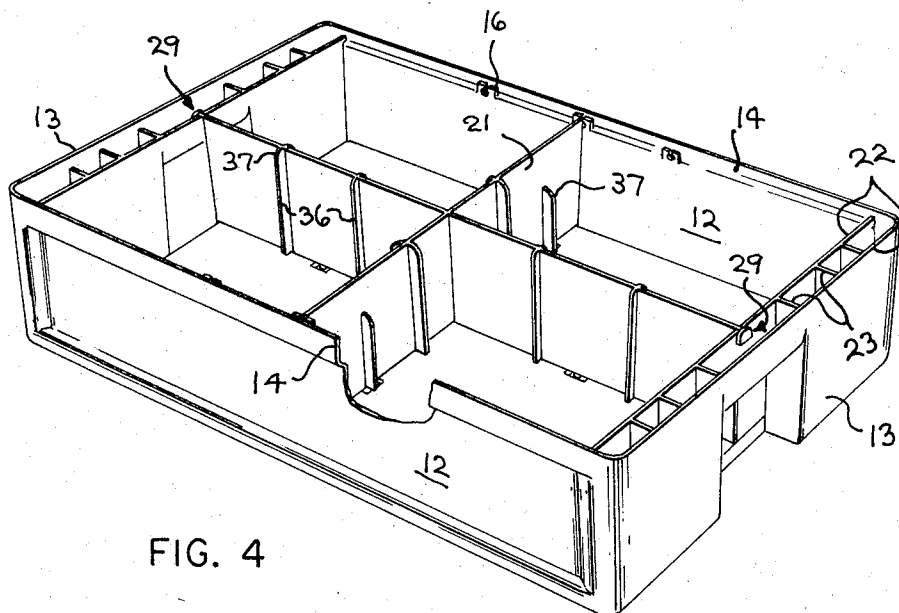
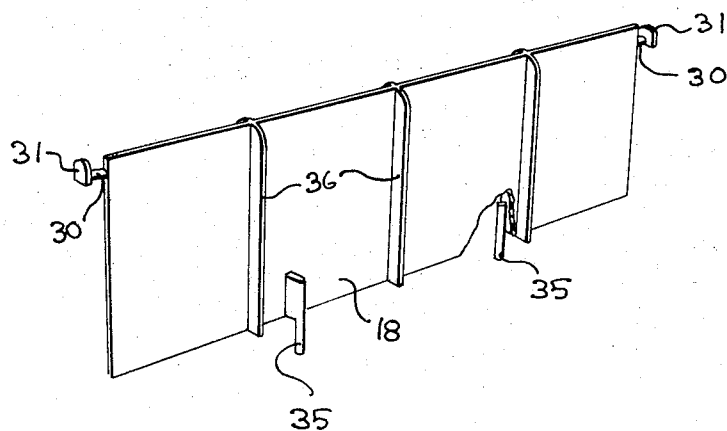
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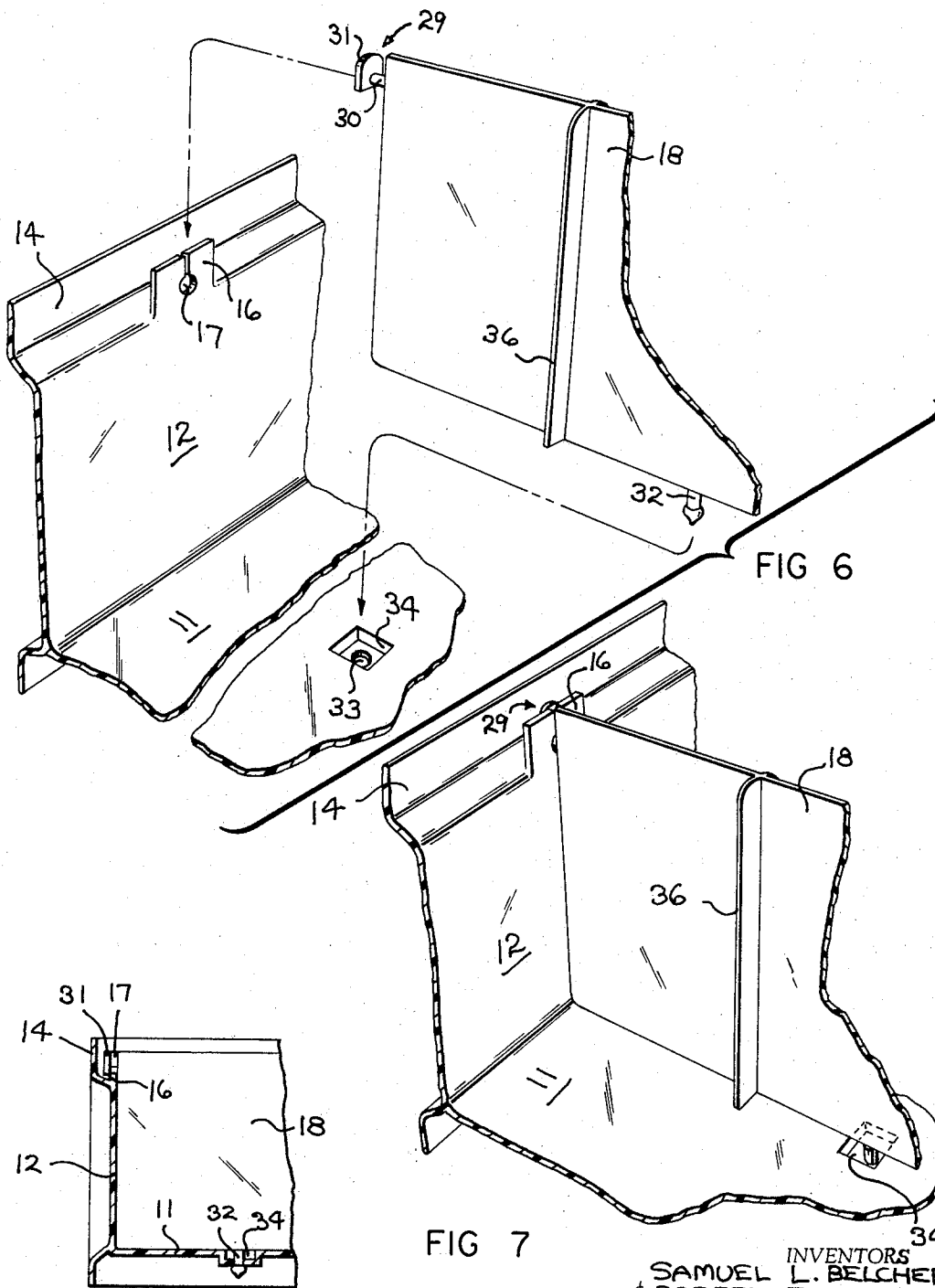


FIG. 8

FIG 7

FIG 6

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3,353,704

BEVERAGE CASE

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3 Claims. (Cl. 220-21)

Our invention relates to beverage cases of the type widely used to hold twenty-four bottles and an important object of the invention is the provision of a universal basic case which, through the substitution of simple, readily interchangeable dividers, or partitions, may accommodate, for example, twenty-four bottles, whether these bottles are pre-packaged in individual six-pack or eight-pack paperboard "take-home" cartons, or merely placed in cells suggestive of the conventional form.

Another object of our invention is the provision of a basic beverage bottle case which can accommodate "snap-in" type, readily removable dividers of any of several different forms, such being designed to render the case useful in holding either four six-pack or three eight-pack bottle cartons, or, if preferred, a divider unit, which, when secured in the case, provides twenty-four bottle-receiving cells.

It is also an object of our invention to provide a universal basic case of the above character in which the bottom and walls are provided with devices capable of holding engagement with means on the dividers to removably secure them in place.

Furthermore, it is an object of our invention to provide a universal beverage bottle case wherein the dividers are secured in the case by means of guide-fingers projecting into or through pre-formed apertures in the case bottom or floor and secured against accidental separation from the case by means of headed pins cooperating with key-slots in the upper areas of the case side and/or end walls.

Likewise it is an object of our invention to provide in a case of the above character, means for separably securing dividers to both the bottom and side and end walls of a plastic case, or, if preferred, heat sealing selected dividers to the case walls.

Finally, it is an object of our invention to provide a lightweight plastic beverage bottle case of the above character in which separable dividers are formed with vertical ribs arranged and designed to facilitate insertion of bottles into their cells or cartons in their compartments and to insure proper fitting of the bottles or cartons in the case.

Thus it is understood that with our universal beverage bottle case and what we identify as "lock-in" dividers, beverage bottlers may load the cases either with or without the dividers in place, so as to accommodate either "take-home" cartons of bottles, or twenty-four bottles in a like number of cells.

Other objects will be in part apparent and in part pointed out hereinafter.

In the accompanying drawings:

FIG. 1 is a top plan view of a basic beverage bottle case embodying devices positioned for cooperation with pins or such holding means on insertible dividers to releasably secure the latter in place.

FIG. 2 is a top plan view of a divider unit which, when assembled with the basic case, creates twenty-four bottle accommodating cells.

FIG. 3 is an end elevational view of the unit shown in FIG. 2, illustrating the locking devices.

FIG. 4 is a perspective view of the basic case with a removable divider unit which creates compartments or cells to receive four six-pack bottle cartons or carriers.

FIG. 5 is a perspective view of a divider, two of which are positioned transversely of the case to create three

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compartments to receive three eight-pack bottle cartons.

FIG. 6 is a fragmentary perspective view detailing the means for separably securing the dividers to the side and/or end walls and bottom of a case.

FIG. 7 is a view similar to FIG. 6, but with the divider in final locked-in position.

FIG. 8 is a fragmentary detail sectional view showing the separable connection between an end of a divider and the basic case.

In the illustrated embodiment of our invention the beverage case 10 is formed of a suitable plastic material and may well comprise a bottom 11, or floor, of rectangular outline with upstanding interconnected side and end walls 12 and 13 respectively. The side walls 12 (FIGS. 1 and 6) have their upper area 14 offset outwardly, providing an inclined longitudinal shelf 15. At the inner margin of each such shelf is a longitudinal series of three equidistantly spaced apart lock devices, each being an upstanding flat finger 16 having an upwardly opening key-slot 17. The two end devices are spaced substantially equidistantly from each other and from the end walls 13, so that two transverse vertical dividers 18 connected to these devices and the end walls 13 of the case together create three like compartments 19 or cells to accommodate three eight-pack bottle cartons of bottles (not shown). The details of this feature will be described presently. The three lock devices engage parts of a divider which may be either the three cross-members 20 (FIG. 2) or alternately, the center lock-device may engage the single cross-divider 21 (FIG. 4). The end walls 13 are each formed as two spaced-apart sheets 22 connected together by webs 23. There may, if desired, be a bottom 24 interconnecting the webs, such bottom 24 having drain openings 25 formed therein for obvious reasons.

Intermediate the ends of each end wall 13, at its upper margin, is an upwardly opening key-slot 26 (FIG. 1) functioning as part of means for securing the ends of either the longitudinal divider element 27 (FIG. 2) or the divider element 28 (FIG. 4) to the end walls. The dividers at the ends of their upper margins have connectors 29, each comprising a longitudinal neck 30 and a head 31 at the free end of said neck. Each such neck is of slightly greater diameter than the width of one of the key-slots so that the slot walls spread during assembly and when assembled, the dividers are not going to become displaced accidentally because the necks 30 cannot slip out of the slots. In order to stabilize the dividers and thus secure them in vertical positions against tilting, each has one or more pendent headed guide pins 32 which fit snugly, yet releasably, if desired, into apertures 33 (FIG. 6) in the floor or bottom of the case. If preferred, each such aperture may be in the bottom of a small well or recess 34. These recesses 34 and apertures are arranged in a definite pattern as shown in FIG. 1, so that they can cooperate with certain of the key-slot lock devices in securing in place any of the dividers shown in FIGS. 2, 4, or 5, thereby to create the desired compartments or cell arrangement. It thus is evident (FIG. 1) that when the twenty-four cell divider of FIG. 2 is utilized, the three longitudinally aligned center apertures 33 and the two apertures transversely aligned with the center aperture receive the five depending guide pins 32. It is also evident that with the divider 28 (FIG. 4) in place the guide pins 32 thereon will utilize the same apertures 33 as does the twenty-four cell divider, except for the center aperture, which will not be used. When three eight-pack cartons are involved, two of the cross-dividers 18 (FIG. 5) are used and these may have plain guide pins 35 entering the transverse pairs of apertures 33 nearest the end walls.

The numerous vertical ribs 36 on the dividers, with

such ribs having curved or tapered upper ends 37, function as guides facilitating placement of individual bottles or "take-home" cartons of bottles in the case. The also insure proper fitting of the bottles and/or cartons in the case, it being apparent that since the overall inside dimensions of the case must of necessity be adequate to accommodate the twenty-four cell divider (FIG. 2) the six and eight-pack cartons, being of lesser total area, would fit quite loosely in their compartments if there were no ribs 36 to act as fillers.

In FIG. 1 we have indicated the positions of certain dividers in relation to the bottom apertures 33 necessary to produce the previously described compartments for receiving the six and eight-pack "take-home" cartons or carriers. The two transverse series of equally spaced-apart dash lines 40 show the locations of the dividers 18 of FIG. 5 relative to selected pairs of the apertures 33 into which pendent guide pins on these dividers fit. These, together with the end walls of the basic case, create the three, eight-pack carton receiving compartments 19. The two series of dot and dash lines 41 (FIG. 1) indicate the relationship between the dividers 28 forming the four six-pack carton receiving compartments of FIG. 4 and the cooperating bottom apertures.

In view of the foregoing, it is apparent that we have a universal beverage bottle case which, through the simple expedient of divider substitution, as explained herein, will allow beverage bottlers to use our basic case to hold either four six-pack or three eight-pack "take-home" cartons, or, if desired, twenty-four cells, comparable basically to conventional practice.

Modifications may be resorted to within the spirit and scope of the appended claims.

We claim:

1. A beverage bottle case formed of a plastic material and comprising a generally rectangular bottom, upstanding side and end walls rising from the periphery of the bottom, there being upstanding fingers formed integral with but spaced inwardly from the inner face of outwardly offset upper marginal portions of each side and end wall provided with key slots opening upwardly through the upper margin of said fingers, the bottom

having a multiplicity of apertures therein arranged in a predetermined relationship to said key-slots, compartment or cell-creating dividers in the case, means separable connecting the ends of the dividers to selected key-slots, and guide pins depending from the bottom edge of the dividers and entering certain of the apertures.

2. A beverage bottle case as defined in claim 1, the last-named means being isolated headed necks near the upper margin of the dividers with the necks fitting into the key-slots and the heads positioned to hold the necks against excessive, if any, lengthwise movement.

3. A beverage bottle case formed of a plastic material and comprising a generally rectangular bottom, upstanding side and end walls rising from the periphery of said bottom, each side wall having at its upper margin a longitudinal series of three equidistantly spaced apart upwardly opening key-slots with the endmost slots spaced from each other a distance substantially the same as the distance between said slots and the end walls of the case, the key-slots being arranged in transversely aligned pairs across the case, each end wall having a medially located upwardly opening key-slot in its upper margin, and the bottom having a row of apertures substantially in alignment with each pair of key-slots, the side walls having upper areas offset outwardly to create a longitudinal inwardly sloping section and upstanding fingers at the juncture of the sloping section and the major portion of the wall and spaced inwardly from the upper margin of the latter, said key-slots being formed in said fingers.

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