

June 24, 1958

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2,840,256

BEVERAGE BOTTLE CASE

Filed May 3, 1956

2 Sheets-Sheet 1

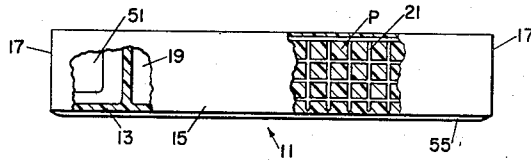


FIG. 1.

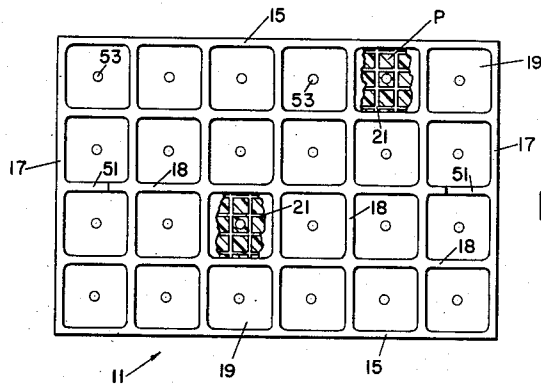


FIG. 3.

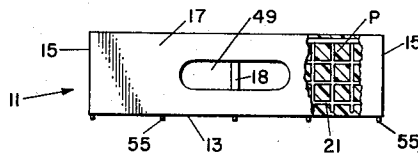


FIG. 2.

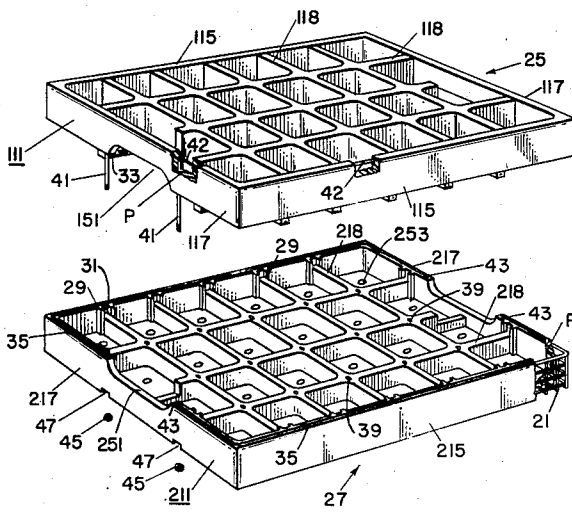


FIG. 4.

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2 Sheets-Sheet 2

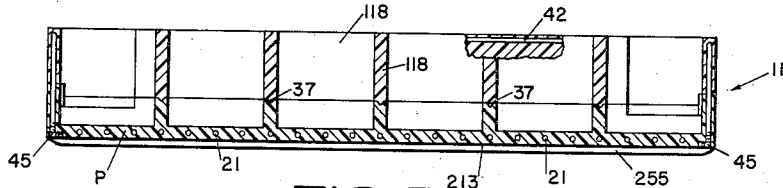


FIG. 5.

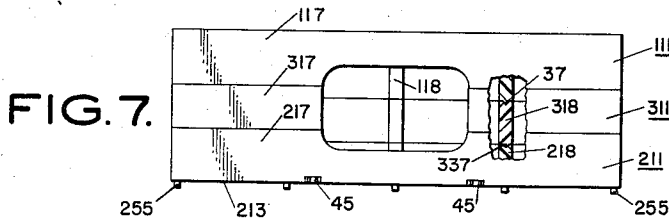


FIG. 7.

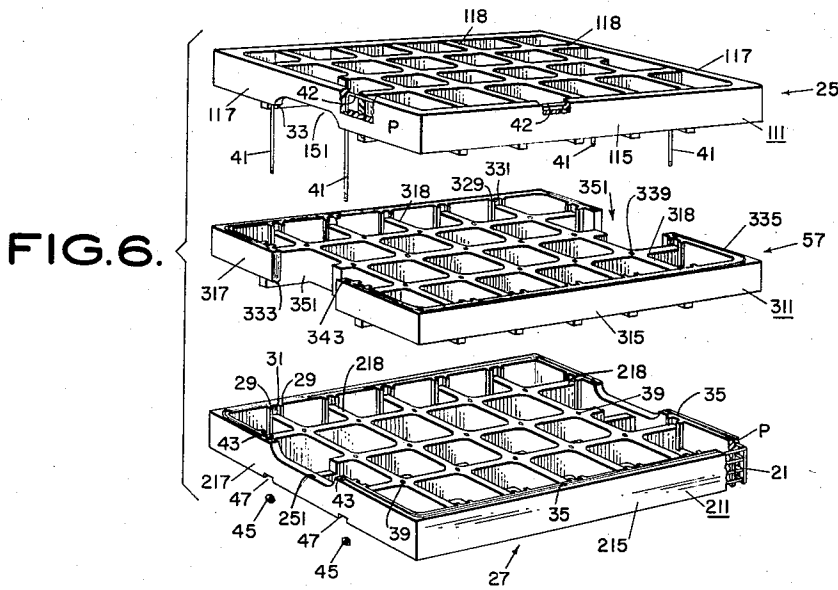


FIG. 6.

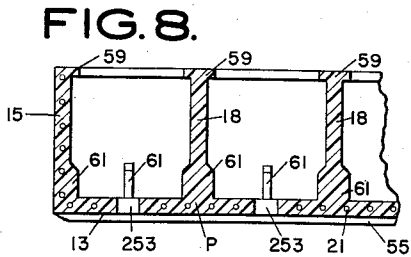


FIG. 8.

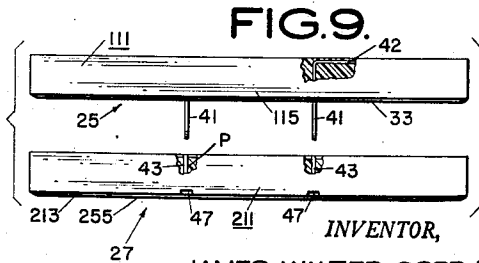


FIG. 9.

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2,840,256

BEVERAGE BOTTLE CASE

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11 Claims. (Cl. 220-4)

This invention relates to certain new and useful improvements in cases for carrying beverage bottles and the like.

The present invention is directed towards providing a case that is compact and yet due to its unique construction has the characteristics of high impact strength, high breakage resistance, and maximum structural strength. Such favorable characteristics are attained in the present invention by the use of plastic strengthened by a wire basket which is molded therein, and by the use of co-acting means provided on the separate parts of the case to maintain the case in alignment and to provide structural strength.

Additionally, the present invention is directed towards providing a case which is formed into sections whereby the case is adapted to be easily and quickly built up to an increased height for so-called "king size" bottles, or a section removed to provide a reduced height for smaller bottles.

The principal object of the present invention is to provide a beverage case that has great structural strength, yet is light weight and compact in size.

A further object is to provide such a case having a body and partitions formed of plastic, and having a wire basket molded in said body.

A further object is to provide such a case which is formed into at least two sections, an upper and a lower section detachably held together by rod fastening means extending through the walls of the case.

A further object is to provide such a two-section case in which the upper section is provided with a depending ridge and bosses, and said lower section is provided with a groove and depressions, in which said ridge and bosses respectively fit to rigidly align the sections and provide structural strength.

A further object is to provide such a case in which the partitions of the upper section extend below the body of the upper section, and the partitions of the lower section are disposed below the upper edge of the lower section body, whereby when the upper and lower sections are fitted together they are in overlapping relationship to additionally align the sections and provide structural strength.

A further object is to provide such a case having an intermediate section interposed between said upper and lower sections, said intermediate section being provided with co-acting means similar to the means provided on said upper and lower section for alignment and strength.

A further object is generally to improve the design and construction of beverage bottle cases.

The means by which the foregoing and other objects of the present invention are accomplished and the manner of their accomplishment will be readily understood from the following specification upon reference to the accompanying drawings, in which:

Fig. 1 is a side elevational view of a beverage case

embodying the present invention, with parts broken away for purposes of illustration.

Fig. 2 is an end view of the same with parts broken away for purposes of illustration.

Fig. 3 is a top plan view of the same with parts broken away for purposes of illustration.

Fig. 4 is an exploded view of a beverage case embodying the present invention and formed of two sections, an upper and a lower section.

Fig. 5 is an enlarged longitudinal and vertical sectional view of the case of Fig. 4 in assembled disposition taken as on a plane through the depending fastening rods.

Fig. 6 is an exploded view on the scale of Fig. 4 of an alternate arrangement of the present invention, in which an intermediate section is interposed between the upper and lower sections.

Fig. 7 is an end view of the same in assembled relationship.

Fig. 8 is an enlarged fragmentary longitudinal sectional view of a further modification of the present invention.

Fig. 9 is a side elevational view on the scale of Fig. 4 of an alternate arrangement of the depending fastening rods.

Referring now to the drawings in which the various parts are indicated by numerals, the present invention comprises in general a box-like molded plastic case body 11 having a bottom 13, side walls 15, and end walls 17.

A plurality of interconnected molded plastic partitions 18 are formed in the case, preferably integral with bottom 13, side walls 15 and end walls 17 with the partitions extending longitudinally and transversely across the interior of body 11 to divide the case into a plurality of compartments 19 adapted to carry beverage bottles. Body 11 is formed from a wire basket 21 bonded in plastic P, the basket being preferably imbedded therein and surrounded thereby. Plastic P may comprise any suitable plastic material, as for example phenolformaldehyde or melamine resins. Basket 21 preferably is formed by a plurality of interconnected and spaced wire-like members, which are preferably, although not necessarily, disposed at right angles so as to extend transversely and longitudinally of body 11.

It will be understood that by forming case 11 from plastic having a wire basket reinforcement that a compactness in size may be achieved heretofore not possible. It has been found that cases embodying the present invention may be formed of a reduced size relative to previous cases, and yet due to its unique construction the case of the present invention has the characteristics of high impact strength, high breakage resistance, and maximum structural strength.

Body 11 and partitions 18 may be formed of unitary construction, as best illustrated in Figs. 1, 2 and 3; or may be formed of an upper section 25 and a lower section 27, as best illustrated in Figs. 4 and 5. Upper section 25 comprises an upper section body 111 having side walls 115 and end walls 117. A plurality of interconnected molded plastic partitions 118 extend longitudinally and transversely across the interior of body 111 and are integrally connected thereto to divide the upper section into a plurality of compartments. Similarly, lower section 27 comprises a lower section body 211 having side walls 215, end walls 217, and bottom 213. Also a plurality of interconnected molded plastic partitions 218 extend longitudinally and transversely across the interior of the lower section body to divide the body into a plurality of compartments. In assembled relationship, as best illustrated in Fig. 5, the lower and upper edges of side walls 115 and 215, respectively, are adapted to abut, and are aligned to form the side walls of the assembled case.

Similarly, end walls 117 and 217 are fitted together to form the end walls of the assembled case. Additionally, partitions 118 and 218 are arranged to match when in assembled relationship with their edges abutting to form the partitions of the assembled case.

Partitions 118 depend below upper section body 111, and similarly, the upper edges of lower partitions 218 are disposed below the upper edge of lower body section 211 by substantially the same amount, whereby in assembled relationship upper section partitions 118 overlap the lower body section 211 to provide structural strength.

A plurality of pairs of vertical supports 29 are integrally attached to and respectively inwardly extend from the inside of side walls 215 and end walls 217 adjacent the ends of partitions 218. In each pair of vertical supports the supports extend upwardly along opposite sides of the end of its related partition 218. Each of the pairs of vertical supports 29 further extend past the top of partitions 218 and terminate adjacent the top edge of lower section body 211. Between each of the pairs of vertical supports a space 31 is defined wherein is received the ends of partitions 118 when the case is in the assembled relationship. A depending ridge 33 is integrally formed along the length of the lower edge of the upper side walls 115 and upper end walls 117. Similarly, lower section 27 is formed with a groove 35 along the upper edge of side walls 215 and end walls 217. Groove 35 is in alignment with ridge 33 and adapted to receive the ridge when the case is in assembled relationship. A plurality of depending bosses 37 are respectively provided at the junctures of upper section partitions 118. Similarly, a plurality of depressions 39 are respectively provided at the junctures of lower section partitions 218 and adapted to receive bosses 37 when the case is in the assembled position. From the foregoing it will be understood that the reception of upper section partitions 118 in spaces 31, of ridge 33 in groove 35, and bosses 37 in depressions 39, provide means by which the upper section 25 and lower section 27 are properly aligned and are structurally strengthened particularly in respect to lateral stresses on the case.

Means is provided for detachably anchoring upper section 25 and lower section 27 together. This means preferably comprises threaded spaced rods 41 depending from upper section 25 and molded thereto. Rods 41 may depend from end walls 117, as best illustrated in Figs. 4 and 6, or may depend from side walls 115 as shown in Fig. 9.

Rods 41 are preferably formed from two separate pieces of wire 42 which are respectively bonded in plastic P adjacent the side and end walls 115, 117 and substantially follow the contour thereof except for a space between rods 41. In the rod arrangement best illustrated in Figs. 4 and 6, the portions of wires 42 forming one pair of rods 41 extend upwardly into the plastic P, thence wires 42 extend in opposite directions adjacent the upper edge of one end wall 117, thence respectively adjacent the upper edge of opposite side walls 115, then towards one another in the other end wall 117, and finally downwardly to form the other pair of rods 41. In the rod arrangement best illustrated in Fig. 9, the portions of wires 42 forming one pair of rods 41 extend upwardly into the plastic P, thence wires 42 extend in opposite directions adjacent the upper edge of one side wall 115, thence respectively adjacent the upper edges of opposite end walls 117, then towards one another in the other side wall 115, and finally downwardly to form the other pair of rods 41. It will be understood from the foregoing that each of the separate wires 42 form one of the rods 41 at opposite ends or opposite sides. Thus each of the pair of adjacent rods is formed from two different pieces of wire 42. Additionally, it will be understood that in forming rods 41 in the foregoing manner a convenient means is provided for strengthening the plastic of upper section 25 along the upper edge thereof.

Lower section 27 is formed with bores 43 in register with threaded rods 41. In the assembled position of the case, rods 41 removably extend through bores 43 and below the lower end thereof and are anchored therein by nut means 45 threadedly engaged on the lower ends of threaded rods 41. The lower edge of lower section body 211 may be inset as at 47 to accommodate nut means 45.

Conventional hand holes 49 are provided in end walls 17 and the end of the center longitudinal partition may be cut out as at 51 to permit room for grasping the case. In the case formed of two sections, cut out 51 may be formed from matching cut out portions 151 and 251 provided in upper section 25 and lower section 27, respectively. A plurality of apertures 53 and 253 are formed in the bottom 13 and bottom 213, respectively, to provide drainage means for compartments 19. A plurality of laterally spaced and longitudinally extending ribs 55 and ribs 255 are formed to depend from bottom 13 and bottom 213, respectively, whereby means is provided for preventing lateral movement of the cases when in stacked relationship.

An alternate embodiment of the present invention is best illustrated in Figs. 6 and 7, wherein it will be seen an intermediate section 57 is interposed between upper section 25 and lower section 27. This alternate embodiment is best adapted to carry so-called "king size" bottles which are of increased height and require a taller case. Similar to upper section 25 and lower section 27, intermediate section 57 comprises an intermediate section body 311 having side walls 315 and end walls 317. Also a plurality of interconnected molded plastic partitions 318 extend longitudinally and transversely across the interior of intermediate section body 311 to divide the body into a plurality of compartments. Partitions 318 depend below intermediate section body 311 and the top of the partitions are disposed below the upper edge of the intermediate body, whereby in assembled relationship partitions 118 will overlap intermediate body section 311 and partitions 318 will overlap lower body section 211. A portion of the end walls 317 are cut out as at 351 to match with cut-outs 115 and 251 to form the assembled hand holes.

As in upper section 25 and lower section 27, means are provided in intermediate section 57 for co-acting with upper section 25 and lower section 27 to provide alignment and structural strength of the sections. Thus vertical supports 329 are provided on intermediate section 57 and disposed similar to the disposition of vertical supports 29 on lower section 27 to form grooves 331 in which are removably received the ends of upper section partitions 118. Additionally, bosses 337 depend from partitions 318 at the juncture thereof to co-act with depressions 39, and depressions 339 are provided at the juncture of intermediate partitions 318 in the upper surface thereof to co-act with bosses 37. In addition a ridge 333 is provided along the bottom of intermediate section side walls 315 and end walls 317 which co-acts with groove 35, and a groove 335 is provided along the top of side walls 315 and end walls 317 to co-act with ridge 33. In the three section form of the present invention, it will be understood that depending rods 41 should be formed of increased length, and that bores 343 are provided in end walls 317 to receive rods 41.

The beverage case of the present invention may be further modified, if desired, to provide means for limiting movement of the beverage bottles carried in the compartments of the case. It may be desirable to provide such means when the compartments are larger than the diameter of the beverage bottles to be contained therein. In Fig. 8 is illustrated a beverage case of the present invention provided with such limiting means, wherein it will be seen strips 59 are formed integral along the top of partitions 18 and along the top of side walls 15 and end walls 17. Additionally, the limiting means may

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comprise spacers 61 integrally formed with the case on the four sides of compartments 19.

In all of the above mentioned embodiments of the present invention, wire basket 21 preferably extends throughout the bottom of the case and up along the side and end walls thereof. In the embodiments best illustrated in Figs. 1, 2 and 3, and Fig. 8, the wire basket preferably extends substantially to the upper edge of side walls 15 and end walls 17. In the two-section and three-section embodiment of the present invention, the wire basket extends throughout the bottom of the lower section 27 and preferably extends upwardly substantially to the upper edge of side wall 215 and end walls 217.

From the foregoing it will be understood that the present invention provides a case which is compact and yet has the characteristics of high impact strength, high breakage resistance and maximum structural strength. Additionally, a case is provided which is adapted to be easily and quickly converted from a case for standard height bottles to a case for "king-size" bottles or vice versa.

I claim:

1. A beverage case comprising a box-like molded plastic body having a bottom, and side and end walls, a plurality of interconnected molded plastic partitions extending longitudinally and transversely across the interior of said body to divide the case into a plurality of compartments adapted to carry beverage bottles, said body and partitions being formed of at least two independent sections, an upper section having an upper body and upper partitions, and a lower section having a lower body and lower partitions, said upper section partitions extending below said upper section body, said lower section partitions being disposed below the upper edge of said lower section body to accommodate said upper section partitions, a plurality of vertical supports attached to and inwardly extending from the inside of said lower section body, said supports being arranged to form vertical grooves in which are removably received the ends of said upper section partitions to hold said upper and lower sections in alinement, a plurality of bosses depending from said upper section, said lower section being formed with a plurality of depressions in register with said bosses and removably receiving said bosses, a ridge depending from said upper section body, said lower section being formed with a groove in alinement with said ridge and removably receiving said ridge, said bosses and said ridges respectively co-acting with said depressions and groove to provide additional means for holding said upper and lower sections in alinement, said lower section being provided with depending ribs for preventing slide of said case when in stacked relationship with other cases, said upper section being provided with depending threaded rods, said lower section being formed with bores in register with said rods, said rods being removably received in said bores and extending below the lower end thereof, means respectively engaging said rods for removably holding said upper and lower sections together, a wire basket bonded in said lower section, said basket being embedded in and surrounded by said lower section, said basket extending substantially co-extensive with the body of said lower section to provide structural strength to said lower section.

2. A beverage case comprising a box-like molded plastic body having a bottom, and side and end walls, a plurality of interconnected molded plastic partitions extending longitudinally and transversely across the interior of said body to divide the case into a plurality of compartments adapted to carry beverage bottles, said body and partitions being formed of at least two independent sections, an upper section having an upper body and upper partitions, and a lower section having a lower body and lower partitions, said upper section partitions extending below said upper section body, said lower section partitions being disposed below the upper edge of said

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lower section body to accommodate said upper section partitions, a plurality of vertical supports attached to and inwardly extending from the inside of said lower section body, said supports being arranged to form vertical grooves in which are removably received the ends of said upper section partitions to hold said upper and lower sections in alinement, a plurality of bosses depending from said upper section, said lower section being formed with a plurality of depressions in register with said bosses and removably receiving said bosses, a ridge depending from said upper section body, said lower section being formed with a groove in alinement with said ridge and removably receiving said ridge, said bosses and said ridges respectively co-acting with said depressions and groove to provide additional means for holding said upper and lower sections in alinement, said lower section being provided with depending ribs for preventing slide of said case when in stacked relationship with other cases, said upper section being provided with depending threaded rods, said lower section being formed with bores in register with said rods, said rods being removably received in said bores and extending below the lower end thereof, means respectively engaging said rods for removably holding said upper and lower sections together.

3. A beverage case comprising a box-like molded plastic body having a bottom, and side and end walls, a plurality of interconnected molded plastic partitions extending longitudinally and transversely across the interior of said body to divide the case into a plurality of compartments adapted to carry beverage bottles, said body and partitions being formed of at least two independent sections, an upper section having an upper body and upper partitions, and a lower section having a lower body and lower partitions, co-acting means provided on said upper section and said lower section to hold said upper and lower sections in alinement, said lower section being provided with depending ribs for preventing slide of said case when in stacked relationship with other cases, said upper section being provided with rod means embedded adjacent the upper periphery of said upper section, said rod means extending throughout a majority of the extent of said periphery, depending threaded rods respectively integrally connected substantially perpendicularly with said rod means, said lower section being formed with bores in register with said threaded rods, said threaded rods being removably received in said bores and extending below the lower end thereof, means respectively engaging said threaded rods for removably holding said upper and lower sections together, a wire basket bonded in said lower section, said basket being embedded in and surrounded by said lower section, said basket extending substantially co-extensive with the body of said lower section to provide a structural strength to said lower section.

4. A beverage case comprising a box-like molded plastic body having a bottom, and side and end walls, a plurality of interconnected molded plastic partitions extending longitudinally and transversely across the interior of said body to divide the case into a plurality of compartments adapted to carry beverage bottles, said body and partitions being formed of at least two independent sections, an upper section having an upper body and upper partitions, and a lower section having a lower body and lower partitions, co-acting means provided on said upper section and said lower section to hold said upper and lower sections in alinement, said upper section being provided with rod means embedded adjacent the upper periphery of said upper section, said rod means extending throughout a majority of the extent of said periphery, depending threaded rods respectively integrally connected substantially perpendicularly with said rod means, said lower section being formed with bores in register with said threaded rods, said threaded rods being removably received in said bores and extending below the lower end thereof, means respectively engag-

ing said threaded rods for removably holding said upper and lower sections together.

5. A beverage case comprising a box-like molded plastic body having a bottom, and side and end walls, a plurality of interconnected molded plastic partitions extending longitudinally and transversely across the interior of said body to divide the case into a plurality of compartments adapted to carry beverage bottles, said body and partitions being formed of at least three sections, an upper section having an upper body and upper partitions, an intermediate section having an intermediate body and intermediate partitions, and a lower section having a lower body and lower partitions, said upper section partitions being in overlapping relation with said intermediate body and said intermediate body and said intermediate partitions being in overlapping relation with said lower body whereby means is provided for maintaining said sections in alinement, a plurality of bosses depending from said upper section and said intermediate section, said intermediate section and said lower section being formed with a plurality of depressions in register with said bosses and removably receiving said bosses, ridges respectively depending from the body of said upper section and said intermediate section, said intermediate section and said lower section being respectively formed with grooves respectively in alinement with said ridges and respectively removably receiving said ridges, said bosses and said ridges respectively co-acting with said depressions and grooves to provide additional means for holding said sections in alinement, said upper section being provided with rod means embedded adjacent the upper periphery of said upper section, said rod means extending throughout a majority of the extent of said periphery, depending threaded rods respectively integrally connected substantially perpendicularly with said rod means, said intermediate section and said lower section being respectively formed with bores in register with said threaded rods, said threaded rods being removably received in said bores and extending below the lower end of the bores in said lower section, means respectively engaging said threaded rods for removably holding said sections together, a wire basket bonded in said lower section, said basket being embedded in and surrounded by said lower section with said basket extending substantially co-extensive with the body of said lower section to provide structural strength to said lower section.

6. A beverage case comprising a box-like molded plastic body having a bottom, and side and end walls, a plurality of interconnected molded plastic partitions extending longitudinally and transversely across the interior of said body to divide the case into a plurality of compartments adapted to carry beverage bottles, said body and partitions being formed of at least three sections, an upper section having an upper body and upper partitions, an intermediate section having an intermediate body and intermediate partitions, and a lower section having a lower body and lower partitions, said upper section partitions being in overlapping relation with said intermediate body and said intermediate partitions being in overlapping relation with said lower body whereby means is provided for maintaining said sections in alinement, a plurality of bosses depending from said upper section and said intermediate section, said intermediate section and said lower section being formed with a plurality of depressions in register with said bosses and removably receiving said bosses, ridges respectively depending from the body of said upper section and said intermediate section, said intermediate section and said lower section being respectively formed with grooves respectively in alinement with said ridges and respectively removably receiving said ridges, said bosses and said ridges respectively co-acting with said depressions and grooves to provide additional means for holding said sections in alinement, said upper section being provided with rod means embedded adjacent the upper periphery of said

upper section, said rod means extending throughout a majority of the extent of said periphery, depending threaded rods respectively integrally connected substantially perpendicularly with said rod means, said intermediate section and said lower section being respectively formed with bores in register with said threaded rods, said threaded rods being removably received in said bores and extending below the lower end of the bores in said lower section, means respectively engaging said threaded rods for removably holding said sections together.

7. A beverage case comprising a box-like molded plastic body having a bottom, and side and end walls, a plurality of interconnected molded plastic partitions extending longitudinally and transversely across the interior of said body to divide the case into a plurality of compartments adapted to carry beverage bottles, said body and partitions being formed of at least three sections, an upper section having an upper body and upper partitions, an intermediate section having an intermediate body and intermediate partitions, and a lower section having a lower body and lower partitions, co-acting means provided on said upper section, said intermediate section, and said lower section to hold said sections in alinement, said upper section being provided with rod means embedded adjacent the upper periphery of said upper section, said rod means extending throughout a majority of the extent of said periphery, depending threaded rods respectively integrally connected substantially perpendicularly with said rod means, said intermediate section and said lower section being respectively formed with bores in register with said threaded rods, said threaded rods being removably received in said bores and extending below the lower end of the bores in said lower section, means respectively engaging said threaded rods for removably holding said sections together, a wire basket bonded in said lower section, said basket being embedded in and surrounded by said lower section with said basket extending substantially co-extensive with the body of said lower section to provide structural strength to said lower section.

8. A beverage case comprising a box-like molded plastic body having a bottom, and side and end walls, a plurality of interconnected molded plastic partitions extending longitudinally and transversely across the interior of said body to divide the case into a plurality of compartments adapted to carry beverage bottles, said body and partitions being formed of at least three sections, an upper section having an upper body and upper partitions, an intermediate section having an intermediate body and intermediate partitions, and a lower section having a lower body and lower partitions, co-acting means provided on said upper section, said intermediate section, and said lower section to hold said sections in alinement, said upper section being provided with rod means embedded adjacent the upper periphery of said upper section, said rod means extending throughout a majority of the extent of said periphery, depending rods respectively integrally connected substantially perpendicularly with said rod means, said intermediate section and said lower section being respectively formed with bores in register with said depending rods, said depending rods being removably received in said bores and extending below the lower end of the bores in said lower section, means respectively engaging said depending rods for removably holding said sections together.

9. A beverage case comprising a box-like molded plastic body formed of at least two independent sections including an upper section and a lower section, said upper section being provided with rod means embedded adjacent the upper periphery of said upper section, said rod means extending throughout a majority of the extent of said periphery, depending rods respectively integrally connected to said rod means and substantially perpendicular thereto, said lower section being formed with bores in register with said depending rods, said depending rods

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being removably received in said bores and extending below the lower ends thereof, and means engaging the lower ends of said depending rods below said bores for detachably connecting said sections together.

10. A beverage case comprising a box-like molded plastic body formed of at least two independent sections including an upper section and a lower section, said upper section being provided with rod means embedded adjacent the upper periphery of said upper section, depending rods respectively integrally connected to said rod means and substantially perpendicular thereto, said lower section being formed with bores in register with said depending rods, said depending rods being removably received in said bores and extending below the lower ends thereof, and means engaging the lower ends of said depending rods below said bores for detachably connecting said sections together.

11. A beverage case comprising a box-like molded plastic body formed of at least two independent sections including an upper section and a lower section, said upper section being provided with rod means embedded adjacent the upper periphery of said upper section, said rod means extending throughout a majority of the extent of

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said periphery, depending threaded rods respectively integrally connected to said rod means and substantially perpendicular thereto, said lower section being formed with bores in register with said depending threaded rods, said depending threaded rods being removably received in said bores and extending below the lower ends thereof, and means engaging the lower ends of said depending threaded rods below said bores for detachably connecting said sections together.

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