Jan. 14, 1969 J. B. WALLER 3,421,649

BOTTLE CARRYING CASE

Filed Dec. 28, 1967 Sheet 1 of 3

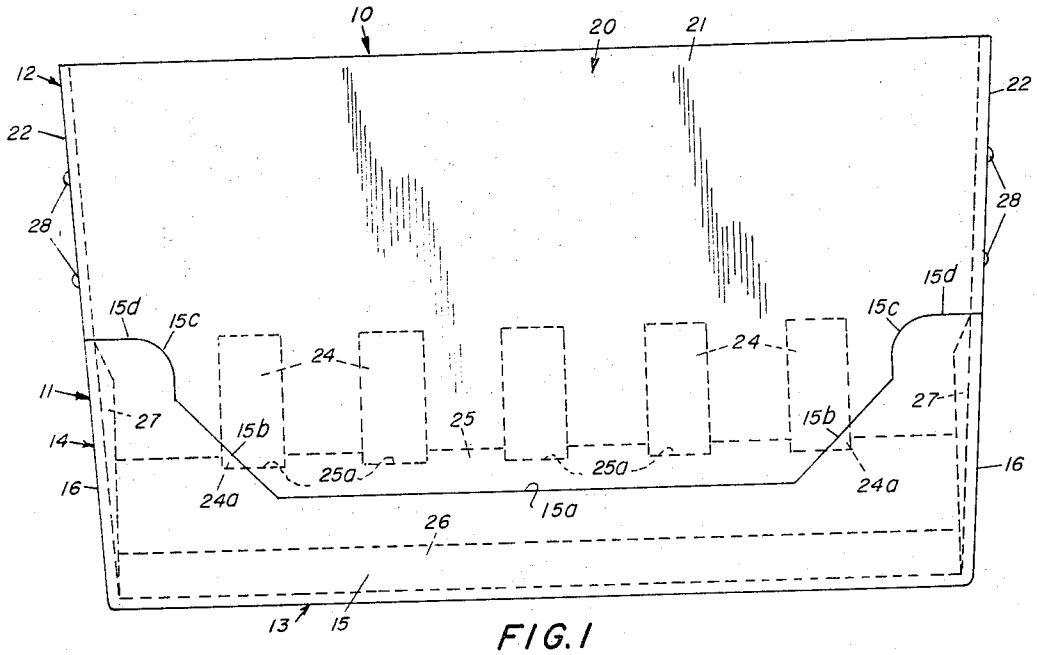


FIG. 1

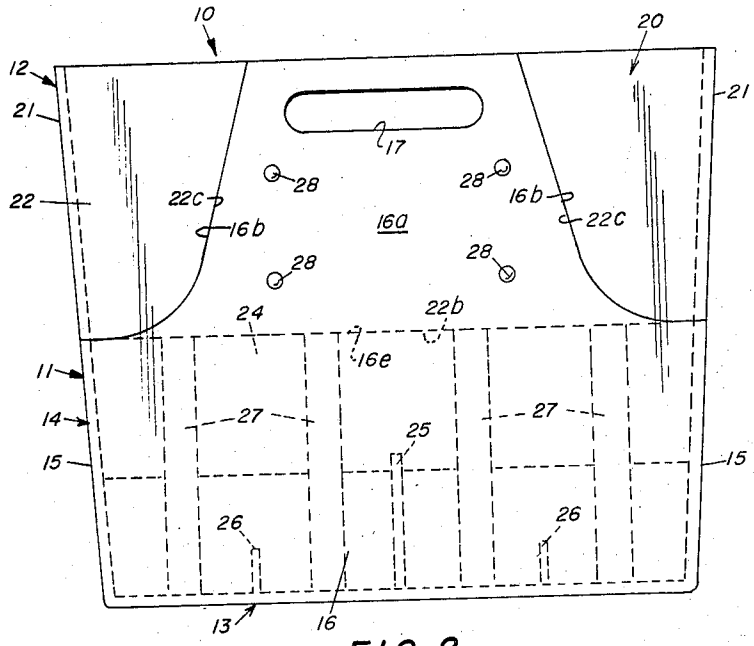


FIG. 2

INVENTOR
JOSEPH B. WALLER
BY Beale and Jones
ATTORNEYS

BOTTLE CARRYING CASE

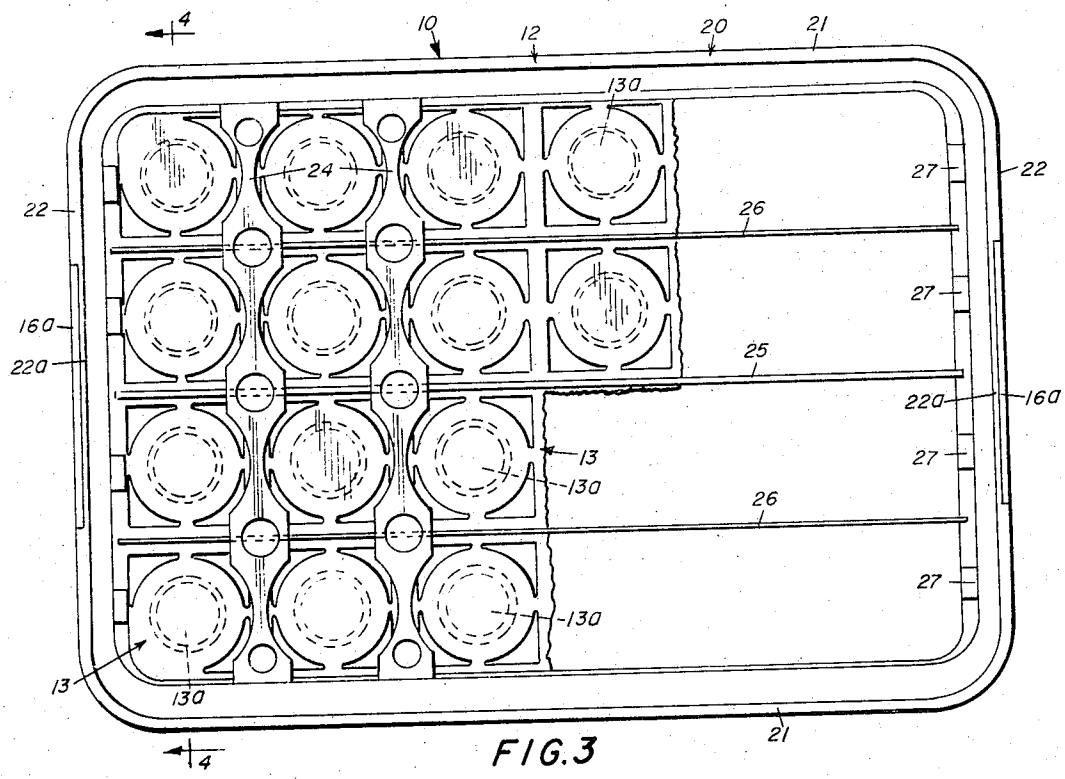


FIG. 3

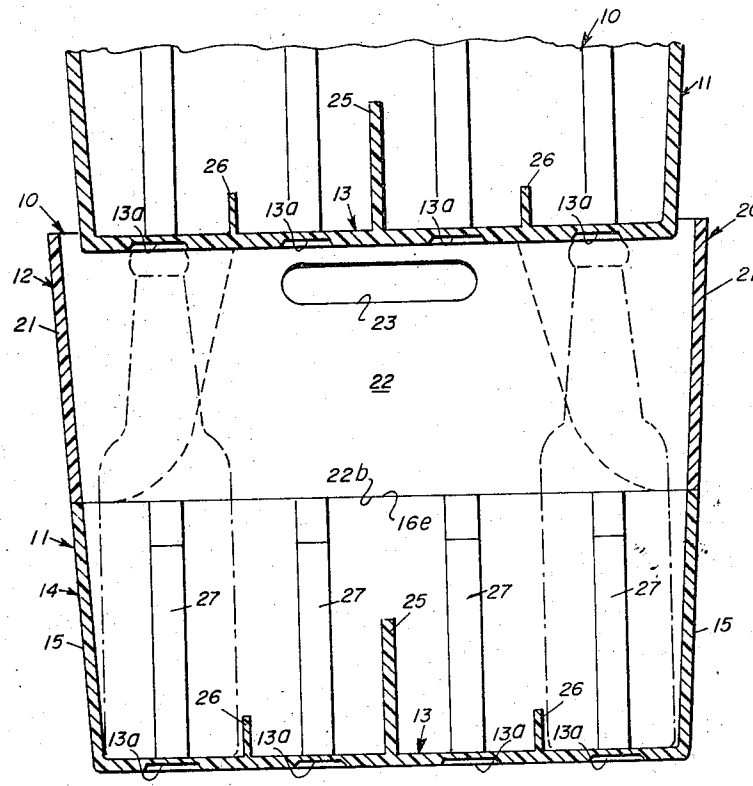


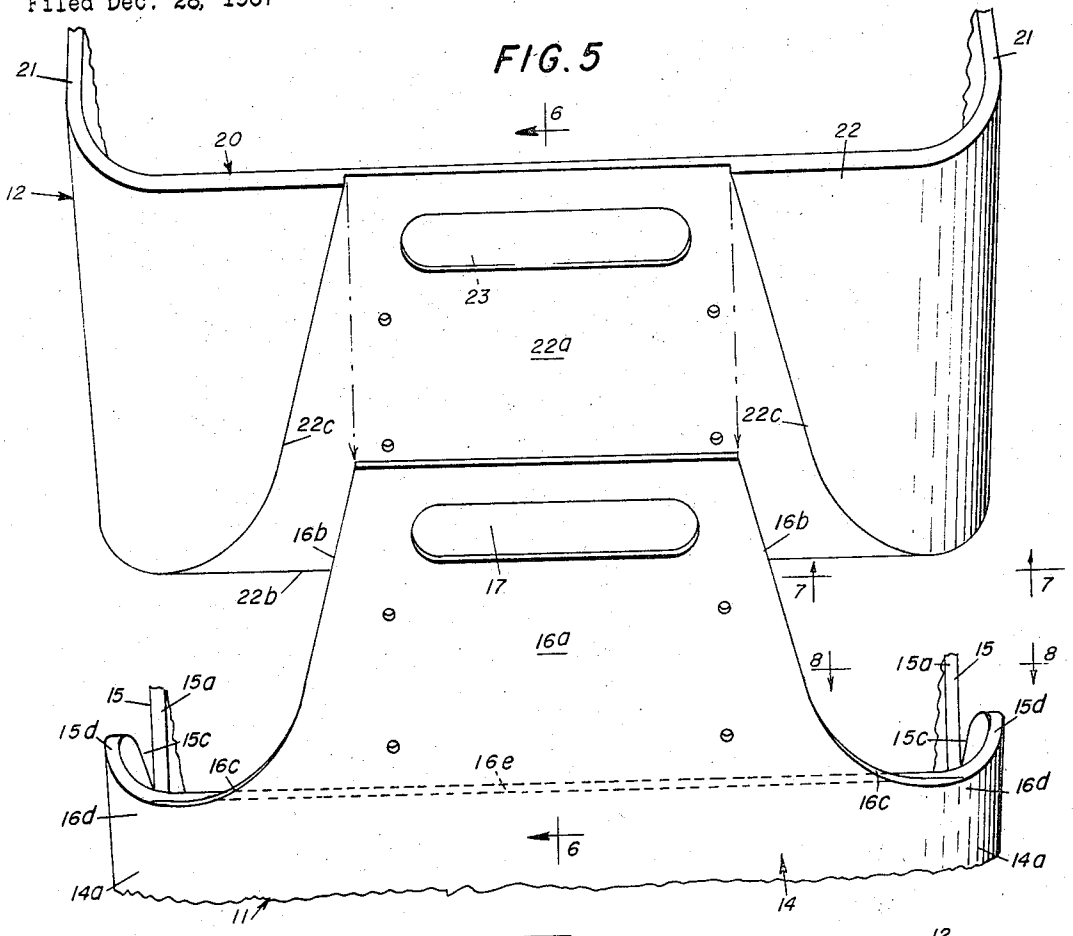
FIG. 4

Jan. 14, 1969 J. B. WALLER 3,421,649

BOTTLE CARRYING CASE

Filed Dec. 28, 1967 Sheet 3 of 3

FIG. 5



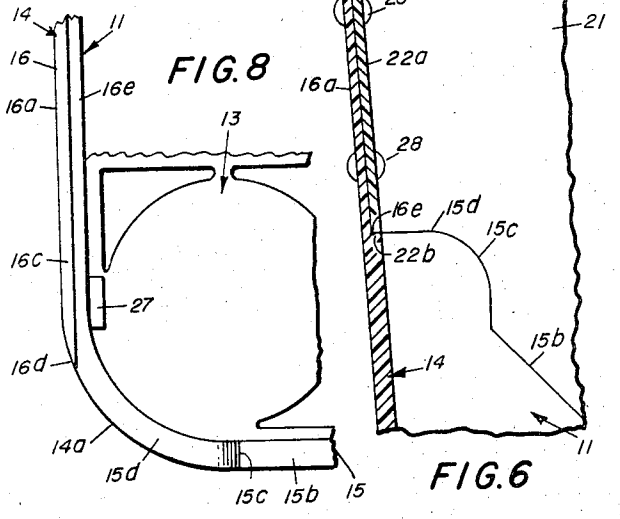


FIG. 8

FIG. 6

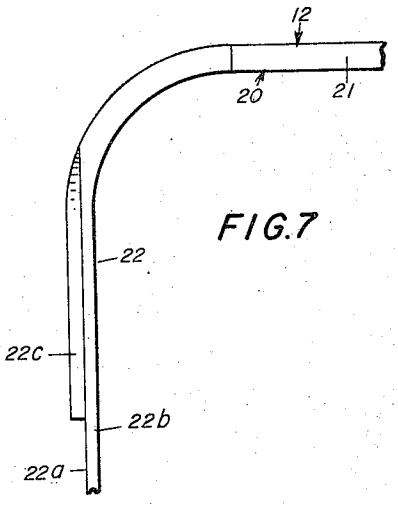


FIG. 7

United States Patent Office 3,421,649 Patented Jan. 14, 1969

3,421,649

BOTTLE CARRYING CASE

Joseph B. Waller, 2920 The Alameda, Baltimore, Md. 21218

Continuation-in-part of application Ser. No. 530,666, Feb. 28, 1966. This application Dec. 28, 1967, Ser. No. 694,203

13 Claims

U.S. Cl. 220—4

Int. Cl. B65d 7/00

ABSTRACT OF THE DISCLOSURE

This bottle carrying case has a bottom member and a top member received thereon. The bottom member has a floor with an integral peripherial wall. The ends of the bottom member have a central upstanding portion of reduced thickness that is the height of the case. The top member of the case is complementary to the bottom member. The ends of the top member have recesses to receive the central upstanding portions of the bottom member.

This application is a continuation-in-part of my copending application Ser. No. 530,666, filed Feb. 28, 1966 entitled "Bottle Carrying Case or the Like," now Patent No. 3,368,709.

BACKGROUND OF THE INVENTION

Field of the invention

This invention relates to carrying cases for bottles and the like and particularly returnable bottles wherein the cases as well as the bottles are used over and over again.

Reference to prior art

Bottle carrying cases made of two parts assembled together are generally known in the prior art such as in my above referred to copending application, the referenced U.S. Patent 2,840,256 to Cobb cited therein and also my U.S. Patent 2,886,202 is to a two part bottle carrying case.

SUMMARY

My present bottle carrying case has certain improvements in the end structure and the side structure of the bottom and top members fitting together to make the bottle carrying case. The end structure of the bottom member has a central upwardly extending portion that is reduced in thickness and thereby a ledge is formed between the base of this central portion and the rest of the end wall. The end structure of the top member has a reduced in thickness upwardly extending central end portion that receives the upwardly extending adjacent end portion with the bottom edge of its recess portion received on the ledge of the end wall of the bottom member. These upstanding central end portions could be fashioned to fit in a reverse manner to that explained within the scope of this phase of the invention. The end portions outward to each side of the upstanding central portion of the bottom member are joined with the adjacent edges of the upstanding central portion in a concave upper surface that receives like curved surface portions of the top member while the ends of both top and bottom members are curved in their integral extension as the side walls. The top member has a portion thereof adjacent each of its sides that abuts against an adjacent inside face of each side wall of the bottom member which assists in stabilizing the top member side walls on the bottom member side walls.

It is an object of the invention to provide in a two part bottle or the like carrying case having top and bottom members that have sides and ends, end structure having

overlapping portions that are attached together at the hand lifting area of the case.

A further object of the invention is to provide in a two part bottle or the like carrying case having top and bottom members that have sides and ends, ends that integrally join with the sides of both the top and bottom members as arcuate integral portions and with a portion of the top member adjacent the arcuate ends of its sides abutting against an adjacent portion of the inside face of the sides of the bottom member which is adjacent the integrally arcuate ends of its sides.

For a more complete understanding of the invention, reference is had to the drawings, the description which follows and to the claims. In the drawings:

FIG. 1 is a side view of the assembled case;

FIG. 2 is an end view of the case in FIG. 1;

FIG. 3 is a top plan view of the case in FIG. 1, illustrating in part the reticulated floor of the bottom member with its upstanding longitudinal vertical webs and in part the transverse partition members extending from side to side of the top member;

FIG. 4 is a cross sectional view along line **4—4** of the case in FIG. 3 showing bottles in broken lines and the fragmentary bottom portion of a like case supported on the tops of the bottles in stacked position;

FIG. 5 is an exploded fragmentary end perspective view of the bottom member and the top member thereabove;

FIG. 6 is a fragmentary sectional view generally along line **6—6** of FIG. 5 showing how the ends of the top and bottom members nest in overlapped assembled position;

FIG. 7 is a fragmentary bottom view of the corner of the top member as viewed along line **7—7** in FIG. 5 on an enlarged scale; and

FIG. 8 is a fragmentary view on an enlarged scale top view of the corner of the bottom member as viewed along line **8—8** of FIG. 5.

Throughout the description like reference numbers refer to similar parts.

The two part bottle carrying case is generally indicated at **10**. It is made up of a lower member **11** and top member **12** received thereon so as to make up the case which has a combined height as shown in FIGS. 1, 2 and 4.

The lower and upper members are molded separately and assembled. Plastic material may be used such as a high impact-strength synthetic resin, such as linear polyethylene. This type of bottle carrying case so made will withstand hard usage and may be easily and safely sterilized.

The lower member **11** has a bottom or floor **13** that is formed with an integral upstanding peripheral wall **14**, see FIG. 4. The case here illustrated, by way of example, **10** is rectangular. The peripheral wall **14** of the lower member **11** has oppositely disposed sides **15—15** that are alike and alike oppositely disposed ends **16—16**. The sides **15** have a midportion **15***a* that is the lowest in height of the side and it extends for a little over one-half the whole length of the side **15**. At each end of midportion **15***a* the top edge of the side slopes upwardly at **15***b* and toward each adjacent end **16** of the lower member at about a 45° angle which connects with a curved upper edge **15***c* that extends to the end horizontal portion **15***d*. This portion **15***d* curves into the adjacent end **16** as best shown in FIGS. 5 and 8.

The ends **16** of the peripheral wall **14** of lower member **11** as do the sides **15** extend up from the bottom **13** outwardly from the vertical at about a 3½° angle. Reference to FIG. 6 shows that the end **16** has its outer face lying in one plane and that there is an upstanding central portion **16***a*, see FIG. 5, that is a little over half the width of the end **16** at its bottom. Its edges **16***b* slope inwardly about 15° from the concave adjacent top edges

16*c* of the adjacent wall portions of the end 16*d*. The adjacent wall portions 16*d* of the end join with the adjacent sides in curved corner portions 14*a* of the lower peripheral wall 14, see FIG. 8. The outer face of upstanding central end portions 16*a* is in line with the lower portion of the end 16. The upstanding central end portions 16*a* are reduced in thickness to about one-half of the thickness of bottom member peripheral wall 14 and from a horizontal ledge 16*e*. The upper portion of end portion 16*a* has a hand grasp aperture 17 therethrough.

The top member 12 is complementary to the bottom member 11 on which it fits. The top member 12 has a peripheral wall 20, oppositely disposed sides 21 and oppositely disposed ends 22. The lower edge of the peripheral wall at the sides and corners is of a shape complementary to the adjacent top edge of the bottom member 11. The ends 22 have a centrally disposed recessed portion 22*a* of a depth and shape to receive the adjacent upstanding end portion 16*a* of the bottom member 11 as best shown in FIG. 5. The end portion 22*a* has a hand grasp aperture 23 therethrough that is coextensive with the like aperture 17 in the adjacent end portion 16*a* of the lower member. The central recessed portion 22*a* of end 22 is defined at its lower extent by an edge 22*b*. This edge 22*b* is received on the ledge 16*e* and the tapered edges of the recessed portion 22*a* abut the adjacent tapered edges 16*b* of the end 16 of the bottom member 11.

The top member 12 has spaced apart transverse partitions 24 extending integrally from side to side. These have a shape as best shown in FIG. 3 to accommodate bottles. A portion of the ends of the end partitions 24 as indicated at 24*a* in FIG. 1 abut the adjacent side portions 15*b* of the lower member 11. This provides additional stability and a lock between the sides of the top and bottom members.

The floor 13 of the bottom member 11 is formed with voids to provide drainage and to reduce the weight of the case. In the bottom face of the floor as shown in FIGS. 3 and 4 there are spaced apart recesses 13*a* to accommodate the tops of the bottles of the case below when stacking the cases of bottles.

The floor or bottom 13 has a longitudinal upstanding web 25 extending in the center of the bottom member. The upper edge of this web is notched at 25*a*, see FIG. 1, to receive the adjacent bottom edges of the transverse partition members 24 of the top member 12. Spaced to each side of the web 25 are further stiffening webs 26—26 integrally formed with the floor 13.

Upstanding stiffening ribs 27 are formed integrally on the inside faces of the ends 16 of the lower member 11 as shown in FIGS. 3 and 4.

Rivets or bolts 28 may be used to fasten the ends of the top and bottom members together as shown in FIG. 2.

There is here provided a rigid and durable yet light weight bottle carrying case. The case may be stacked when empty one into the other to save space. The case may be easily cleaned and sterilized. If the lower or the top member is broken, the members may be taken apart and a replacement member installed.

I claim as my invention:

1. A case for carrying bottles and the like comprising,
a bottom member and a top member received thereon and attached thereto;
said bottom member including,
a bottom floor,
a peripheral wall extending up from and integral with the bottom floor,
said wall having two upstanding oppositely disposed sides and two oppositely disposed ends extending upwardly higher than the sides,
said ends having a central portion thereof extending to the full height of the case,
said central portion of the ends being about half the width of the ends and having the portions there adjacent at each side of a height equal

to the height of the adjacent ends of said sides,
said central portion of the ends having its outer surface extending as a continuation of the surface of its bottom end wall portion and being of a thickness about one-half of the rest of the end,
said sides of the peripheral wall of the bottom member having their intermediate portions adjacent each end of each side extending at a height less than their ends;
said top member being complementary to said bottom member and received thereon,
said top member including,
a peripheral wall having sides oppositely disposed and ends oppositely disposed and integral with the sides,
said sides of the top member received on the sides of the bottom member and being of a height so that the combined height of the respective sides of the case is approximately equal to the height of the central portion of the ends of the bottom member,
said ends of the top member having a recess extending in from what is their outer face before assembly on the bottom member of a depth approximately equal to the thickness of and shape of the central portion of the adjacent end of the bottom member that is received in said recess; and
means attaching said top member on said bottom member.

2. A carrying case according to claim 1 wherein the central portion of the ends of the bottom member has its respective side edges tapering inwardly from bottom to top and the adjacent recessed portion of the end of the top member has its respective side edges likewise tapered.

3. In a carrying case according to claim 1 wherein the central portion of the ends of the bottom member and the recessed end portion of said top member have aligned hand holes extending therethrough.

4. In a carrying case according to claim 3 wherein the central portion of the ends of the bottom member has its respective side edges tapering inwardly from bottom to top and the adjacent recessed portion of the end of the top member has its respective side edges likewise tapered, the lower ends of said side edges of both bottom and top member gradually extending as a concave curve into the adjacent ends of the sides of the respective bottom and top member sides.

5. A carrying case according to claim 1 wherein said top member has at least one transverse partition member extending from one side to the other side of the top member and wherein said bottom member has upstanding longitudinally extending web means extending up from the bottom to support said transverse partition member of the top member.

6. A carrying case according to claim 1 wherein said partition member at its ends has a portion thereof abutting the adjacent side of the bottom member.

7. A carrying case according to claim 1 wherein said sides of the bottom member have their midportion of approximately the length of half the length of the side and the ends of the side adjacent said midportion inclined upwardly and toward the ends of the case to where the ends of the sides are approximately twice the height of the midportion of the sides and wherein said top member of the case has a plurality of spaced apart transversely extending partition members extending from side to side of the top member, the end most partition members having a portion thereof abutting the adjacent inclined upward portion of the sides of the bottom member, said bottom member of the case having longitudinally extending web means extending from one end to the other end of the bottom member and receiving and supporting the adjacent bottom edge of said transverse partition mem-

bers of the top member in notches in said longitudinally extending web means.

8. A carrying case according to claim 1 wherein the walls taper outwardly from bottom to top approximately three and one-half degrees from the vertical.

9. In a carrying case for bottles and the like comprising,

a bottom member having a bottom floor and a top member received on the bottom member and attached thereto;

said bottom member having an integral peripheral wall extending from the bottom floor,

said wall having oppositely disposed sides and oppositely disposed ends;

said top member having an integral peripheral wall having oppositely disposed sides and oppositely disposed ends fitting on and received by the respective sides and ends of the bottom member,

the improvement wherein said ends of the bottom members have a central portion thereof extending to the full height of the case,

said central portion of the ends being about half the width of the ends and having the portions there adjacent at each side of a height equal to the adjacent end of said sides of the bottom member,

said central portion of the ends of the bottom member having its outer surface extending as a continuation of the surface of its bottom end wall portion and being of a thickness about one-half of the rest of the end,

said top member being complementary to said bottom member and received thereon,

said ends of the top member having a recess extending in from what is their outer face before assembly on the bottom member, said recess being of a depth approximately equal to the thickness of and shape of the central portion of the adjacent end of the bottom member that is received in said recess, and

means attaching said top member on said bottom member.

10. In a carrying case according to claim 9 wherein the central portion of the ends of the bottom member has its respective side edges tapering inwardly from bottom to top and the adjacent recessed portion of the end of the top member has its respective side edges likewise tapered.

11. In a carrying case according to claim 9 wherein the central portion of the ends of the bottom member and the recessed end portion of said top member have aligned hand holes extending therethrough.

12. In a carrying case according to claim 9 wherein the walls taper outwardly from the vertical approximately three and one-half degrees thereby permitting stacking of the cases.

13. In a carrying case according to claim 11 wherein the central portion of the ends of the bottom member has its respective side edges tapering inwardly from bottom to top and the adjacent recessed portion of the end of the top member has its respective side edges likewise tapered, the ends of said side edges of both bottom and top member gradually extending as a concave curve into the adjacent ends of the sides of the respective bottom and top member sides.

References Cited

UNITED STATES PATENTS

2,935,221	5/1960	Mitchell	220—21 X
3,107,026	9/1963	De Chelbor	220—21
3,327,885	6/1967	Carle	220—21

GEORGE E. LOWRANCE, *Primary Examiner.*

U.S. Cl. X.R.

220—21, 97