Dec. 16, 1958 H. G. ZASTROW 2,864,531

BOTTLE CARRIER

Filed Jan. 21, 1955 2 Sheets-Sheet 1

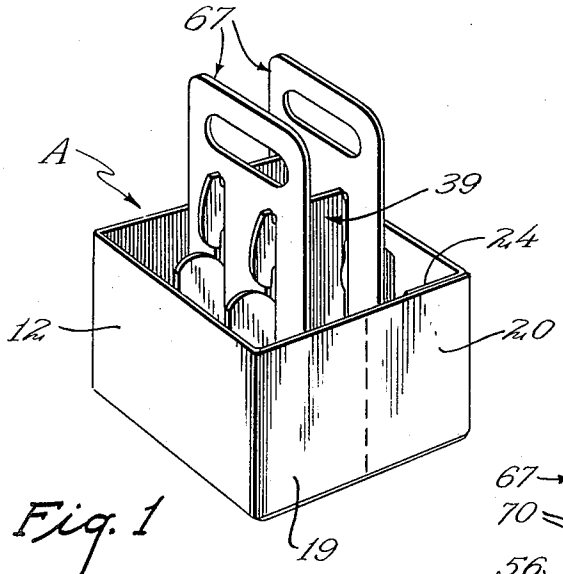


Fig. 1

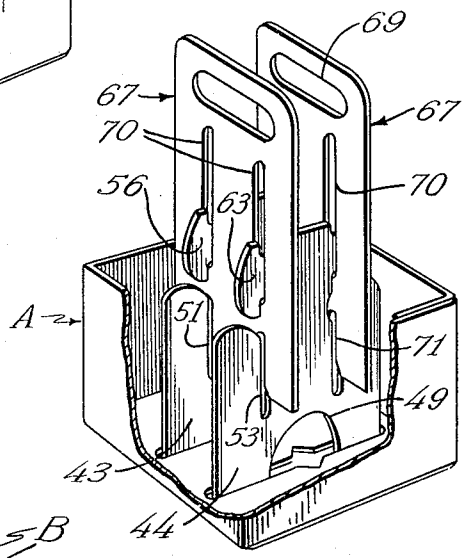


Fig. 2

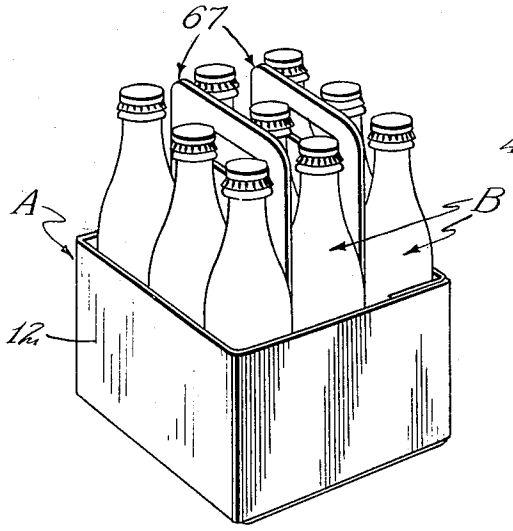


Fig. 3

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BOTTLE CARRIER

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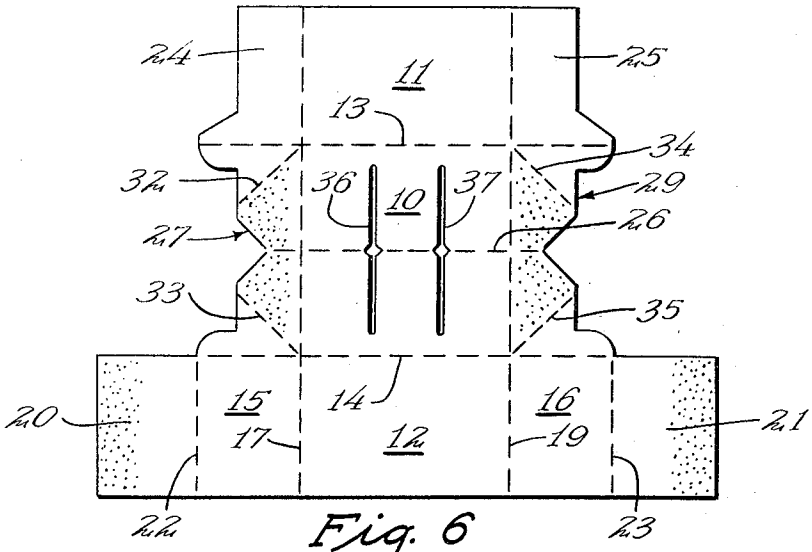


Fig. 6

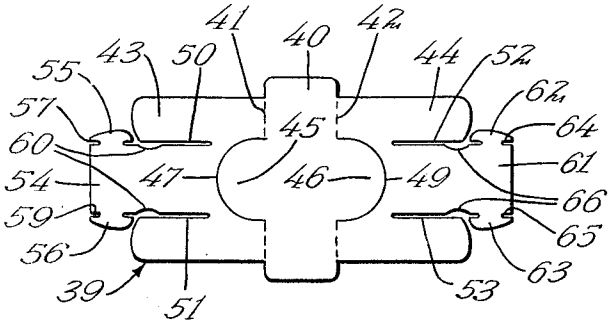


Fig. 7

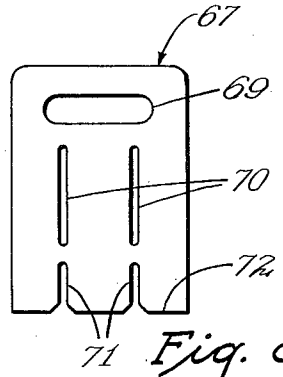


Fig. 8

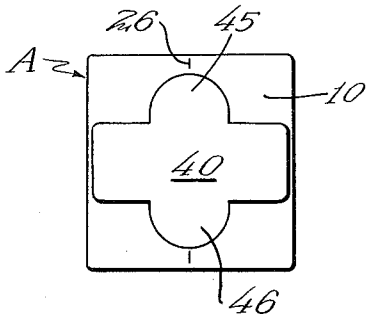


Fig. 5

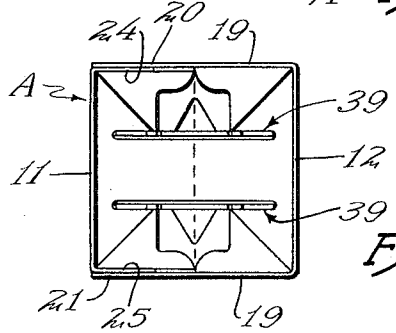


Fig. 4

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BOTTLE CARRIER

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Application January 21, 1955, Serial No. 483,249

4 Claims. (Cl. 220—105)

This invention relates to an improvement in bottle carriers and deals particularly with an open topped carrier formed of paper board or similar material.

During recent years it has become more or less customary to pack bottled goods in cases containing open topped carriers which may be removed from the outer container and used to carry a part of the contained goods. Most of these carriers are designed to accommodate six bottles of the beverage or other goods. However, in some instances it has been found desirable to pack the goods in carriers capable of holding nine bottles. It is with such a carrier that the present invention is involved.

An object of the present invention resides in the provision of a carrier which may serve as a means of holding bottles in spaced relation during transportation and shipment and which, when removed from the outer case, may be used to carry a part of the total number of bottles in the case.

A feature of the present invention resides in a novel type of partitioned structure which includes a generally U-shaped filler member designed to extend through slots in the base of the carrier to form spaces for the bottles. This U-shaped filler member is equipped with a removable pair of handle members which intersect the U-shaped filler member and serve as bottle spacers and cushioning members at right angles to the first mentioned filler.

A feature of the present invention lies in the provision of a pair of handle members which may be quickly and easily threaded into spaced slots in the U-shaped filler member. These slots are so arranged that the material forming the handle members is flexed to some extent during insertion and the slots are so constructed that difficulty is experienced in detaching them once they are in place. As a result the chance of accidental disengagement of the handle members is obviated.

A further feature of the present invention lies in the provision of a carrier incorporating a pair of movably supported handle members which normally extend below the level of the tops of the bottles contained but which may be raised so that the handle openings are above the level of the bottles for simplicity in carrying.

These and other objects and novel features of my invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of the specification:

Figure 1 is a perspective view of the empty bottle carrier with the handle members in lowered position.

Figure 2 is a view similar to Figure 1 showing the handle members in raised position, a portion of the carrier body being broken away to disclose the interior arrangement.

Figure 3 is a perspective view of the carrier with the bottles therein.

Figure 4 is a top plan view of the assembled carrier.

Figure 5 is a bottom plan view of the assembled carrier.

Figure 6 is a diagrammatic view of the blank from which the body of the carrier is formed.

Figure 7 is a diagrammatic view of the blank of which the filler member is formed.

Figure 8 is a diagrammatic view of one of the handle members.

The carrier is indicated in general by the letter A and is designed to contain a number of bottles B. In the arrangement shown, nine such bottles are contained within the carrier and, as shown in Figure 3, the handle members of the carrier are normally even with or slightly below the level of the bottle tops.

The body portion of the carrier is merely a tray having a bottom and four rectangularly arranged walls extending upwardly therefrom. The tray blank shown in Figure 6 is typical of such an arrangement. In the structure shown in Figure 6 the tray includes a bottom panel **10** having side walls **11** and **12** connected along opposite edges thereto by parallel fold lines **13** and **14**, respectively. The remaining side walls are preferably formed of connected panels. End wall panels **15** and **16** are connected to opposite edges of the wall panels **12** along fold lines **17** and **19**, respectively. Wall panels **20** and **21** are connected to the panels **15** and **16** along parallel fold lines **22** and **23**, respectively. In the form illustrated the panels **15** and **20** total the width of a tray side wall as do also the panels **16** and **21**.

The panel **11** is connected along extensions of the fold lines **17** and **19** to side wall panels **24** and **25** which are designed to overlap the panels **20** and **21** and to be secured thereto.

The bottom panel **10** is centrally folded at **26** and the fold line **26** extends into extension portions indicated generally by the numerals **27** and **29** connected to the bottom panel **10** along parallel fold lines **17** and **19**. A pair of diagonal fold lines **32** and **33** extend into the extension portion **27**, the diagonal fold line **32** issuing from the juncture of the fold lines **13** and **17** and the diagonal fold line **33** issuing from the juncture of the fold lines **14** and **17**. A similar pair of diagonal fold lines **34** and **35** extend into the extension portion **29**, the diagonal fold line **34** issuing from the juncture of the fold lines **13** and **19** and the diagonal fold line **35** issuing from the juncture of the fold lines **14** and **19**.

In operation the blank is folded along the fold lines **17** and **19** and adhesive is preferably applied to the portions of the extensions **27** and **29** which lie between the diagonal fold lines and the fold lines **17** and **19**. Thus the center portions of the extensions **27** and **29** are adhered to the bottom panel **10** to reinforce the same. As the blank is folded, the panels **20** and **21** are folded back to overlie the panels **15** and **16** to which they are attached.

The blank is next folded along the center fold line **26** so that the panel **11** overlies the panel **10** and the panels **20** and **21** overlie the panels **24** and **25** and are adhered thereto. When the tray is opened up it assumes the form shown in Figures 1 to 5 of the drawings.

A pair of parallel slots **36** and **37** are provided in the bottom panel **10**, these slots in the arrangement shown being spaced approximately one-third of the width of the bottom panel apart so as to divide the bottom into thirds. A filler member illustrated in general at **39** is inserted through the slots **36** and **37**.

With reference to Figure 7 of the drawings it will be noted that the filler member **39** includes a central portion **40** which is foldably connected along parallel fold lines **41** and **42** into handle anchoring members **43** and **44**, respectively. Actually the fold lines **41** and **42** are not continuous and are broken by a pair of laterally extending projections **45** and **46** which extend the width of the central portion **40**. In other words, the central portion **40** is wider at its center along the arcuate cut lines **47** and **49** to serve as an additional reinforcing member for the bottom **10** of the tray-like body.

The wall portions 43 and 44 are provided with parallel slots therein, two such slots 50 and 51 extending into the wall portion 43 and two additional parallel slots 52 and 53 extending into the wall portion 44. The slots 52 thus separate the wall portions 43 and 44 into a central part and side parts. The central part 54 of the wall portion 43 extends beyond the side portions and is provided with projections 55 and 56 which project outwardly beyond the slots 50 and 51, respectively. These slots 50 and 51 extend into the projections 55 and 56 and the projections are also notched as indicated at 57 and 59 for a purpose which will be later more clearly described. Inwardly of the projections 55 and 56, the center portion 54 is provided with rounded notches 60 communicating with the slots 50 and 51 for simplifying the task of inserting the handle members.

The wall portion 44 is similarly provided with a center portion 61 between the slots 52 and 53 which projects beyond the remainder of the wall portion and is provided with laterally extending projections 62 and 63 which overlie the heads of the slots 52 and 53. These slots extend slightly into the projections 62 and 63 and these projections are notched as indicated at 64 and 65 in the upper edges of the wall portion 44. Rounded notches 66 also communicate with the slots 52 and 53 adjacent the projections 62 and 63 for simplifying the insertion of a handle member.

The handle members are formed as illustrated in Figure 8 of the drawings, both being identical. Handle members 67 include a hand hole 69 near the upper end thereof and are provided with parallel slots 70. Slots or notches 71 aligned with the slots 70 are provided in the lower edge 72 of the handle member.

In the formation of the carrier the tray-shaped body is glued in the manner described and is folded into tray form. The filler member 39 is then bent into U-shaped form by folding the wall portions 43 and 44 at right angles to the center portion 40. The wall portions 43 and 44 are next inserted through the slots 36 and 37 to extend in parallel relation through the bottom of the tray-shaped body.

The handle forming members are next inserted in place by engaging the notches 71 into the slot 50 of the wall 43 and the slot 52 of the wall 44. When inserted a sufficient distance, the projections 55 and 62 extend through the slots 70.

The other handle member 67 is simimlarly attached by engaging the slots 71 in the slots 51 and 53 until the projections 56 and 63 extend through the slots 70. When the handle members 67 are lowered the upper ends of the slots 70 are located in the notches such as 57, 59, 64 and 65 of the side wall portions 43 and 44 so as to lock the upper ends of these wall portions from separation and to lock the upper ends of the handle members from lateral movement. In this position the handle members are below the tops of the bottles B as is shown in Figure 3.

When it is desired to lift the carrier, the handle members 67 are pulled upwardly until the lower ends of the slots 70 engage into the upper ends of the slots in the wall portions of the filler member 39 as shown in Figure 2. This arrangement also holds the various partition forming elements from relative lateral movement.

In view of the fact that the handle members must be flexed somewhat in order to enter the slots in the filler 39, it is difficult to detach these handle members and they will normally stay securely in place. In view of the fact that the bottom of the carrier is reinforced, light paper board may be used for forming the body portion of the carrier and heavier material can be used for the filler member 39 and the handle members 67.

In accordance with the patent statutes, I have described

the principles of construction and operation of my bottle carrier, and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that obvious changes may be made within the scope of the following claims without departing from the spirit of my invention.

I claim:

1. A bottle carrier including a rectangular tray-shaped body, a pair of parallel slots in the bottom thereof, a partition member of U-shaped form having a center section underlying the portion of said tray between said slots and having projections extending beneath said tray outwardly of said slots to reinforce the slotted tray bottom areas, said U-shaped partition member having panels extending upwardly through said slots and dividing said tray into three sections of substantially equal size, said panels each having a pair of substantially vertical, transversely spaced slots communicating with the upper end thereof, said panels having lateral projections above said slots, a pair of handle panels supported in substantially vertical position by said slots at substantially right angles to said partition panels and dividing each of said three sections into three substantially equal compartments, said handle panels having handle openings therein and having slots therein, through which said lateral projections extend, said slots in said handle panels terminating above the lower ends of said handle panels to provide projection engaging means when said handle panels are moved upwardly, whereby the weight of tray contents is transmitted through the U-shaped partition members to said handle panels when said tray is lifted thereby.

2. The structure of claim 1 and in which said lateral projections include hooked-shaped ends projecting through said slots in said handle panel.

3. A bottle carrier including a rectangular tray-shaped body, a pair of parallel slots in the bottom thereof, a partition member of U-shaped form having a center section underlying the portion of said tray between said slots, said U-shaped partition member having panels extending upwardly through said slots and dividing said tray into three sections of substantially equal size, said panels each having a pair of substantially vertical, transversely spaced slots communicating with the upper end thereof, said panels having lateral projections above said slots, a pair of handle panels supported in substantially vertical position by said slots at substantially right angles to said partition panels and dividing each of said three sections into three substantially equal compartments, said handle panels having handle openings therein and having slots therein through which said lateral projections extend, said slots in said handle panels terminating above the lower ends of said handle panels to provide projection engaging means when said handle panels are moved upwardly, whereby the weight of tray contents is transmitted through the U-shaped partition members to said handle panels when said tray is lifted thereby, and hook shaped ends on said lateral projections extending through said slots in said handle panels.

4. The structure of claim 3 and in which said handle panels include notches in their lower ends in alignment with said slots therein embracing portions of said partition panels below the slots therein.

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