Aug. 28, 1951 R. GUYER 2,565,683

BOTTLE CARRIER

Filed Aug. 5, 1948

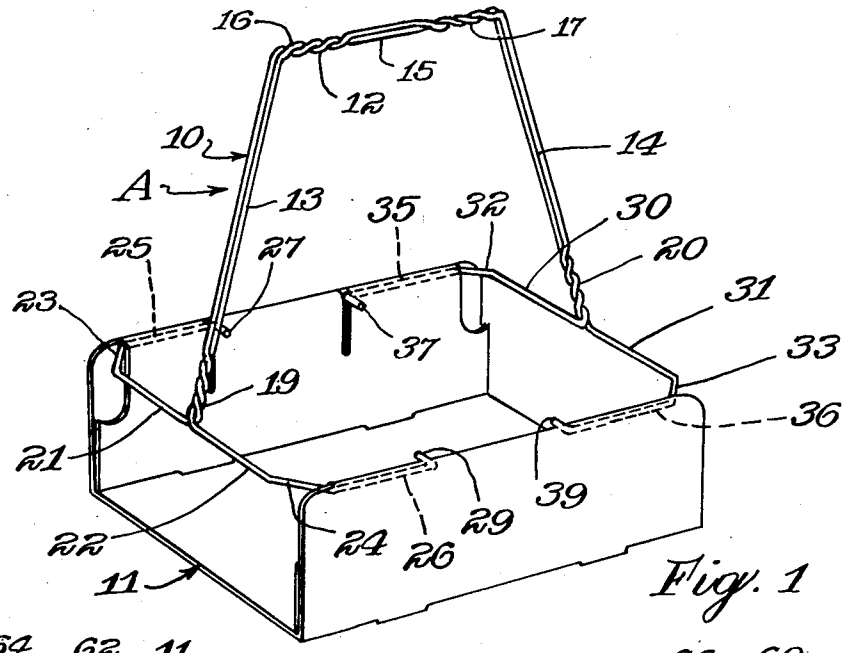


Fig. 1

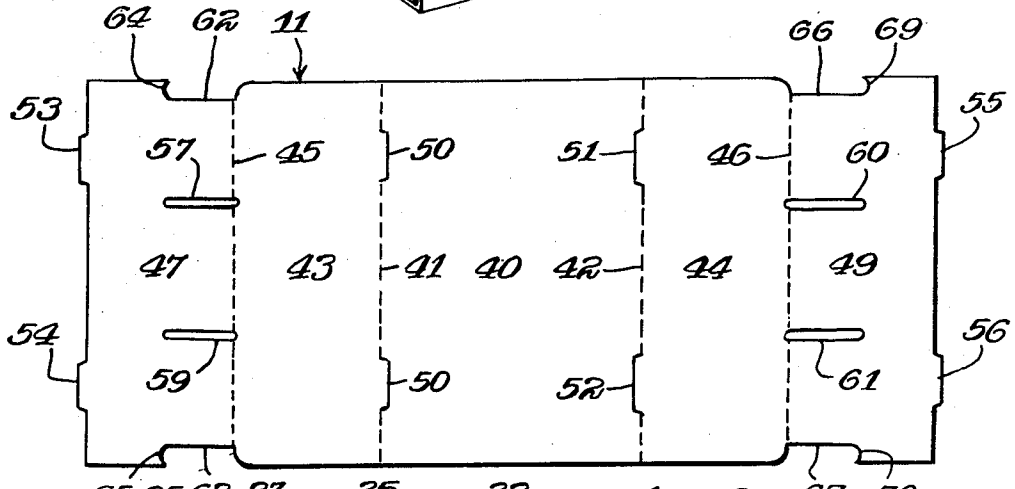


Fig. 3

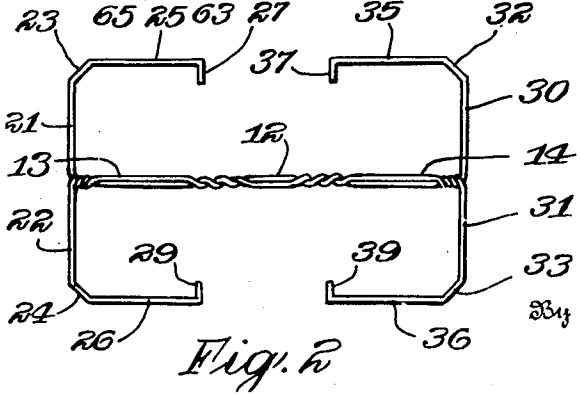


Fig. 2

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BOTTLE CARRIER

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11 Claims. (Cl. 224—48)

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My invention relates to an improvement in bottle carriers and deals particularly with a type of carrier employed for carrying a small number of bottles to and from retail stores or the like. In the sale of soft drinks and the like it has become popular to package several bottles in a carrier so that they may be conveniently carried to and from the retail store. Such carriers not only increase the sale of the goods but also tend to simplify the task of returning the empty bottles. As these carriers are given away with the sale of the beverage, it is necessary that they be produced at a low cost. Furthermore, the carrier must be made sufficiently strong to support the goods during transportation so that the bottles will not be dropped and broken.

In a co-pending application Serial No. 42,659, filed August 5, 1948, I have described a carrier having a generally rectangular frame and an inverted U-shaped handle connecting opposite ends of the frame. An elongated strip of paperboard or the like is supported by opposite sides of this rectangular frame and forms a U-shaped tray in which the bottles are placed. With such construction it is usually necessary to find some means of fastening the frame together or of securing together the separate parts of the frame. In some instances it is desirable to produce a frame and handle which need not be welded or otherwise connected together.

It is the object of the present invention to provide a bottle carrier frame comprising a generally U-shaped handle having at its ends a pair of yokes. These yokes are arranged in opposed relationship and are designed to support a U-shaped supporting tray. Thus the handle may be formed by merely twisting together two lengths of wire and properly shaping the wire to produce the opposed yokes.

A feature of the present invention lies in the provision of a carrier having a pair of opposed yokes in spaced relation and in providing a paperboard tray which is supported by the aligned ends of these yokes. As a result the ends of the handle forming wires or rods need not be connected together, thus simplifying the forming process.

A feature of the present invention lies in the provision of a supporting tray which is generally U-shaped in cross section and which is provided with opposite open ends. These open ends are normally closed by a pair of opposed yokes which extend across the open ends and are anchored to the parallel sides of the U-shaped tray. The parallel walls of the tray hold the bottles in

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place against transverse movement while the yokes prevent longitudinal movement of the bottles supported.

An added feature of the present invention lies in the provision of a bottle carrier including a tray of paperboard having substantially parallel sides and a connecting base panel. Flaps or liner panels are hingedly connected to the upper edges of the parallel sides and are folded downwardly to form tray side walls of double thickness. The handle includes an inverted U-shaped member of two wires twisted together. At the ends of the handle the wires project outwardly in opposed relation to form ends for the carrier, and the extremities of the wires are bent into parallel relation to extend within the fold formed by the double thickness side walls of the tray. Means are provided for anchoring the enclosed portions of the frame to the side walls and to hold the structure assembled.

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 part of my specification:

Figure 1 is a perspective view of a bottle carrier showing my new design.

Figure 2 is a top plane view of the handle and frame, showing the construction thereof.

Figure 3 is a diagrammatic view of the paperboard blank of which the paper portion of the carrier is formed.

The carrier A illustrated in the drawings includes a handle and frame unit 10 and a paperboard tray indicated in general by the numeral 11. The tray 11 is supported by the handle frame in a manner which will be later described in detail.

The handle 10 includes a U-shaped handle portion including a transverse handle connecting portion 12 which is connected at its ends to downwardly and outwardly inclined handle portions 13 and 14. This U-shaped portion of the handle is formed of twisted wire, two equal lengths of wire being twisted together at intervals or otherwise to form the same. In the particular structure illustrated the central portion 15 of the handle connecting member 12 is not twisted and the outer ends of the connection portion 12 are twisted as indicated at 16 and 17. The downwardly inclined handle portions are not twisted through the major portion of their length and are connected by twisted portions 19 and 20 near the lower ends of the arms 13 and 14.

The lower end of the handle portion 13 is bent

to form aligned end portions 21 and 22 which form an end wall of the carrier. The arms 21 and 22 are connected by rounded or diagonally extending portions 23 and 24 with parallel end portions 25 and 26. The extremities 27 and 29 of the parallel portions 25 and 26 are bent into opposite aligned relation as illustrated in Figures 1 and 3 of the drawings.

The lower end of the handle portion 14 is bent to provide aligned oppositely extending arms 30 and 31 which form an end of the carrier. The arms 30 and 31 are connected by rounded or diagonally extending portions 32 and 33 with parallel end portions 35 and 36. The extremities 37 and 39 of the end portions 35 and 36 are bent into aligned opposed relation.

Thus it will be noted that the handle and frame unit 10 in effect form an inverted U-shaped handle and a pair of opposed similar yokes which are designed to form ends on the bottle carrier. The yokes also act to support the tray 11 as will be described in detail.

The U-shaped tray 11 includes a bottom panel 40 which is connected along opposed score lines 41 and 42 to outer side wall panels 43 and 44. The outer side wall panels 43 and 44 are connected along parallel fold lines 45 and 46 to inner wall panels 47 and 49. The panels 47 and 49 are designed to form wall liner panels and are foldable in generally parallel relation with the outer wall panels 43 and 44.

A pair of spaced elongated cuts or slits 50 are provided in the bottom panel 40 closely adjacent the score line 41. The ends of the cuts or slots 51 extend angularly to the score line 41 to communicate therewith. These cut lines define narrow slots or openings in the bottom panel 40 adjacent the score line 41 when the wall panel 43 is folded into right angular relation with the base.

A similar pair of slots or cuts 51 and 52 are provided adjacent the store line 42 in the panel 40. The cuts or slits 51 and 52 are parallel to the score line 42 throughout most of their length, but the ends of these cuts are bent angularly to communicate with the score line 42. These cut lines define narrow slots or apertures in the bottom panel 40 adjacent the wall panel 44 when this wall panel is folded at substantially right angles to the base.

The inner wall panel 47 is provided with a pair of short projecting tongues 53 and 54 which are aligned with the cut lines 50. The wall panels 43 and 47 are of substantially equal length so that when the liner panel 47 is folded inwardly of the outer wall panel 43 the projecting tongues 53 and 54 may extend through the slots or apertures formed by the cut lines 50. The engagement of these tongues in their slots holds the two wall panels 43 and 47 in substantially parallel relationship.

A pair of projecting tongues 55 and 56 are provided on the free edge of the inner wall panel 49 in alignment with the cut lines 51 and 52. Accordingly, when the inner wall panel 49 is folded inwardly upon the outer wall panel 44, the tongues 55 and 56 extend through the apertures formed by the cut lines 51 and 52 and hold the two wall panels in substantially parallel relationship.

A pair of spaced elongated slots 57 and 59 are provided in the inner wall panel 47 adjoining the fold line 45 and extending at substantially right angles thereto toward the free edge of the panel 47. A similar pair of slots 60 and 61 are provided in inner wall panel 49 adjoining the fold line 46 and extending at substantially right angles thereto. The slots 57 and 60 are in substantial alignment and the slots 59 and 61 are also in substantial alignment.

A pair of notches 62 and 63 are formed in the inner wall panel 47 at opposite ends thereof. The notches 62 and 63 terminate at the fold line 45 and at their other ends terminate in rounded shoulders 64 and 65. The notches 62 and 63 are of substantially equal length with the slots 57 and 59.

A pair of notches 66 and 67 are provided at opposite ends of the inner wall panel 49 adjoining the fold line 46 and extending toward the free end of the wall panel. The notches 66 and 67 terminate in rounding shoulders 69 and 70. The notches 66 and 67 are of substantially equal length with the slots 60 and 61.

In assembling the bottle carrier, the aligned frame portions 25 and 35 are positioned to extend along the fold line 45 and the wall panel 47 is folded to overlie the wall panel 43. The slots 57 and 59 will then overlie the inturned ends 27 and 37 of the aligned portions 25 and 35. The two wall panels 43 and 47 are then folded in unison along the fold line 41, the tongues 53 and 54 sliding into the slots formed by the cut lines 50 and 51 and the inturned frame ends 27 and 37 projecting through the slots 57 and 59.

The opposite end of the carrier is then folded in a similar manner, the aligned frame portions 26 and 36 extending along the fold line 46 and the inturned ends 29 and 39 on the frame extending through the slots 60 and 61. The diagonally extending portions 23, 24, 32 and 33 of the frame unit extend in the notches 63, 67, 65 and 62 respectively, the end members of the frame unit being spaced apart a distance substantially equal to the length of the bottom panel 40.

When thus assembled with the wall panels 44 and 49 folded upon each other and with the tongues 55 and 56 of the inner wall panel extending into the apertures formed by the cut lines 51 and 52, the carrier is in condition to receive bottles therein. In the particular construction illustrated, the carrier is designed to hold six bottles arranged in two parallel rows each containing three bottles and the inturned ends of the yokes lie between the bottles and so do not interfere with the operation of the carrier. It will be noted that when the handle and frame unit 10 are in the position illustrated in Figure 1 of the drawings, the cross connecting member 12 of the handle will be somewhat above the level of the bottles contained in the carrier. However, when the upward pull on the handle is released, the frame is free to slide downwardly, the movement of the frame being limited by the length of the slots and notches. The downward slidable movement of the frame unit is limited by the extent to which the projecting ends 27 and 37 may slide downwardly in their slots 59 and 57 and similarly the movement of the frame is limited by the extent to which the inwardly projecting frame ends 29 and 39 are slidable downwardly in their slots 61 and 60. Similarly, the diagonally extending portions of the frame are limited in their downward movement by the rounded shoulders 64, 67, 69 and 70 at the lower end of the notches 62, 63, 66 and 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 there-

of, I desire to have it understood that obvious changes could be made within the scope of the following claims without departing from the spirit of my invention.

I claim:

1. A bottle carrier including an inverted U-shaped handle, and a generally U-shaped yoke secured intermediate its ends to each end of said handle, said U-shaped yokes lying on substantially a common plane and having generally parallel sides arranged with the sides of one yoke substantially aligned with the sides of the other and free therefrom, and a U-shaped tray supported between said sides.

2. The structure described in claim 1 in which the U-shaped tray includes flanges on the ends thereof foldable to form side wall portions of double thickness, the parallel sides of said yokes being enclosed within said double thickness side wall portions.

3. The structure described in claim 1 and including angularly extending extremities on said parallel sides.

4. The structure described in claim 1 and including angularly extending extremities on said parallel sides, said angularly extending ends extending through said U-shaped tray to hold said tray assembled on said yokes.

5. A bottle carrier including an inverted U-shaped handle formed of a pair of wires connected in side by side relation, said wires being bent angularly into opposed aligned relationship at the ends of said handle to form parallel carrier ends at substantially right angles to a plane through the U-shaped handle, right angularly extending portions on said end portions, the right angularly extending portions of each end of the handle being parallel and substantially aligned with the corresponding parallel end portions of the other handle end, and a generally U-shaped tray having a bottom panel and opposed upwardly directed side panels, and means connecting said side panels to said parallel end portions.

6. A bottle carrier including an inverted U-shaped handle having opposed outwardly extending end portions at each end thereof arranged substantially normal to a plane through the U-shaped handle, right angularly extending portions at the end of said outwardly extending end portions, the right angularly extending portions of each handle end being substantially parallel and substantially aligned with the parallel portions of the other handle end, a substantially U-shaped carrier body supported by the parallel portions of the handle end, said body including a bottom panel, outer side wall panels, and inner side wall panels folded upon the outer side wall panels and secured in substantially parallel contacting relation thereto, the right angularly extending portions of said handle ends being enclosed between the side walls, and means permitting predetermined vertical movement of said right angularly extending ends between said side walls.

7. A bottle carrier including an inverted U-shaped handle, a generally U-shaped yoke at each end of said handle and secured to the handle intermediate the ends of the yoke, the ends of each yoke being parallel and substantially aligned with the ends of the opposite yoke, and a generally U-shaped tray supported by said yoke, said tray including a bottom panel, outer side wall panels foldably connected thereto, and inner side wall panels foldably connected to said outer side wall panels and folded upon said outer side wall panels and connected thereto, the ends of the yoke being enclosed between the inner and outer side wall panels adjacent the line of fold therebetween.

8. The structure described in claim 7 and including angularly extending extremities on the ends of said yoke extending through one of said wall panels.

9. The structure described in claim 7 and including angularly extending ends on said yokes extending through said inner side wall panels.

10. The structure described in claim 7 and including angularly extending ends on said yokes and said inner side walls including slots through which said angularly extending ends may extend.

11. The structure described in claim 7 and including angularly extending ends on said yokes, substantially vertical slots in said inner side wall through which said angularly extending yoke ends extend, and notches at opposite ends of said inner side walls through which said yokes extend, said notches and slots permitting limited vertical movement of said yokes and handle relative to said tray.

REYNOLDS GUYER.

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