Aug. 28, 1951 R. GUYER 2,565,810

BOTTLE CARRIER

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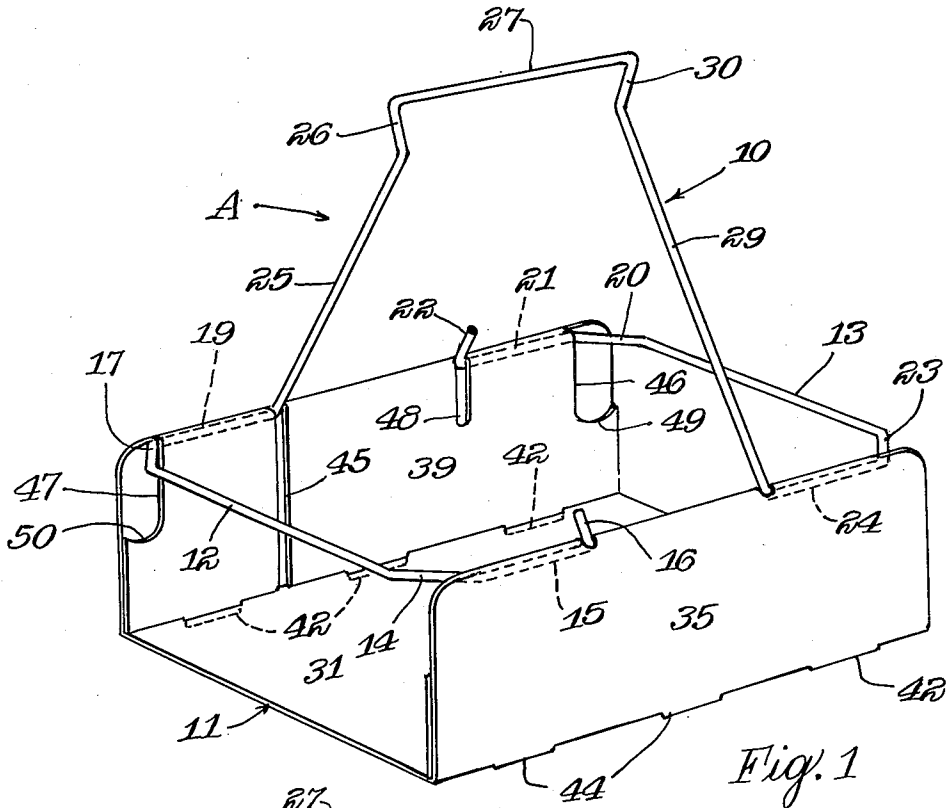


Fig. 1

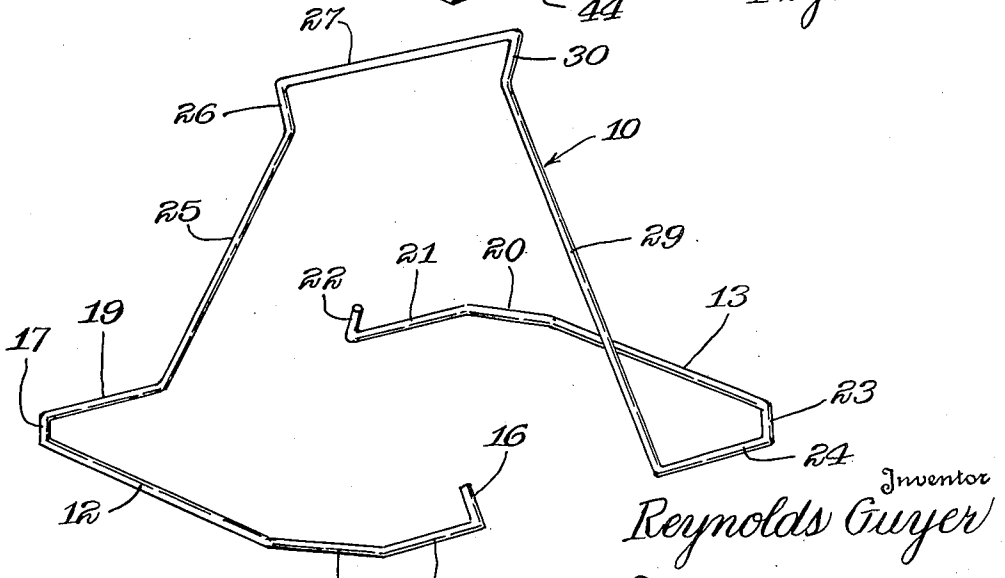


Fig. 2

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BOTTLE CARRIER

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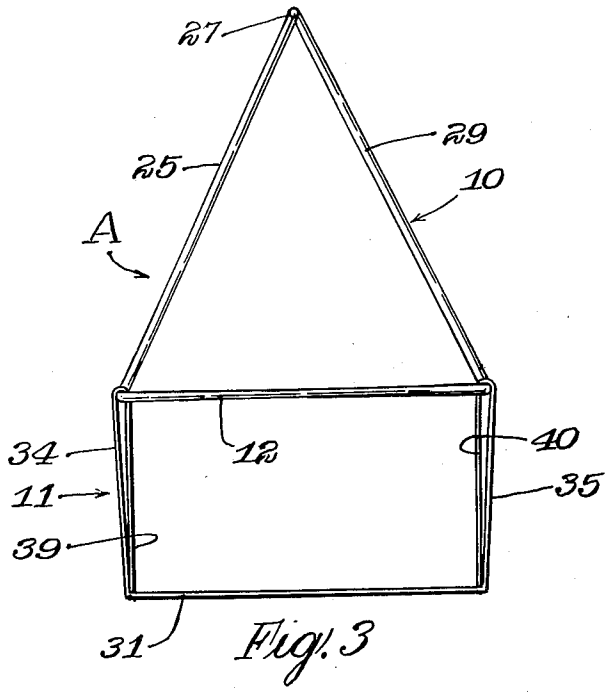


Fig. 3

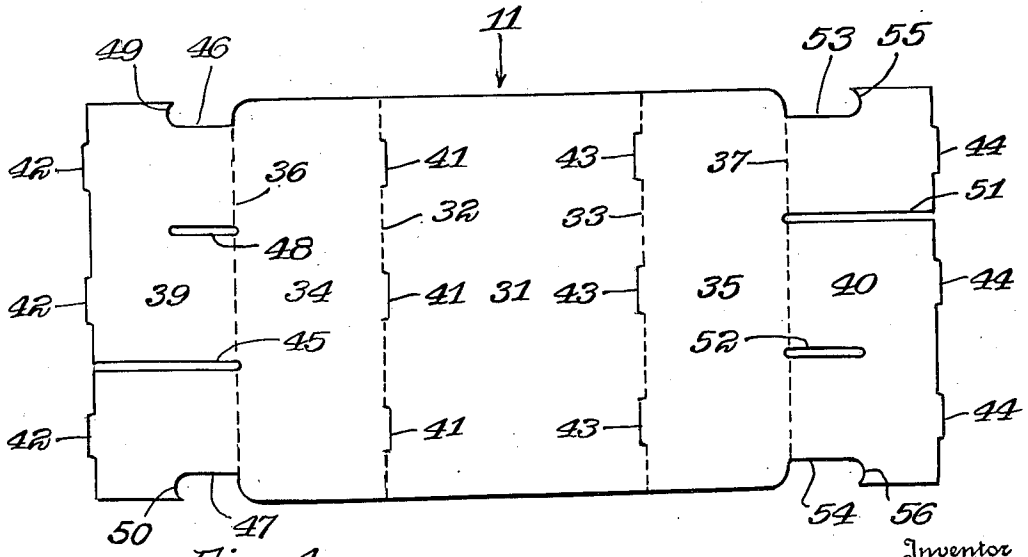


Fig. 4

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UNITED STATES PATENT OFFICE

2,565,810

BOTTLE CARRIER

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Application August 5, 1948, Serial No. 42,657

7 Claims. (Cl. 224—48)

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My invention relates to an improvement in bottle carrier structure wherein it is desired to provide a simple carrier for a series of bottles or the like.

In a co-pending application Serial No. 42,660, filed August 5, 1948, for "Bottle Carrier" I have described a bottle carrier having a rectangular frame provided with an inverted U-shaped handle connecting opposite ends thereof, and a generally U-shaped tray supported between opposite sides of the frame. Such a carrier has been used for carrying a series of bottles of a soft drink to and from a retail store. While the structure has been found extremely desirable for its intended purpose, the handle usually requires a welding operation or other means for attaching various parts of the handle together. The present device comprises a somewhat similar carrier employing a handle formed of a single length of wire rod or the like which requires no welding or fastening together.

A feature of the present invention lies in the provision of a carrier having a carrying handle which extends longitudinally of the carrier and which is bent to form a frame for supporting a U-shaped tray. The frame is also designed to extend across the end of the U-shaped body so as to prevent the bottles from sliding from the ends of the carrier.

A feature of the present invention lies in the provision of a pair of generally U-shaped frame members, each of which is connected by an upwardly and inwardly extending handle portion to a central connecting handle portion which extends parallel to the opposite sides of the yoke. The upwardly and inwardly inclined handle members do not interfere with the bottles carried within the carrier but form opposed frame supports connected to opposite sides of the frame in a manner to balance the weight of the bottles within the carrier.

An added feature of the present invention lies in the fact that the upwardly and inwardly inclined handle portions extend between the bottles within the carrier so as not to interfere with the insertion of the bottles into the carrier or the withdrawal of the bottles from the carrier. The handle and frame unit is also so arranged that it may move vertically a limited distance so that the handle may be raised above the level of the bottles carried for carrying purposes and may be retracted below the level of the bottles for storage and stacking purposes.

These and other objects and novel features of my invention will be more clearly and fully set

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forth in the following specification and claims.

In the drawings forming a part of my specification,

Figure 1 is a perspective view of my carrier in readiness for operation.

Figure 2 is a perspective view of my handle and frame unit removed from the carrier.

Figure 3 is an end view of the assembled carrier.

Figure 4 is a diagrammatic view of the paperboard blank of which the body of the carrier is formed.

The carrier A includes a handle and frame unit 10 which acts to support a tray shaped body 11. The frame unit 10 acts to support the tray and the bottles contained therein.

The frame unit 10 includes a pair of generally parallel end portions 12 and 13 designed to form the end walls of the carrier. The end member 12 is connected by a diagonal or rounded corner portion 14 to a side portion 15 which terminates in an angularly extending extremity 16. The other end of the frame end 12 is connected by a rounded or diagonally extending corner portion 17 to a side portion 19 which is parallel to the side portion 15. Thus the end portion 12 with its connected side portions 15 and 19 form a generally U-shaped yoke which comprises one end of the frame.

The frame end 13 is connected by a diagonally or rounded corner portion 20 to a side portion 21 in aligned relation to the side 19. The side portion 21 terminates in an angularly extending extremity 22. The end portion 13 is also connected by a rounded or diagonally extending corner portion 23 to a side portion 24 which is aligned with the side portion 15. Thus the end portion 13 and the parallel side portions 21 and 24 form a U-shaped yoke or frame which is arranged in opposed relation to the first mentioned yoke or frame member.

An upwardly and inwardly inclined handle portion 25 is connected to the end of the side portion 19. This inclined handle portion 25 extends on a plane substantially normal to the axis of the side member 19. The upper end of the inclined portion 25 is connected by an off-set 26 to a connecting handle portion 27 which is designed to be grasped by the fingers.

The side portion 24 is provided with an upwardly and inwardly inclined handle portion 29 which is arranged on a plane substantially normal to the axis of the said portion 24. The upper end of the inclined handle portion 29 is connected by an off-set 30 to the end of the con-

necting handle portion 27. The inclined portions 25 and 29 are so proportioned that the handle portion 27 extends parallel to the side portions 15, 19, 21 and 24 and is on a vertical plane which is normal to the frame ends 12 and 13 and extends midway between the ends thereof.

The blank of which the body is formed includes a bottom panel 31 which is connected along parallel fold lines 32 and 33 to outer side wall panels 34 and 35. The outer side wall panels are connected along parallel fold lines 36 and 37 to inner side wall panels 39 and 40. The wall panels 34, 39, 35 and 40 are of substantially equal length so that the liner panels may extend inwardly of the outer wall panels 34 and 35 to form a double thickness wall.

A series of spaced elongated cut lines 41 are provided in the bottom panel 31 adjoining the score line 32. These cut lines 41 are preferably spaced slightly from the score line and are terminably connected to the score line by angularly extending ends, the cuts being U-shaped in form. As a result, when the outer wall panel 34 is swung up into right angular relation with the bottom panel 31, apertures are formed in the bottom panel between cut lines 41.

A series of tongues 42 are provided on the free edge of panel 39 projecting beyond the end of the same. These tongues 42 are designed to extend into the apertures formed by the cut lines 41 and to lock the wall 39 into generally parallel relation with the outer wall panel 34.

A series of spaced cut lines 43 are provided in the bottom panel 31 adjoining the score line 33. These cut lines are elongated and are U-shaped in form, the angularly extending ends of the cut lines extending to the score line 33. As a result, when the outer wall panel 35 is folded upwardly relative to the base panel 31, apertures are formed in the bottom panel.

A series of tongues 44 are provided on the free end of the inner wall panel 40 and which are aligned with the cut lines 43. As a result, when the two panels 35 and 40 are folded into substantially parallel relationship, the tongues 44 will extend into the apertures formed by the cut lines 43 to hold the wall panels 35 and 40 in substantially parallel relationship.

An elongated slot 45 is provided in the lining panel 39, this slot extending from the free edge of the panel to the score line 36. A relatively shorter slot 48 is provided in the panel 39 extending from the score line 36 to the free end of the panel for a desired portion of the width of this panel.

A pair of notches 46 and 47 are provided at opposite ends of the panel 39 extending from the score line 36 to a point spaced from the free end of the panel. The notches 46 and 47 terminate in rounded shoulders 49 and 50 and serve as a support for the wire frame of the carrier in lowered position thereof.

A slot 51 is provided in the panel 40 extending from the free edge thereof to the score line 37. A second slot 52 is provided in panel 40 extending from the score line 37 toward the free edge of the panel. A pair of notches 53 and 54 are provided at opposite ends of the panel 40 extending from the score line 37 toward the free end of the panel and terminating in rounded shoulders 55 and 56. The notches 53 and 54 are of substantially the same length as the slot 52 and similiarly the notches 46 and 47 are substantially the same length as the slot 48.

The manner in which my carrier is assembled

is believed obvious from an examination of the drawings. The side members 19 and 21 of the frame are placed substantially over the fold line 36 and the wall panel 39 is folded to overlie the outer wall panel 34. The tongues 42 are engaged in the apertures formed by the cut lines 41 to lock the wall panels in parallel relation.

It will be noted that the slot 45 permits the lining panel 39 to fold past the upwardly and inwardly inclined handle portion 25 while the shorter slot 48 accommodated the projecting end 22 of the side member 21.

The wall panels 35 and 40 are folded to enclose the side members 15 and 24 of the wire frame. The elongated slot 51 straddles the handle member 29 while the slot 52 accommodates the off-set end portion 16. The tongues 44 engage in the apertures formed by the cut lines 43 to lock the side walls 35 and 40 in folded condition.

It will be noted that the wire frame may move downwardly throughout the length of the various notches 46, 47, 53 and 54 and throughout the length of the slots 48 and 52. Thus the handle and frame unit 10 may be moved so that the cross connecting member 27 thereof is above the level of the bottles being carried when the handle is in elevated position and may be retracted below the level of these bottles in lowered position and thus not interfere with the stacking of the cartons one upon the other.

In accordance with the patent statutes, I have described the 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 pair of substantially U-shaped frame members arranged in opposed relation with the ends of the frame members in substantial alignment, and a handle unit extending from one end of said frame members to the opposite end of the opposite frame member, a tray shaped body, and means connecting the ends of the frame members to the upper portion of the tray-shaped body.

2. The structure described in claim 1 in which the handle unit includes a pair of upwardly and outwardly inclined handle arms, and a connecting handle member between the upper extremities of said arms.

3. The structure described in claim 1 in which the handle unit and frame members are integral and the handle unit includes a pair of upwardly and inwardly inclined arms and a connecting member connecting the upper extremities of said arms.

4. The structure described in claim 1 in which the body includes a bottom panel, side wall panels, and flaps on said side wall panels foldable over the aligned portions of said U-shaped frame members.

5. The structure described in claim 1 in which the body includes a bottom panel, upwardly extending side panels and liner panels foldably connected to the upper edge of said side panels and foldable over the aligned portions of said frame members, said liner panels being slotted to accommodate said handle unit.

6. The structure described in claim 1 and including off-set ends on the other ends of said U-shaped frame members.

7. A bottle carrier including a frame and handle

unit including a pair of substantially U-shaped frame members arranged in opposed relationship with the sides of the frame members in substantial alignment, handle element including an upwardly and inwardly inclined handle arm on one end of one of said frame members and a second upwardly and inwardly extending arm on the other end of said other frame member, handle means connecting the upper ends of said arms, off-set extremities on the remaining ends of said U-shaped frame members, and a tray shaped body including a bottom panel, a pair of substantially perpendicular side wall panels, and flaps foldably connected to the upper extremities of said side wall panels and folded to enclose the aligned portions of said frames, one such side wall being secured to each side of the frame members, and slots in said flaps for accommodating said inclined arms and said off-set extremities.

REYNOLDS GUYER.

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