

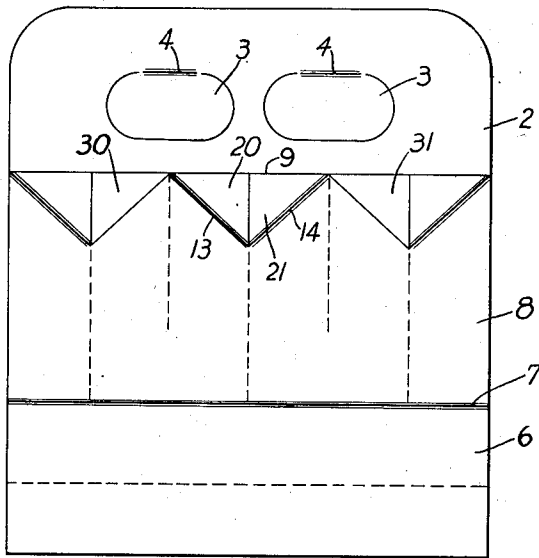
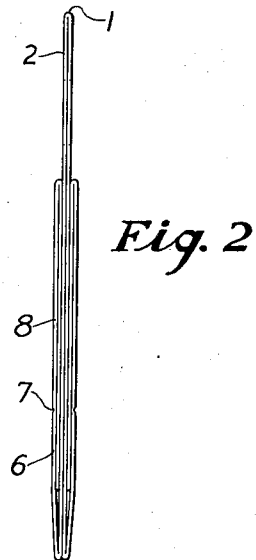
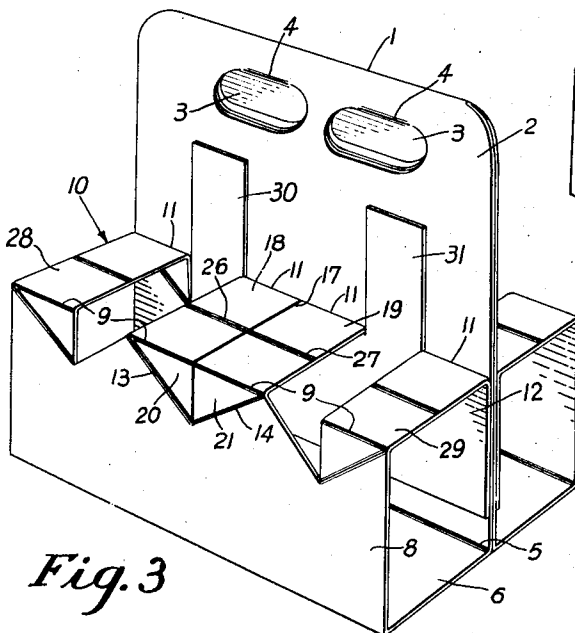
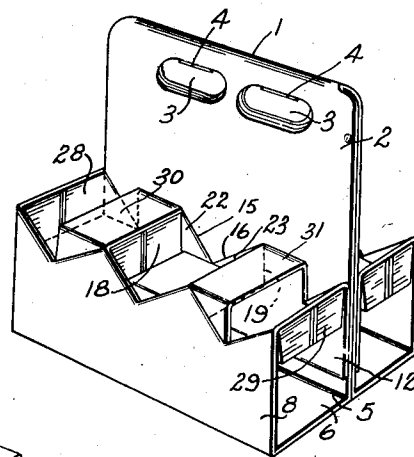
Sept. 14, 1954

H. Z. GRAY
BOTTLE CARRIER

2,689,061

Filed Dec. 4, 1948

2 Sheets-Sheet 1



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Fig. 4

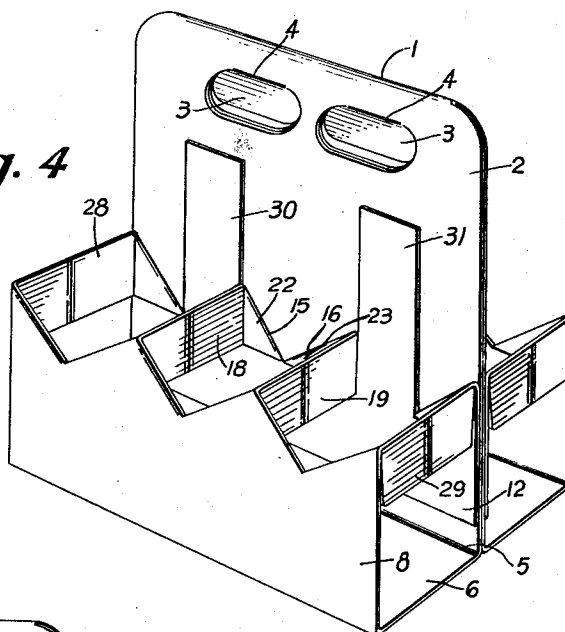
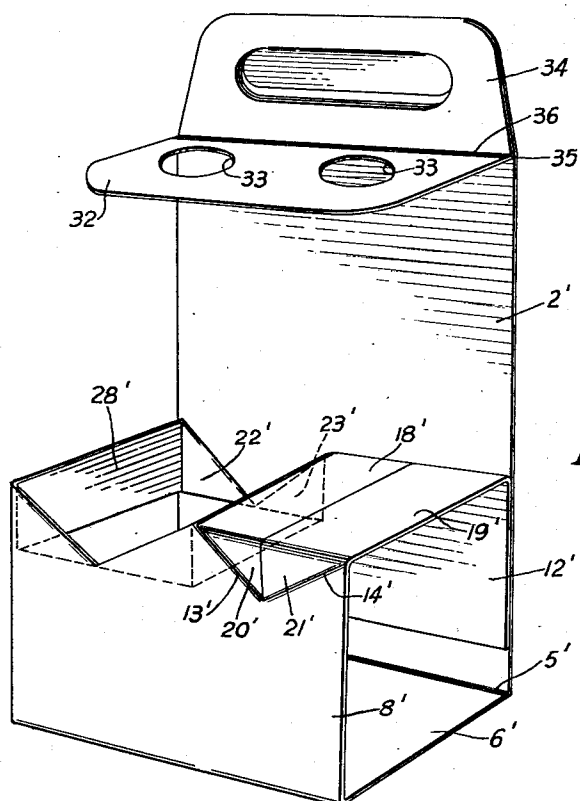


Fig. 5

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UNITED STATES PATENT OFFICE

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BOTTLE CARRIER

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12 Claims. (Cl. 220-113)

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This invention relates to a carrier for bottles, particularly beverage bottles, the carrier being of the basket type wherein the main support is provided on the underside of the bottles.

In the current distribution of bottled soft drinks it is customary to provide carriers free of charge to the consumer. In view of the further fact that the carriers have a relatively short life, it has been of prime importance to fabricate them using a minimum of material and of manufacturing operations while maintaining a minimum permissible strength and reasonable durability. In my novel carrier such conditions are met in a satisfactory manner employing a single sheet of cardboard for the main body of the carrier and effecting the final form by means of straight folds, cuts and score marks all in minimum degree and utilizing substantially all of the blank material.

It is therefore an object of the invention to provide a bottle carrier which is economical both as to cost of material and the manufacturing steps. It is a further object to provide a bottle carrier, the main body of which comprises a single sheet of material of simple geometric form, a more particular object being to provide such a carrier in which little or no material is scrapped in the manufacture. In still greater particular it is an object to provide a carrier folded from a single sheet of material into a structure having upper and lower tiers, the bottle receiving openings in the upper tier being attained in each case by a simple slit.

These and other ends, which will be in part apparent and in part made manifest as the description proceeds, are attained by the invention, certain embodiments of which are described in the accompanying specification and illustrated in the drawings, in which:

Figure 1 is a front view of a carrier collapsed into flat condition, as packed for shipping,

Figure 2 is an end view of Figure 1,

Figure 3 is a view in perspective of the carrier of Figure 1 opened into basket form, with the bottle-receiving openings still closed,

Figure 4 is a view similar to Figure 2, with the bottle-receiving openings folded downwardly,

Figure 4a is a reduced view similar to Fig. 4 with double partitions being utilized between bottle-receiving openings, and

Figure 5 is a view in perspective of a modified form having two bottle-receiving openings, one of which is shown as closed and the other as folded downwardly.

Referring to the drawings by characters of

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reference there is shown, in Figures 1 to 4, a double container formed from a single sheet of material being continuous from one side to the other through the top folded edge 1. Since the article is identical on each side of the edge 1, only one side need be described. Extending downwardly from the edge 1 is a continuous back wall 2 having struck tabs 3 foldable about scored edges 4 and having any convenient form to receive the fingers of a user for carrying the basket. The bottom edge of wall 2 is defined by a scored line 5 providing for the outward folding of a rectangular section 6 constituting the bottom of the basket when extended perpendicularly to wall 2. A further scored line 7 parallel to line 5 constitutes the bottom edge of a front wall 8, the top of which is defined by a series of aligned scored lines 9. The top portion of the basket indicated generally at 10, and presently to be described in detail, extends inwardly from edge 9 to inner scored edges 11, and the bulk of the balance of the sheet depends as at 12 from lines 11 along back wall 2 to which it is glued or otherwise secured. It will be seen that wall 2, bottom 6, front wall 8 and the top portion 10 constitute a parallelogram linkage in which wall 2 may be considered as fixed and the other three sides swingable from a flat, collapsed condition to an open position which viewed endwise is rectangular in form.

As shown, each side of the basket portion is adapted to accommodate three bottles. The central portion has, on the front wall 8, a pair of downwardly and inwardly directed scored lines 13, 14 meeting at a point where they form substantially a right angle. A similar pair of scored lines 15, 16 are provided in the back flap 12.

A through slit 17 is provided, extending from the juncture of scored lines 13, 14 to the juncture of scored lines 15, 16. The structure just described defines a pair of sections 18, 19 in the top 10, which are foldable about the scored lines 13, 15 and 14, 16, respectively, as hinges, as seen in Figure 4, with the right angles behind the scored lines 9 and 11 being turned inside out, the front triangular portions 20, 21 folded onto the inside of front wall 8, the rear triangular portions 22, 23 folded against the back flap 12, and top sections 18, 19 extending downwardly and generally perpendicular to the front and rear walls. Also, scored sections 9 and 11 are now vertical. In the operation of turning sections 18, 19 downward it is of convenience to provide

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scored lines 26, 27 medially thereof. End sections 28, 29 are similar in form and function to sections 18, 19. However, in the three-bottle form shown the sections 18, 19 serve adequately as partitions, each between the central well and an end well. Therefore, it is possible to utilize tabs 30, 31 which would ordinarily form part of top 10, as reenforcing strips glued to the upper portion of back wall 2 in which position they appear as upward extensions of dependent wall portion 12. The outer edges of tabs 30, 31 are formed in the central slitting of the end wells similar to the slit 17 of the central well, and the inner edges of the tabs are formed by slits along the outer edges of sections 18, 19.

The mode of employment of the carrier will be obvious. From a flat, folded condition, the basket portions are swung to open position by an opening of the parallelograms 2, 6, 8, 10, which is instantly responsive to an easy pressure of the thumb. Thereafter the three wells on one side are opened by a downward pressure of the thumbs on end sections 28, 29 followed by a similar operation on sections 18, 19, the entire operation being almost instantaneous.

In the form shown in Figure 5, which is adapted for carrying a pair of the larger size bottles, 24-ounce bottles for instance, the arrangement is generally similar and the various parts have been given similar reference characters to similar parts in the carrier of Figures 1 to 3, but qualified by prime marks. As shown in the drawing, the two-bottle container provides a double partition in the center, but this modification could also be constructed along the lines of either pair of adjacent wells on a given side of the said other carrier. For example, in Fig. 4a, the tabs 30 and 31 are shown as a part of top 10, ready to be pushed into downward position to form double partitions with sections 18 and 19, respectively. Also in the Figure 5 carrier it has been found convenient to provide an upper shelf 32 having openings 33 to receive bottle necks. As shown this comprises an upper section 34 glued to the back wall of the carrier but it could be constructed as a continuation of the back wall. The latter is scored at 35 at the hinge line 36 of the shelf 32 to allow for slant of the carrier due to weight of the bottles. Also the two-bottle carrier could be duplicated on each side of the back wall as in the six-bottle carrier so as to accommodate four bottles.

While certain embodiments have been shown it will be understood that the invention is not limited to the exact construction shown, and that changes in the size, shape and arrangement of the parts can be made without departing from the spirit and scope of the appended claims.

What is claimed is:

1. In a box structure for carrying articles, a continuous wall structure comprising a rear wall, a bottom, a front wall, a top wall and a depending portion extending along and attached to the rear wall, a slit extending from a point in the front wall to and across the top wall and terminating at a point in the said depending portion, and a portion of said top wall immediately adjacent said slit being attached to the rear wall and constituting an extension of said depending portion above the said top wall.

2. In a box structure for carrying articles, a rear wall, a bottom, a front, a top, and a portion depending from the rear edge of the top, and fixed, in part, to said rear wall, and a series of slits running transversely of the structure

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from a point in the front to the top, across the top and into said depending portion, said slits alternating between a slit in a plane perpendicular to the common edge of the front and top, and a slit inclined to such plane.

3. A device as in claim 2, wherein at least two pairs of adjacent slits each have common terminal points.

4. A device as in claim 2, wherein at least two pairs of adjacent slits each have common terminal points, and a fifth, intermediate slit is spaced throughout its length from adjacent slits.

5. In a device as in claim 2, scored lines joining the extremities of adjacent slits in the front and in the said depending portion.

6. In a device as in claim 2, scored lines joining the extremities of adjacent slits, said scored lines being inclined at substantially 45 degrees to the base.

7. In a device as in claim 2, scored lines joining the extremities of a plurality of said slits, and a plurality of top sections defined by said slits being folded against said rear wall above the said top.

8. A device as in claim 2, said slits being five in number, scored lines joining the extremities of the central three slits, scored lines joining the extremities of the outer two slits and the ends of the structure, and sections of the top between the central three slits and the respective outer two slits being folded and attached to the said rear wall above the said top.

9. A device as in claim 8, said scored lines lying at an angle of 45 degrees to the bottom.

10. A carrier for a plurality of bottles, cans, or similar articles arranged in two rows, the carrier consisting of a single blank of foldable sheet material creased along fold lines setting apart the several constituent parts of the carrier, the carrier comprising, a pair of outer side wall panels; a center partition consisting of two center panels hingedly connected along a top fold line; a bottom consisting of two separate bottom panels, each bottom panel being hingedly connected to an outer side wall panel and one center panel, respectively, along fold lines; and a cellular top structure dividing the space between the center partition and the outer side wall panels into individual article receiving cells, said top structure comprising webs extending at substantially right angles to the side wall panels and said partition, said webs being integral with said side walls and extending hingedly from said side walls along diagonal fold lines, the end portions of the webs being folded back upon said side walls along said diagonal fold lines, said top structure including terminal webs lying at the ends of the structure and intermediate webs lying between the terminal webs, the terminal webs being of single thickness and the intermediate webs being of double thickness, the two thicknesses being folded back-to-back along a crease line forming the ridge of the web, the bottom panels maintaining the side panels in a set position in which the webs are at right angles to the side panels and to the bottom panels and said cells are squared.

11. A carrier for a plurality of bottles, cans, or similar articles arranged in two rows, the carrier consisting of a single blank of foldable sheet material creased along fold lines setting apart the several constituent parts of the carrier, the carrier comprising a pair of outer side wall panels; a center partition consisting of two center panels hingedly connected along a top fold

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line; a bottom consisting of two separate bottom panels, each bottom panel being hingedly connected to an outer side wall panel and one center panel, respectively, along fold lines; and a cellular top structure dividing the space between the center partition and the outer side wall panels into individual article receiving cells, said top structure comprising webs extending at substantially right angles to the side wall panels and said partition and connecting said side wall panels with said partition, each web having two end portions folded back upon the respective side wall panel and the respective center panel about a diagonal fold line and overlying the side wall panel and the center panel on the inside of the cells, said webs further including a central portion intermediate said end portions extending substantially at right angles to said end portions from the side wall to the respective center panel, the bottom panels maintaining the side wall panels and the center panels in a set position in which the webs are at right angles to the side panels and said cells are squared.

12. A carrier for a plurality of bottles, cans, or similar articles arranged in two rows, the carrier consisting of a single blank of foldable sheet material creased along fold lines setting apart the several constituent parts of the carrier, the carrier comprising, a center wall consisting of two center panels folded back-to-back about a top fold line; a pair of bottom panels hingedly extending outwardly from the bottom of the cen-

ter panel; a pair of outer side wall panels hingedly extending upwardly from the outer edges of the bottom panels respectively; and webbed top structures connecting the upper edges of said side wall panels with said center panels and dividing the spaces between the center panels and the outer side wall panels into individual article receiving cells, each of said top structures comprising webs extending at substantially right angles to the side panels and the center panels, each web having two end portions folded back upon the respective side wall panel and the respective center panel along diagonal fold lines to overlie the side wall panel and the center panel on the inside of the cells, said webs further including a central portion intermediate said end portions extending substantially at right angles to said end portions from the side wall to the respective center panel; the webs lying at the ends of the top structure being of single thickness, and the webs intermediate the end webs being of double thickness, the two thicknesses being folded back-to-back along a crease line forming the ridge of the web.

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