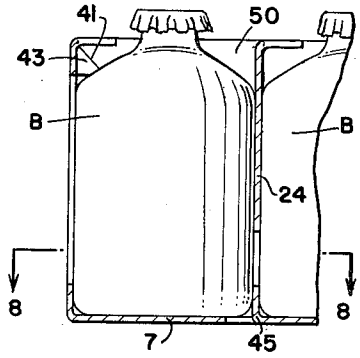
July 6, 1965 R. A. COTE 3,193,134

CARRIER

Filed June 17, 1964

FIG.7



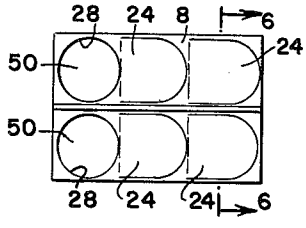


FIG.5

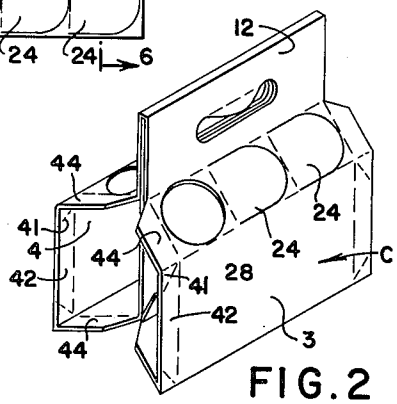


FIG.2

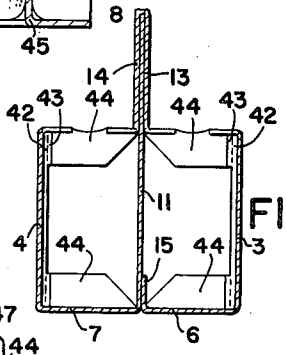


FIG.6

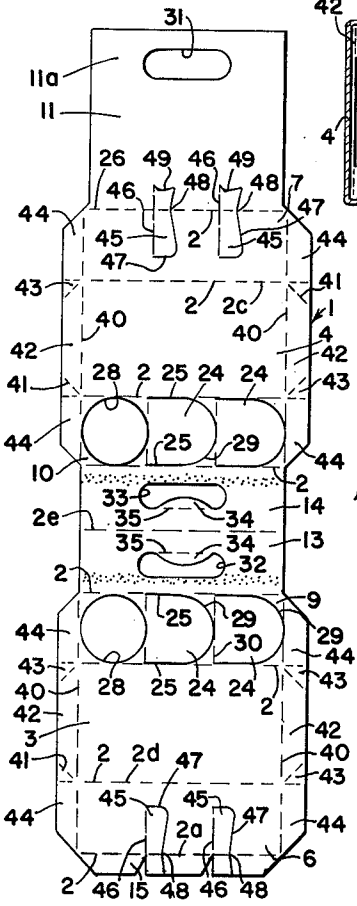


FIG.1

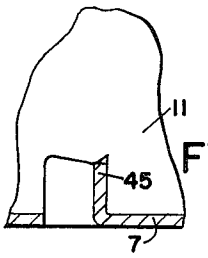


FIG.9

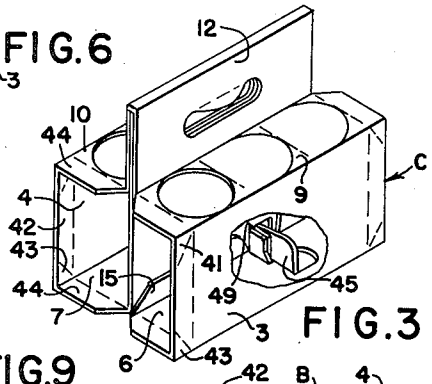


FIG.3

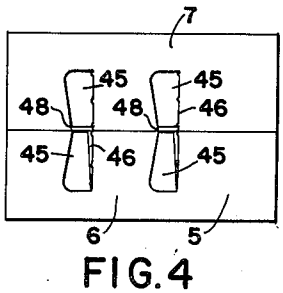


FIG.4

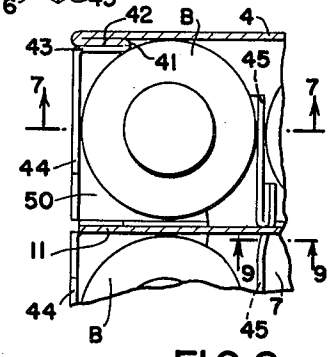


FIG.8

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3,193,134

CARRIER

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Filed June 17, 1964, Ser. No. 375,914
1 Claim. (Cl. 220—114)

This application is a continuation-in-part of my copending application Serial No. 225,307, filed September 21, 1962.

This invention relates to receptacle carriers and more particularly to paperboard carriers adapted to carry bottles, cans or like articles and to be carried manually.

It is a principal object of this invention to provide a carrier which is formed from a flat one-piece blank which is simple in construction and economical to manufacture.

A further object is to provide a carrier having means to separate the articles from each other to prevent breakage and means to hold the articles in the carrier.

Further objects and advantages will appear from the following description and drawings, in which:

FIG. 1 is a plan view of a blank from which the carrier of the present invention is made;

FIG. 2 is a perspective view showing a carrier formed from the blank of FIG. 1 in substantially collapsed condition;

FIG. 3 is a perspective view showing the carrier of FIG. 2, fully erected, ready to receive the articles it is to carry;

FIG. 4 is a bottom view of the carrier of FIG. 3;

FIG. 5 is a plan view of the carrier of FIG. 3;

FIG. 6 is a fragmentary sectional view taken along line 6—6 of FIG. 5;

FIG. 7 is a fragmentary sectional view taken along line 7—7 of FIG. 8;

FIG. 8 is a fragmentary sectional view taken along line 8—8 of FIG. 7; and

FIG. 9 is a fragmentary sectional view taken along line 9—9 of FIG. 8.

The carrier C shown in FIG. 3 is formed from a one-piece blank 1 (FIG. 1) cut from suitable sheet material, preferably single ply paper or paperboard. It can also be constructed from heavier material, depending on the requirements of the carrier.

The blank 1 has horizontal fold lines 2 which define and hingedly connect parts including side wall panels 3 and 4, a bottom 5 (including first and second bottom wall panels 6 and 7), a top 8 (including first and second top wall panels 9 and 10), a center partition 11, a handle 12 (including first and second handle sections 13 and 14 and center handle section 11*a*), and a glue flap 15 for forming a manufacturer's joint in preparing the blank for its erection or formation into a carrier.

The blank 1 also has vertical fold lines 40 and diagonal fold lines 41 which define and hingedly connect a plurality of end closure portions 44, a plurality of connecting portions 43 and a plurality of anchoring portions 42.

The top wall panels 9 and 10 are each provided with means defining a plurality of top transverse partitions or separators 24 for a purpose further to be described. Each of the partitions is defined by two horizontal cuts 25, a semi-circular cut 29 and a vertical fold line 30 as shown in FIG. 1. The top wall panels 9 and 10 are further provided with means defining circular bottle receiving openings 50, each of which is defined by a circular cut 28.

A pair of bottom transverse partitions or separators 45 is formed along and across each of the horizontal fold lines 2*a* and 2*b* and in the bottom wall panels 6 and 7

and the adjoining center partition 11 and the glue flap 15. Each of the partitions is defined by a vertical fold line 46 and a curved cut 47 and is concave or has an indentation at 48 and the two partitions 45, formed at the fold line 2*b*, are also concave or have indentations at 49 for a purpose further to be described.

The center handle section 11*a* is provided, at its upper edge, with means defining a finger opening 31 and the handle sections 13 and 14 are provided with similar means defining finger openings 32 and 33, each of which has a tab 34 attached thereto along a horizontal fold line 35.

To form the carrier of FIG. 3 from the blank of FIG. 1, adhesive is applied to the inner surface of the handle sections 13 and 14 as shown in FIG. 1. The blank is then folded along the horizontal fold line 2*c*, so as to bring the finger opening 31 in the center partition 11 into register with the finger opening 33 in the second handle section 14. The bottom panel 6 and the glue flap 15 are then folded along the horizontal fold line 2*d* and into overlapping relation with a part of the inner surface of the wall panel 3 and glue is applied to the outer surface of the glue flap 15, after which the blank is folded along the horizontal fold line 2*e*, so as to bring the glue flap into abutting relation with the lower surface of the center partition 11 and the finger opening 32 in the first handle section 13 into register with the finger opening 31 in the center partition 11. This completes the formation of the carrier which may be shipped flat to the user in its collapsed condition and later set up for use by merely applying vertical pressure to it until it is squared as shown in FIG. 3.

The carrier shown in FIG. 3 is intended to receive six bottles arranged in two rows of three bottles each. Prior to the loading of the bottles into the carrier, the end closure portions 44 are folded, along the vertical fold lines 40, perpendicular to bottom and top wall panels 6, 7, 9 and 10 (FIGS. 4 and 8). In this position, they serve to lock the bottles against escape or shifting when the carrier is being transported, since each of the bottles next to an open end has a closure portion 44 disposed against its bottom and top to prevent its movement outwardly toward such end.

Since the end closure portions 44 are connected to the anchoring portions 42 by the connecting portions 43, the folding of the anchoring portions 42, along the vertical fold lines 40 and into abutting contact with inner parts of the respective side walls 3 and 4, folds the connecting portions 43 along diagonal fold lines 41 and over parts of the anchoring portions 42 and folds the closure portions 44 into their operative positions in an efficient and effective manner.

Each of the top partitions 24 in the top wall panels 9 and 10 are then pushed downwardly as shown in FIGS. 7 and 9, and each of the bottom partitions 45 in the bottom panels 6 and 7 are pushed upwardly as shown in FIGS. 7, 8 and 9 so as to extend within the carrier. The bottom partitions 45 are concave at their center portions; i.e., at 48, to enable them to be swung along fold lines 46 and into operative position without interference from the center partition 11 and the partitions 45, formed at the fold line 2*b*, are also concave at 49 to define means in the center partition 11 to lock the partitions or separators 45 in their operative position.

The bottles may then be loaded or inserted into each of the six bottles receiving openings 50, defined either by cuts 28 or vacated by the partitions 24, and positioned so that the bottoms of the bottles rest upon the bottom 5 of the carrier.

In their final, vertical position, the partitions or separators 24 and 45 serve to prevent the adjacent bottles

in the same row from rubbing against or striking each other. And, the two rows of bottles are separated from each other by the center partition **11**. Thus, means are provided to separate each of the individual bottles from each other, top and bottom, in the same row and to separate the rows from each other. Chipping or breaking of the bottles is, therefore, effectively eliminated when the carrier is in use.

It should be noted that each of the separators **24** is of substantially the same width as the top and bottom panels **6**, **7**, **9** and **10**. Therefore, in the erected carrier, they tend to retain the walls of the carrier in their squared condition and to prevent premature collapse of the carrier when the pressure is exerted against its sides.

What is claimed is:

A carrier formed from a one-piece blank of foldable sheet material, said carrier having parts including side wall panels, a bottom, a top, a center partition, and a glue flap, said bottom including first and second bottom wall panels, said top including first and second top wall panels, said carrier having horizontal fold lines defining said side wall panels, said bottom, said top, said center partition, and said glue flap and hingedly connecting them to each other, said carrier having means defining a plurality of top transverse partitions in each of said first and second top wall panels and means defining a plurality of bottom transverse partitions in said first and second bottom wall panels and in said center partition and said glue flap, said means defining each of said bottom transverse partitions including means defining a vertical fold line and a curved cut, each of said bottom transverse partitions being concave at a center portion thereof and at least two of said bottom transverse partitions each having means defining an indentation in said center partition, said center partition being folded perpendicularly to said bottom, said bottom transverse partitions being folded perpendicularly to said bottom and transversely of said center partition with each said indentation in said center partition receiving a said concave portion of said bottom transverse partitions to lock said bottom transverse partitions in their operative positions.

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