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R. C. MARSHALL, JR

2,284,290

BOTTLE CARRIER

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Fig. 1.

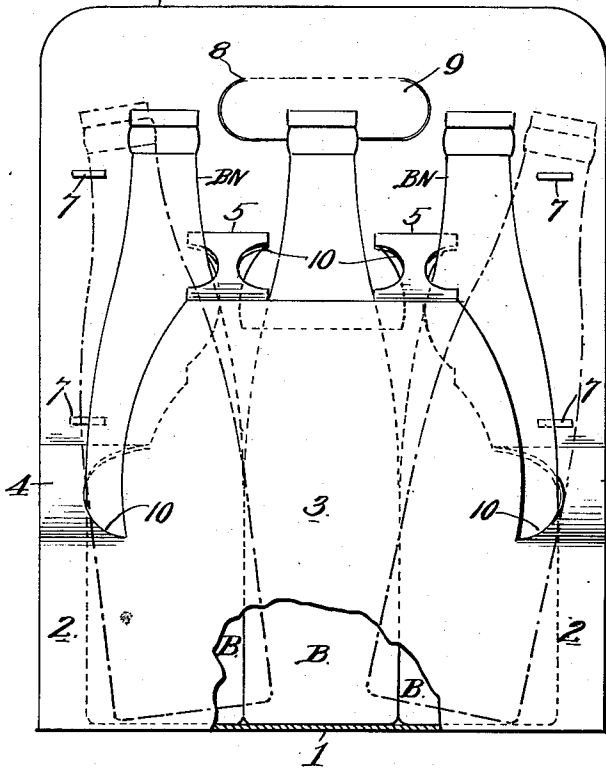


Fig. 3.

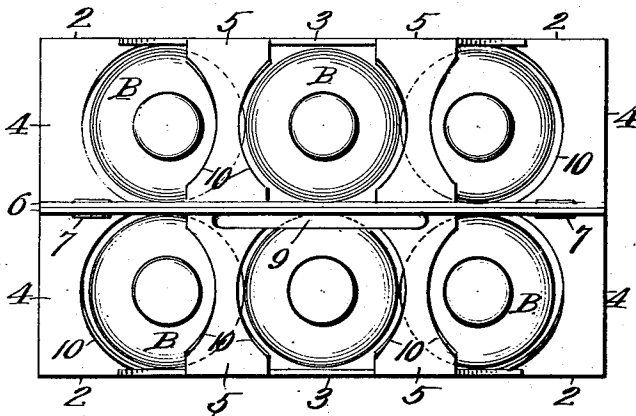
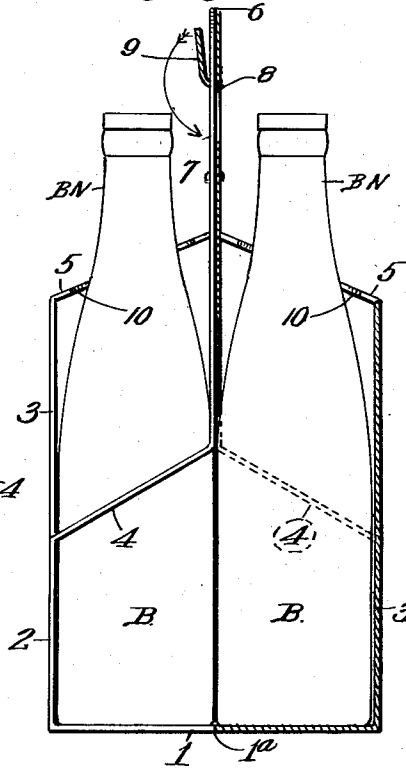
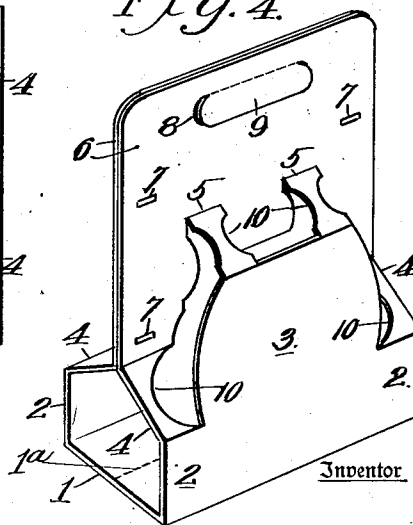


Fig. 2.

Fig. 4.



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BOTTLE CARRIER

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1 Claim. (Cl. 224-45)

This invention relates to bottle carriers of collapsible or foldable character customarily made of paste or cardboard formed from a single rectangular blank or strip cut and folded to position. One of my objects is to produce a carton or carrier of this kind adapted to receive two distinct rows of bottles on opposite sides of a central section that preferably forms a suspension or carrying handle, of such nature that stock and storage space may be saved by reducing the width of the blank to permit the bottles of each row to come into contact with each other whereby the bottles of each row mutually cooperate together in attaining their final positions in the carrier.

A further object of the invention is to provide a carrier of such nature that the entire load on the center carrying handle is not applied in a single horizontal plane, but is spaced or stepped to more widely distribute the load and thus reduce the chance of tearing the carrier.

Another object of the invention is to provide a construction of such nature that a large area of certain of the bottles is exposed for display purposes, the construction being such however, that the exposed bottles are reliably held in position by at least one bottle of each row being almost completely enclosed, such enclosed bottle acting as a lock or securing member to hold the exposed bottles against dislodgement in combination with certain parts of the carrier.

A still further object of the invention is to provide a construction in which the end bottles of each row are reliably held against slipping off the bottom of the carrier, without the use of strips or the like closing the ends of the carrier, and without the use of hinged flaps or the like, encircling the necks of the bottles, such constructions either adding to the cost of the carriers or slowing down the filling or loading of the carriers when in use.

With the general objects named in view and others as will hereinafter appear, the invention consists in certain novel and useful features of construction and organization of parts as hereinafter described and claimed; and in order that it may be fully understood, reference is to be had to the accompanying drawing, in which:

Figure 1 is a side elevation of a carrier embodying the invention showing bottles in position in the carrier in full lines, and indicating, in dotted lines, the manner of placing the pair of end bottles of each row, before the center or third bottle is positioned.

Figure 2 is a top plan view of the loaded carrier embodying the invention.

Figure 3 is a view disclosing one-half of the carrier in full end view and the other half in central vertical section.

Figure 4 is a reduced perspective view of the carrier as it appears ready to receive the two rows of bottles.

Bottle carriers of this general type have heretofore involved two fundamental concepts of construction; firstly, to form a complete enclosure for strength, the bottles being substantially hidden from view; and secondly, to provide a skeleton carrier to expose the greatest possible area of the bottles, with a corresponding sacrifice in strength. The carrier of the present invention produces an optimum construction, intermediate the full enclosure and the skeleton exposure, while preserving to a very large measure, the advantages of both of the earlier types, without the use of auxiliary folding or additional strips, flaps or parts, as distinct from a single blank of rectangular material.

The carrier of the invention, therefore, provides the following construction: a single blank of suitable material is scored and folded on opposite sides of its median or center line to form a bottom 1 of width to receive a pair of rows of bottles on opposite sides of its center. In the drawing, each row is shown as comprising three bottles B.

The opposite longitudinal edges of the bottom are folded upwardly to provide a pair of vertical side walls preferably arranged in sections of varying height above the bottom as hereinafter identified. In the construction as shown, there is a pair of end sections 2 of equal height, and a central or intermediate section 3 of considerably greater height. The side walls sections 2 and the intermediate wall sections 3 are connected by pairs of partitions and sustaining members or portions 4 and 5 respectively, to the terminal or end portions 6 of the carrier. The terminal or end portions 6 are in flatwise abutting relation vertically spaced above and coinciding with the plane of the median or center line of the bottom 1 of the carrier, forming a fold line 1a.

The terminal sections 6 of the carrier are preferably permanently secured against separating movement under the load of the bottles by any suitable means, such as the staples 7 or the like, and by preference are provided with a hand receiving opening 8 adjacent their upper ends, a part 9 stamped and folded out of one of the end sections through the opening 8 in the other

section, providing a smoother and more comfortable handle or grip. With this construction it will be evident that the load is equally balanced on opposite sides of the terminal or suspension portions 6 of the carrier.

With the construction described, it will be noted that the partitions 4 and 5 distribute the load at widely spaced points on the handle section 3, and in different horizontal planes, to produce a stronger carrier than one of the same weight of material, in which the load is concentrated in a single horizontal plane. Referring to Figures 1 and 2, it will be noted that the horizontal distance at the point of greatest spacing between parallel perpendiculars passing through the proximate edges of the partitions 5 forming the central bottle compartment, is greater than the corresponding distance between the proximate edges of the pairs of partitions 4 and 5 forming the end bottle compartments of each row. In the arrangement shown, the width of the center compartment on the horizontal mentioned, is by preference, just a trifle greater than the maximum diameter of a bottle for which the carrier is designed, and consequently it is possible to load the center compartment by a straight vertical downward movement of the bottle. The corresponding width of the end compartments between its partitions 4 and 5, is materially less than the maximum diameters of the bottles, and consequently the end compartments may be loaded (without distortion of the material), only by placing the bottles in an inclined position as shown in dotted lines in Figure 1. As the bottles are positioned they may be gradually brought to the vertical as their tapering or reduced necks BN come into the horizontal plane of the upper partition 5. If the end bottles when they finally come to rest in vertical position on the bottom 1, are not in contact with the edge of the end partitions 4, the parts are preferably so proportioned that when the center bottle is inserted by vertical movement, it will contact the sides of the abutting end bottles and will force them horizontally outward toward the end partitions 4, until the bottles occupy their full line positions as shown in Figure 2. It will thus be seen that although large areas of the end bottles are

exposed, they are held snugly in position against tipping parallel to the side walls, by the upper partitions 5 coming into contact with the reduced bottle necks BN, while their bottoms or wide portions come into abutment with the partitions 4. It will also be noted that the partitions 4 and 5 at their edges adjacent the bottles, are concaved as at 10, to provide a greater area of contact with and hence better securement of the bottles against shifting movement.

I claim:

A collapsible bottle carrier comprising a one piece blank cut and folded into a container having a bottom adapted to accommodate two distinct rows of bottles having reduced necks, two side walls extending upwardly from said bottom in spaced parallel relation, the ends of said blank being in flatwise abutting position vertically above the longitudinal center of the bottom to form a carrying handle, and partition and sustaining members inclined upwardly from each side wall to its respective proximate terminal section in spaced relation to form a pair of end bottle compartments and intermediate bottle compartments on each side of the handle, the partitions forming the intermediate compartments being in the plane of the reduced bottle necks and spaced to accommodate the maximum diameter of a bottle, the partitions forming the outer edges of the end compartments being in a lower plane than the intermediate partitions, the horizontal distance between vertical planes coinciding with the margins of the partitions forming the end compartments being less than the corresponding distance of the partitions forming the intermediate compartments whereby the end bottles may be inserted or removed from the compartments only by inclination angularly between vertical and horizontal when the carrier is upright, the end bottles of each row having their maximum diameters in contact to maintain the proximate edges of the intermediate partitions in position for extended engagement with the necks of the end bottles to reinforce said inclined partitions against distortion when a loaded carrier is suspended from the handle.

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