

June 3, 1952

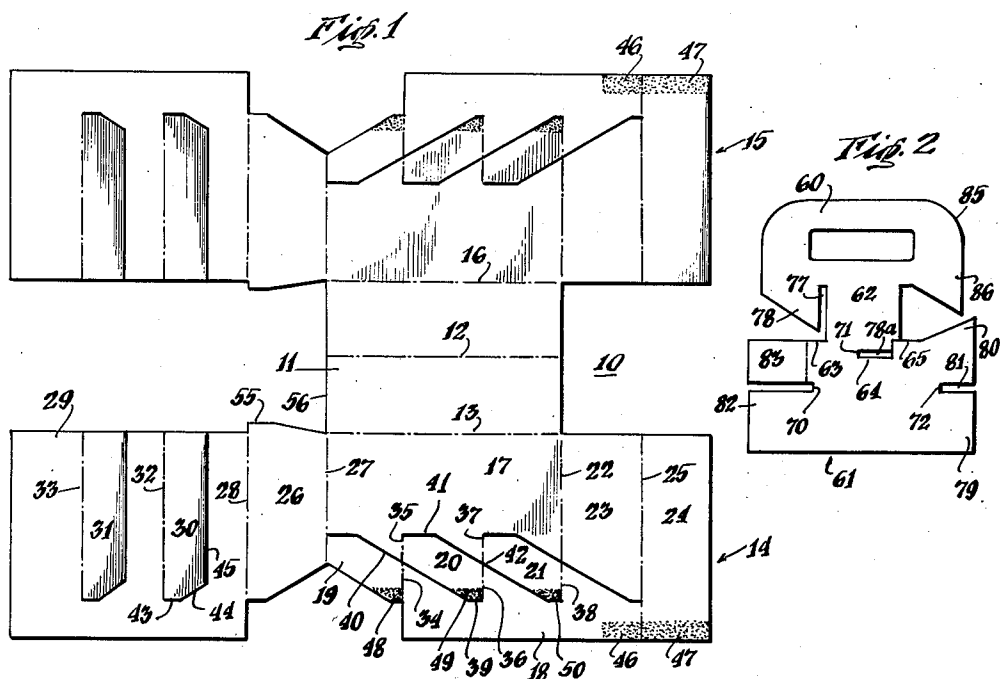
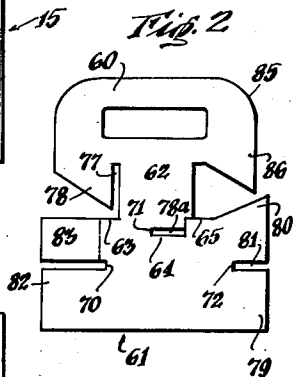
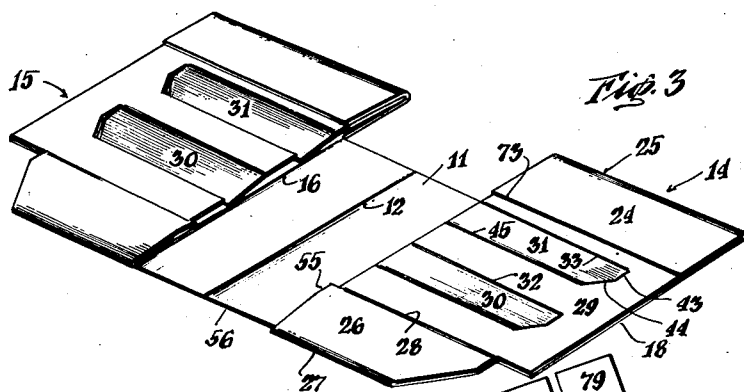
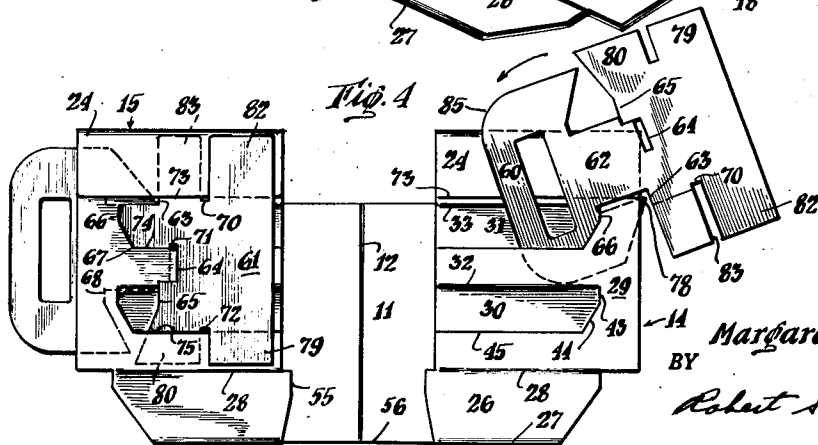
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2,598,920

CARRIER FOR CONTAINERS

Filed April 12, 1949

3 Sheets-Sheet 1



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CARRIER FOR CONTAINERS

2,598,920

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3 Sheets-Sheet 2

Fig. 5

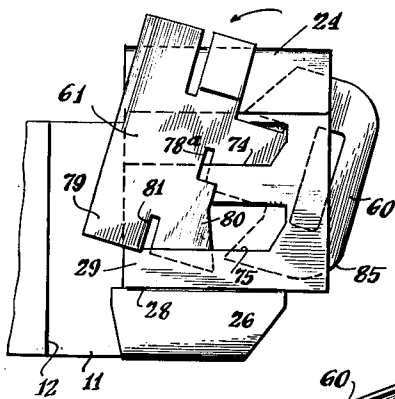


Fig. 6

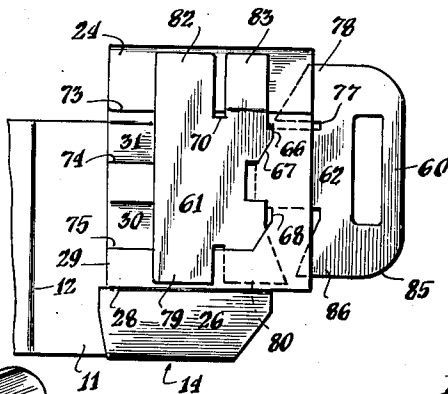


Fig. 7

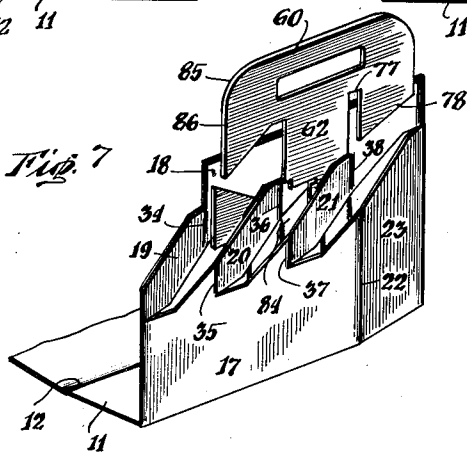


Fig. 8

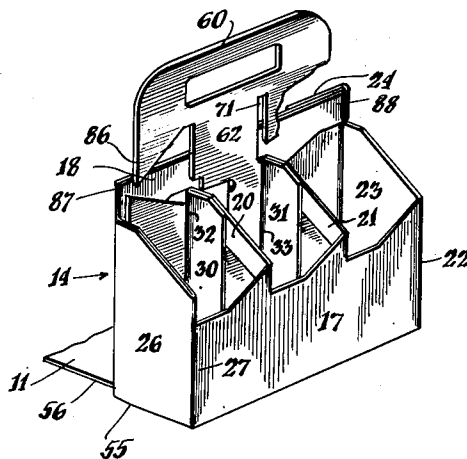
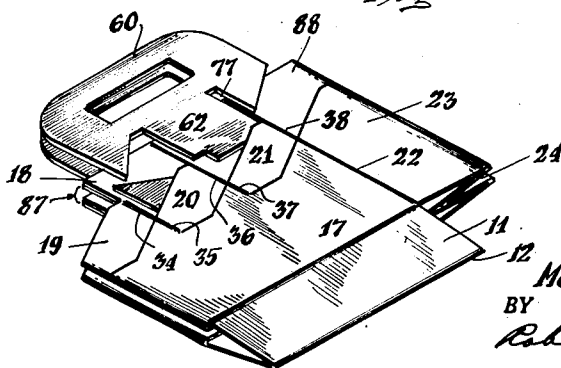


Fig. 9



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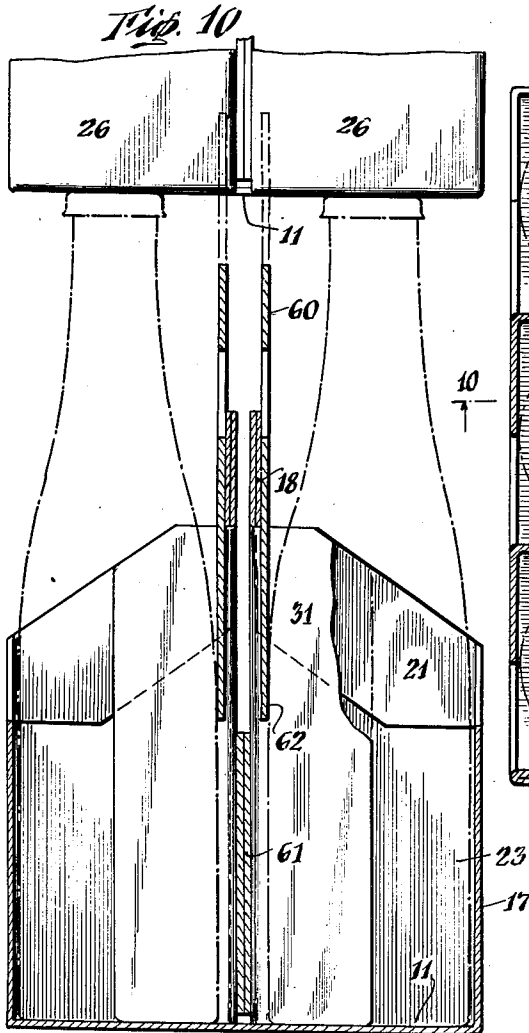
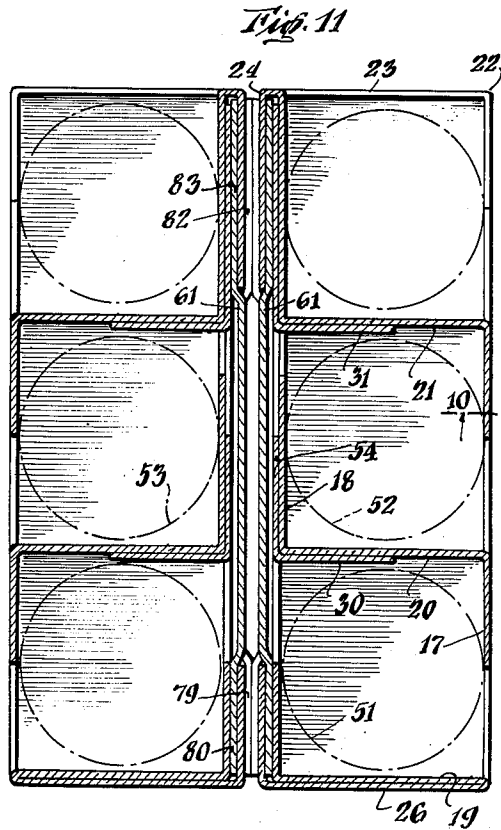
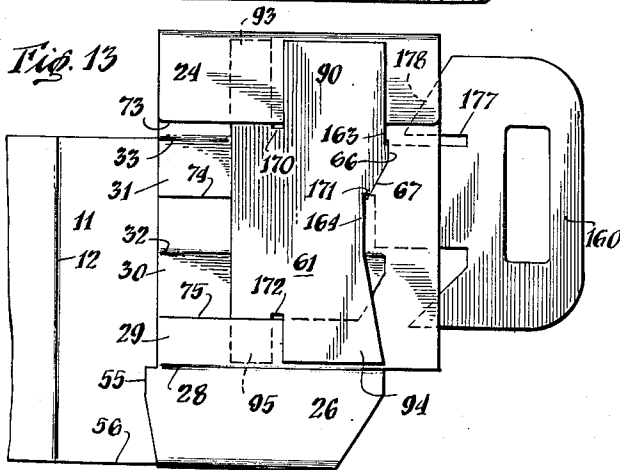
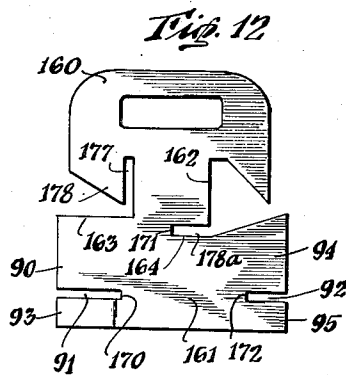
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2,598,920

CARRIER FOR CONTAINERS

Filed April 12, 1949

3 Sheets-Sheet 3



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UNITED STATES PATENT OFFICE

2,598,920

CARRIER FOR CONTAINERS

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Application April 12, 1949, Serial No. 86,906

9 Claims. (Cl. 229—28)

1

This invention relates to carriers for bottles, cans, and like articles and more particularly to such carriers which may be formed from paper stock or other foldable sheet material.

Among the objects of the invention is to provide a collapsible carrier adapted to contain a plurality of bottles side by side and having separators provided from the material of the carrier for preventing adjacent bottles from coming into contact with each other.

Another object of the invention is to provide a form of collapsible carrier for containing a plurality of bottles which is made from a single blank of flexible sheet material suitably creased and cut for providing individual pockets for individual bottles and which is adapted to have assembled therewith a handle, or handles, capable of easy association with the carrier, and the carrier and handles being serviceable for prolonged and repetitious use.

Another object of the invention is to provide a collapsible carrier so constructed and arranged as to enable ready attachment of a handle thereto and having provisions cooperating between the carrier and the handle to centrally balance the carrier with respect to the handle and to hold the carrier and the handle in a stable relationship with respect to each other when the carrier is suspended from the handle.

Another object is to provide a carrier for several bottles which is formed from a single piece of stock material which is cut and creased on lines of fold to form individual pockets for the bottles and which is provided with a handle adapted to be slid with respect to the carrier to extend the handle in gripping position above the tops of the bottles contained in the carrier and to be slid downwardly below the tops of the bottles without the possibility of any conflict between the handle and the carrier, irrespective of the number of times the handle is displaced or the carrier is used.

Another object is to provide a carrier which may be readily assembled by folding a prepared blank along lines of fold and to which a slidable handle may be fitted and contained in assembled relation with the carrier without requiring any special fastening members.

Another object is to provide a slidable handle for a collapsible carrier, which is so related with respect to the carrier as to restrict the permissible movement of the handle within a line of travel and to provide several points of support between the handle and the carrier at the limit of the outward motion of the handle from the carrier,

2

whereby the handle is firmly connected to the carrier when the carrier is suspended therefrom.

Other objects of the present invention will be hereinafter set forth in the accompanying specification and claims and demonstrated by the drawings which show by way of illustration a preferred embodiment of the principle of the invention and the best mode in which I have contemplated applying that principle.

In the drawings, Fig. 1 is a prepared blank ready for folding to form the carrier;

Fig. 2 is a handle cut from stock material, such as paperboard;

Fig. 3 illustrates the blank with the side wall sections folded;

Fig. 4 illustrates the manner of mounting a handle;

Fig. 5 shows an advance step of the manner of mounting the handle;

Fig. 6 illustrates the relationship of the handle just prior to its final attachment;

Fig. 7 illustrates one compartment of the carrier with the side walls partially collapsed;

Fig. 8 illustrates one compartment of the carrier with the side walls fully distended, as when the carrier is ready for use;

Fig. 9 illustrates the complete carrier in folded condition;

Fig. 10 is a vertical cross-sectional view of the carrier on line 10—10 of Fig. 11;

Fig. 11 is a horizontal section on different planes through the carrier;

Fig. 12 is a modified form of handle; and

Fig. 13 is a view showing the attached relationship of the modified handle to the same carrier.

Referring to the drawings, and particularly Fig. 1, the carrier includes a blank 10 which may be cut from light weight paperboard, heavy paper or similar material. The blank consists of a bottom panel 11 which is divided into half sections by a crease line 12 and which has attached along a crease line 13 a side wall section 14. A similar wall section 15 is attached to the opposite edge of the bottom panel along the crease line 16. Each of the side wall sections is similarly cut and creased, and in the interest of brevity and clarity only one of these side wall sections will be specifically described, but it will be understood that corresponding portions of the other side section are similarly cut and creased. The side wall section 14 comprises a front panel 17 joined to an upper rear section 18 by a plurality of inclined strips 19, 20 and 21. A crease line 22 separates an end wall panel 23 from the front panel 17, and a flap 24 adjoins the end wall panel 23 along a

crease line 25. The other end of the front panel 17 adjoins an end wall panel 26 along a crease line 27, and a crease line 28 separates the rear panel 29 from the end wall panel 26.

The back panel 29 has cut therefrom flaps 30 and 31, which are joined, respectively, to the rear panel along crease lines 32 and 33. The flaps 30 and 31 cooperate individually with the inclined strips 20 and 21, respectively, when the blank is folded (as shown in Fig. 3), for providing dividing walls between articles carried in the container, as will be hereinafter more fully explained. As best illustrated in Fig. 1, the front end of the inclined strip 19 connects with the end panel 25 along the crease line 27, and its rear end connects with the upper rear section 18 along the crease line 34. The inclined strip 20 connects with the front panel 17 along the crease line 35 and with the upper rear section 18 along the crease line 36. The inclined strip 21 is similarly connected with the front panel 17 along the crease line 37 and with the upper rear section 18 along the crease line 38. Folds along the crease lines 27, 35 and 37 are made in one direction, and folds along the crease lines 34, 36 and 38 are made in the opposite direction when the carrier is formed. When the blank is cut it is cut through along lines 39, 40, 41 and 42 to relieve the individual inclined strip 20, and similar lines are cut for the inclined strips 19 and 21. Each of the flaps 30 and 31 is formed by cutting through the blank along lines 43, 44 and 45.

When the blank has been fully prepared by cutting and by scoring such lines as are to form crease lines, it is ready to be formed into a carrier. The end panel 26 and rear panel 29 are folded onto the front panel 17 and the end panel 23 by folding along the crease line 27, as illustrated in Fig. 3. The flap 24 is then folded along the crease line 25 and caused to overlap the rear surface of the back panel 29. The upper rear section 18 is fastened to the back panel 29 and the flap 24 is also fastened to the back panel 29. Fastening may be accomplished by means of spots of glue 46 and 47 (Fig. 1) which face front and rear surfaces of the back panel 29, respectively, when the flap 24 is folded, Fig. 3, or by stapling. The inclined strip 19 may be attached to the end panel 26 by a spot of glue 48, and the inclined strips 20 and 21 are attached, respectively, to the upper ends of the flaps 30 and 31 by spots of glue 49 and 50 (Fig. 1). Any other suitable means for fastening the several members together may be employed.

At this stage of the assembly it is apparent that the front, rear and end panels of each side wall section (14, 15) will constitute a single compartment when opposite panels are expanded from each other. The wall section 15 is illustrated as being partly expanded in Fig. 3, and the wall section 14 is illustrated as being partly expanded in Fig. 7 and as being fully expanded in Fig. 8. Since the flaps 30 and 31 are fastened to the inclined strips 20 and 21, respectively, they will hinge along crease lines 32 and 33, respectively, and form partitions or separators, which together with the inclined strips 20 and 21 divide the compartment into individual article-receiving pockets. In the carrier illustrated in the drawings, three such pockets are provided in each compartment. The inclined strips 20 and 21 connect the front panel 17 to the upper rear section 18. The flaps 30 and 31 extend from the bottom edge of the back panel to the upper edges of the inclined strips which preferably lie in the region of the

upper portions of the articles to be contained in the pockets which could come into contact with each other. The widths of the flaps 30 and 31 need be sufficient only to prevent contacting of the articles in adjacent pockets. Each pocket is square in plan and when the carrier is designed for containing bottles the flaps should be substantially equal to or greater than the diameter of a bottle to be contained. This is clearly illustrated in Fig. 11, in which the circles 51, 52 and 53 approximately indicate the diameters of articles contained in individual pockets. The displacement of the flap 31 from the back panel leaves an area 54 of the back panel which separates the article 52 from the article 53, and similar areas are located in the back panels to separate the articles in adjacent pockets of the two compartments. The areas in the back panel at either side of the openings left by the flaps 30 and 31 serve as article separators, particularly when the carrier is made with carrying handles in the back panels 29.

The natural tendency of the opened carrier is to return to a collapsed condition, as shown in Fig. 9. In order to prevent the collapsing of the carrier when it is empty of articles, the lower edge 55 of the end panel 26 is extended to project below the bottom panel 11 when the carrier is open or expanded, as best illustrated in Fig. 8. This lower edge 55 engages the edge 56 of the bottom panel 11 and prevents the compartment from collapsing of its own cause.

The carrier illustrated in the drawings is designed to have two compartments with each compartment containing three pockets for accommodating individual articles. The carrier is useful for its intended purposes in the form in which it has been described, and handle holes may be cut in the blank, or separate handles attached thereto for carrying purposes. An appropriate handle is illustrated in Fig. 2. This handle is cut from paperboard or other suitable sheet material, and includes a gripping portion 60, a supporting portion generally designated 61, and a shank portion 62 therebetween. The blank for the handle is so cut as to be easily insertable in place, to cooperate with the back panel of a compartment to centrally balance the carrier with respect to the handle for holding them firmly together when the carrier is being supported by the handle, and to enable sliding of the handle so that it may be lowered when the carrier is not in use or for stacking filled carriers one upon the other, as illustrated in Fig. 10. It is a desideratum that the handle be of such form as to always maintain a stable relationship with respect to the carrier, both during use and during sliding movements of the handle. While one handle may suffice for some uses, preferably separate handles are assembled to the rear portions of the individual compartments or wall sections.

An assembled handle is illustrated in Fig. 4 in association with the wall section 15. The gripping portion 60, the shank 62, and a small portion of the supporting portion 61 are located in front of the upper rear section 13 and in front of the back panel 29, and the greater portion of the supporting portion 61 is located to the rear of the back panel 29. The handle has three lifting edges 63, 64 and 65 which cooperate with edges 66, 67 and 68, respectively, of the back panel when the handle is slid outwardly for supporting purposes. The lifting edges 63, 64 and 65 and cooperating edges 66, 67 and 68 provide

5

rigid connection between the handle and the carrier for lifting purposes.

For guiding the handle for sliding in one line of travel, the handle is provided with three edges 70, 71 and 72 which engage the vertical edge 73 of the flap 24 and vertical edges 74 and 75 of the rear panel 29, respectively. The three sliding or guiding edges 70, 71 and 72 are located at the apices of a triangle and limit the movement of the handle in one line of travel in the plane of the handle.

The outline of the handle is such as to facilitate its assembly to the rear panel of a compartment of the carrier. It is provided with a notch 77 by which the handle can be hooked from the rear of the back panel 29 against the edge 66 and with the point 78 extending through the opening provided by the flap 31 to the front side of the upper rear section 18, as illustrated at the right of Fig. 4. With the handle associated in this manner it is rotated counterclockwise, Fig. 4, through the opening as illustrated in Fig. 5, with the slot 78^a receiving the edge 74 of the rear panel and the gripping portion 60 and a portion of the shank 62 coming in front of the upper rear section 18 and the lower supporting portion 61 coming to the rear of the back panel 29 with the tab 79 to the rear of the back panel and the tab 80 slipping to the front of the back panel. The slot 81 dividing the two tabs 79 and 80 receives the edge 75. This step is illustrated in an advance stage in Fig. 5 and as completed in Fig. 6. In order to complete the effectiveness of the edges 70 and 73 for slide guiding purposes, the tab 83 is folded under the flap 24 and the tab 82 remains in back of the flap 24. The position of the tab 83 under the flap 24 is illustrated in Fig. 4. The gripping portion 60 is properly proportioned to permit its passage through the slit or opening 84, Fig. 7, in inserting the handle. The distance between the closed end of the notch 77 and the rounded edge 85 must be less than the longest dimension of the slit or opening 84. Furthermore, the distance of the closed end of the notch 77 from the bottom edge of the supporting portion 61 of the handle is equal to or less than the location of the upper edge of the flap 31 whereby to limit the inward sliding movement of the bend to prevent extension of its lower edge beyond the lower edge of the back panel.

It is preferable that the handle be separately associated with the rear panels of the separate compartments so as to provide uniform support for the two compartments. The two handles will be located back to back but are so formed as not to interfere with each other should one handle be slidingly displaced with respect to the other handle. The points of the tabs 78 and 86 extend downwardly and the point of the tab 80 extends upwardly sufficient distances to always remain in front of the upper rear section 18, whatever position the handle may be in with respect to the carrier. After the handles have been assembled, the rear panels 29 of the two compartments may be stapled together or otherwise fastened at their corners 87 and 88.

In Figs. 12 and 13 there is shown a modified form of handle, including a gripping member 160, a shank portion 162 and a lifting portion 161. The gripping portion and the shank portion are constructed similarly to the handle previously described and best illustrated in Fig. 2. The lifting portion includes a notch 178^a whose inner end 171 is adapted to engage the vertical

6

edge 74 of the rear panel by which the handle is guided for vertical sliding. The lower edge 164 of the notch 178^a is a supporting edge which engages with the edge 67 of the back panel for supporting the carrier by the handle. A second supporting edge 163 on tab 90 is adapted to engage the edge 66 of the back panel. The inner edge 170 of the notch 91 and the inner edge 172 of the notch 92 engage the vertical edge 73 of the flap 24 and the vertical edge 75 of the back panel, respectively, whereby the handle is restricted to sliding movement. The three sets of cooperating sliding edges limit the sliding movement of the handle to travel in a line.

The handle is assembled in the same manner as previously described with reference to the handle illustrated in Fig. 2, by engaging the notch 177 in the opening provided by the flap 31 and rotating the handle counterclockwise until the center axis of the handle and the center axis of the back panel coincide. With the handle in this position, Fig. 13, the tab 90 extends over the back surface of the flap 24 and the tab 93 bent to pass under the flap 24. The tab 94 extends to the rear of the back panel 29 and the tab 95 is caused to enter the opening formed by the flap 30 and extend to the front of the back panel 29. It will be observed from Fig. 13 that the handle can be slid only longitudinally of the central axis because of the guiding edges 170, 171 and 172, and their sliding engagement with edges 73, 74 and 75, respectively, of the back panel. The outermost extension of the handle is limited by the engagement of the edges 163 and 164 with the edges 66 and 67, respectively, of the back panel.

The handle may be made of the same material from which the carrier blank is prepared, and it is to be understood that the handle has a gripping portion, a supporting portion and an intermediate connecting portion adapted to extend from in front of the back panel 26 through an opening to the rear of the back panel and having at least two guiding edges or areas for guiding the handle in one line of travel, and two supporting edges or areas for supporting the carrier from the handle, said guiding and supporting areas cooperating with edges of the opening in the back panel through which the connecting portion of the handle extends. The handles illustrated in Figs. 2 and 12 are obviously susceptible to other forms which will provide the supporting and sliding features referred to.

This invention is capable of numerous forms and various applications without departing from the essential features herein disclosed. It is therefore intended and desired that the specific description herein be deemed illustrative and not restrictive and that the patent shall cover all patentable novelty herein set forth; reference being had to the following claims rather than to the particular showing herein to indicate the scope of this invention.

What is claimed is:

1. A carrier for bottles or the like, said carrier being made of flexible sheet material and including a bottom panel and foldable wall sections connected to said bottom panel along crease lines at opposite edges of said bottom panel, each wall section including a front panel and two end panels and a back panel all connected together along crease lines, an upper back section, inclined strips connected to the front panel and to the upper back section along crease lines, and flaps cut from said back panel and having crease

7

lines connecting the flaps to the back panel, individual of said flaps being folded into engaging relationship with individual of said inclined strips, the respective hinge axes of said crease lines of said flaps being substantially coincident with the respective hinge axes of said crease lines of said inclined strips at said upper back section and each of said flaps extending from overlapping relationship with one of said inclined strips to adjacent said bottom panel for separating articles located at either side of an engaging inclined strip and flap, each of said foldable wall sections constituting separate compartments over said bottom wall panel and with their respective back panels opposite one another and engaging flaps and inclined strips subdividing each compartment for spacing adjacent articles in the compartments from each other.

2. A carrier for bottles or the like, said carrier being made of flexible sheet material and including a bottom panel and foldable wall sections connected to said bottom panel along crease lines at opposite edges of said bottom panel, each wall section including a front panel and two end panels and a back panel all connected together along crease lines, an upper back section, inclined strips connected to the front panel and to the upper back section along crease lines, at least one of said back panels having a vertically extending opening, each of said foldable wall sections constituting separate compartments over said bottom wall panel and with their respective back panels opposite one another, a substantially planar handle-piece of sheet material for carrying said carrier, said handle-piece being slidable with respect to the back panel of one of said compartments and having a portion thereof in front of said back panel and a portion thereof in back of said back panel and an intermediate portion connecting said first and second-named portions and extending through said opening in said back panel, said handle-piece having shoulder means for engaging the upper extremity of said opening when the handle is drawn outwardly to its extended position, and means on said handle-piece cooperating with the edges of said openings for slidably guiding the handle-piece for movement parallel to said back panel and to and from its extended position.

3. A carrier for bottles or the like, said carrier being made of flexible sheet material and including a bottom panel and foldable wall sections connected to said bottom panel along crease lines at opposite edges of said bottom panel, each wall section including a front panel and two end panels and a back panel all connected together along crease lines, an upper back section, inclined strips connected to the front panel and to the upper back section along crease lines, flaps cut from said back panel and having crease lines connecting the flaps to the back panel and leaving openings in the back panel, each of said foldable wall sections constituting separate compartments over said bottom wall panel and with their respective back panels opposite one another, a substantially planar handle-piece of sheet material for carrying said carrier, said handle-piece being slidable with respect to said back panels and having a portion thereof in front of one of said back panels and extending through one of the openings provided by the flaps in said back panel to the back of said back panel and having shoulder means for engaging the upper extremity of said opening when the handle-piece is drawn outwardly to its extended position,

8

tion, and means on said handle-piece cooperating with side edges of at least two of the openings provided by said flaps for guiding the handle-piece in a lineal direction of movement.

4. A carrier for bottles or the like, said carrier being made of flexible sheet material and including a bottom panel and foldable wall sections connected to said bottom panel along crease lines at opposite edges of said bottom panel, each wall section including a front panel and two end panels and a back panel all connected together along crease lines, an upper back section, inclined strips connected to the front panel and to the upper back section along crease lines, each of said back panels having vertically extending openings spaced from each other, each of said foldable wall sections constituting separate compartments over said bottom wall panel and with their respective back panels opposite one another, a handle-piece for each of said back panels, each of said handle-pieces being slidable with respect to its related back panel and to each other, each handle-piece having a portion thereof in front of its related back panel and extending through an opening provided by one of said vertically extending openings in the back panel to the back of the back panel and having shoulders for engaging the upper extremities of said opening when the handle is drawn outwardly to its extended position, said handle-pieces being constructed and arranged with the portions of the respective handle-pieces which extend to the backs of their respective back panels always at least partially overlapping one another in any position of one handle-piece with respect to the other handle-piece so either handle-piece can be slid with respect to the other without interference.

5. A carrier for bottles and the like having a bottom panel and a foldable wall section connected to the bottom panel and providing back, front and end walls and strips between individual pockets, said back having at least one vertically extending opening, and a substantially planar handle member of sheet material having parallel edges for slidably engaging vertical edge areas of said opening for guiding movement of the handle in a line of travel between a retracted position parallel and adjacent to said back and an extended position in its own plane, said handle member having edge portions extending laterally for engaging laterally extending edge portions of said opening for limiting the extent of sliding movement of said handle with respect to the back panel.

6. A carrier for bottles and the like having a bottom panel and a foldable wall section connected to the bottom panel and providing a back panel, and front and end walls and inclined strips between individual pockets and in which flaps are provided extending from the back panel and folding adjacent to the inclined strips and leaving openings with vertical edges in the back panel, and a substantially planar handle member of sheet material having parallel edges for slidably engaging vertical edge areas of one of said openings left in the back panel for guiding movement of the handle in a line of travel between a retracted position parallel and adjacent to said back panel and an extended position in its own plane, said handle member having edge portions extending laterally for engaging laterally extending edge portions of said opening for limiting the extent of sliding movement of said handle with respect to the back panel.

7. A bottle carrier blank cut and creased to form a bottom panel and foldable wall sections connected to said bottom panel along crease lines, each wall section including a front panel, two end panels and a back panel all connected together along crease lines, and an upper back section, inclined strips connected to the front panel and to the upper back section along crease lines, said back panel having flaps cut therein with crease lines spaced apart substantially equal to the spacing of said crease lines connecting said inclined strips with said upper back section thereby to lie contiguous to the crease lines connecting the inclined strips with said upper back section when the blank is formed into a carrier, each of said flaps extending substantially from the lower edge of said back panel to a straight line substantially parallel to said lower edge of said back panel and located between lower and upper edges of said inclined strips so that when said blank and said flaps are folded along their respective crease lines, the flaps will divide pockets for individual bottles in the carrier thereby formed and constitute separators together with the inclined strips.

8. A bottle carrier blank cut and creased to form a bottom panel and foldable wall sections connected to said bottom panel along crease lines, each wall section including a front panel, an end panel connected to each end of said front panel, a back panel substantially commensurate in width to the width of said front panel and connected to one of said end panels, an upper back section, and inclined strips connected to the front panel and to the upper back section along crease lines, each of said back panels having flaps cut therein with crease lines spaced at intervals substantially equal to the intervals between the crease lines connecting the inclined strips to the upper back section so as to permit bending of said flaps into engagement with said inclined strips to separate adjacent articles located at either side of said inclined strips when said blank is formed into a carrier, the crease lines of said flaps being longer than the crease lines between

said inclined strips and said upper back section whereby said flaps serve as separators for the bottles below said inclined strips.

9. A bottle carrier blank cut and creased to form a bottom panel and foldable wall sections connected to said bottom panel along crease lines, each wall section including a front panel, two end panels and a back panel all connected together, an upper back section, and inclined strips connected to the front panel and to the upper back section along crease lines, the crease lines at the ends of each inclined strip at said upper back section being spaced substantially equal to the spacing of the crease lines of adjacent inclined strips on the front panel, flaps cut from the back panel and having crease lines connecting the flaps to said back panel, the crease lines of said flaps being spaced substantially equal to the spacing of the crease lines of adjacent inclined strips on said upper back section, and the width of each flap being at least equal to one-half of the spacing of the crease lines of adjacent inclined strips on the back section, the flaps and the crease lines of said flaps being longer than the crease lines of said inclined strips at said upper back section so that said flaps will extend below the strips and provide separators for articles when said blank and flaps are folded along their respective crease lines.

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