Jan. 30, 1945. W. B. CRANE 2,368,203

CARRIER CARTON

Filed May 1, 1940 2 Sheets-Sheet 1

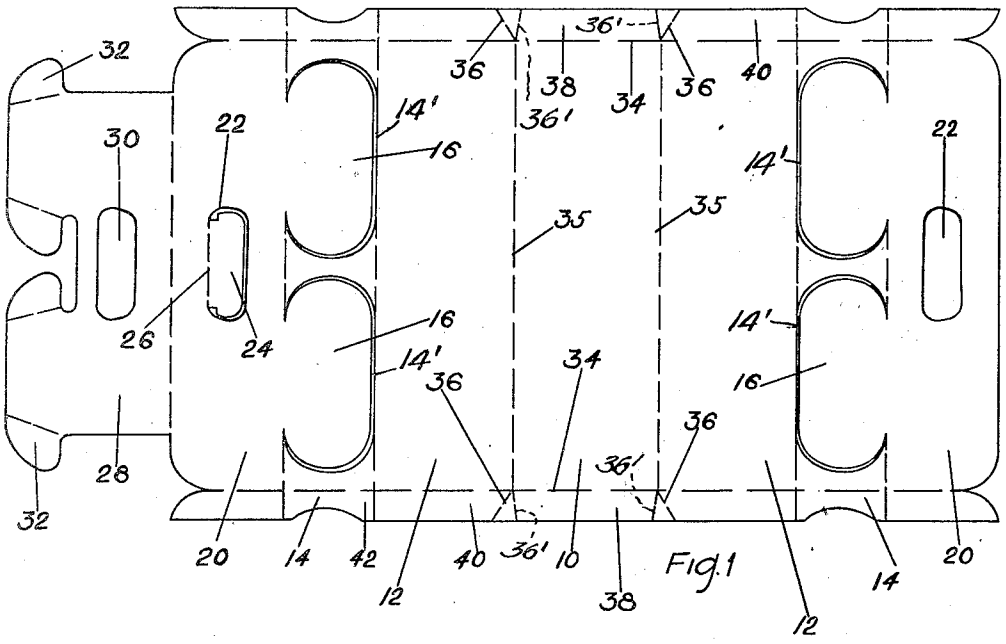


Fig. 1

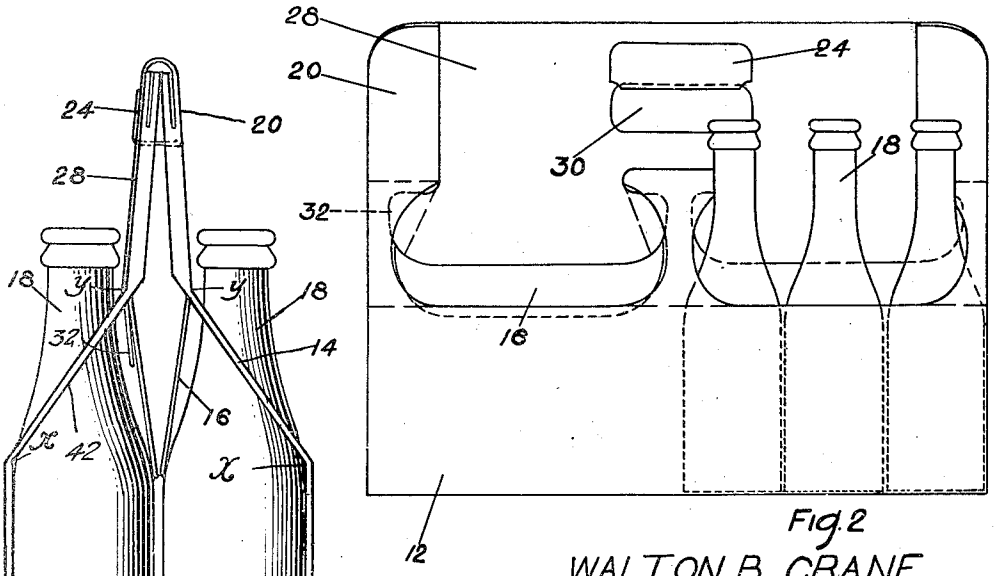


Fig. 2

Fig. 3

WALTON B. CRANE
INVENTOR

PER

Minier and Fike

ATTORNEYS

Jan. 30, 1945. W. B. CRANE 2,368,203

CARRIER CARTON

Filed May 1, 1940 2 Sheets-Sheet 2

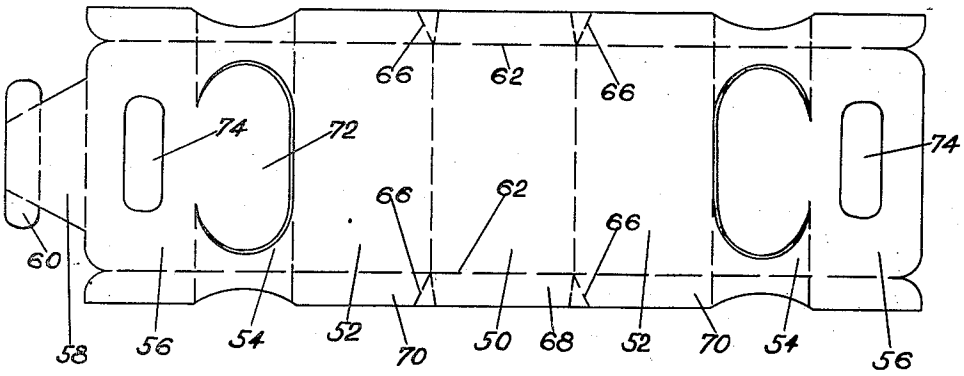


Fig. 4

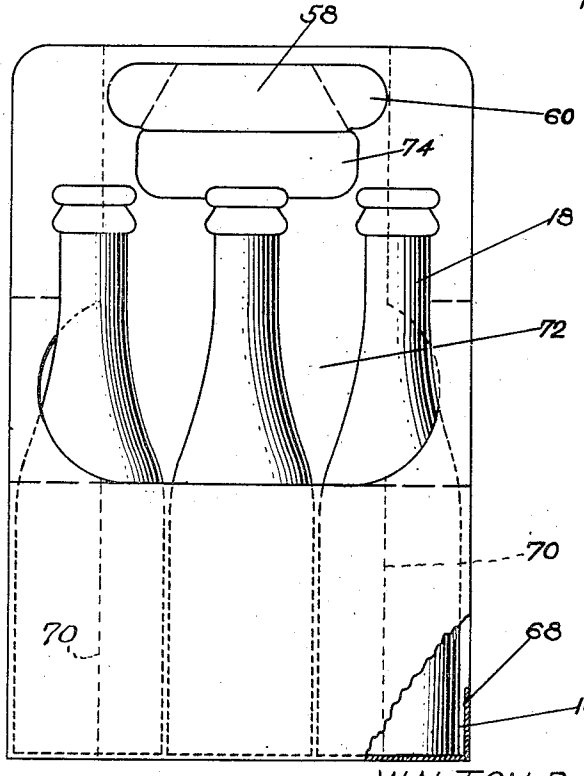


Fig. 5

WALTON B. CRANE
INVENTOR

PER

Minier and Fike

ATTORNEYS

Patented Jan. 30, 1945 2,368,203

UNITED STATES PATENT OFFICE

2,368,203

CARRIER CARTON

Walton B. Crane, Los Angeles, Calif., assignor to Morris Paper Mills, Chicago, Ill., a corporation of Illinois

Application May 1, 1940, Serial No. 332,742

2 Claims. (Cl. 224—45)

This invention relates to an improved carrier and has for one of its principal objects the provision of a carton or carrier for bottles, particularly bottles in which beverages such as soft drinks are sold.

One of the important objects of this invention is to provide a carrier for bottles or the like wherein a number of bottles may be conveniently assembled for transportation by carrying in the hand, this being particularly advantageous in cases where six or a dozen bottles are purchased for the purpose of home consumption.

One of the main objects of this invention is to provide a knock-down carrier which can be readily set up by the user and wherein no stapling or other auxiliary fastening means is required.

Another important object of the invention is to provide a blank for a bottle carrier which is so arranged that, when folded, certain corners and associated parts will constitute self-anchoring ledges for the purpose of more firmly retaining the bottles when the same are inserted.

Still another object is to provide a form of carrier for bottles which, when packed, will occupy very slightly more area than is necessitated by the upright bottles themselves.

A still further important object of the invention is the provision in a carrier for bottles of a reinforced handle construction which is effective to retain the device in set-up condition.

Other and further important objects of the invention will be apparent from the disclosures in the accompanying drawings and following specification.

The invention, in a preferred form, is shown in the drawings and hereinafter more fully described.

In the drawings:

Figure 1 is a plan view of the blank from which my improved carrier is made, this particular blank being for a carrier for a relatively large number of bottles as, for example, one dozen.

Figure 2 is a side elevation of the blank of Figure 1 set up in bottle carrying condition, and this figure shows three bottles in position in the carrier.

Figure 3 is an end view of the structure of Figure 2, showing the two end bottles, one on each side of the carrier.

Figure 4 illustrates a modification of the invention, namely, a blank for a carrier for six bottles.

Figure 5 is a side elevation of the blank of Figure 4 made up into bottle carrying condition.

As shown in the drawings, the reference numeral 10 indicates generally the bottom portion of a carrier embodying this invention, the same being formed as a part of an integral blank as shown in Figure 1, and this bottom portion is marked off by score lines from side wall portions 12 which are adapted to be turned up at right angles to the bottom element. The bottom is of suitable dimensions to accommodate the desired number of intended bottles standing thereon in two rows. Conjoined to the side wall portions 12 are upper wall portions 14 which have flaps 16 cut therefrom to form bottle receiving openings 14', these flaps being adapted to be flexed inwardly so as to abut each other when the carton is set up, as best shown in Figures 2 and 3. The depth of the flaps is such that the shoulders of the bottles 18 in opposed rows are prevented from contacting each other.

Beyond the upper wall portions 14 and also integral with the remainder of the blank are handle portions 20, likewise defined in part by score lines as best shown in Figure 1, and each handle portion has an opening 22 therein for the insertion of the fingers of the user when the device is carried. The opening 22 in one handle portion 20 has the corresponding portion of the blank 24 only partly cut away, leaving the same attached on one side along a score line 26.

Beyond the end of one handle portion 20 is an extension 28 also having a handle opening 30 therein and further provided with locking tabs 32, all as best illustrated in Figure 1.

Along the lateral margins of the elements 10, 12, 14 and 20 are provided side extension flanges which extend outwardly from score lines 34 at each side of the blank as shown, and these side extension flanges are provided with scores 36 and 36' extending from the points of juncture of the score lines 34 with the score lines 35 which mark off the bottom portion from the side wall portions 12.

These meeting diagonal scores will in each case define an angle of somewhere between thirty-five and forty degrees, the angle between the score lines 36' and an extension of the score line 35 being about five or ten degrees, and the angle of the score lines 36 with such a projected line being about twenty-five to thirty-five degrees.

When the blank is folded, to set up the carrier

these score lines 36 and 36' permit the parts to assume the positions shown in Figure 3, with the flanges 38 of the bottom portion 10 extending upwardly and with the flanges 40 of the side portions 12 lying flat against the side portions where they may be held in place by the bottles 18 in the carton. Therefore when packed, the bottoms of the end bottles are forced against the upwardly projecting flanges 36 and the sides of the bottles press against the inwardly folded flanges 40. Since flanges 36 and 40 are integral, the pressure against flanges 38 cannot force them outwardly beyond their desired position, because the bottle sides retain the folded extensions 40 against swinging outwardly. These upwardly extending flanges 36 prevent the bottles from sliding off the ends of the bottom and also form a transverse stiffening reinforcement for the bottom of the carrier.

Extensions 42 of the portions 14 are likewise doubled over upon said portions 14 to provide an extra thickness as illustrated in Figure 3, and this doubled over construction is continued up through the handle portions 20, whereby a reinforced edge is provided on all of the lateral marginal portions of the carrier, the extension portions 42 being recessed at their margins, as seen in Fig. 1, so as to conform to or clear the outer margins of the bottle receiving apertures 14'.

In setting up the device from the flat form shown in Figure 1, the side wall portions 12 are swung upwardly along fold lines 35 while the flange portions 40 and 42 are folded inwardly on lines 34. This swings the flange portions 38 to upstanding positions at the ends of the bottom. The upper wall portions are flexed inwardly toward each other, and the handle portions 20 are placed against each other.

Then, the extension flap 28 is folded over the opposite handle portion as best illustrated in Figure 2, and the tabs 32 are pushed through the apertures 14' in the opposite upper wall portions 14 and locked into position by engaging their noses behind the sheet at the edges of the openings, so that they are held in place against the outer sides of the flaps 16. This will hold the carrier in fully set-up condition even in the absence of some or all of its intended contents. The grip flap 24 is tucked through the associated handle openings 22 and 30 and folded upwardly against the outer side of the extension 28.

In the setting up operation, the presence of the scorings 36 and the flexing of the blank on its various lines of bend will cause the flange portions 40 and 42 almost automatically to assume the desired relationship with the other parts of the carton, and the flange portions 38 will be automatically raised. After being thus set up, all of the flange portions will be held definitely in their folded positions and retained against swinging away from the wall portions, because of the angular bends in the flange portions at the locations marked X and Y in Figure 3 and the retention of their upper ends between the handle portions 20. Accordingly the device is ready for the insertion of bottles 18 which are introduced, bottom first, through the openings 14' to positions where they stand upright on the bottom. The two bottles first inserted in each aperture are moved to its opposite ends and then the intermediate bottle is inserted between them, thereby providing a compact assemblage in which the carrier is held in close cooperation with the bottles in such fashion that they are securely retained.

In Figures 4 and 5, there is shown a carrier for six bottles which is constructed in accordance with the same principles in that it includes a base portion 50, side portions 52, connector elements 54 and a handle element 56. One handle portion has an extension 58 with tabs 60 thereon.

Each and every one of these elements except 58 has side extension flanges beyond score lines 62 as illustrated, and the purpose is the same as heretofore described.

The V-shaped scores 66 at the corners between the bottom element 50 and the side elements 52 are also present, and the angular relationship of the lines is approximately the same as in the larger carrier.

In setting up this carrier for bottles 18, the same procedure is followed; namely, the side flanges are first folded inwardly and then the handle portions 56 are brought together by swinging the side walls upwardly from the bottom. This automatically causes a raising of the flange portions 68 to upstanding positions at the ends of the bottom 50, these flanges 68 swinging outwardly from the side wall flanges 70 which remain held in contact with inner surface of the portions 52 as above explained. This construction in set-up condition and with the bottles in position is shown in Figure 5. The inwardly turned flaps 72 operate to separate and guard the bottles in the same fashion as the flap 16 of the structure of Figures 1, 2 and 3, and the extension 58 with its integral tabs 60 is brought through aligned handle openings 74 of the handle portions 56 in the same fashion as heretofore described and as illustrated in Figure 5.

In this manner, a complete bottle carrying carton can be made up for satisfactory operation without the use of any stapling, stitching or other fastening means.

I claim as my invention:

1. A knock-down bottle carrier comprising a sheet of paper board marked off by parallel transverse score lines to provide a bottom portion with a pair of side wall portions conjoined respectively to the opposite side margins thereof and a pair of top wall portions conjoined respectively to the top margins of said side wall portions and a pair of handle portions conjoined respectively to the top margins of said top wall portions, said top wall portions being provided with bottle receiving apertures for admission of bottles; said sheet being scored in its longitudinal direction to provide at its opposite lateral portions continuous flanges running longitudinally of the sheet and integrally connected with the lateral boundaries of the aforesaid portions; the portions of said flanges which are formed on the side wall, top wall and handle portions being folded inwardly against inner surfaces thereof and the flange portions of the top wall being recessed to clear said bottle receiving apertures, said side wall portions and their conjoined flanges extending upwardly from the bottom portion, said top wall portions and their conjoined flanges extending upwardly and inwardly at an obtuse angle from the side wall portions, and said handle portions and their conjoined flanges extending upwardly at an obtuse angle from said upper wall portions; and means securing said handle portions to each other back-to-back to retain the device in set-up condition, whereby said flanges on the side and

upper wall portions are retained in their inwardly folded positions.

2. A knock-down bottle carrier comprising a sheet of paper board folded on transverse fold lines to provide a bottom, a pair of side walls extending upwardly respectively from opposite side margins of said bottom, a pair of top walls extending respectively inwardly and upwardly at obtuse angles from the upper margins of said side walls, a pair of handle portions extending respectively upwardly at obtuse angles from the upper ends of said top walls, said top walls being provided with apertures through which bottles may be introduced and withdrawn, continuous flanges provided at respective lateral margins of the sheet and extending longitudinally thereof and having ports formed integrally with the bottom, side walls, top walls and handle portions; the parts of said flanges which are formed on said side walls, top walls and handle portions being folded inwardly against inner surfaces of said portions, and the parts of said flanges which are formed on said bottom being folded to upstanding positions at the ends of the bottom; said flanges being folded on transverse lines to positions corresponding to the relative positions of the handle portions, top walls and side walls; and means retaining the handle portions close to each other back-to-back, whereby said flange parts are retained in their inwardly folded positions along the lateral margins of the side walls, top walls and handle portions and in upstanding positions at the ends of the bottom.

WALTON B. CRANE.