May 27, 1952 R. GUYER ET AL 2,598,051

CARRIER PACKAGE

Filed Feb. 2, 1951 2 SHEETS—SHEET 1

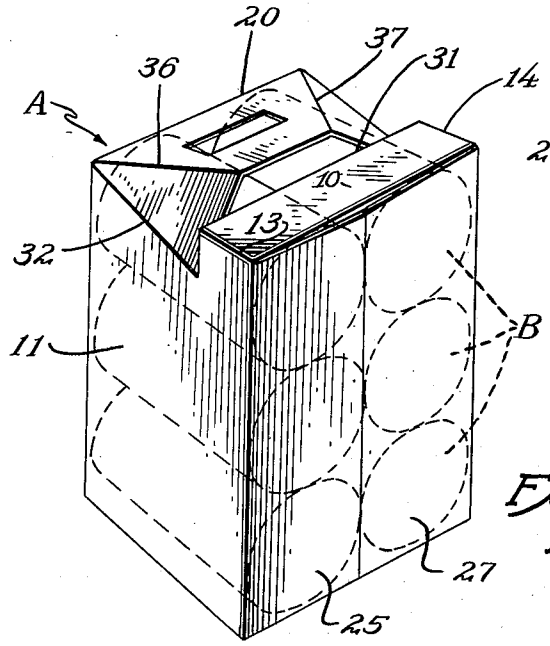

Fig. 1

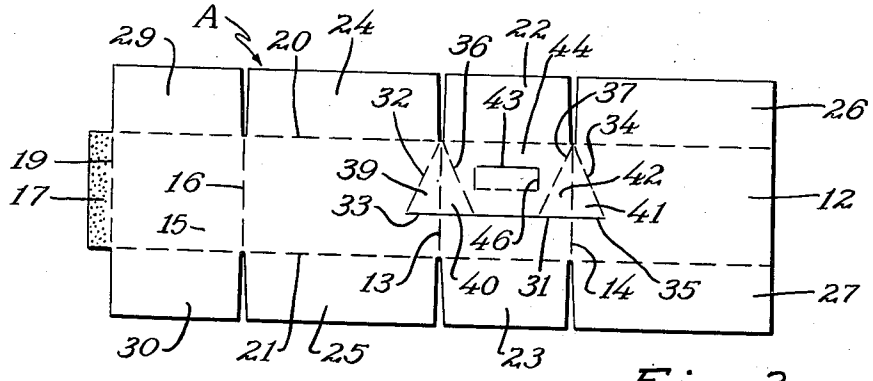

Fig. 2

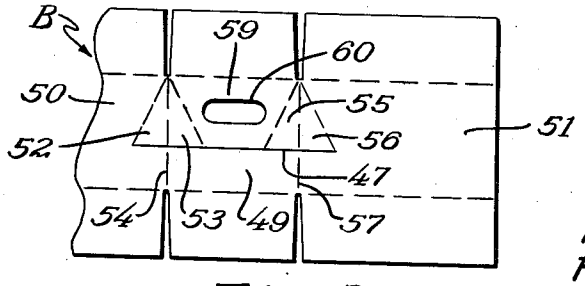

Fig. 3

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2 SHEETS--SHEET 2

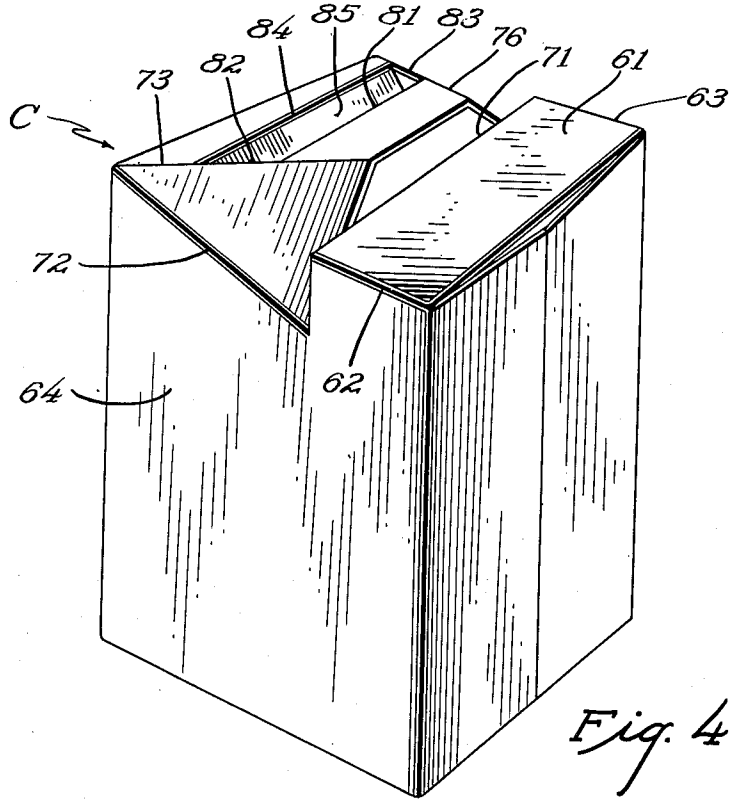

Fig. 4

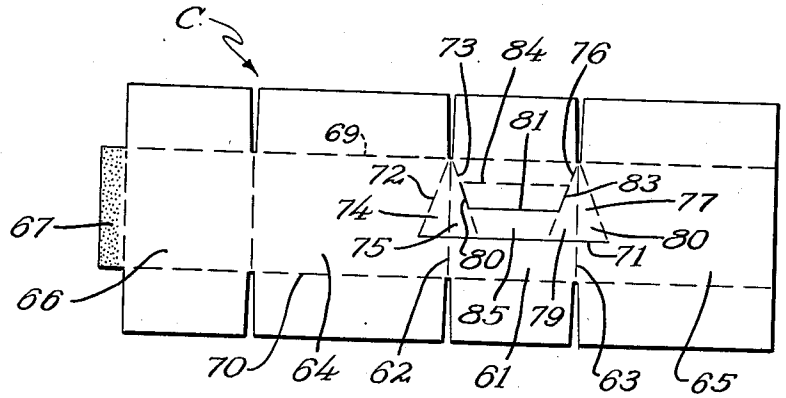

Fig. 5

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CARRIER PACKAGE

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Application February 2, 1951, Serial No. 209,029

8 Claims. (Cl. 229—52)

1

This invention relates to an improvement in carrier package and deals particularly with a carton having a handle by means of which it may be carried.

During recent years, the use of cartons provided with handles has increased in many fields. For example, packages containing a series of cans of merchandise have often been provided with handles to simplify the carrying operation. Canned beer has often been packaged in cartons with six cans of beer in each carton. In view of the weight of the contents, a handle has often been provided to facilitate the carrying of the package.

As the package is discarded after use, it is desirable that the handle structure add little or nothing to the cost of the structure.

A feature of the present invention lies in the provision of a carton capable of containing canned goods and which may be formed and handled in the same way as any tubular or rectangular carton. However, we provide a handle structure in conjunction with the package which may be folded to produce a carrier handle without use of extra stock. As a result the handle adds nothing to the cost of the package, except in the original cost of the die.

A feature of the present invention lies in the provision of a cut line or perforated line which extends entirely across a top panel of the carton and into the adjacent panels. Score lines are provided extending from the ends of the cut line to adjacent upper corners of the carton. As a result the center portion of the top panel on one side of the cut line may be folded upwardly above the level of the remainder of the top panel so as to form an opening designed to accommodate the hand.

A feature of the present invention lies in the provision of a carton having score lines arranged to permit the upward bulging of a portion of one of the top panels. In defining the carton panel as a top panel of the carton, it is understood that any wall of the carton may be employed as long as the carton may be turned so that the handled end is uppermost during the carrying operation.

A further feature of the present invention lies in the provisiion of a carton having a cut line or weakened line of separation extending across one panel and into two adjacent panels and in providing score lines which are arranged to permit the center portion of the completely cut panel to be bulged upwardly. The structure also includes, in preferred form, a slot or hole in the upper panel through which the hand or fingers

2

of the hand may extend to facilitate the carrying operation.

These and other objects and novel features of the present invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of the specification:

Figure 1 is a perspective view of the carton in condition to be carried.

Figure 2 is a diagrammatic view showing the blank from which the carton is formed.

Figure 3 is a detail view of a modified form of blank.

Figure 4 is a perspective view of a slightly different form of carton construction.

Figure 5 is a diagrammatic view of the blank from which the carton shown in Figure 4 is formed.

The carton A is produced as best illustrated in Figure 2 of the drawings. The carton is shown as having a top panel 10 and two side wall panels 11 and 12 connected to the top panel along parallel fold lines 13 and 14. A bottom panel 15 is connected to one wall panel 11 along the fold line 16. A glue flap 17 is foldably connected to the bottom panel 15 along a fold line 19. In set up form of the carton, the glue flap 17 overlaps the wall panel 12 and is fastened thereto, thus forming a tubular type of carton.

The various carton walls are connected along parallel fold lines 20 and 21 to closure flaps. The panel 10 is provided with two closure flaps 22 and 23. The wall panel 11 is provided with closure flaps 24 and 25. The wall panel 12 is connected with closing flaps 26 and 27. The bottom panel 15 is connected to closing flaps 29 and 30. The various flaps on each side of the carton are folded into overlapping relation and adhered together to form carton closures in the manner well known in the art.

In actual practice the carton is usually formed with the closing flaps providing the upper and lower surfaces of the carton. The particular carton illustrated is designed to contain six cans of beer indicated in dotted outline at B. However, as the carton is usually held in the position shown in Figure 1 of the drawings during the carrying operation or during use of the handle, the panel 10 has been described as the top panel.

As indicated in Figure 1, a cut line or weakened line of separation is indicated at 31 extending parallel to the fold lines 20 and 21 and spaced therebetween. This cut line 31 is located somewhat closer to the fold line 21 than to the fold

line 20 in order to center the load. As indicated, this cut line or weakened line of separation extends entirely across the panel 10 and extends a short distance into the panels 11 and 12. A score line 32 connects the end 33 of the cut line or perforated line 31 with the juncture between the fold lines 13 and 20. A similar score line 34 connects the end 35 of the cut line or perforated line 31 with the juncture between the fold lines 14 and 20. A score line 36 extends from the line 31 to the juncture between the fold lines 13 and 20, the extremity of the fold line 36 joining the cut line 31 being spaced outwardly from the center of the panel 10. A similar score line 37 extends from a point on the line 31 spaced from the center of the panel 10 to the juncture between the fold lines 14 and 20. Thus a triangular area 39 is provided in the panel 11 which may be folded out of the plane of the remainder of the panel and a joining triangular area 40 is provided in the panel 10 which may be folded out of the plane of the liner of this panel. A triangular area 41 is also provided in the panel 12 which may be folded out of the plane of this panel and a joining area 42 is provided in the top panel 10 which may also be folded out of the plane of its panel. The area between the score lines 36 and 37 is trapezoidal in shape and may also fold out of the plane of the remainder of the panel 10 when the adjoining triangular areas are folded into a common plane. For example, the areas 39 and 40 are normally in intersecting planes arranged at right angles, but may fold into a common plane. This is also true of the triangular areas 41 and 42. When this takes place the trapezoid between the score lines 36 and 37 inclines upwardly from the fold line 20, as illustrated in Figure 1 of the drawings.

In order that the fingers may engage through the carton and to facilitate the carrying of the carton, a flap 43 is cut in the trapezoidal area 44. This flap 43 is defined by a U-shaped cut line 46 with the free ends directed toward the cut line 31. This flap 43 may be swung upwardly by the fingers as the hand is inserted beneath the trapezoidal area 44 to provide a better hold of the carton.

In Figure 3 of the drawings I disclose a modified form of construction which differs only to a minor degree from the construction shown in Figure 2. In the carton B shown in Figure 3, a cut line 47 extends across the top panel 49 and into the wall panels 50 and 51. A triangular area 52 and a connecting triangular area 53 are arranged on opposite sides of the score line 54 defining one edge of the top panel 49. Triangular areas 55 and 56 are similarly arranged on opposite sides of the score line 57, forming the opposite edge of the panel 49. As a result a trapezoidal area 59 is provided between the triangular areas which may hinge upwardly when the adjoining triangular areas are folded into a common plane. The structure differs from the carton A mainly in providing a hand hole 60 through the trapezoidal area 59 for accommodation either of the hand or of the fingers.

One advantage of the hand hole 60 lies in the fact that the resulting structure is more immediately understandable than the previously described construction. When the carton is viewed the hand hole 60 is immediately visible. By placing the hand through the hand hole 60, the adjoining part of the top panel may be hinged upwardly so that the hand may be readily accommodated.

In both of the constructions described, it will be noted that the curvature of the cans permits the upward hinging of a portion of the top panel. If the contents of the carton completely filled the carton, the handle structure illustrated would not operate effectively. Thus the structure shown is particularly useful for containing canned goods or other goods which do not fit closely into the upper corners of the carton.

In Figures 4 and 5 of the drawings, we disclose a modified form of construction which is very similar to the structure previously described. The carton C illustrated in these figures includes a top panel 61 connected along parallel fold lines 62 and 63 to side panels 64 and 65. A bottom panel 66 is connected by a glue flap 67 to the panel 65 to form a tubular carton. Closing flaps similar to those previously described are connected to the various panels described by parallel fold lines 69 and 70.

A cut line 71 extends entirely across the top panel 61 and into the wall panels 64 and 65. This cut line 71 preferably extends parallel to the fold lines 69 and 70. Score lines 72 and 73 connect the cut lines 71 with the juncture between the fold lines 62 and 69 to form adjoining triangular areas 74 and 75 on opposite sides of the fold line 62. Similar score lines 76 and 77 extend from the cut line 71 to the juncture between the fold lines 63 and 69 to form adjoining triangular areas 79 and 80. To this point, the carton C is identical with the cartons A and B previously described.

The difference between the carton C and the cartons A and B lies in the hand hole or finger opening for accommodating the hand or fingers. In this structure the cut line 81 extends parallel to the cut line 71 connecting the score lines 73 and 76 and a pair of outwardly diverging cut lines 82 and 83 extend along the score lines 73 and 76 for a short distance. A score line 84 connects the extremities of the cut lines 82 and 83 and forms a hinged flap 85 which may be swung out of the plane of the trapezoidal area of which it is a part.

In this form of construction the hand is usually inserted into the carton by hinging the flap 85 downwardly as the adjoining portion of the cover panel is bulged upwardly from the plane of the carton top. However, when the carton is in its normal rectangular shape, the contents of the carton are closed.

In accordance with the patent statutes, we have described the principles of construction and operation of our carrier package, and while we have endeavored to set forth the best embodiment thereof, we desire to have it understood that obvious changes may be made within the scope of the following claims without departing from the spirit of our invention.

We claim:

1. A carrier carton including a top panel and wall panels connected to opposite sides thereof, the top panel being provided with a line of separation extending across the top panel between the two wall panels and extending downwardly into the wall panels, a pair of fold lines extending in diverging relation toward said cut line from two opposite corners of the top panel to the line of separation; said diverging fold lines, the fold between the top panel and the side wall panels, and the line of separation, being foldable into a common plane, and the area of the top panel between the diverging fold lines being foldable out of the plane of the remainder of the top panel.

2. The structure described in claim 1 and in-

cluding an opening in the area of the top panel between the diverging fold lines.

3. The structure described in claim 1 and including a hinged flap in the area of the top panel between the diverging fold lines foldable out of the plane of the adjacent portion of said area between the diverging fold lines to permit the fingers to extend therethrough.

4. A carrier carton including a top panel and rectangularly arranged side wall panels connected thereto, a line of separation extending entirely across the top panel and extending into two opposed wall panels and terminating at a point spaced from the upper end of said wall panels, a pair of diverging fold lines emanating from two opposed corners of the top panel on the same side of the line of separation, the diverging fold lines being on opposite sides of the line of connection between said top panel and said two opposed wall panels, and a trapezoidal area of said top panel lying between said diverging fold lines.

5. The structure described in claim 4 and in which said trapezoidal area is provided with an opening therethrough in spaced relation to said line of separation.

6. The structure described in claim 4 and in which said trapezoidal area includes a flap defined by a substantially U-shaped cut line, the ends of said cut line being directed toward said line of separation and in spaced relation thereto.

7. The structure described in claim 4 and in which the trapezoidal area includes a flap defined by a substantially U-shaped cut line, the ends of said cut line being directed away from the line of separation.

8. The structure described in claim 4 and including a flap of trapezoidal shape within said trapezoidal area, said flap being defined by a generally U-shaped cut line including a base portion parallel to said line of separation and spaced therefrom, and including sides which extend along portions of said lines of fold defining the edges of said trapezoidal area.

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No references cited.