Aug. 5, 1969 C. A. ROWLEY 3,459,328

PARTITIONED END LOADING CARTON

Filed Oct. 9, 1967

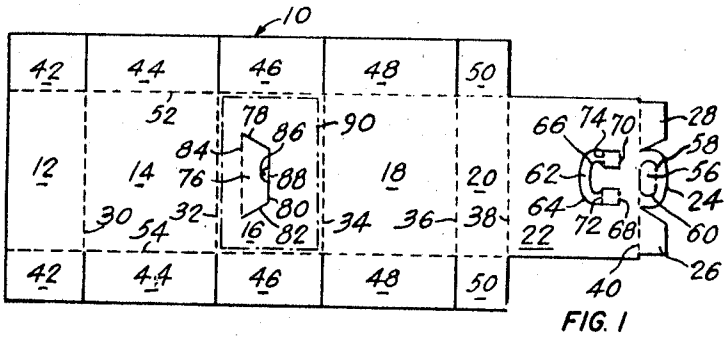


FIG. 1

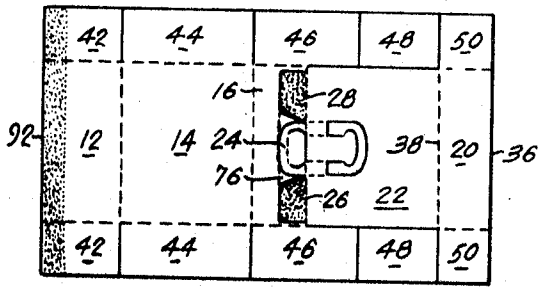


FIG. 2

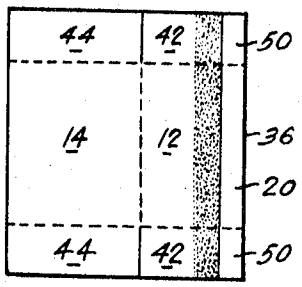


FIG. 3

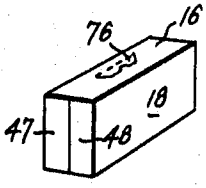


FIG. 4

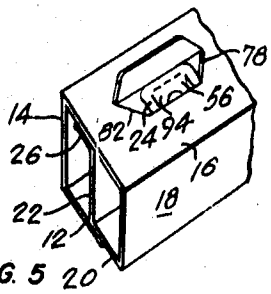


FIG. 5

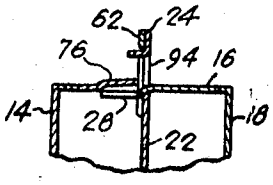


FIG. 6

INVENTOR
Cecil Alan ROWLEY

PATENT AGENT

United States Patent Office 3,459,328
Patented Aug. 5, 1969

3,459,328

PARTITIONED END LOADING CARTON

Cecil Alan Rowley, Pointe Claire, Quebec, Canada, assignor to Domtar Limited, Montreal, Quebec, Canada, a company of Canada

Filed Oct. 9, 1967, Ser. No. 673,773
Claims priority, application Canada, Nov. 8, 1966, 975,127
Int. Cl. B65d 75/00
U.S. Cl. 220—115 4 Claims

ABSTRACT OF THE DISCLOSURE

The present invention relates to a blank and to an end loading carton formed therefrom, said carton having a top wall with an integral flap bendable from the plane of the wall for access to a handle member, the handle member being connected to the top of a longitudinal central partition member and lying in face-to-face relationship to said flap before the flap is open and said partition being connected to said top panel by means of glue flaps.

The present invention relates to cartons, more particularly to end loading cartons for bottled beverages or the like.

There have been many proposals for end loading beer cartons as a result of the brewing companies turning toward end loading equipment. One of the prime difficulties of the proposed and patented designs is the exposure of the contents after the handle has been moved to carrying position. This is a serious problem as, even with amber bottles, exposure to direct sunlight will contaminate the product in a very short time. Some cartons have been proposed which will overcome this defect, however, each has been relatively expensive and thus unsatisfactory.

It is thus the main object of the present invention to provide an end loading carton which is relatively inexpensive but is effective to limit the exposure of the contents to direct sunlight.

Further features, objects and advantages will be evident from the following detailed description taken in conjunction with the accompanying drawings in which:

FIG. 1 is a plan view of a blank for making the instant invention.

FIGS. 2 and 3 show the blank in various stages of manipulation to form a carton.

FIG. 4 illustrates a filled carton, constructed in accordance with the present invention.

FIG. 5 illustrates the carton, with the flap open to expose the handle, and

FIG. 6 is a cross section showing the handle in exposed position.

In FIG. 1 there is shown a carton blank 10 comprising, from left to right, a bottom panel 12, a first side wall panel 14, a top wall panel 16, a second side wall panel 18, a second bottom panel 20, a partition panel 22 and a panel from which a handle 24 and a pair of glue tabs 26 and 28 are formed. These panels are inter-connected by fold lines 30, 32, 34 and 40 respectively. End wall forming panels 42, 44, 46, 48 and 50 are connected to opposite ends of panels 12, 14, 16, 18 and 20 respectively by fold lines 52 and 54.

The handle 24 is formed with a flap 56 defined by a score line 58 and a separation line 60. The flap 56 is bendable along score line 58 to provide a hand hole in the handle 24. Alternatively, the flaps 56 may be completely separated from the handle member to directly form a hand hole.

A handle reinforcement 62 is formed from the partition panel 22 by spaced separation lines 64 and 66. This

reinforcement 62 is connected to the panel 22 along score lines 68 and 70 parallel to the score line 40 and joining the ends of the separation lines 64 and 66. A second pair of score lines 72 and 74 parallel to the score line 40 extends across the reinforcement 62. The score lines 68 and 70 are midway between the score lines 40 and 72, 74.

The top panel 16 has a flap 76 defined by lines of severance 78, 80 and 82 and a score line 84 substantially parallel to the line 80 and joining the ends of lines 78 and 82. The flap 76 is trapezoidal in the illustrated embodiment. If desired, the line 80 may be curved to provide an access tab 86 bendable relative to the top wall 16 along fold line 88 to permit insertion of a finger for lifting of the flap 76.

Any suitable means may be provided for opening the top panel for removal of the contents. In the illustrated embodiment a peripheral score line 90 has been provided. Tearing of the top panel along the score line 90 to remove the major portion of the top panel requires also that the removed portion of the top panel either be separated from the tabs 26 and 28 or the tabs 26 and 28 be separated from the partition panel 22. The latter arrangement is preferred and thus the fold line 40 joining tabs 26 and 28 to partition panel 22 should be weakened to facilitate such separation.

In the manufacture of the carton, glue is applied across the handle 24 and glue tabs 26 and 28 and a strip of adhesive 92 is applied to panels 12 and 42 adjacent their free ends. The reinforcement 66 is then folded over along the lines 68 and 70 into overlapping relationship with the panel 22 and the handle 24 and is secured in this position by the glue applied to the handle 24. In this position the fold lines 72, 74 are oriented with respect to fold line 40 to facilitate folding of the handle when the carton is erected. In the illustrated embodiment the handle reinforcement has been folded to lie in the uppermost position in FIG. 2. Obviously it could be folded to underlie the handle 24 in which position glue would be applied to the same sides of the handle 24 and tabs 26 and 28. Next the carton is folded along the line 36 and the tabs 26 and 28 secured to panel 16 as shown in FIG. 2. This securely positions the partition panel 22 at the center of the carton and aligns the handle 24 immediately below the flap 76. The carton is then folded along line 32 to place the panels 12 and 42 in overlapping relationship with the panels 20 and 50 respectively and these panels are glued together by the second strip of adhesive to form the completed knocked-down carton shown in FIG. 3.

The carton may then be erected and filled in known manner and such an erected and filled carton is shown in FIG. 4. The flap 76 is opened by depressing the tab 86 inserting a finger under the flap 76 and lifting it to expose the handle 24. Next, by extending the fingers through the handle hole 94, the handle 24 may be pulled from within the carton to the position shown in FIG. 6. After the handle 24 is moved to carrying position, if desired, the flap 76 may be returned to its original position to ensure that the contents are not exposed to direct sunlight. Even if the flap 76 is not deliberately returned to its original position, it will, by natural resiliency, tend to at least partially return to its initial positive and thereby shade the opening through which the handle was removed and substantially limit exposure to sunlight.

Having disclosed one form of the instant invention, other forms will be evident to those skilled in the art without departing from the spirit of the invention.

I claim:

1. A carton blank for an end loading carton comprising; a first bottom wall panel, a first side wall panel, a top wall panel, a second side wall panel, a second bottom wall panel, a partition panel, said panels being

integrally interconnected along their adjacent edges by fold lines, a pair of spaced tabs integrally and foldably connected to an edge of said partition panel remote from the fold line connection between said partition panel and said second bottom wall panel, a handle member integrally and foldably connected to said edge of said partition panel between said tabs, the improvement comprising a recloseable flap formed in said top wall panel by means defining a line of severance and a score line, said score line being substantialy parallel to said fold lines and being closer to said first side wall panel than to said second side wall panel and said line of severance extending substantially to the center of said top wall panel.

2. A carton blank as defined in claim 1, further comprising; a handle reinforcing member formed in said partition pane and integrally foldably connected to said partition panel.

3. An end loading carton comprising, a first bottom wall panel, a first side wall panel, a top wall panel, a second side wall panel and a second bottom wall panel interconnected by fold lines to form a sleeve, a partition panel integrally foldably connected to said second bottom wall panel, a pair of spaced tabs projecting from an edge of said partition panel and connecting said partition panel to said top wall, a handle member integrally foldably connected to said edge of said partition panel between said pair of spaced tabs, said handle member lying in face-to-face relationship with, but not directly connected

to, said top wall, a flap formed in said top wall panel by means defining a line of severance and a score line, said score line hingedly connecting said flap to said top panel, said flap overlying said handle member, said score line being substantially parallel to said fold lines and being closer to said first side wall panel than to said second side wall panel, and said line of severance extending substantially to the center of said top wall panel.

4. An end loading carton as defined in claim 3, further comprising; a handle reinforcing member formed in said partition panel and integrally foldably connected to said partition panel, said handle reinforcing member being secured in face-to-face relationship with said handle member and said partition panel.

References Cited

UNITED STATES PATENTS

2,656,960	10/1953	Carruth	220—112
2,779,499	1/1957	Chidsey	220—112
2,849,112	8/1958	Forrer	220—112
2,963,198	12/1960	Foster et al.	220—112
3,356,258	12/1967	Vesak	220—115

DAVIS T. MOORHEAD, Primary Examiner

U.S. Cl. X.R.

229—52