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R. A. COTE

3,107,465

METHOD OF PACKAGING ARTICLES

Filed Dec. 23, 1959

2 Sheets-Sheet 1

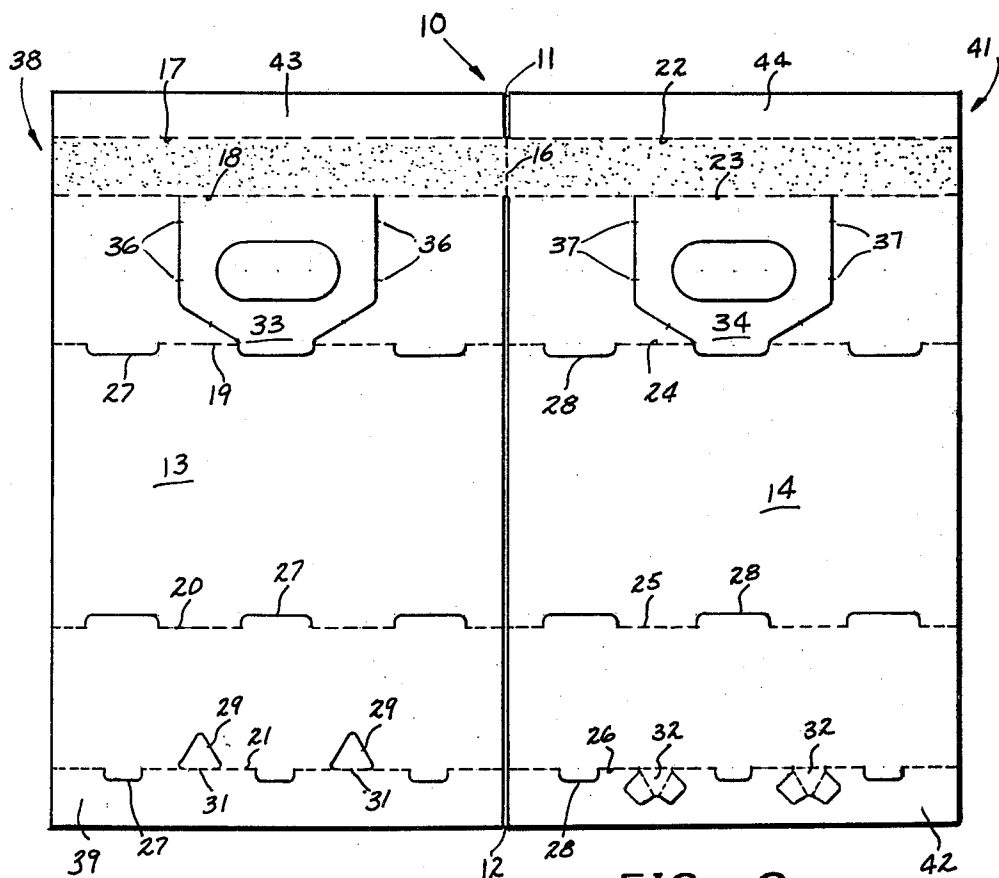


FIG - 2

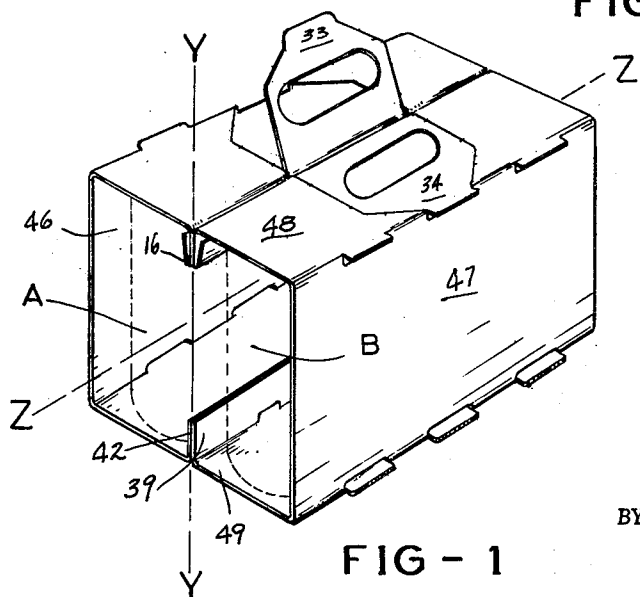


FIG - 1

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2 Sheets-Sheet 2

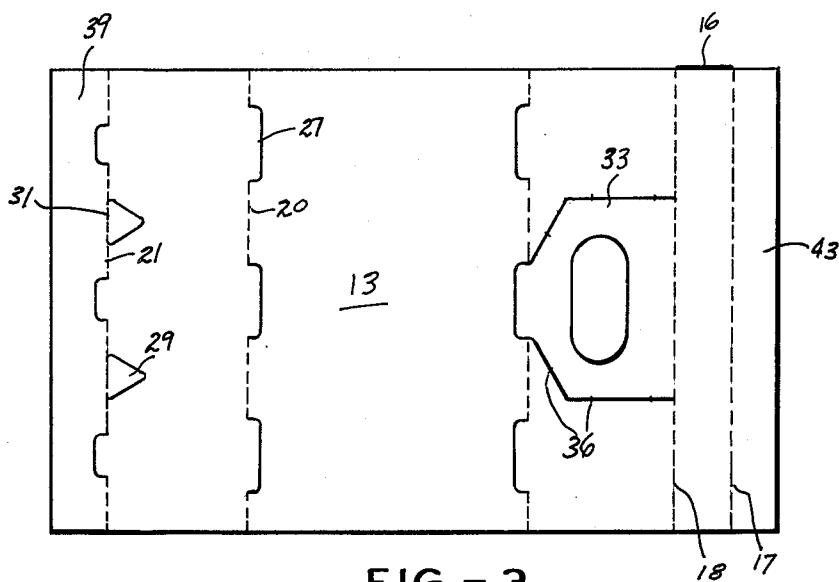


FIG - 3

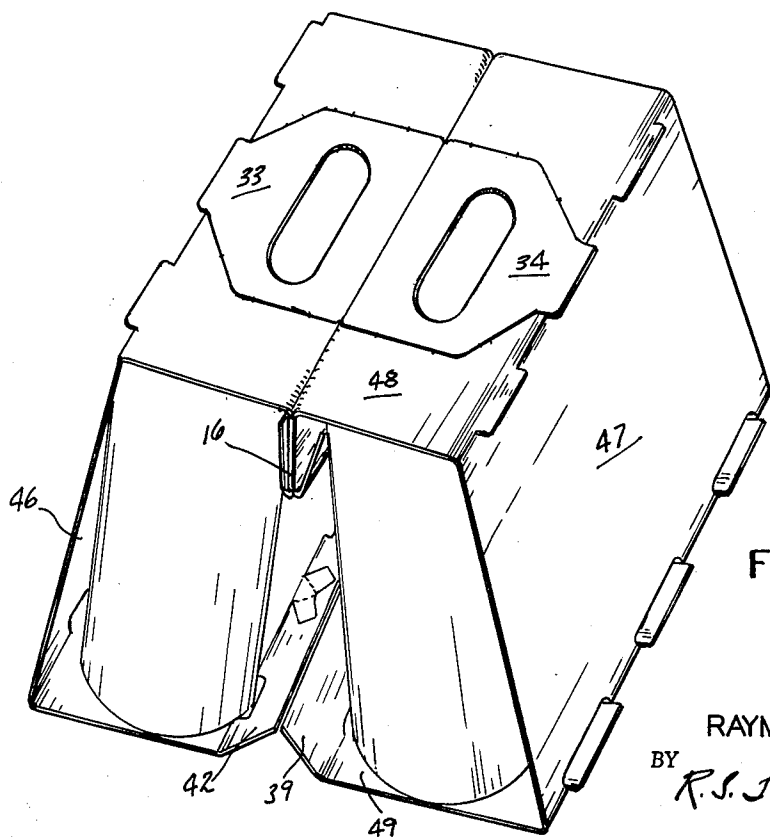


FIG - 4

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3,107,465

METHOD OF PACKAGING ARTICLES

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1 Claim. (Cl. 53—29)

This invention relates to can carriers and in particular relates to sleeve or wrap around carriers fabricated of paperboard adapted to package beer cans or like articles.

A particular feature of the invention is the provision of a novel carrier.

A further feature is the provision of a can carrier formed from two hinge panels.

A further feature of the invention is the provision of a carrier having a novel handle structure.

A still further feature of the invention is the provision of a novel structure for supporting the handle.

A further feature of the invention is the provision of a novel process for fabricating a carrier from a single sheet of paperboard.

A process embracing certain principles of the present invention may comprise the steps of slitting and scoring a sheet of paperboard so as to develop a pair of hinged panels, folding the hinged panels about a first axis into a face-to-face relationship, folding each panel about a second axis, substantially perpendicular to the first axis, to develop a carton structure having open ends, opposed top and bottom walls and opposed side walls, joining corresponding marginal portions of each panel to form an internal flange, and forming cut-outs or flaps in each panel connected to the flange to provide a rigid handle structure.

A carton structure embracing certain features of the present invention may comprise a pair of hinged panels, each said panel having opposed end margins, said panels being joined along corresponding margins to define an open ended carton having top, bottom, and side walls, said joined margins projecting toward the interior of the carton to define a pair of dividers.

Other features and advantages of the invention will become more apparent from the succeeding specification when read in conjunction with the appended drawings in which:

FIG. 1 is a perspective view of a package structure embracing the principles of the invention;

FIG. 2 is a plan view of a paperboard blank from which the carton of the present invention can be fabricated;

FIG. 3 is a view of the panels of FIG. 2 folding into a face-to-face position;

FIG. 4 is a perspective view of the panels of FIG. 3 partially folded into the final position.

Referring now to the drawings, there is shown a sheet of paperboard indicated generally by the reference numeral 10, slit as at 11 and 12, into two panels 13 and 14 joined intermediate the slits along a score line 16.

The panels 13 and 14 are formed with score lines 17, 18, 19, 20, 21, 22, 23, 24, 25, and 26 to facilitate folding and joining the panels to develop a carton structure in a fashion which will become more apparent hereinafter.

The panels 13 and 14 are also formed with slits 27 and 28, respectively, operative when the carton is in erected condition to receive a portion of an end margin of an article packaged, such as the chime of a beer can, in well known fashion.

In addition, the panel 13 is formed with tabs 29, each operative to rotate about a hinge 31 effective to develop an opening which receives and locks mating winged tabs 32 hinged to panel 14 in accordance with common practice in the carton art.

The panels 13 and 14 are also formed with handle

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flaps 33 and 34 hinged to their respective panels along score line 18 and 23. The perimeter of each flap, other than the portion thereof defined by the hinge, is separated from the main body of the respective panels except for slight bridges or necks referenced 36 and 37 which can be broken readily to permit rotation of each flap to a useful position as shown in FIG. 1.

For purposes of coordinating the language of this specification with the language of the claim defining the invention, the marginal regions of the panels labelled 38, 39, 41 and 42 are termed "end margins" and the end margins 38 and 41 are formed with return bend portions 43 and 44, respectively.

In erecting the carton of the present invention, the panels 13 and 14, in the condition shown in FIG. 2, are folded into a face-to-face relationship about a first axis Y—Y defined by score line 16 so that they appear as shown in FIG. 4. The two panels are further fastened together by glue applied along the appropriately hatched portions of the end margins 38 and 41, respectively. Next the return bend portions 43 and 44 are folded back along score lines 17 and 22, respectively, as shown in FIG. 1. Subsequently, the panels are folded again about a second axis which is generally perpendicular to the first axis identified by the letters Z—Z.

Obviously the panels 13 and 14 "break" or hinge along the various score lines 17 through 26 to develop a carton structure as shown in FIG. 1 having open ends, opposed side walls 46 and 47 and top and bottom walls 48 and 49.

The winged tabs 32 are brought into interlocking engagement with the openings developed by the tabs 29 and note that the end margins 39 and 42 are brought together to define a divider or a partial partition structure separating each row of packaged articles A and B.

As stated previously, the end margins 38 and 41 are joined along the score line 16 by the glued portions thereof (FIG. 2). Return bend portions 43 and 44 of the end margins 38 and 41 of the panels 13 and 14, respectively, are folded along score lines 17 and 22 to develop a four ply divider projecting inwardly from the top wall 48 of the carton and separating the rows of packaged articles A and B. The portions 43 and 44 may be glued to their adjacent panel portions if necessary.

Whenever one desires to do so, handle flaps 33 and 34 may be rotated to the position shown in FIG. 1 by parting the respective bridge or necks 36 and 37.

Note that the handle structure formed by the flaps 33 and 34, hinged to their respective panels 13 and 14 along score lines 18 and 23, is provided with an exceedingly rigid base for supporting the full length of a loaded carton wherein the four ply divider developed by end margins 38 and 41 effects a girder-like stress member which resists a bending moment exerted by the handle.

Although the disclosed embodiment of the present invention is shown in connection with a package embracing two rows A and B of beer cans, obviously a variety of groups of articles of metallic, glass or paper structure may be enclosed and packaged by the carton of the present invention without departing from the spirit and scope of the invention.

What is claimed is:

A method of packaging two rows of articles comprising the steps of providing at least two panels in back to back relationship where corresponding margins of a first end of said panels are connected together while corresponding margins of an opposite end of said panels are free and readily separable, inserting the connected margins between the rows of articles to provide an upper divider separating the rows of articles, separating the free margins of said panels so as to move said free margins away from one another, folding the panels around the articles so

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that each panel encircles the articles in the row individual thereto and thereafter bringing said free margins into interlocking engagement beneath and between the rows of articles to provide a lower divider separating the rows of articles.

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