

Feb. 25, 1964

P. J. WOOD  
ARTICLE CARRIER

3,122,302

Filed Jan. 7, 1963

2 Sheets-Sheet 1

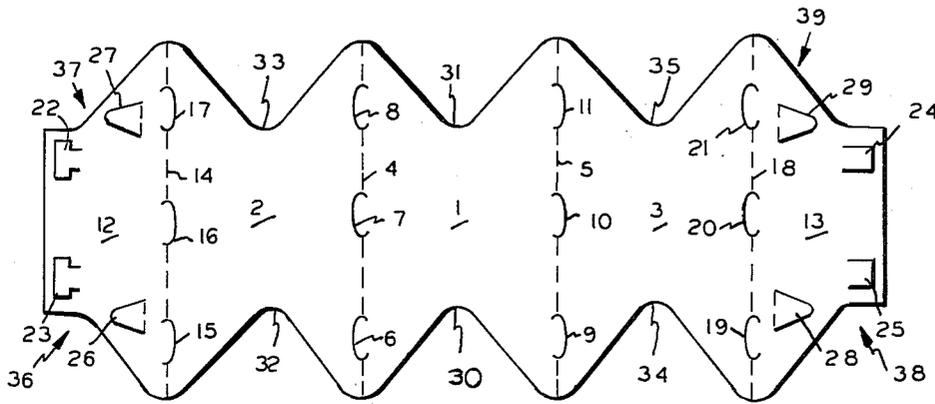


FIG. 2

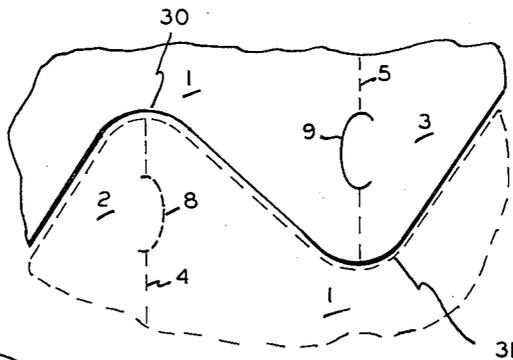


FIG. 3

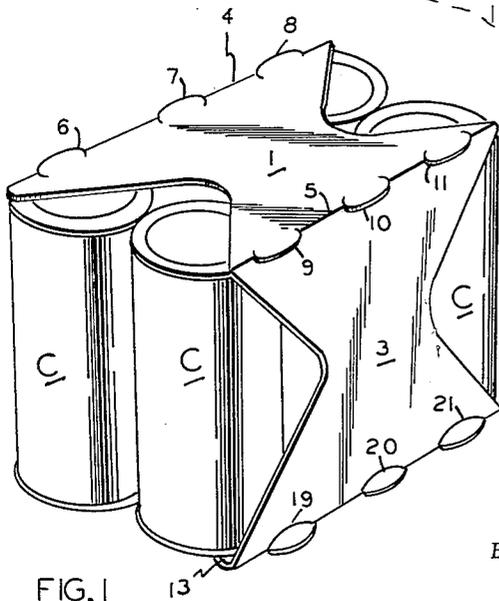


FIG. 1

INVENTOR  
PRENTICE J. WOOD

BY *Walter M. Rodgers*  
ATTORNEY

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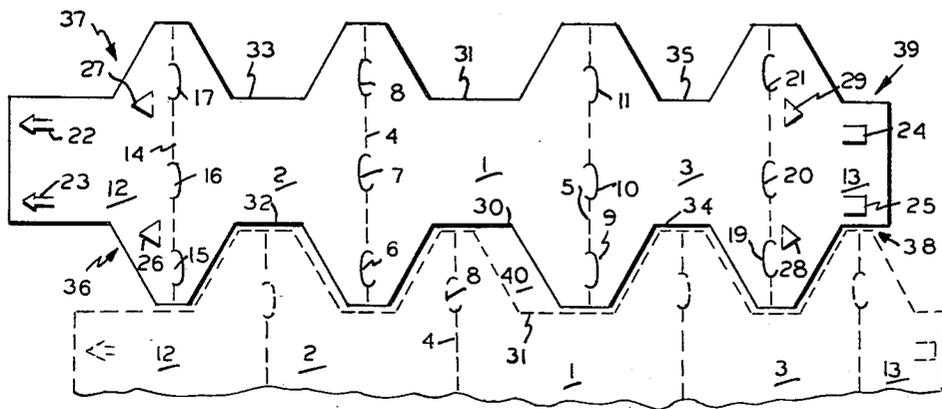


FIG. 4

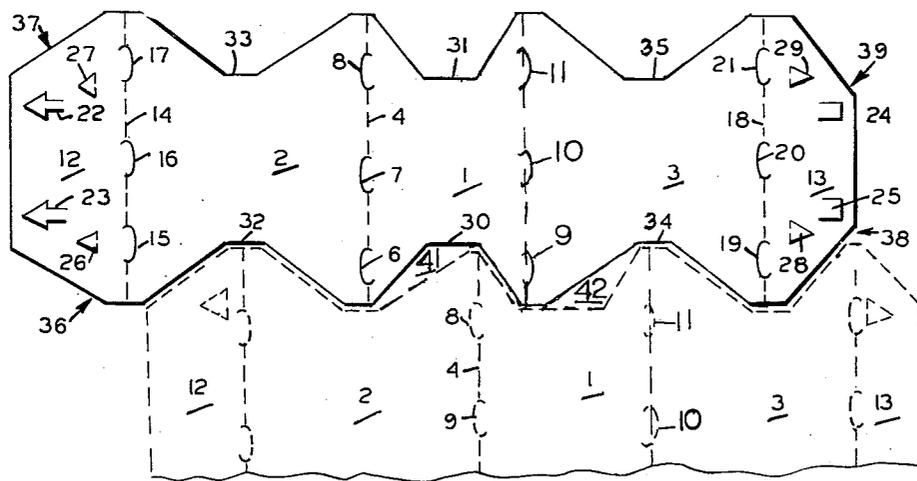


FIG. 5

INVENTOR  
PRENTICE J. WOOD

BY *Walter M. Rodgers*  
ATTORNEY

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3,122,302

ARTICLE CARRIER

Prentice J. Wood, Jonesboro, Ga., assignor to The Mead Corporation, a corporation of Ohio  
 Filed Jan. 7, 1963, Ser. No. 249,902  
 5 Claims. (Cl. 229-40)

This invention relates to article carriers and more particularly to carriers of the wrap-around type and is concerned primarily with the packaging of cans or similar articles in package groups although the invention is not limited to use in conjunction with cans and has application respecting other types of packages.

In wrappers of the type disclosed in Patent 2,786,572 granted March 26, 1957, on an application filed by Hermond G. Gentry and owned by the assignee of this invention, a plurality of articles are held in a wrap-around type of carrier primarily by the fact that slits are formed at each corner of the package for receiving the chimes of packaged cans, the wrapper being sufficiently tight to hold the can chimes in the slits and in this manner the articles are prevented from falling out of the ends of the wrapper. In packages of this type all of the panels including the top, bottom and side panels are of rectangular configuration and the packaged articles are exposed only at the ends of the wrapper.

A principal object of this invention is to provide a wrapper of the wrap-around type which is cut away along the end edges of the top, bottom and side panels so as to expose to view a substantial area of the packaged items without impairing the article gripping action of the wrapper.

Another object of the invention is to provide a wrapper blank for packaging a number of articles in a unitary package group with scalloped edges whereby nesting of one blank with an adjacent blank is possible thereby to effect substantial savings of material from which the blank is formed.

The invention in one form as applied to a wrapper blank comprises a main panel, a pair of side panels foldably joined to opposite side edges of the main panel and a pair of lap panels foldably joined respectively to the edges of the side panels remote from the main panel, the end edges of each of the panels being cutaway to form a scalloped-like configuration along opposite edges of the blank for substantially the entire length thereof, the outwardly protruding portions of the blank edges being disposed at the fold lines between the panels, and a plurality of slits formed along at least some of the fold lines in spaced relation. Thus the cutaway portions of the blank define substantial recesses in the carton top, side and bottom panels which serve to expose the packaged items to view and which at the same time effect substantial economy of material by enabling one blank to be nested with an adjacent blank all without affecting the package gripping capacity of the wrapper at the fold lines where the slits are formed and which are disposed at the corners of the package.

For a better understanding of the invention reference may be had to the following detailed description taken in conjunction with the accompanying drawings in which FIG. 1 is a perspective view of a package of the wrap-around type formed from a blank constructed according to one modification of the invention; FIG. 2 is a plan view of a blank used in the formation of the package of FIG. 1; FIG. 3 is an enlarged fragmentary view depicting the nesting of a portion of one blank of the type shown in FIG. 2 with a portion of an adjacent similar blank; FIG. 4 is a view similar to FIG. 3 but illustrating the nesting feature of a different form of blank from that depicted in plan view in FIG. 2; and in which FIG. 5 is a view similar to

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FIG. 4 and depicting still another form of the invention.

With reference to FIG. 2 the numeral 1 designates the main panel of the blank which ordinarily is the top panel as shown in FIG. 1. In FIG. 2 the numerals 2 and 3 are used to designate side panels of the blank which are foldably joined respectively to main panel 1 along fold lines 4 and 5. A plurality of slits 6, 7 and 8 are formed along fold line 4 in spaced relation while similar slits 9, 10 and 11 are formed in spaced relation along fold line 5.

The side of the wrapper opposite from main panel 1 which normally is the bottom of the wrapper is formed from a pair of lap panels designated in FIG. 2 by the numerals 12 and 13. Lap panel 12 is foldably joined to side panel 2 along fold line 14 along which slits 15, 16 and 17 are formed in spaced relation. Lap panel 13 is foldably joined to side panel 3 along fold line 18. Slits 19, 20 and 21 are formed in spaced relation along fold line 18.

For the purpose of securing lap panel 12 to lap panel 13 in overlapping relation, a pair of locking tabs 22 and 23 are formed in lap panel 12 and cooperating openings defined by retaining tabs 24 and 25 are formed in lap panel 13. In order to secure the lap panels 12 and 13 together the locking tab 22 is forced through the opening defined by retaining tab 24 and in like fashion locking tab 23 is forced through the opening defined by retaining tab 25. In this way a wrap-around type of wrapper is formed about a group of articles to be packaged which in FIG. 1, for example, are designated by the letter C. As is well known, the slits such as 6-11, 15-17, and 19-21 receive the chimes of the packaged cans and thus serve to hold the cans against accidental displacement from the end of the wrapper.

For the purpose of tightening the wrapper about a group of articles to be packaged therein, a pair of apertures 26 and 27 are formed in lap panel 12 and similar apertures 28 and 29 are formed in lap panel 13. These apertures 26-29 receive machine elements which are drawn toward each other underneath the package in order to tighten the wrapper about the package group before the locking tabs 22 and 23 are inserted through the openings defined by the retaining tabs 24 and 25, respectively.

In accordance with this invention the edges of the blank along the length thereof are scalloped as depicted in FIG. 2. For instance, the main panel 1 is provided at each of its end edges with cutaway portion 30 and 31. In like fashion the side wall 2 is cutaway as indicated at 32 and 33 while the other side wall 3 is cutaway as indicated at 34 and 35. The lap panel 12 is also cutaway as indicated in the general area of the arrows 36 and 37 while lap panel 13 is cutaway at 38 and 39.

From the description of FIG. 2 it is apparent that the corners of the carrier at the fold lines 4, 5, 14 and 18 are not cutaway and hence afford article gripping portions of the carrier which are fully equivalent to those disclosed in the above mentioned Gentry Patent 2,786,572. Furthermore, the scalloped edges of the blank depicted in FIG. 2 serve to expose the packaged items as is apparent from FIG. 1 to a much greater degree than does the package of the forementioned Patent 2,786,572.

In order to strike out the blank depicted in FIG. 2 from a sheet of material such as paperboard, for example, substantial economies of the order of 15 to 30 percent may be effected due to the fact that a blank such as is shown in FIG. 2 may be nested with an adjacent blank as depicted in the enlarged fragmentary view designated as FIG. 3. As shown in FIG. 3 the notch 30 in the blank depicted in heavy lines is arranged so as to receive the protrusion in another blank depicted in dotted lines and in which the fold line 4 is formed. As is also apparent in FIG. 3 the notched portion 31 of the blank shown in dotted lines receives the protrusion along fold line 5 of the solid line blank. If the width of the main panel 1 in a

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direction perpendicular to the fold lines 4 and 5 is equal to the height of the side walls 2 and 3, the scalloped edges of the blank as shown in FIG. 2 will be symmetrical in every panel and the edges will be substantially sinusoidal in configuration. Obviously this condition obtains only when the blank made either for a single row of packaged items in which the diameter of the packaged items is substantially equal to the height thereof or to the package depicted in FIG. 1 where two rows of items are packaged and wherein the height of the packaged items is approximately twice the diameter thereof.

The blank depicted in FIG. 4 is applicable to a package in which the main panel 1 and the composite bottom are substantially wider than the height of side panels 2 and 3. The blank shown in FIG. 4 in solid lines functions in a manner identical to that depicted in FIG. 2 as described above and the same numerals have been applied to FIG. 4 as are used in FIG. 2. Thus the dotted line blank nests with the solid line blank of FIG. 4 when the notch 30 in the solid line blank receives the protrusion along the fold line 4 of the dotted line blank. It is apparent from FIG. 4 that a small amount of material must be scrapped and this area in FIG. 4 is designated by the numeral 40. In addition certain small areas adjacent the ends of the blank must necessarily be scrapped also. As is apparent from FIG. 4, substantial economy of material is effected by the invention without impairing the strength of the carrier and at the same time the packaged merchandise is displayed more adequately and the sale thereof thereby enhanced. In the arrangement of FIG. 4, all of the protrusions on each side of the blank along the fold lines 14, 4, 5 and 18 are identical in size and configuration. The only irregularity along the scalloped edges is due to the wide notch 31 as compared to the narrower notches 33 and 35. It is apparent, however, that the cutaway portions 32, 33 and 34, 35 are all identical and are symmetrical in the side walls 2 and 3. Thus according to a feature of the invention the cutaway portions at each end of each side wall are identical. Stated otherwise, each side wall preferably is identical to the other side wall both in size and in configuration.

The arrangement depicted in FIG. 5 is similar to that depicted in FIGS. 2 and 4. The blank of FIG. 5 differs from FIG. 4 in that the main panel 1 is substantially narrower than the height of the side walls 2 and 3. In FIG. 5 the same numerals are used to designate the corresponding parts as in FIGS. 2 and 4. Furthermore, FIG. 5 is nested in a manner identical to the nesting depicted in FIG. 4. A detailed description of FIG. 5, therefore, is not deemed necessary. It should be pointed out, however, that in FIG. 5 the small areas designated for example by the numerals 41 and 42 must be scrapped due to the particular configuration of the cutaway portions 30 and 31 of main panel 1. From FIG. 5, it is apparent that the cutaway portions 32 and 33 at the ends of side wall 2 are identical, respectively, to the cutaway portions 34 and 35 of side wall 3. Stated otherwise, FIG. 5 like FIGS. 2 and 4 is characterized by the fact that the side walls 2 and 3 of both figures preferably are identical in size and configuration.

While I have shown and described several embodiments of the invention, I do not wish to be limited thereto and intend in the appended claims to cover all such changes and modifications as fall within the true spirit and scope of the invention.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. An elongated wrapper blank comprising a main panel, a pair of side panels foldably joined respectively to opposite side edges of said main panel, and a pair of lap panels foldably joined respectively to the edges

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of said side panels remote from said main panel, the end edges of each of said panels being cutaway to form a scallop-like configuration along both edges of the blank for substantially the entire length thereof and the outwardly protruding portions of said edges being disposed at the fold lines between said panels.

2. An elongated wrapper blank comprising a main panel, a pair of side panels foldably joined respectively to opposite side edges of said main panel, and a pair of lap panels foldably joined respectively to the edges of said side panels remote from said main panel, the end edges of each of said panels being cutaway to form a scallop-like configuration along both edges of the blank for substantially the entire length thereof, the outwardly protruding portions of said edges being disposed at the fold lines between said panels, the end edges of said side wall panels being substantially identical in configuration, and being symmetrical relative to the other edges thereof, and a plurality of slits formed in spaced relation along said fold lines.

3. An elongated wrapper blank comprising a main panel, a pair of side panels foldably joined respectively to opposite side edges of said main panel, and a pair of lap panels foldably joined respectively to the edges of said side panels remote from said main panel, the end edges of each of said panels being cutaway to form a scallop-like configuration along both edges of the blank for substantially the entire length thereof, the edge protrusions of the blank between said cutaway portions being traversed by a fold line between adjacent panels and being spaced from each other by a distance the magnitude of which is directly related to the dimension of said panels in a direction normal to the fold lines therebetween, and a plurality of slits formed along each fold line in spaced relation to each other.

4. An elongated wrapper blank comprising a main panel, a pair of side panels foldably joined respectively to opposite side edges of said main panel, and a pair of lap panels foldably joined respectively to the edges of said side panels remote from said main panel, the end edges of each of said panels being cutaway to form a scallop-like configuration along both edges of the blank for substantially the entire length thereof, the edge protrusions of the blank between said cutaway portions being bisected by a fold line and being of substantially uniform size and configuration and being spaced from each other by a distance the magnitude of which is directly related to the dimension of said panels in a direction normal to the fold lines therebetween.

5. An elongated wrapper blank comprising a main panel, a pair of side panels foldably joined respectively to opposite side edges of said main panel, said side panels being approximately equal in height to the width of said main panel, and a pair of lap panels foldably joined respectively to the edges of said side panels remote from said main panel, the end edges of each of said panels being cutaway to form a scallop-like configuration along both edges of the blank for substantially the entire length thereof, and the end edges of said main and side panels being substantially identical in shape and size and each end edge being substantially symmetrically disposed with respect to its panel sides whereby the edges of the blank are of substantially sinusoidal configuration.

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