

[54] CARTON  
 [75] Inventor: Rolf A. Samsing, Braintree, Mass.  
 [73] Assignee: The Gillette Company, Boston, Mass.  
 [22] Filed: June 2, 1971  
 [21] Appl. No.: 149,157

2,305,349 12/1942 Goodwin ..... 229/51 DB  
 2,367,008 1/1945 Davidson ..... 229/33  
 3,159,328 12/1964 Keim, Jr. .... 229/51 DB  
 3,004,697 10/1961 Stone ..... 229/51 TS

Primary Examiner—Davis T. Moorhead  
 Attorney—Philip Colman, Oistein J. Bratlie, William M. Anderson and Scott R. Foster

[52] U.S. Cl. .... 229/51 TS, 229/33  
 [51] Int. Cl. .... B65d 17/24, B65d 71/00  
 [58] Field of Search ..... 229/33, 51 TS, 51 DB, 229/51 D, 51 IS

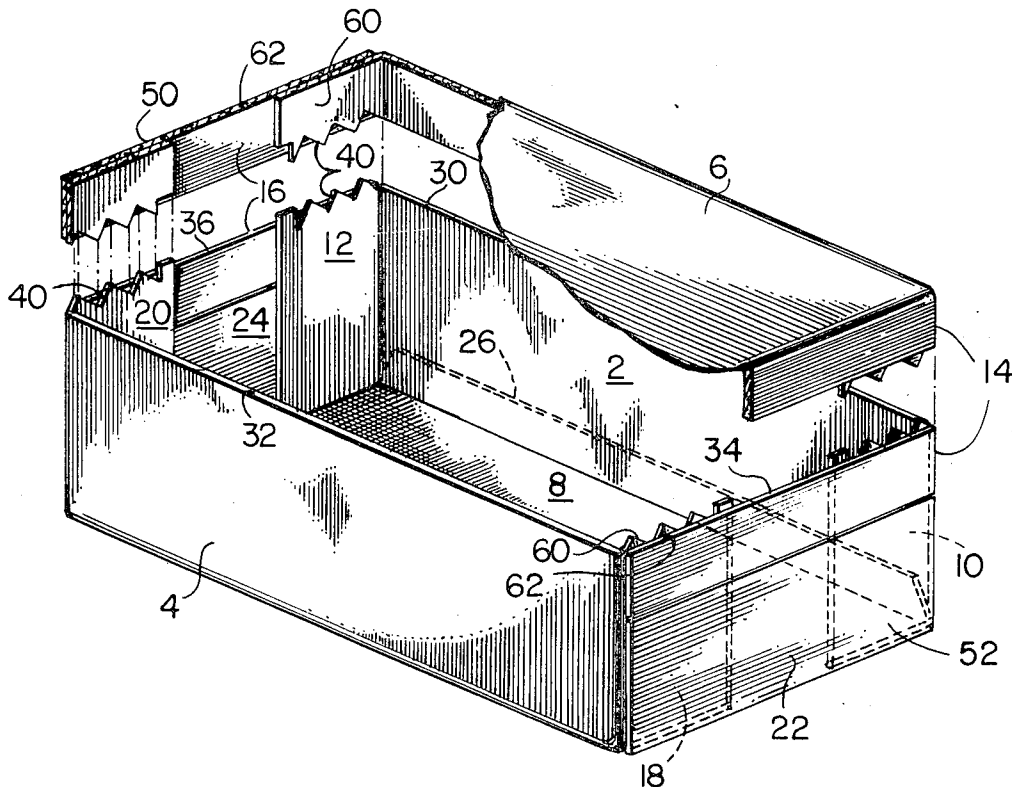
[57] ABSTRACT

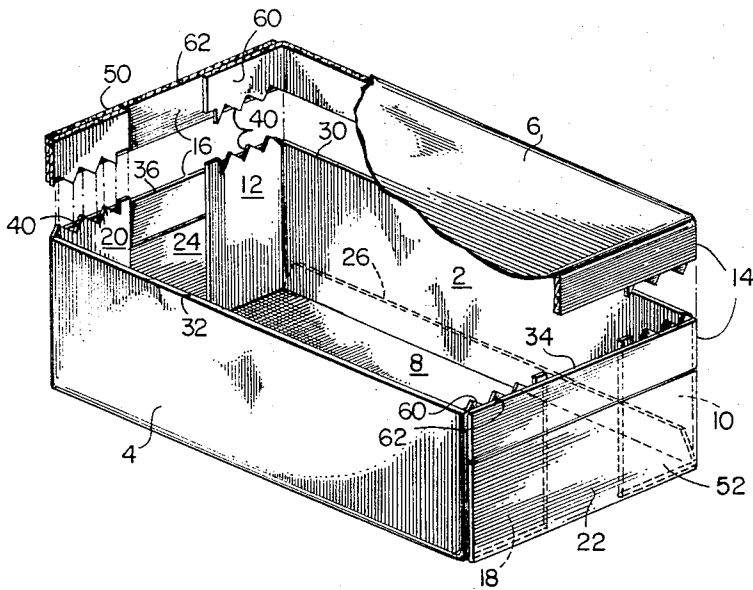
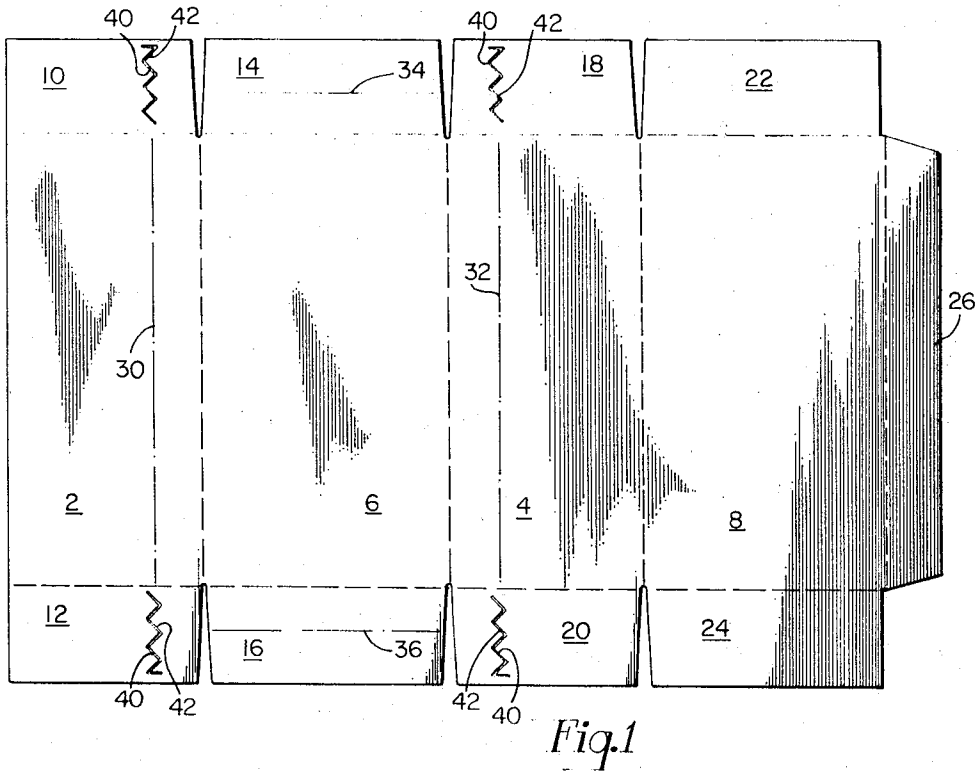
A carton of the type customarily used for shipping articles, and opened by cutting with a sharp instrument, characterized by an arrangement of zig-zag slots disposed on end flaps such that a double thickness of end flaps may be cut with substantially the same ease as the single thickness sides of the carton.

A blank from which the above carton is assembled.

2 Claims, 2 Drawing Figures

[56] References Cited  
 UNITED STATES PATENTS  
 3,542,192 11/1970 Steck ..... 229/51 TS X  
 3,620,438 11/1971 Wood ..... 229/51 D X  
 1,817,135 8/1931 Goodyear ..... 229/51 DB UX





INVENTOR

Rolf A. Samsing

By *Scott M. Foster*  
Attorney

1  
CARTON

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to cartons and is directed more particularly to a carton in which double thicknesses are rendered substantially as susceptible to cutting as are single thicknesses, and to a blank from which such a carton is assembled.

2. Description of the Prior Art

Generally, cartons of paperboard and the like are used to ship articles in commerce, as for example cans, bottles and containers of all sorts to retail outlets. It is common for such cartons to be opened and the contents displayed by simply cutting the sides and ends with a sharp instrument, such as a knife or razor. The upper portion of the carton is then removed from the lower portion, exposing the contents for removal from the carton.

It usually is the case, however, that the ends of such cartons are made of double thicknesses of paperboard, occasioned by the overlap of end flaps. It frequently happens that the sides of a carton are easily cut but the ends, because of the double thickness, require several cutting strokes on the part of an operator to cut through the paperboard.

There have been devised cartons having end flaps with a series of apertures aligned so as to weaken one thickness in a line along end flap portions. This has proven unsatisfactory because the double thickness is relieved only intermittently and also because in haste operators often fail to cut precisely along the indicated cut lines of a carton, thereby missing the aligned apertures.

SUMMARY OF THE INVENTION

It is therefore, an object of the invention to provide a carton which is easily opened by cutting.

A further object of the invention is to provide a carton having an arrangement of slots disposed on the end flaps thereof, which slots provide for ease of cutting end portions of the carton only slightly less than the ease with which the sides of the carton are severed.

A still further object of the invention is to provide an arrangement of slots as described above which further permits inaccurate cutting by an operator but still functions to facilitate ease of cutting of double thicknesses.

Another object of the invention is to provide a blank from which such a carton may be assembled.

With the above and other objects in view, as will hereinafter appear, a feature of the present invention is the provision of a carton having side walls substantially of a single thickness and end walls of, at least in part, first and second thicknesses. The first end wall thickness is provided with slots extending generally widthwise, substantially across the first thickness, but having portions thereof extending in directions at angles to the general direction in which the slots, as a whole, extend.

In accordance with a further feature of the invention there is provided a blank from which the above described carton may be assembled.

The above and other features of the invention, including various novel details of construction and combinations of parts, will now be more particularly described with reference to the accompanying drawings and pointed out in the claims. It will be understood that

2

the particular carton and blank embodying the invention are shown by way of illustration only and not as limitations of the invention. The principles and features of this invention may be employed in various and numerous embodiments without departing from the scope of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

Reference is made to the accompanying drawings in which is shown illustrative embodiments of the invention from which its novel features and advantages will be apparent.

FIG. 1 is a plan view of one form of blank, illustrative of an embodiment of the invention; and

FIG. 2 is a perspective view, partly cut away, of one form of carton illustrative of an embodiment of the invention.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIG. 1, it will be seen that the blank of the present invention comprises the conventional stamped and creased blank to form side 2, 4, bottom 6 and top 8 wall panels with end flaps 10, 12, 14, 16, 18, 20, 22, 24 extending therefrom, as well as top flap 26. Cut lines 30, 32, 34, and 36 are printed or otherwise indicated on the side wall panels 2, 4 and end flaps 14, 16 to guide a manual cutting operation.

The end flaps 10, 12, 18, 20 are each provided with slots 40 which extend substantially across the end flaps, the slots as a whole extending in the direction of the cut lines 30, 32, but having portions, as for example a portion 42, extending at angles to the direction in which the slots 40, as a whole, generally extend.

Referring to FIG. 2, it will be seen that when the blank is erected into box form, the opposed pairs of end flaps, 10 and 18, 12, and 20, 14 and 22, 16 and 24, fold inwardly and overlap in such a manner that the container has end walls 50, 52 which are at least in part, of first and second thicknesses 60, 62. The first thickness 60, formed by the end flaps 10, 18, 12, 20 is provided with the slots 40 which underlie the cut lines 34, 36 appearing on the second thickness 62 formed by the flaps 14, 22, 16, 24. The slots 40 are of generally zig-zag or similar configuration so that in the event that a cut is made inaccurately, the slots 40 provide the necessary severing, so long as the cut intercepts a portion of the slot. In assembly, the end flaps are generally secured by adhesive and the top flap 26 is generally adhesively secured to the side wall panel 2.

In order to open the sealed container, a cut is made around its circumference with a knife or the like, the cut being taken generally along the indicated cut lines 30, 32, 34, and 36. When the knife reaches the area of the slots 40 and intercepts a slot, it is only necessary to cut through one thickness of material, the second end wall thickness.

It is to be understood that the present invention is by no means limited to the particular construction herein disclosed and/or shown in the drawings, but also comprises any modifications or equivalents within the scope of the disclosure.

Having thus described my invention what I claim as new and desire to secure by Letters Patent of the United States is:

1. A carton comprising opposed parallel side walls joined to opposed parallel end walls, a bottom wall

3

joined to said side and end walls, said side walls being substantially of a single thickness of material, said end walls being at least in part of first and second thicknesses of material, said first thickness of material only being provided with slots extending in a direction generally from a first of said side walls to a second of said side walls substantially across said first thickness, said slots comprising a plurality of portions, each of said

4

portions extending in a direction at an angle traversing said general direction in which the slots as a whole extend, said side, end and bottom walls having one unweakened thickness of material throughout their extent.

2. The invention according to claim 1 in which said slots are of a zig-zag configuration.

\* \* \* \* \*

10

15

20

25

30

35

40

45

50

55

60

65