

[54] CARTON

[76] Inventor: Emanuel B. Tarrson, 400 East Randolph Street, Chicago, Ill. 60601

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[58] Field of Search.....206/45.31, 45.14, 206/45.19; 229/37 R, 41 B, 16 D

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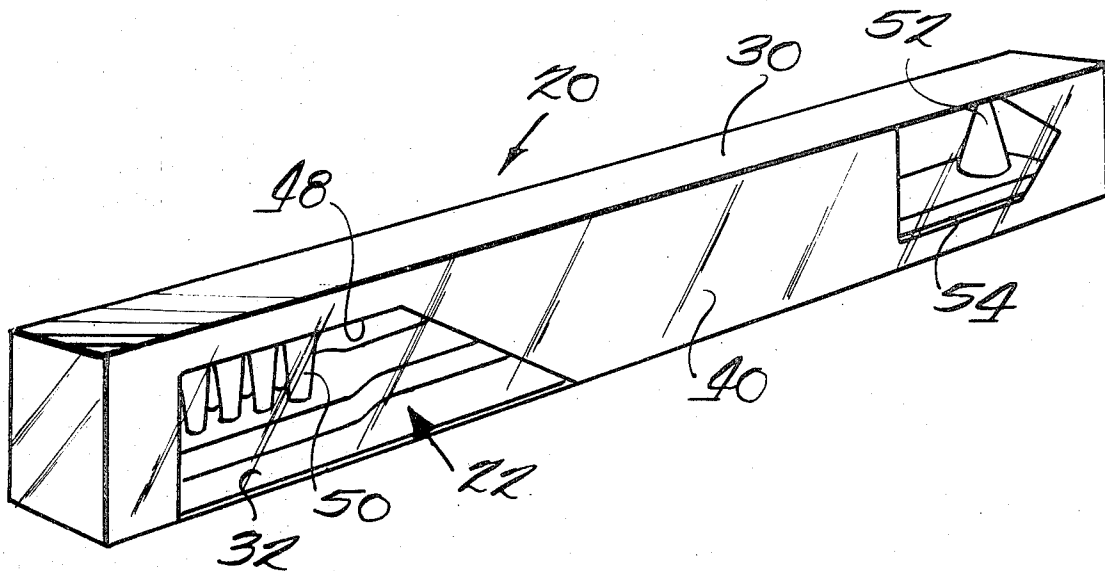
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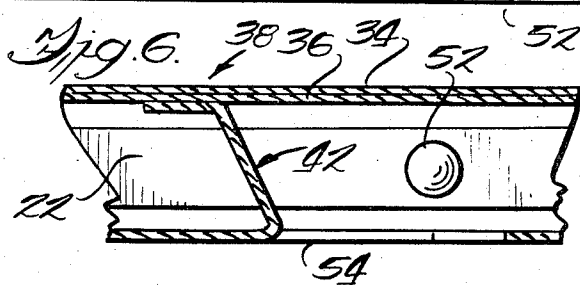
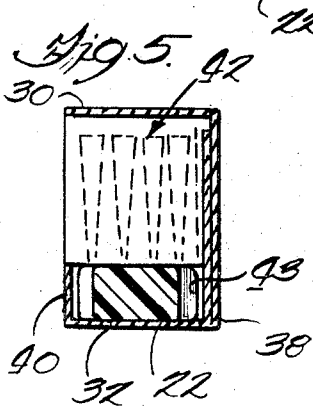
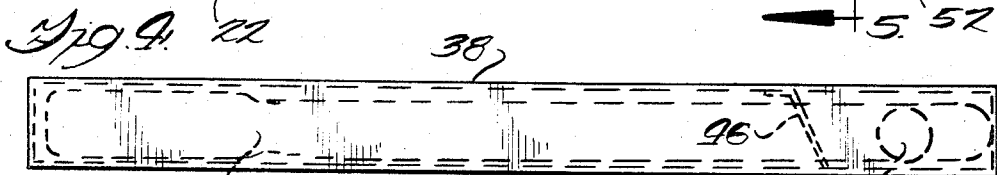
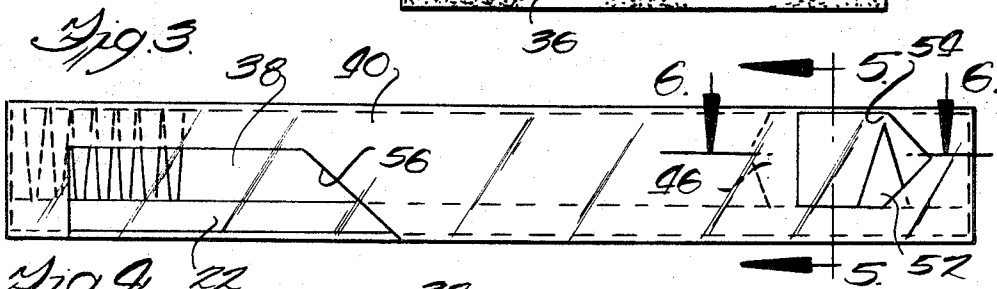
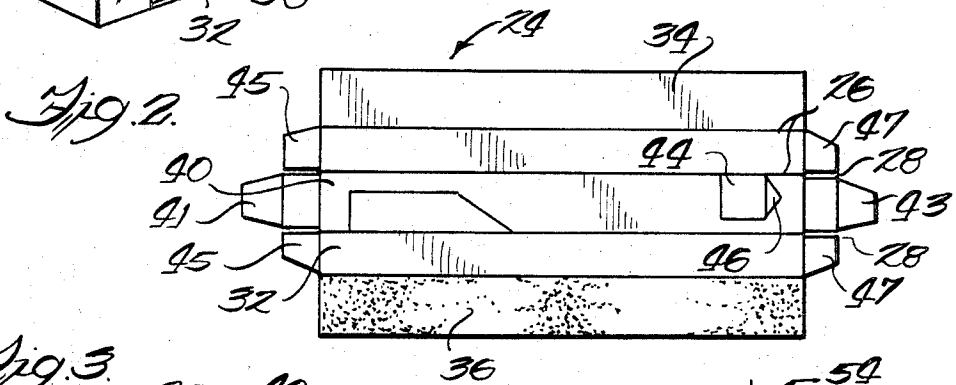
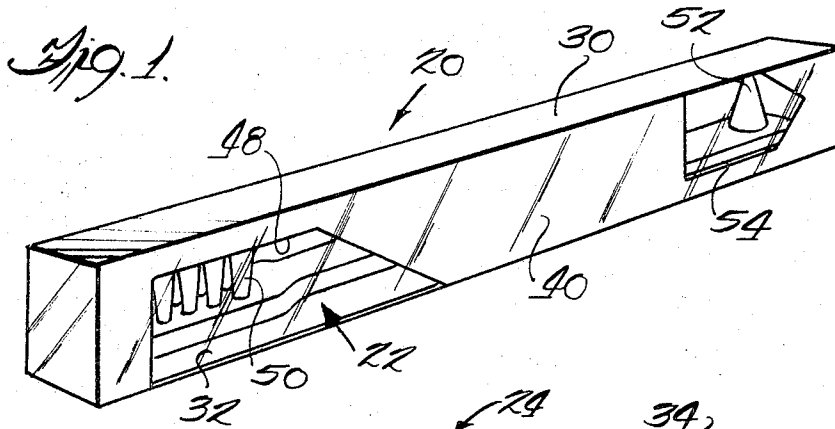
Primary Examiner—William T. Dixon, Jr.
Attorney—Pendleton, Neuman, William & Anderson

[57] ABSTRACT

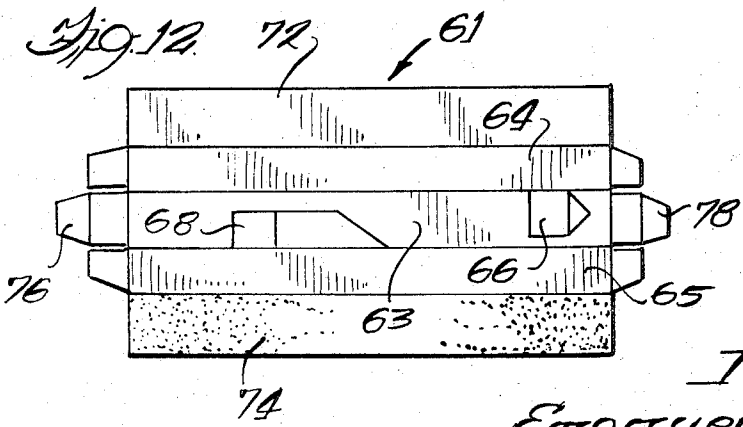
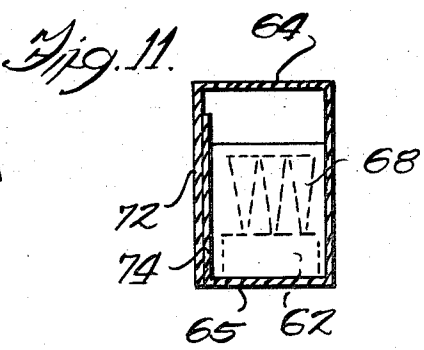
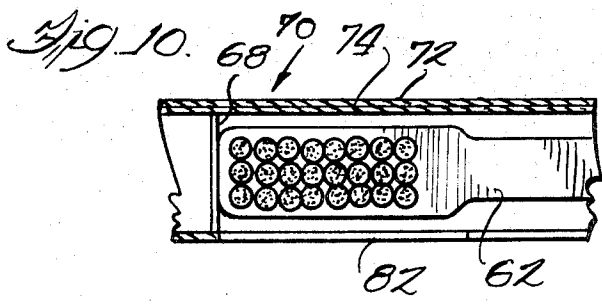
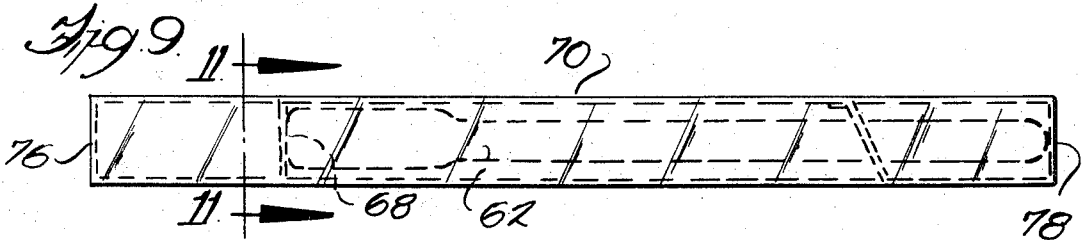
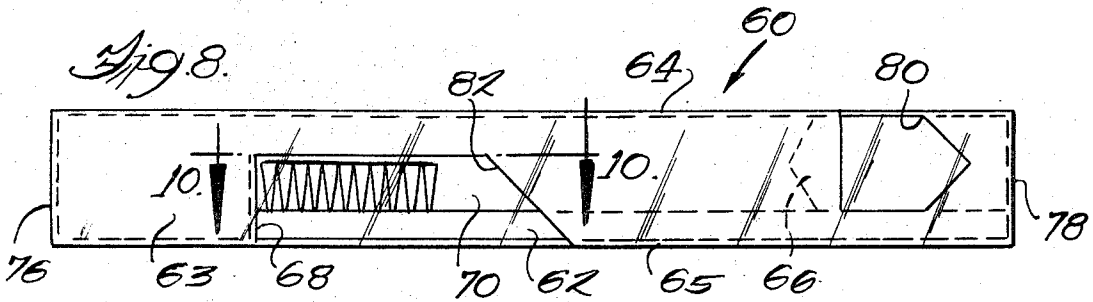
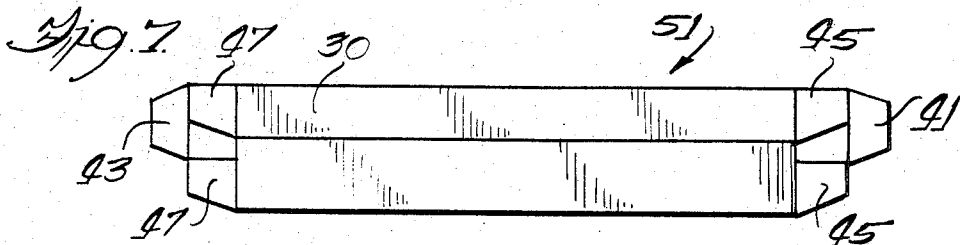
A carton for containing an article with an elongated member, the carton comprising a pair of side panels, a rear panel connected to the side panels, and a face panel connected to the side panels and having a cut-out portion therein, which is folded inwardly of said carton and frictionally engages the rear panel to form a barrier. The cut-out portion is spaced from one of the side panels so as to create an opening in the barrier through which the elongated member of the article may be inserted and retained in place. The carton is also provided with means for closing openings at the opposite ends of the carton.

8 Claims, 12 Drawing Figures





Inventor
Emmanuel B. Tansore
By: Pendleton, Neuman, Williams
& Anderson
Atty's



Inventor
Emmanuel B. Tarrson
by: Pendleton, Neuman, Williams
& Anderson
Attys

CARTON

BACKGROUND OF THE INVENTION

This invention relates to a carton, and more particularly to a carton which is adapted to contain elongated articles or articles having elongate members, such as toothbrushes and the like. The art to which this invention relates includes folded blank boxes, collapsible tubes, and closures with inserted flaps.

Cartons or containers used to package toothbrushes should be both functional and also act as a display. Where feasible, the contents of the carton should be viewable to the consumer through windows or similar means. Where damage can occur to the contents of the carton when they are loosely held in the container, means should be provided to firmly retain the contents in place and avoid unnecessary movement. A further important requirement of most cartons is that they each be formed from a compact partially set-up structure which can be readily stored and transported to the packager. This partially set-up structure should be capable of being easily formed, filled, and sealed by the packager. The carton also should be adapted for tight closure to prevent loss of contents or contamination during shipment and delivery to the retailer or other distributor, and while the product is being displayed for sale.

Accordingly, it is one of the objects of this invention to provide an attractive and functional carton which has the aforementioned advantages. It is a further object of this invention to provide an improved carton which may be partially set up at the time the blank is formed so that the packager's use of the carton is facilitated. A further object of this invention is to provide a carton for holding a toothbrush, and, especially, a toothbrush which has a stimulator tip at the end opposite the brush end. Another object of this invention is to provide a carton for containing a toothbrush in a manner that permits the brush to be viewed by the prospective purchaser, and, further, prevents the brush from any appreciable movement in the carton during shipment and display. Still another object of this invention is to provide an improved carton which may be easily and economically formed, filled, and sealed by the packager. Further and additional objects will become apparent from the description, accompanying drawings and appended claims.

SUMMARY OF THE INVENTION

In accordance with one embodiment of this invention, a carton of foldable material is provided for holding a toothbrush. The carton has a generally rectangular shape and is formed from a collapsed tubular shaped structure which in turn is formed from a blank. The carton has a pair of side panels, a rear panel connected to the side panels, and a face panel connected to the side panels. The face panel has a cut-out portion therein which is folded inwardly of said carton and frictionally engages the rear panel to form a barrier. The cut-out portion is spaced from one of the side panels so as to create an opening in the barrier which retains the handle of the toothbrush in place. The openings on opposite ends of the carton are closed with suitable closure means, such as tuck flaps and dust flaps, or similar means. The cut-out portion forms a window in the face panel through which one end of the brush may be

viewed. Another window may be included in the face panel of the carton to view the opposite end of the brush. A second cut-out portion, adapted to fold inwardly of the carton, may be used in conjunction with the face panel to accommodate different sized toothbrushes.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a carton made in accordance with this invention.

FIG. 2 is a reduced plan view of a blank from which the carton of FIG. 1 may be constructed.

FIG. 3 is a side view of the carton of FIG. 1 with parts shown in dotted lines.

FIG. 4 is a top plan view of the carton shown in FIG. 1 with parts shown in dotted lines.

FIG. 5 is a sectional view taken along line 5—5 of FIG. 3.

FIG. 6 is a partial sectional view taken along line 6—6 of FIG. 3.

FIG. 7 is a reduced plan view of a collapsed tubular shaped structure from which the carton of FIG. 1 may be constructed.

FIG. 8 is a side view of a modification of the embodiment of FIG. 1 with parts shown in dotted lines.

FIG. 9 is a top plan view of the embodiment of FIG. 8.

FIG. 10 is a partial sectional view taken along line 10—10 of FIG. 8.

FIG. 11 is a sectional view taken along line 11—11 of FIG. 9.

FIG. 12 is a reduced plan view of a blank from which the carton of FIG. 8 may be constructed.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to the drawings and more particularly to FIG. 1, a carton 20 for holding a toothbrush 22 is shown. The carton is formed from a blank 24, shown in FIG. 2, cut from a sheet of foldable material, such as fiberboard. The blank 24 includes a plurality of foldlines 26 and slits 28, and consists of two side panels 30 and 32, and two strips 34 and 36 adapted to be glued together to form a rear panel 38 (see FIGS. 3 to 6). Strip 36 is shown as a glue flap, but, if desired, strip 34 may constitute the glue flap. The side panels 30 and 32 are connected to a face panel 40 which contains a cut-out portion 42 having a rectangularly shaped member 44 and a triangularly shaped flap 46. The ends of the carton are provided with tuck flaps 41 and 43 and dust flaps 45 and 47 which form suitable closure means. An opening 48 is provided in the blank for viewing the bristle portion 50 of the toothbrush 22 when the carton is formed from the blank.

The carton blank 24 is first formed into a collapsed tubular shaped article 51 (see FIG. 7), by gluing together strips 34 and 36. In this form, the article 51 is shipped to the packager. The collapsed article 51 is set up by the packager into an open carton 10, the contents, such as a toothbrush, are inserted, and the carton 10 is closed and sealed.

When a carton is formed from the blank 24, the cut-out portion 42 is folded inwardly of said carton, as shown for example in FIGS. 3 to 6. The triangular flap 46 of the cut-out portion 42 is folded against the rear

panel 38 so that it is substantially parallel to this panel and frictionally engages the same. Because the cut-out portion 42 is spaced from the side panel 32, a space 43 (see FIG. 5) is provided between the barrier established by the cut-out portion 42 and the side panel 32 of the carton 10. The handle of the toothbrush 22 is inserted through the space 43 and the toothbrush is prevented from appreciable movement in the carton 20 by the cut-out portion 42. Filling of carton 20 is accomplished by first inserting the toothbrush 22 and then folding the cut-out portion 42 inwardly until its triangular flap 46 engages the inside of the rear panel 38 and the lower edge of the rectangularly shaped member 44 engages the brush handle (see FIGS. 3 and 5).

The toothbrush 22 shown in the carton 20 has a stimulator tip 52 on the end opposite the bristles 50. The cut-out portion 42, when folded inwardly, creates a display window 54 in the face panel 40 (see FIGS. 1 and 3). The stimulator tip 52 may be displayed to the prospective purchaser of the brush through this window. Both the window 48 and window 54 formed by the cut-out portion 42 are openings in the carton 20. When the carton is formed from the blank, the contents are inserted in it and the carton is closed. The carton 20 may be sealed by entirely covering it with cellophane or another transparent, flexible wrapping material. This covers the openings formed by the windows 48 and 54 and protects the brush or other contents of the carton from dirt or other contaminants.

FIGS. 8 to 12 show a modification 60 of the carton 20 shown in FIG. 1. Carton 60 is adapted to contain a shorter sized toothbrush 62, such as a junior size brush. This carton is formed from a blank 61 (FIG. 12) in the same fashion as carton 20. Blank 61 is first constructed into a collapsed tubular article (like that shown in FIG. 7), and the latter is formed into the finished carton by the packager.

The face panel 63 of carton 60 is connected to side panels 64 and 65 and is provided with a cut-out portion 66 in the same manner as carton 20. In order to accommodate the shorter sized brush 62, however, the face panel 64 is provided with a second cut-out portion 68, which, like portion 66, is folded inwardly of the carton 60 and frictionally engages the rear panel 70 of carton 60 (FIGS. 10 and 11). Similar to the rear panel 38 of carton 20, rear panel 70 of carton 60 is constructed of two strips 72 and 74 glued together, the latter being the glue flap (see FIGS. 10 and 12).

After the carton is filled with a smaller sized brush, the ends are closed by suitable closure means 76 and 78 (which may be the same as the tuck flaps 41 and 43 and the dust flaps 45 and 47 of carton 20), and the cut-out portions 66 and 68 are pushed inwardly until they engage the rear panel 70. When folded inward, cut-out portion 66 leaves a display window 80. Cut-out portion 68, when so folded, however, only forms part of the display window 82, the remainder of the window being initially formed in the blank, similar to carton 20. The cut-out portion 66 is arranged with respect to the handle of the brush 62 essentially like portion 42 of carton 20. The cut-out portion 68 engages the end of the head of the brush 62, as shown in FIGS. 8-10. The other end of the brush 62 engages the closure means 78, as shown in FIGS. 8 and 9. In this manner, the brush 62 is held securely in place so that it cannot be damaged in transit

or while the package is being displayed. By varying the length of the window 82 and thus the location of the cut-out portion 68, different sized brushes may be accommodated.

Carton 60 is sealed like carton 20 by wrapping it entirely in cellophane or other suitable transparent, flexible material.

Although the present invention is illustrated in connection with the packaging of toothbrushes, other brushes or devices having elongated handles may be contained and displayed in the cartons of this invention. Furthermore, while fiberboard packages are shown, other packaging materials may be employed where feasible and desirable.

While one embodiment of this invention has been described and illustrated, modifications may be made thereto, and it is contemplated, therefore, by the appended claims to cover any such modifications that fall within the spirit and scope of this invention.

What is claimed is:

1. A carton for containing a brush having an elongated handle, said carton comprising: a pair of side panels; a rear panel connected to said side panels; a face panel connected to said side panels having an opening therein for viewing the bristle portion of the brush and having a cut-out portion therein, said cut-out portion having a generally rectangular section terminated on the free end by a triangular guide section, said cut-out portion being folded inwardly of said carton wherein said rectangular section frictionally engages said rear panel to form a barrier and forming a window in said face panel through which a portion of the elongated handle of the brush may be viewed, said cut-out portion further being spaced from one of said side panels so as to create an opening in said barrier through which the elongated handle of said brush may be inserted and retained in place; and means for closing openings at the opposite ends of said carton.

2. A carton for containing an article with an elongate element with an upstanding tip thereon, said carton comprising: a pair of side panels; a rear panel connected to said side panels; a face panel connected to said side panels and having a cut-out portion therein, said cutout portion having a rectangularly-shaped member and a triangular flap at the free end thereof; said flap being folded so as to be substantially parallel to, and frictionally engage, the rear panel, said triangular member acting as a guide to position said rectangular member over said elongated element to hold the article in a fixed position inside said carton, said cut-out portion further being spaced from one of said panels so as to create an opening in said barrier through which the tip on the elongated element of said article may be viewed whereby the element may be inserted and the cut-out portion may be positioned to retain the article in place; and means for closing openings at the opposite ends of said carton.

3. The carton of claim 2 wherein said means for closing the openings at the opposite ends of said carton are tuck flaps and dust flaps.

4. The carton of claim 2 wherein a second cut-out portion is provided in said face panel, said second cut-out portion being folded inwardly of said carton and engaging said rear panel of said carton and one end of said elongate element to prevent the article within said carton from substantial movement.

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5. The carton of claim 2 wherein said carton is constructed from a collapsed tubular shaped article in which said face panel and one of said side panels overlie said rear panel and the other of said side panels, and said cut-out portion is disposed within the plane of said face panel.

6. A blank of foldable material from which a carton for containing an article with an elongate element may be formed, said blank comprising a plurality of foldlines cooperating with each other to form a pair of side panels; a rear panel connected to said side panels, a face panel connected to said side panels and having a cut-out portion therein, said cut-out portion having a rectangularly shaped member and a triangular flap at the free end thereof and being adapted to be folded when a carton is formed from said blank so that the rectangularly shaped member forms a barrier when a carton is formed from said blank and the triangular flap

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is substantially parallel to, and frictionally engages, the rear panel, said cut-out portion being spaced from one of said side panels so as to create an opening in said barrier through which the elongate element of said article may be inserted and retained in place when a carton is formed from said blank; and means for closing openings at the opposite ends of the carton when it is formed from said blank.

7. The blank of claim 6 wherein said rear panel consists of two overlying strips, one of which is provided with glue so that said strips may be glued together to form said rear panel when a carton is formed from said blank.

8. The blank of claim 6 wherein said means for closing openings at the opposite ends of said carton are tuck flaps and dust flaps.

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