

Description

Title of Invention: PACKAGING CARTON AND BLANK SHEET FOR
PACKAGING CARTON

5

Technical Field

[0001]

The present invention relates to a packaging carton
and a blank sheet for the packaging carton.

10

Background Art

[0002]

Patent Literature 1 discloses a conventionally known
packaging carton that is used for shipping food products
15 such as container-packaged instant noodles and bagged
confectionery and which can also be used for display of
the products at the point-of-purchase.

This packaging carton is usable as a display tray
when it is to be displayed at the point-of-purchase, in
20 such a manner that the top panel is opened from the front
side toward the rear side and the top panel is placed in
an upright position at the rear side with the upper
portion of the top panel folded onto the back surface of
the lower portion thereof.

25 This packaging carton is capable of sales with eye-
catching display at the point-of-purchase utilizing
printed information indicating the contents printed on
the surface of the packaging carton.

30 Citation List

Patent Literature

[0003]

Patent Literature 1: Japanese Examined Utility Model
Application Publication No. 02-21375

Summary of Invention

5 Technical Problem

[0004]

However, the aforementioned conventional packaging carton is configured such that, when folding the upper portion of the top panel onto the back surface of the lower portion, the upper portion of the top panel is warped to be locked into grooves with the upper portion of the top panel being folded in half along the fold line. Thus, a problem exists in that the top panel tends to have wrinkles or folds in the area of the printed information, which results in poor appearance.

[0005]

In order to solve the aforementioned problem, an object of the present invention is to provide a packaging carton that is less prone to formation of wrinkles or folds in the top panel when it is to be displayed at the point-of-purchase and thus enables attractive display of the contents as well as to provide a blank sheet for the packaging carton.

25 Solution to Problem

[0006]

The packaging carton of the present invention, which solves the problem, is a packaging carton including: a bottom panel; a top panel; a front wall; a rear wall; and opposing side walls, the top panel including a rear top panel connected to the upper end of the rear wall and a front top panel connected to the rear top panel by a

first fold line. A second fold line is formed adjacent to the first fold line, and the rear top panel and the front top panel are to be raised by folding the top panel along the second fold line.

5 [0007]

The packaging carton of the present invention is configured such that, when the rear top panel and the front top panel are to be raised for display at the point-of-purchase, folding of the rear top panel and the front top panel can be accomplished using the second fold line with them being folded along the first fold line. Thus, by means of the two fold lines, i.e., the first fold lines and the second fold lines, distortion (warping) in the top panel resulting from the raising operation can be absorbed.

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[0008]

The rear wall may preferably have a notch that locks the front top panel therein. By providing the notch, it is possible to suitably maintain the upright condition of the front top panel.

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[0009]

Furthermore, the front wall may have a front tear line serving as a tearing location to open the top panel and the rear wall may have a rear tear line serving as a tearing location to open the top panel. The notch may preferably be formed by a recessed portion that is included in the rear tear line when the top panel has been opened along the rear tear line. With this configuration, the notch can be formed by the operation of opening the top panel and therefore the labor required for display at the point-of-purchase can be reduced.

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[0010]

A blank sheet for a packaging carton of the present invention is a blank sheet for a packaging carton including: a bottom panel, a top panel, a front wall, a rear wall, and opposing side walls, the top panel including a rear top panel connected to the upper end of the rear wall and a front top panel connected to the rear top panel by a first fold line, wherein a second fold line is formed adjacent to the first fold line, and the rear top panel and the front top panel are to be raised by folding the top panel along the second fold line.

[0011]

The blank sheet of the present invention is configured such that, when the rear top panel and the front top panel are to be raised for display at the point-of-purchase, folding of the rear top panel and the front top panel can be accomplished using the second fold line while folding them along the first fold line. Thus, by means of the two fold lines, i.e., the first fold lines and the second fold lines, distortion (warping) in the top panel resulting from the raising operation is absorbed.

Advantageous Effects of Invention

[0012]

A packaging carton and blank sheet for a packaging carton of the present invention are capable of attractive display of the contents because the top panel, which is raised for display at the point-of-purchase, is less prone to wrinkles or folds.

Brief Description of Drawings

[0013]

[Figure 1] Figure 1 illustrates a packaging carton according to an embodiment, in which Figure 1A is a perspective view from the front wall side and Figure 1B is a perspective view from the rear wall side.

5 [Figure 2] Figure 2 is a development of the packaging carton according to the embodiment.

[Figure 3] Figure 3 is an enlarged illustration of a principal part.

10 [Figure 4] Figure 4 is a perspective view of the packaging carton according to the embodiment, as seen from the front side, with the rear wall, top panel and front wall raised.

[Figure 5] Figures 5A and 5B illustrate an operation of opening the packaging carton according to the embodiment, 15 in which Figure 5A is a perspective view illustrating a state in which the opening is begun from the rear wall side and Figure 5B is a perspective view illustrating a state in which the left and right side walls and the front wall are opened.

20 [Figure 6] Figure 6A is a perspective view illustrating a manner in which the top panel is raised and Figure 6B is a perspective view illustrating a state in which the top panel has been raised at the rear wall.

[Figure 7] Figures 7A, 7B, and 7C illustrate the stages 25 of the process for raising the top panel, in which Figure 7A is a perspective view illustrating a state in which the top panel is slightly raised; Figure 7B is a perspective view illustrating a state in which the front top panel begins to fold along the second fold line; and 30 Figure 7C is a perspective view illustrating a state in which the front top panel begins to fold along the first fold line in addition to the second fold line.

[Figure 8] Figure 8A is a perspective view illustrating a state in which the top panel is folded along the first fold line and the second fold line and the front top panel is overlapped onto the rear top panel, and Figure
5 8B is a perspective view illustrating a state in which the front top panel is locked into notches.

[Figure 9] Figure 9 is a perspective view of the front top panel locked into the notches as seen from the rear side.

10 [Figure 10] Figure 10 is a perspective view illustrating the use of the packaging carton as a tray with the top panel detached.

Description of Embodiments

15 [0014]

With reference to the drawings, embodiments of the present invention are described in detail below. Like elements are assigned like reference numerals and redundant descriptions will be omitted. In the
20 descriptions below, the front, rear, left, right, upper and lower directions are based on the condition of a packaging carton 1 illustrated in Figures 1A and 1B.

As illustrated in Figures 1A and 1B, the packaging carton 1 of the present embodiment includes a bottom
25 panel 10, a front wall 20, a rear wall 30, opposing left and right side walls 40A and 40B, and a top panel 50. The rear wall 30 is connected to the rear edge (rear end) of the bottom panel 10 and the top panel 50 is connected to the upper edge (upper end) of the rear wall 30. The
30 front wall 20 is connected to the front edge (front end) of the top panel 50. The left side wall 40A includes a lower left side wall 10A connected to the left edge of

the bottom panel 10 and an upper left side wall 50A connected to the left edge of the top panel 50. The right side wall 40B includes a lower right side wall 10B connected to the right edge of the bottom panel 10 and an
5 upper right side wall 50B connected to the right edge of the top panel 50.

An interior space enclosed by these elements is formed in the packaging carton 1. This interior space is a space for storing contents C, i.e., food products such
10 as container-packaged instant noodles (see Figure 5B) and bagged confectionery.

The contents C are stored within the packaging carton 1 with the upper surfaces C1 (see Figure 6A) facing the top panel 50 and thus the upper surfaces C1 of
15 the contents C are positioned on the opening side.

[0015]

The packaging carton 1 is formed from a blank sheet S cut from a sheet as illustrated in Figure 2.

The blank sheet S is formed of a sheet of corrugated
20 board made of two liner boards and a fluted medium attached therebetween. An indication (print, not illustrated) for advertising the contents is provided on the top surface of the blank sheet S. When forming the blank sheet S, printing may be previously applied by any
25 method to the front liner, which forms the top surface, and then the medium and the back liner may be attached in order, or alternatively, after the sheet of corrugated board has been formed by attaching them together, printing or another process may be applied to the top
30 surface. Alternatively, printing or another process may be applied to both the front liner and the back liner. Alternatively, after the sheet of corrugated board has

been formed, printing or another process may be applied to both sides of the sheet. In the blank sheet S, printing or another process may be applied only to the surface of the top panel 50.

5 [0016]

The blank sheet S illustrated in Figure 2 is disposed so that the back surface side thereof can be seen. The packaging carton 1 illustrated in Figures 1A and 1B is formed by valley folding the blank sheet S at 10 90 degrees along each fold line (including a fold line having perforations) in the state of disposition such that the back surface side can be seen. Thus, an advertisement is displayed on the top surface of the packaging carton 1.

15 [0017]

Each fold line (ruled line) of the blank sheet S is a linear groove (score line) formed by grooving the back surface of the blank sheet S. To facilitate folding of the blank sheet S, dashed line-shaped perforations for 20 example may be formed along the score lines as necessary.

[0018]

As illustrated in Figure 2, the bottom panel 10 has a rectangular shape with the left-right length being greater than the front-rear length. The lower left side 25 wall 10A is connected to the left edge of the bottom panel 10 by a fold line L11. The lower right side wall 10B is connected to the right edge of the bottom panel 10 by a fold line L12.

A glue flap 13 is connected to the front edge of the 30 bottom panel 10 by a fold line L13. The fold line L13 includes dashed line-shaped perforations L13a (see Figure 4). The glue flap 13 is to be attached to the front

surface of the front wall 20 as shown in Figure 1A. The upper edge 13e of the glue flap 13 is disposed along the lower front tear line L8 of the front wall 20 (so as to overlap the lower front tear line L8).

5 [0019]

As illustrated in Figure 2, the rear wall 30 is connected to the rear edge of the bottom panel 10 by a fold line L1. The fold line L1 includes dashed line-shaped perforations L1a (see Figure 4). Fold lines L2, 10 L3 perpendicular to the fold line L1 are formed at the left and right edges of the rear wall 30. A left rear flap 31 is connected to the left edge of the rear wall 30 by the fold line L2 and a right rear flap 32 is connected to the right edge thereof by the fold line L3. The left 15 rear flap 31 is a portion that is to be laid on the back surfaces of the lower left side wall 10A and the upper left side wall 50A. The right rear flap 32 is a portion that is to be laid on the back surfaces of the lower right side wall 10B and the upper right side wall 50B.

20 [0020]

A fold line L4, which is parallel to the fold line L1, is formed at the upper edge of the rear wall 30 and an upper rear tear line L41 is formed along the fold line L4. The upper rear tear line L41 is formed by 25 perforations, whereby separation at this location is possible. The present embodiment includes dashed line-shaped perforations disposed along the fold line L4 and inclined perforations that are inclined with respect to the fold line L4. As illustrated in Figure 1B, the upper 30 rear tear line L41 extends from the left end of the rear wall 30 to the right end thereof along the ridge on the border between the rear wall 30 and the top panel 50.

Furthermore, as illustrated in Figure 2, a lower rear tear line L42, which extends along the left-right direction (longitudinal direction), is formed in the rear wall 30. The lower rear tear line L42 is formed by perforations, whereby separation at this location is possible. The perforations may be in the form of, for example, discontinuous perforations referred to as a stitch line or discontinuous perforations having a hook shape referred to as a zipper line. (The same applies to the below descriptions.)

[0021]

As illustrated in Figure 2, the lower rear tear line L42 includes: a horizontal line portion L42a, which extends along the left-right direction; recessed portions L42b, L42b continuous from the opposite ends of the horizontal line portion L42a; and stepped horizontal line portions L42c, L42c continuous from the recessed portions L42b, L42b.

[0022]

The horizontal line portion L42a is formed parallel to the fold line L4 (upper rear tear line L41). As described below, the horizontal line portion L42a is torn off when the packaging carton 1 is used as a tray with the top panel 50 detached for display at the point-of-purchase (see Figure 10). As described below, when the packaging carton 1 is used with the top panel 50 raised for display at the point-of-purchase, the horizontal line portion L42a is not torn off to keep the rear wall 30 undivided (see Figure 9).

[0023]

As illustrated in Figure 3, each recessed portion L42b includes: a sloped portion L42b1; a bottom portion

L42b2 continuous from the sloped portion L42b1; and a rising portion L42b3 continuous from the bottom portion L42b2. The sloped portion L42b1 is sloped toward the fold line L1 (lower side of the rear wall 30) with decreasing distance from the right edge (left edge on the left side) of the rear wall 30. The stepped horizontal line portions L42c, L42c are each positioned at a location higher than the location of the horizontal line portion L42a in the rear wall 30. As illustrated in Figure 1B, the stepped horizontal line portions L42c, L42c are each linked to the location of abutment between the upper right side wall 50B and the lower right side wall 10B (location of abutment between the upper left side wall 50A and the lower left side wall 10A).

As illustrated in Figure 3, a perforated portion L42c1 continuous from the stepped horizontal line portion L42c is formed in the right rear flap 32 (left rear flap 31).

[0024]

Each recessed portion L42b forms a notch 47 (see Figure 5A) when tearing off is performed in a manner described below for display at the point-of-purchase. As illustrated in Figure 8A, the formation of the notches 47 results in formation of projecting wall portions 48, 48 in the vicinities of the respective corners of the rear wall 30 adjacent to the notches 47, 47. The wall portions 48, 48 project relatively upwardly by the depressions of the notches 47, 47. The projecting wall portions 48, 48 support a front end 502a of a front top panel 502 at its left and right corner regions in a manner described below.

[0025]

The rear wall 30 includes in its left and right regions vertical tear lines L43, L43 perpendicular to the upper rear tear line L41 and the lower rear tear line L42. The vertical tear lines L43, L43 are formed by dashed line-shaped perforations, whereby separation at these locations is possible.

[0026]

As illustrated in Figure 3, each vertical tear line L43 includes: an upper vertical line portion L43a; a semi-circular portion L43b continuous from the upper vertical line portion L43a; and a lower vertical line portion L43c continuous from the semi-circular portion L43b. The vertical tear line L43 forms one side of a tab portion 45 (see Figure 5A), which is used to open the packaging carton 1 (for display at the point-of-purchase).

The lower end of each lower vertical line portion L43c is connected to the corresponding end of the horizontal line portion L42a of the lower rear tear line L42 (upper end of the sloped portion L42b1 of each recessed portion L42b). A fold line L46a is formed inside the semi-circular portion L43b. The fold line L46a is linearly aligned with the upper vertical line portion L43a and the lower vertical line portion L43c.

A fold line L44 is formed laterally adjacent to each vertical tear line L43. Each fold line L44 is linearly aligned with the rising portion L42b3 of each recessed portion L42b. The fold line L44 is parallel to the vertical tear line L43.

[0027]

The tab portion 45 is a portion to be held by fingers when opening the packaging carton 1. The tab portion 45 is constituted by the region surrounded by the

upper rear tear line L41, the vertical tear line L43, the recessed portion L42b, and the fold line L44.

In the present embodiment, the upper rear tear line L41 and the lower rear tear line L42 correspond to the
5 "rear tear line" in Claims.

As illustrated in Figure 2, in the left region relative to the vertical tear line L43 of the left tab portion 45, the perforations are oppositely oriented (inclined perforations are oppositely oriented). This
10 facilitates the opening operation leftward in the left region relative to the vertical tear line L43 with the tab portion 45 being held.

[0028]

The top panel 50 includes a rear top panel 501
15 located adjacent to the rear wall 30 and the front top panel 502 located adjacent to the front wall 20. The rear top panel 501 and the front top panel 502 are demarcated from each other by first fold lines L51, L51 at the rear edges of the front top panel 502 and a semi-
20 circular arc-shaped perforation line 51a. In the present embodiment, the first fold lines L51, L51 are parallel to the fold line L4 and linearly aligned with each other in the left-right direction of the top panel 50. Furthermore, second fold lines L52, L52, which are
25 parallel to the first fold lines L51, L51, are formed in the rear top panel 501, at locations adjacent to the first fold lines L51, L51. The second fold lines L52, L52 are disposed such that each of them is in contact, at one end thereof, with the arc portion of the arc-shaped
30 perforation line 51a and they are linearly aligned with each other in the left-right direction. The second fold lines L52, L52 may not necessarily be parallel to the

first fold lines and may be angled with respect to the first fold lines L51, L51.

[0029]

The left end of the arc-shaped perforation line 51a is connected to the left first fold line L51 and the right end of the arc-shaped perforation line 51a is connected to the right first fold line L51. The front top panel 502 includes a semi-circular advertising portion 51, which is to be separated along the arc-shaped perforation line 51a, and thus the front top panel 502 also functions as an advertising medium when displayed at the point-of-purchase as described below. The top panel 50 can be folded into the rear top panel 501 and the front top panel 502 (can be folded in half) with the second fold lines L52, L52 and the arc-shaped perforation line 51a defining the border (see Figures 6A and 6B and Figure 8B).

The advertising portion 51 can be raised integrally with the front top panel 502 when the top panel 50 is folded in half (see Figure 6B and Figure 8B).

[0030]

A fold line L6 perpendicular to the fold line L4 is formed at the left edge of the top panel 50 and a left tear line L6a is formed along the fold line L6. The left tear line L6a is formed by perforations, whereby separation at this location is possible. The upper left side wall 50A is connected to the left edge of the top panel 50 by the left tear line L6a. As illustrated in Figure 1A, the left tear line L6a extends from the front end of the left side wall 40A to the rear end thereof along the ridge on the border between the left side wall 40A and the top panel 50. The orientation of the

perforations (which means the orientation of the inclined perforations and the same applies to the below descriptions) of the left tear line L6a is the same as the orientation of the perforations continuous from the left side of the left tab portion 45 of the rear wall 30.

Furthermore, as illustrated in Figure 2, a fold line L7 perpendicular to the fold line L4 is formed at the right edge of the top panel 50 and a right tear line L7a is formed along the fold line L7. The upper right side wall 50B is connected to the right edge of the top panel 50 by the right tear line L7a. As illustrated in Figure 1B, the right tear line L7a extends from the front end of the right side wall 40B to the rear end thereof along the ridge on the border between the right side wall 40B and the top panel 50. The orientation of the perforations of the right tear line L7a is the same as the orientation of the perforations continuous from the upper rear tear line L41 of the rear wall 30.

[0031]

The front wall 20 is connected to the front edge of the top panel 50 by a fold line L5. An upper front tear line L5a is formed at the front edge of the top panel 50 along the fold line L5. The upper front tear line L5a is formed by perforations, whereby separation at this location is possible. As illustrated in Figure 1A, the upper front tear line L5a extends from the left end of the front wall 20 to the right end thereof along the ridge on the border between the front wall 20 and the top panel 50. The orientation of the perforations of the upper front tear line L5a is the same as the orientation of the perforations continuous from the right tear line L7a of the upper right side wall 50B.

[0032]

As illustrated in Figure 2, a left front flap 21 is connected to the left edge of the front wall 20 by a fold line L9 and a right front flap 22 is connected to the right edge of the front wall 20 by a fold line L10. The left front flap 21 is a portion that is to be laid on the back surfaces of the lower left side wall 10A and the upper left side wall 50A. The right front flap 22 is a portion that is to be laid on the back surfaces of the lower right side wall 10B and the upper right side wall 50B. The left front flap 21 has a perforated portion L8b1 and the right front flap 22 has a perforated portion L8b1. In addition, a dashed line-shaped (stitch line-shaped) perforated portion L9a is formed in the approximately upper half of the fold line L9 of the left front flap 21.

[0033]

As illustrated in Figure 2, a lower front tear line L8, which extends along the left-right direction (longitudinal direction), is formed in the front wall 20. The lower front tear line L8 is formed by perforations, whereby separation at this location is possible. The orientation of the perforations of the lower front tear line L8 is the same as the orientation of the perforations of the upper front tear line L5a. The lower front tear line L8 includes: a horizontal line portion L8a; sloped portions L8a1, L8a1 continuous from the respective ends of the horizontal line portion L8a; and stepped horizontal line portions L8b, L8b continuous from the respective sloped portions L8a1, L8a1.

[0034]

The horizontal line portion L8a and the stepped horizontal line portions L8b, L8b are formed to be parallel to the fold line L5 (upper front tear line L5a). Each sloped portion L8a1 connects the horizontal line
5 portion L8a to the corresponding stepped horizontal line portion L8b. The lower front tear line L8 as described above is torn off together with the upper front tear line L5a when separating the top panel 50 for display at the point-of-purchase as described below.

10 In the present embodiment, the upper front tear line L5a and the lower front tear line L8 correspond to the "front tear line" in Claims.

[0035]

The upper left side wall 50A and the lower left side
15 wall 10A are abutted against each other at an intermediate location in the vertical direction in the left side region of the packaging carton 1 (see Figure 1A). The upper right side wall 50B and the lower right side wall 10B are abutted against each other at an
20 intermediate location in the vertical direction in the right side region of the packaging carton 1 (see Figure 1B).

[0036]

Now a description is given of an example of the
25 procedure for erecting the packaging carton 1 illustrated in Figures 1A and 1B from the blank sheet S illustrated in Figure 2.

Firstly, as illustrated in Figure 4, the rear wall
30 is folded along the fold line L1 at 90 degrees with respect to the bottom panel 10 to raise the top panel 50 and the front wall 20 integrally.

[0037]

Then, the left rear flap 31 and right rear flap 32 of the rear wall 30 are folded along the fold lines L2, L3 at 90 degrees with respect to the rear wall 30.

[0038]

5 Subsequently, the top panel 50 is folded along the fold line L4 at 90 degrees with respect to the rear wall 30 and the front wall 20 is folded along the fold line L5 at 90 degrees with respect to the top panel 50.

[0039]

10 Thereafter, the left front flap 21 and right front flap 22 of the front wall 20 are folded along the fold lines L9, L10 at 90 degrees with respect to the front wall 20.

[0040]

15 Then, the lower left side wall 10A is folded along the fold line L11 at 90 degrees with respect to the bottom panel 10 to be laid and bonded to the surfaces of the left rear flap 31 and the left front flap 21 using an unillustrated adhesive. Likewise, the upper left side
20 wall 50A is folded along the fold line L6 at 90 degrees with respect to the top panel 50 to be laid and bonded to the surfaces of the left rear flap 31 and the left front flap 21 using an unillustrated adhesive.

Also, the lower right side wall 10B is folded along
25 the fold line L12 at 90 degrees with respect to the bottom panel 10 to be laid and bonded to the surfaces of the right rear flap 32 and the right front flap 22 using an unillustrated adhesive. Likewise, the upper right side wall 50B is folded along the fold line L7 at 90
30 degrees with respect to the top panel 50 to be laid and bonded to the surfaces of the right rear flap 32 and the right front flap 22 using an unillustrated adhesive.

[0041]

Thereafter, the glue flap 13 is folded along the fold line L13 at 90 degrees with respect to the bottom panel 10 to be bonded to the front surface of the front wall 20 using an adhesive.

In this manner, erection of the packaging carton 1 is completed as illustrated in Figures 1A and 1B.

The contents C may be placed within the packaging carton 1 in any form in the process of erection of the packaging carton 1 from an open mouth portion.

A wrap-around method may be employed in which the contents C are placed on the bottom panel 10 and then erection is performed in such a manner as to wrap the contents C to thereby erect the packaging carton 1.

[0042]

Now a description is given of a procedure for using the packaging carton 1 as a box (tray) for display at the point-of-purchase.

Firstly the operation of opening the top panel 50 is performed. At the beginning, the semi-circular portion L43b of the vertical tear line L43 on the right side of the rear wall 30 is pressed with fingers (not illustrated) and the fingers are inserted from the semi-circular portion L43b to pick up and pull the tab portion 45 rearward. Accordingly, the vertical tear line L43, upper rear tear line L41, and the recessed portion L42b, which surround the tab portion 45, are torn off and the tab portion 45 is raised rearward via the fold line L44.

[0043]

Then, the tab portion 45 is picked up and pulled, and as illustrated in Figure 5A, the upper rear tear line L41 and stepped horizontal line portion L42c on the right

side of the tab portion 45 are torn off to thereby
separate the upper right portion of the rear wall 30 from
the rear wall 30 and the top panel 50. Then, in the
right side region, the right tear line L7a is torn off to
5 separate the upper right side wall 50B from the top panel
50. The upper right side wall 50B is easy to separate
since it is merely abutted against the lower right side
wall 10B at an intermediate location in the vertical
direction in the right side region of the packaging
10 carton 1.

[0044]

Then, the tab portion 45 is further pulled to
separate the upper portion of the front wall 20 from the
front wall 20 and the top panel 50 along the upper front
15 tear line L5a and the lower front tear line L8 in the
front wall 20 region. Since the perforated portion L9a
is formed in the left front flap 21 of the front wall 20,
the torn strip continuously torn from the tab portion 45
(the torn strip of the left upper portion of the rear
20 wall 30, the torn strip of the upper right side wall 50B,
and the torn strip of the upper portion of the front wall
20) can be cut off midway at the perforated portion L9a
(left front corner portion).

[0045]

25 Then, in a similar manner as described above,
fingers are inserted from the semi-circular portion L43b
of the vertical tear line L43 on the left side of the
rear wall 30 and the tab portion 45 is pulled to thereby
separate the left upper portion of the rear wall 30 from
30 the rear wall 30 and the top panel 50. Then, in the left
side region, the left tear line L6a is torn off to
separate the upper left side wall 50A from the top panel

50. In this case as well, the upper left side wall 50A is easy to separate since it is merely abutted against the lower left side wall 10A at an intermediate location in the vertical direction in the left side region of the packaging carton 1.

[0046]

By the separation as described above, the top panel 50 is opened with the rear wall 30 retained as illustrated in Figure 5B (rear wall 30 is not illustrated).

[0047]

Then, as illustrated in Figure 6A, the top panel 50 is raised and the top panel 50 is folded in half so that the front top panel 502 is laid on the back surface of the rear top panel 501 of the top panel 50.

Then, as illustrated in Figure 6B, the front end 502a of the front top panel 502 (see Figure 6A) is inserted between the back surface of the rear top panel 501 and the contents C disposed on the bottom panel 10. As illustrated in Figure 9, the front end 502a of the front top panel 502 is locked into the notches 47 formed by the separation of the tab portions 45. As a result, the advertising portion 51 is maintained to be in the upright condition.

[0048]

Now the operation of folding the top panel 50 in half is described in detail. In Figures 7 to 9, the contents C are not illustrated.

Firstly, a front portion of the top panel 50 is slightly raised as illustrated in Figure 7A. Then, as illustrated in Figure 7B, a top portion of the arc-shaped perforation line 51a is lightly hit at the back surface

side of the top panel 50 by a finger, for example, to separate the top portion of the advertising portion 51 from the rear top panel 501.

[0049]

5 Subsequently, the separated top portion of the advertising portion 51 is picked up by fingers to raise the advertising portion 51 upwardly. Along with the raising operation, the advertising portion 51 is gradually separated from the rear top panel 501 toward
10 the ends of the arc-shaped perforation line 51a. In this process, when the separation points approach the second fold lines L52, L52, the front top panel 502 becomes folded with respect to the rear top panel 501 along the second fold lines L52, L52 as illustrated in Figure 7B.
15 Thus, the force acting on the front top panel 502 while the advertising portion 51 is being raised upwardly is suitably relieved by the folding at the second fold lines L52, L52. As a result, warping of the front top panel 502 is prevented and the left and right side edges 502b
20 of the front top panel 502 are also maintained to be straight.

[0050]

Then, as illustrated in Figure 7C, when the advertising portion 51 is further raised upwardly, the
25 separation points of the advertising portion 51 reach the ends of the arc-shaped perforation line 51a, whereby the front top panel 502 becomes folded along the first fold lines L51, L51 in addition to the folding along the second fold lines L52, L52 as described above. Thus, the
30 force acting on the front top panel 502 while the advertising portion 51 is being raised upwardly is suitably relieved by the two, front and rear foldings at

the first fold lines L51, L51 and at the second fold lines L52, L52. As a result, warping of the front top panel 502 is further prevented and the left and right side edges 502b of the front top panel 502 are also
5 maintained to be straight.

[0051]

Then, the top panel 50 is brought to the condition of being folded in half along the first fold lines L51, L51 as illustrated in Figure 8A. In the present
10 embodiment, the positional relationship is configured such that, in this condition of being folded in half along the first fold lines L51, L51, the front end 502a of the front top panel 502 is located above the upper surfaces C1 of the contents C (see Figure 6B). Thus, the
15 operation of folding in half can be accomplished above the contents C without interfering with (contacting) the contents C. Consequently, it is possible to prevent falling of the contents C or damage to the package that may be caused by contact of the front end 502a of the
20 front top panel 502 with the contents C as a result of the operation of folding in half.

[0052]

Then, as indicated by the arrows in Figure 8A, the front top panel 502 is slidingly moved downwardly
25 relative to the rear top panel 501 to lock the front end 502a of the front top panel 502 into the notches 47, 47 of the rear wall 30 as illustrated in Figure 8B. In this case, the force acting on the front top panel 502 is suitably relieved by the two front and rear fold lines,
30 i.e., the first fold lines L51, L51 and the second fold lines L52, L52, which results in prevention of warping of the front top panel 502. That is, while the condition of

being folded in half is flexibly maintained by means of the two front and rear fold lines, i.e., the first fold lines L51, L51 and the second fold lines L52, L52, the front top panel 502 is slidably moved in an approximately vertical direction. As a result, the front top panel 502 can be suitably inserted into the narrow space between the rear top panel 501 and the contents C. In addition, formation of wrinkles or folds in the front top panel 502 during the insertion can be suitably prevented.

[0053]

With the configuration described above, the packaging carton 1 can be used as a tray for display with the advertising portion 51 raised.

[0054]

With the packaging carton 1 of the present embodiment described above, when the rear top panel 501 and the front top panel 502 are to be raised for display at the point-of-purchase, suitable folding of the rear top panel 501 and the front top panel 502 can be achieved by using the second fold lines L52, L52 while folding them along the first fold lines L51, L51. That is, by means of the two fold lines, i.e., the first fold lines L51, L51 and the second fold lines L52, L52, distortion (warping) of the front top panel 502 resulting from the raising operation can be suitably absorbed.

Thus, the packaging carton 1 is obtained which is less prone to formation of wrinkles or folds in the top panel 50 when it is to be displayed at the point-of-purchase and therefore is capable of attractive display of the contents C.

[0055]

Furthermore, the top panel 50 is folded in half at the second fold lines L52, L52 and covers a large area of the back surface of the rear wall 30 with the front top panel 502 covering the lower rear tear line L42 of the rear wall 30, and therefore attractive display of the contents C is possible.

[0056]

Furthermore, by virtue of the notches 47, 47 provided in the rear wall 30 to lock the front top panel 502 therein, it is possible to suitably maintain the upright condition of the front top panel 502. Specifically, upon insertion of the front top panel 502 into the notches 47, 47, the left and right corner regions of the front end 502a are supported by the projecting wall portions 48, 48 adjacent to the notches 47, 47, whereby the front top panel 502 can be fixed in the upright condition regardless of the stiffness of the blank sheet S.

[0057]

In addition, the glue flap 13 is attached to the front wall 20 at the front surface of the front wall 20 and therefore functions as a reinforcing member for the front wall 20. As a result, it is possible to suitably prevent breakage of the front wall 20 due to the force acting in the separation.

In addition, since the upper edge 13e of the glue flap 13 is disposed along the lower front tear line L8 of the front wall 20 (so as to overlap the lower front tear line L8), it functions as a ruler for tearing off the upper portion of the front wall 20. Thus, the separating operation is facilitated.

[0058]

In addition, the notches 47, 47 are formed by the recessed portions L42b, L42b, which are included in the lower rear tear line L42 of the rear tear line, when the top panel 50 has been opened along the rear tear line, and therefore the labor required for display at the point-of-purchase is reduced.

[0059]

Furthermore, with the blank sheet S of the present embodiment, suitable folding of the rear top panel 501 and the front top panel 502, for display at the point-of-purchase, can be achieved by using the second fold lines L52, L52 while folding them along the first fold lines L51, L51. That is, by means of the two fold lines, i.e., the first fold lines L51, L51 and the second fold lines L52, L52, distortion (warping) of the front top panel 502 resulting from the raising operation can be suitably absorbed.

Thus, the packaging carton 1 is obtained which is less prone to formation of wrinkles or folds in the top panel 50 when it is to be displayed at the point-of-purchase and therefore is capable of attractive display of the contents C.

[0060]

In the foregoing description, an embodiment of the present invention has been described, but the present invention is not limited to the embodiment and modifications may be made appropriately without departing from the spirit and scope of the invention.

As illustrated in Figure 10, the packaging carton 1 of the above embodiment can be used and displayed as a tray without the advertising portion 51 when the upper

portion is separated along the lower rear tear line L42 of the rear wall 30.

[0061]

Furthermore, the blank sheet S of the above
5 embodiment is configured such that the glue flap 13 is connected to the front edge of the bottom panel 10 and the front wall 20 is connected to the front edge of the top panel 50, but this is not limiting and the front wall 20 may be connected to the front edge of the bottom panel
10 10 and the glue flap 13 may be connected to the front edge of the top panel 50. Furthermore, the blank sheet S of the above embodiment is configured such that the glue flap 13 is connected to the front edge of the bottom panel 10, but this is not limiting and the glue flap 13
15 may be connected to the front edge of the front wall 20.

[0062]

Furthermore, in the above embodiment, the advertising portion 51 is semi-circular, but this is not limiting and various shapes may be employed as long as
20 the advertising portion 51 can be raised for display when the top panel 50 is folded.

[0063]

In the above embodiment, an example of the packaging carton 1 in which the bottom panel 10 and the top panel
25 50 are rectangular was described, but this is not limiting and the packaging carton 1 may be configured such that the bottom panel 10 and the top panel 50 are square or polygonal (e.g., hexagonal or octagonal).

30 Reference Signs List

[0064]

1 packaging carton

	10	bottom panel
	20	front wall
	30	rear wall
	40A	left side wall (side wall)
5	40B	right side wall (side wall)
	45	tab portion
	47	notch
	50	top panel
	51	advertising portion
10	51a	arc-shaped perforation line
	501	rear top panel
	502	front top panel
	L5a	upper front tear line (front tear line)
	L8	lower front tear line (front tear line)
15	L51	first fold line
	L52	second fold line
	L41	upper rear tear line (rear tear line)
	L42	lower rear tear line (rear tear line)
	L42b	recessed portion
20	S	blank sheet

Claims

[Claim 1]

A packaging carton comprising: a bottom panel; a top
5 panel; a front wall; a rear wall; and opposing side walls,
the top panel including a rear top panel connected
to an upper end of the rear wall and a front top panel
connected to the rear top panel by a first fold line,
wherein a second fold line is formed adjacent to the
10 first fold line, and
the rear top panel and the front top panel are to be
raised by folding the top panel along the second fold
line,
wherein the rear wall has a notch that locks the
15 front top panel therein,
wherein the front wall has a front tear line serving
as a tearing location to open the top panel,
the rear wall has a rear tear line serving as a
tearing location to open the top panel,
20 the rear tear line has a recessed portion, and
the recessed portion forms the notch upon opening of
the top panel along the rear tear line.

[Claim 2]

25 A blank sheet configured to form a packaging carton,
the packaging carton comprising: a bottom panel; a top
panel; a front wall; a rear wall; and opposing side walls,
the top panel including a rear top panel connected
to an upper end of the rear wall and a front top panel
30 connected to the rear top panel by a first fold line,
wherein a second fold line is formed adjacent to the
first fold line, and

the rear top panel and the front top panel are to be raised by folding the top panel along the second fold line,

5 wherein the rear wall has a notch that locks the front top panel therein,

wherein the front wall has a front tear line serving as a tearing location to open the top panel,

the rear wall has a rear tear line serving as a tearing location to open the top panel,

10 the rear tear line has a recessed portion, and

the recessed portion forms the notch upon opening of the top panel along the rear tear line.