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(54) **CARTON HAVING A PAPER DISPENSING WINDOW**

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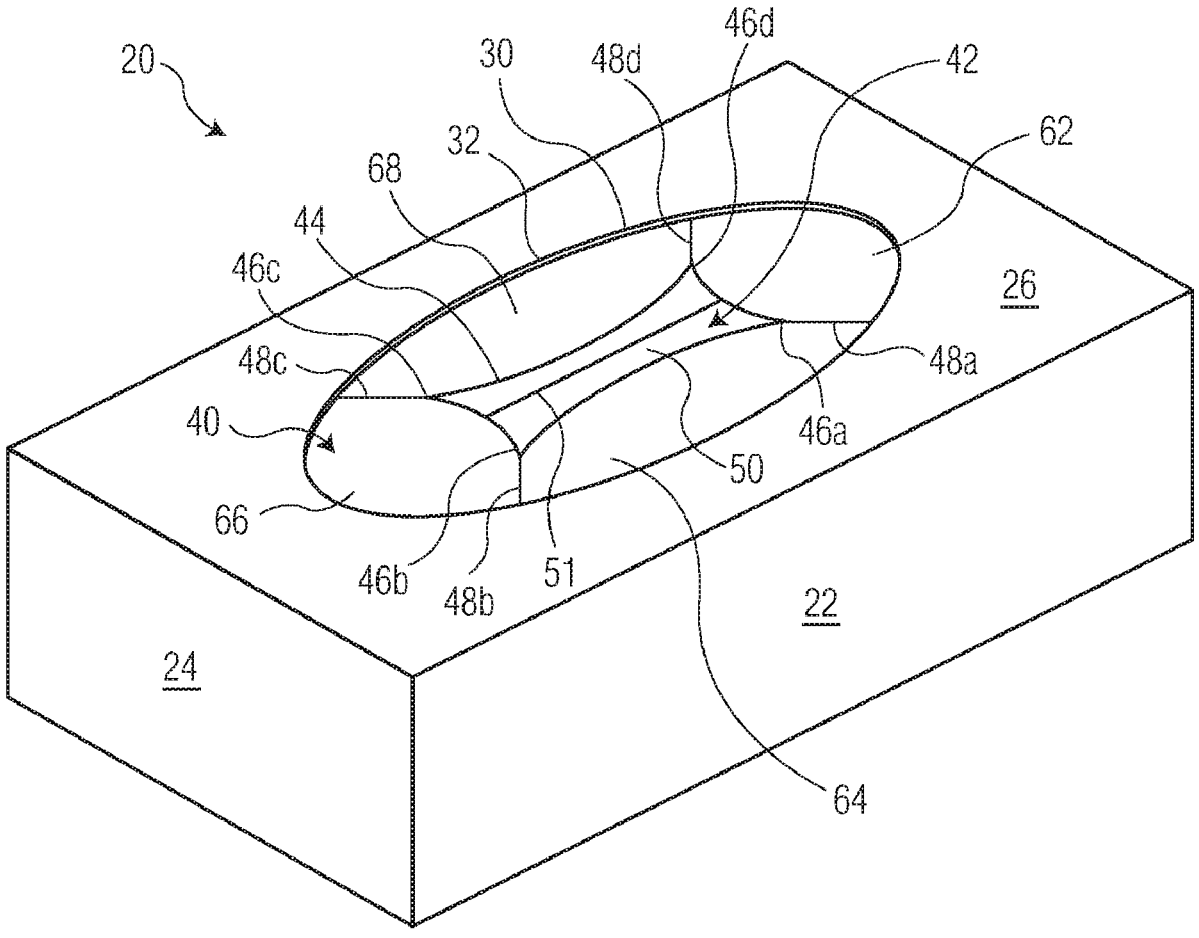
(57) **ABSTRACT**

The present disclosure relates to cartons, particularly cartons for storing and dispensing folded sheet material, that are substantially free from polymeric materials. The cartons have dispensing windows formed from paper and are provided with dispensing openings well suited for pop-up dispensing. The dispensing openings, which are preferably elongated, have a plurality of cusps and a plurality of slits disposed thereon to grasp and hold the sheet during dispensing.



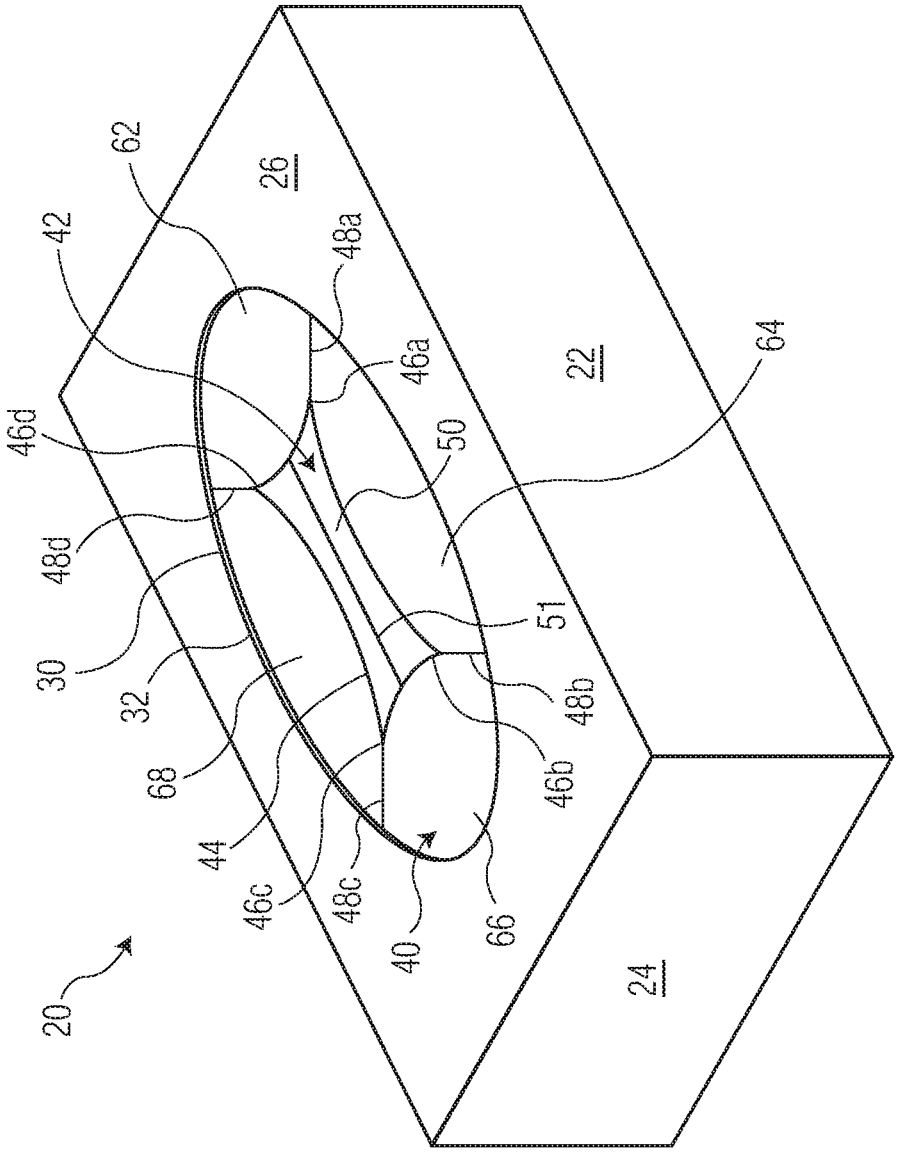

20
24
26
22
62
42
48a
46a
64
46d
50
48d
30
51
32
48b
68
46b
44
46c
48c
40
66

FIG. 1

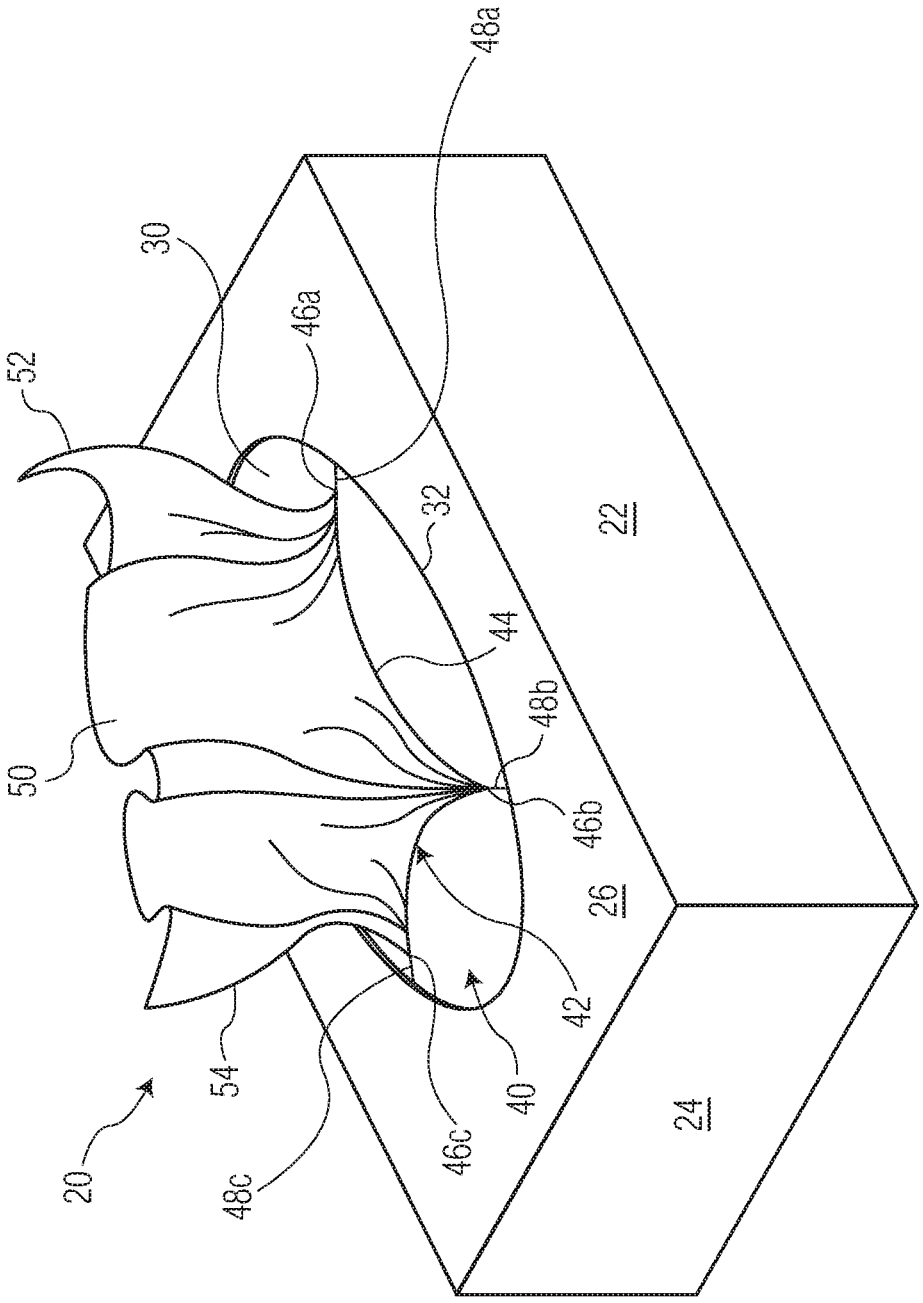
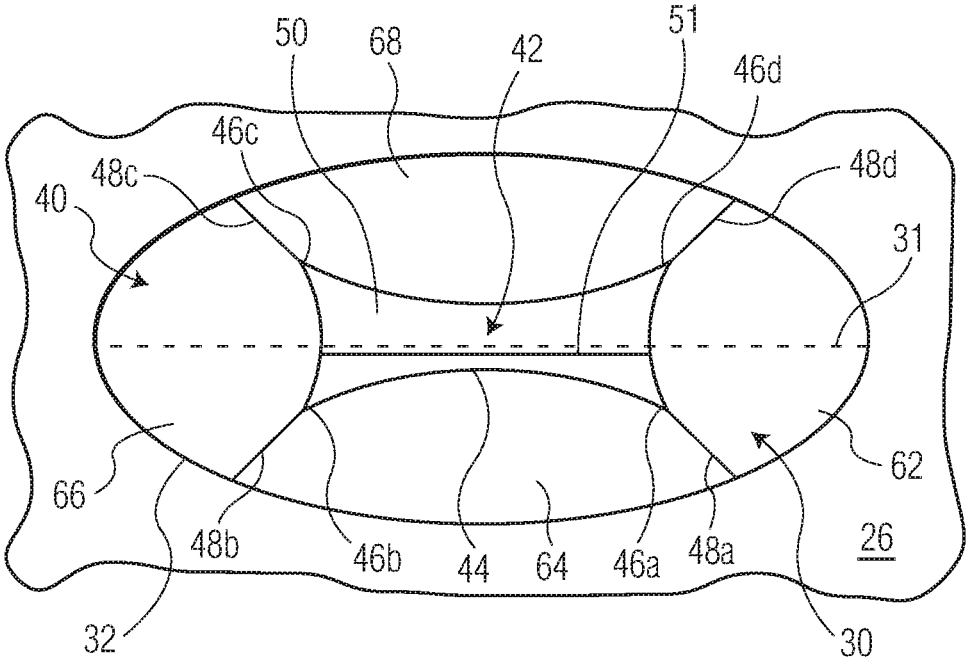


FIG. 2


50
68
42
51
46d
46c
48c
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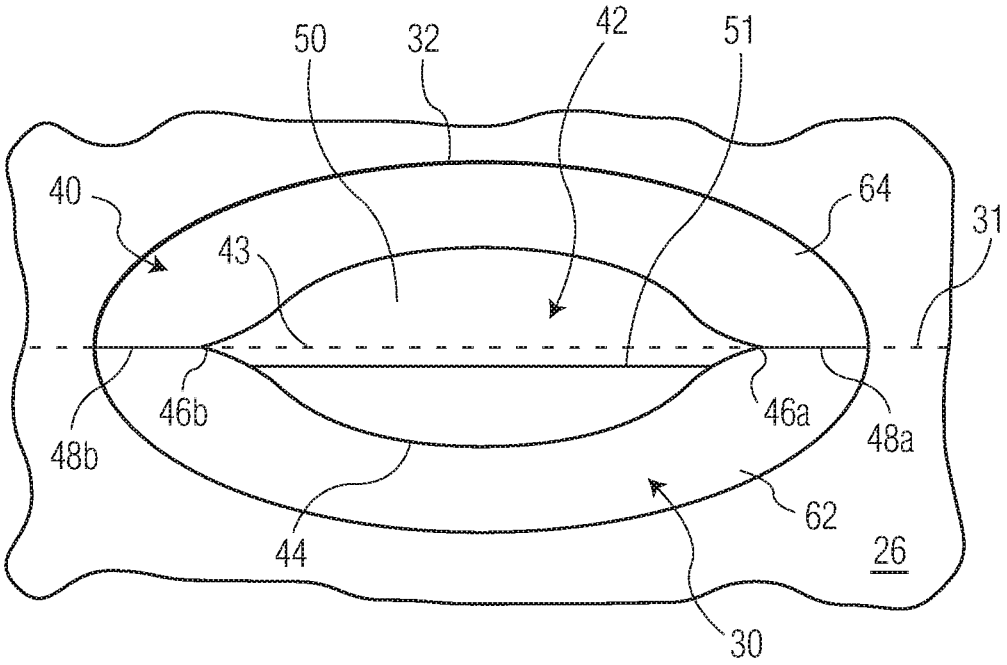
40
31
66
62
48b
46b
44
64
46a
48a
26
32
30

FIG. 3


50
32
42
51
40
64
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43
46b
46a
48b
48a
62
44
26
30

FIG. 4

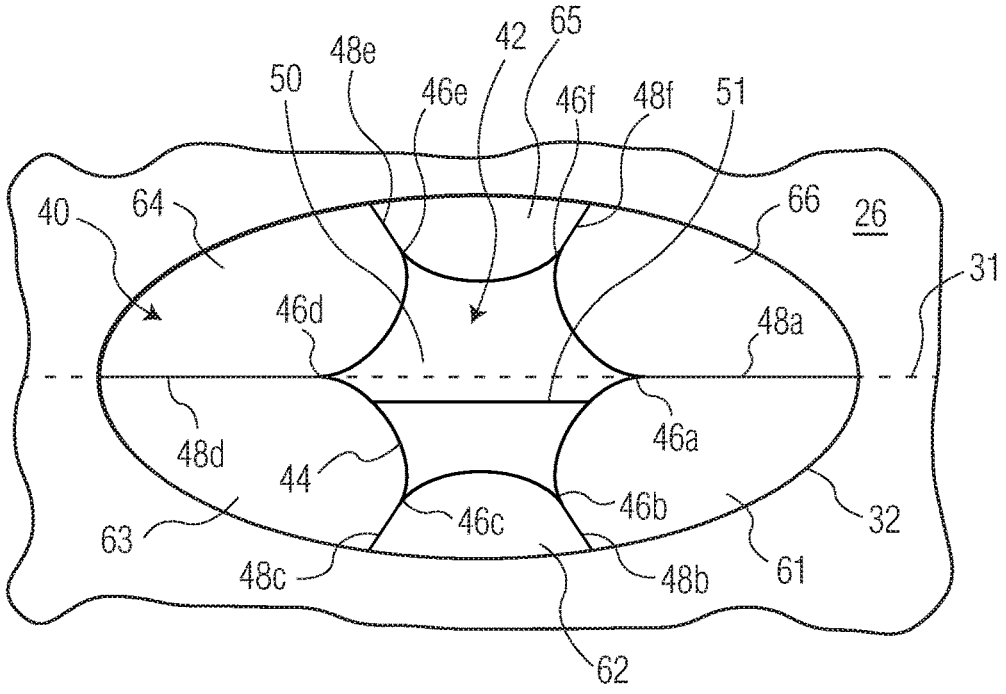

65
42
48e
50
46e
46f
48f
51
40
64
66
26
31
46d
48a
48d
46a
44
46b
32
46c
63
61
48c
48b
62

FIG. 5

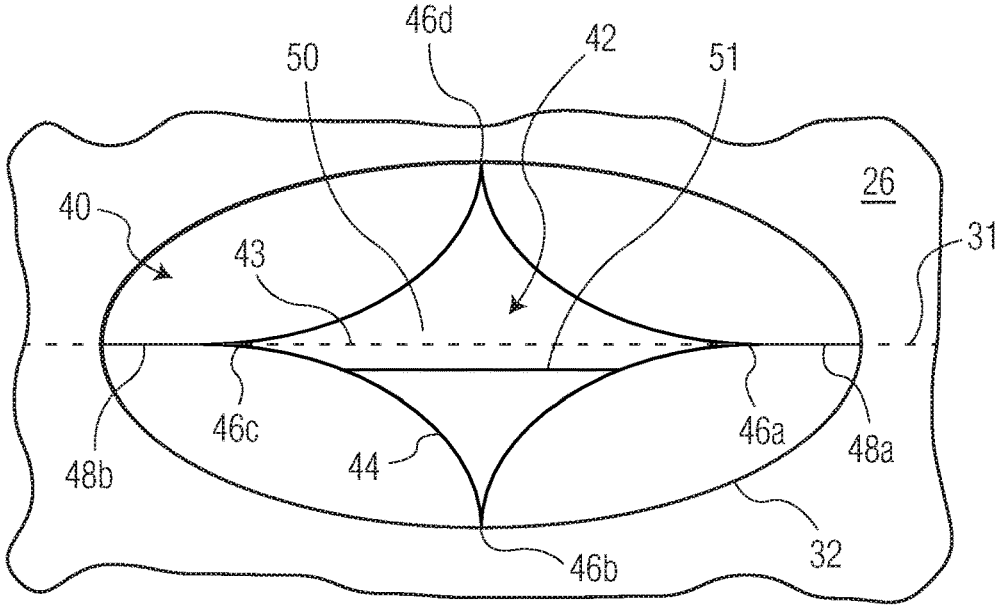

46d
42
50
51
26
40
31
43
46c
46a
48a
48b
44
32
46b

FIG. 6

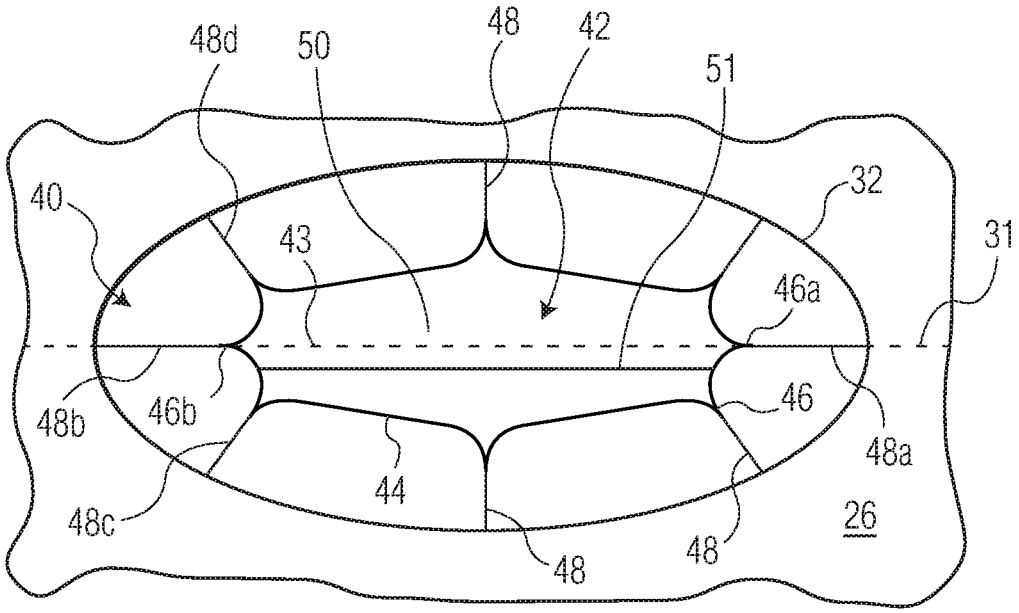
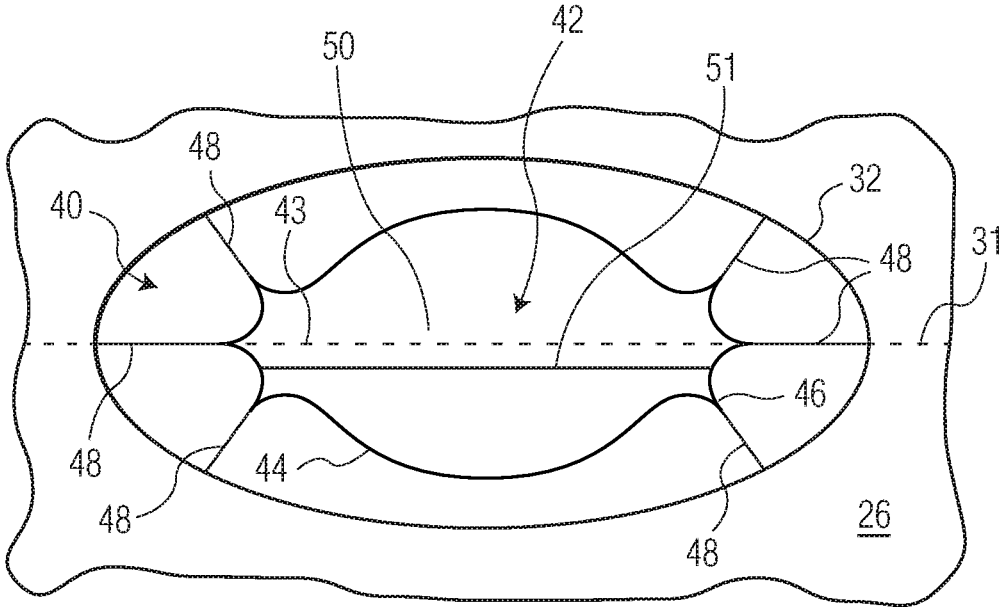

48d
50
48
42
51
40
32
31
43
46a
48b
46b
46
48a
44
48c
26
48

FIG. 7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42
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32
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46
48
44
48
26
48

FIG. 8

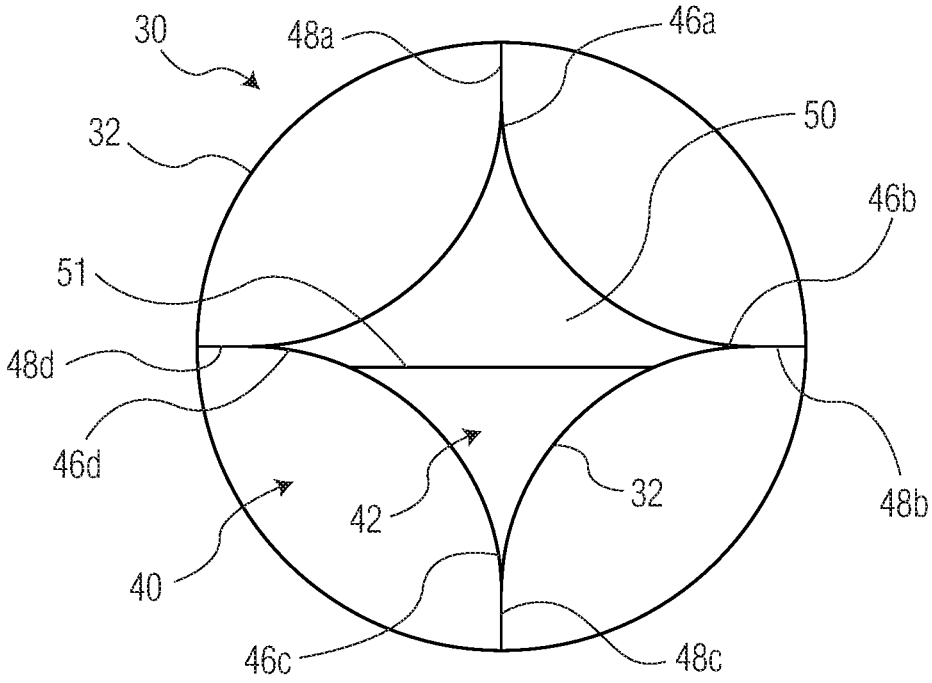
30
48a
46a
32
50
46b
51
48d
46d
42
32
48b
40
46c
48c

FIG. 9

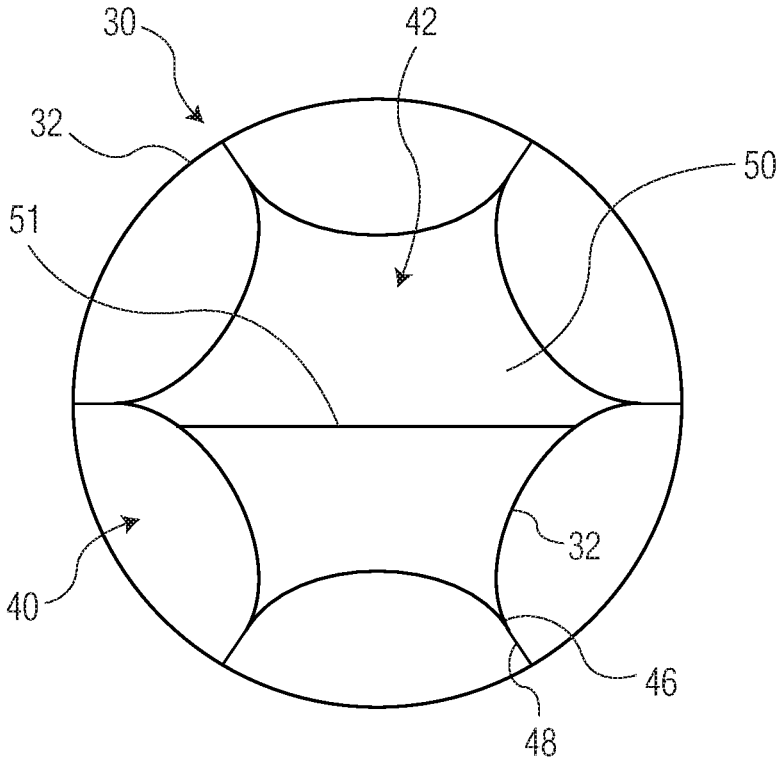
30
42
32
50
51
32
40
46
48

FIG. 10

CARTON HAVING A PAPER DISPENSING WINDOW

BACKGROUND

[0001] Sheet materials, such as facial tissue, are commonly stored and dispensed from cartons. The cartons are constructed so that tissues can be picked out one by one through an opening covered with a dispensing window. The dispensing window comprises a dispensing slit or cut-out portion that may be configured to holds tissues for pop-up type dispensing. To achieve pop-up dispensing the slit must be configured such that when one tissue is removed from the box, the following one is partially pulled out and is held in a substantially up-right position by the slit so that a user may grab and pull it during the next use. This requires appropriate balance between the shape of the slit and material that are used for the window.

[0002] While pop-up dispensing is convenient, it presents several challenges such as chaining, and fallback, for example. This is typically due to friction of tissues onto dispensing window, or between them, and/or due to an inappropriate shape for the slit. A common means for holding the next tissue in a ready position is a slit plastic film through which the tissues are dispensed, and which gently pinches the next tissue between the two sides of the slit. While such slit plastic films have performed well, there is a need to replace plastic films with other means due to an increasing general environmental desire to replace plastics with degradable or otherwise more environmentally friendly materials.

[0003] Previous attempts to replace slit plastic films with more environmentally friendly materials have not been entirely successful. For example, U.S. Pat. No. 5,316,177, which discloses a pop-up facial tissue carton with a paper window having an elongated opening with two or more slits emanating from its two ends, created a large degree of friction between the dispensed tissue sheet and the paper window. While the high degree of friction prevented fallbacks, it was noisy and caused tearing of the paper window. German Utility model G9108036 also discloses a carton having a paper dispensing window. To reduce the degree of friction between the dispensed sheet and the paper dispensing window, the window is provided with an opening that extends all the way to the carton opening at two or more points. While such designs may reduce the amount of friction, they are susceptible to fallbacks and the window is easily deformed, bent, or torn.

[0004] It is therefore one main object of the present invention to provide a tissue carton having a paper dispensing window that facilitates pop-up dispensing while minimizing fallback and chaining.

SUMMARY

[0005] The present inventors have now discovered a carton, particularly a carton for storing and dispensing folded tissue sheets in a pop-up fashion, having a paper dispensing window having a dispensing opening having a plurality of cusps and slits. The cusps and slits cooperate with one another to hold the sheet material without tearing of the window or without excessive noise. Further, the carton and dispensing openings have been sized and shaped to permit the paper window to be bent or folded during dispensing without tearing.

[0006] Accordingly, in one embodiment, the present invention provides a tissue carton for storing and dispensing a plurality of tissue sheets, the carton comprising: a carton having at least one carton wall; a carton opening disposed on the at least one carton wall, the opening having a carton opening peripheral edge; a paper window attached to the at least one carton wall and at least partially covering the carton opening; a dispensing opening disposed on the paper window, the opening having a peripheral edge shaped to define a first and a second cusp; and a slit extending radially outward from each of the first and the second cusps.

[0007] In another embodiment the present invention provides a pop-up tissue dispensing carton comprising: a carton top wall having an elongated carton opening disposed on the carton top wall, a paper window affixed to the top wall and having an elongated opening through which tissues within the carton are withdrawn, the elongated opening having at least two cusps and at least two slits extending therefrom at an acute angle relative to the longitudinal axis of the elongated opening.

[0008] In yet another embodiment the present invention provides a dispensing carton containing a stack of interfolded sheets of a paper product comprising: a top wall having a dispensing opening through which the sheets are withdrawn from the carton; two pairs of opposing side walls; a bottom wall; a paper window affixed to at least a portion of the inner surface of the top wall; a dispensing opening having a plurality of cusps and a plurality of slits disposed on the paper window.

DESCRIPTION OF THE DRAWINGS

[0009] FIG. **1** is a perspective view of a tissue carton, illustrating a dispensing window according to one embodiment of the present invention;

[0010] FIG. **2** is a perspective view of a tissue carton according to one embodiment of the present invention, illustrating a tissue sheet being dispensed;

[0011] FIG. **3** is a top view of dispensing window according one embodiment of the present invention;

[0012] FIG. **4** is a top view of dispensing window according to another embodiment of the present invention;

[0013] FIG. **5** is a top view of dispensing window according to yet another embodiment of the present invention;

[0014] FIG. **6** is a top view of dispensing window according to still another embodiment of the present invention;

[0015] FIG. **7** is a top view of dispensing window according to another embodiment of the present invention;

[0016] FIG. **8** is a top view of dispensing window according to still another embodiment of the present invention;

[0017] FIG. **9** is a top view of dispensing window according to another embodiment of the present invention; and

[0018] FIG. **10** is a top view of dispensing window according to yet another embodiment of the present invention.

DEFINITIONS

[0019] As used herein the term "carton opening" generally refers to an opening formed in one or more walls of a carton.

[0020] As used herein the term "cusp" generally refers to a point where two segments meet and the tangents of each of the segments is equal. In certain non-limiting instances, a cusp may be a sharp corner formed by a pair of converging curvilinear segments where the curve is not differentiable.

[0021] As used herein the term "dispensing opening" generally refers to an opening through which tissues are dispensed such as, for example, an opening formed in a material covering a portion of the carton opening.

[0022] As used herein the term "paper" generally refers to a fibrous structure in sheet format. Paper useful in the present invention may be manufactured from a variety of paper-making fibers, such as, for example, natural fibers or synthetic fibers, or any other suitable fibers, and any combination thereof. Papermaking fibers useful in the present invention include cellulosic fibers commonly known as wood pulp fibers. Applicable wood pulps include chemical pulps, such as Kraft, sulfite, and sulfate pulps, as well as mechanical pulps including, for example, groundwood, thermomechanical pulp and chemically modified thermomechanical pulp.

[0023] As used herein the term "panel" generally refers to a portion of a dispensing window within a carton opening that is entirely separated from another portion of the dispensing window. The separation of a dispensing window within a carton opening into first and second panels may be achieved by a slit extending from the dispensing opening to the carton opening peripheral edge. A non-limiting example of a panel is illustrated in FIG. **1**, where slits separating the window **40** into four panels **62**, **64**, **66**, **68**. Each of the four panels **62**, **64**, **66**, **68** are entirely separated from one another by a slit **48**.

[0024] As used herein the term "slit" generally refers to a cut where no material is removed. In certain embodiments a tissue carton of the present invention may be provided with a window having one or more slits disposed thereon and the tissue is fitted through a slit which frictionally retains the tissue unless it is manually moved through the slit.

[0025] As used herein the term "tissue" generally refers to any individual sheet product, such as facial tissue, dry or moistened wipes, for example household or industrial wipes, soap or fabric softening sheets, or the like. Normally, the basis weight of sheet products to be dispensed by the cartons of the present invention is less than about 80 grams per square meter (gsm), in some embodiments less than about 60 gsm, and in some embodiments, between about 10 to about 60 gsm.

[0026] As used herein the term "window" generally refers to a component of the carton covering at least a portion of the carton opening and generally having a dispensing opening disposed thereon for dispensing a tissue there-through.

DETAILED DESCRIPTION

[0027] With reference to FIG. **1**, a pop-up tissue dispenser **20**, also referred to herein simply as a carton, according to one embodiment of the present invention is shown for purposes of illustration. Generally, a clip of prefolded interfolded tissues is disposed within the carton. While the carton of the present invention is particularly well suited for dispensing folded tissue sheets, such as folded facial tissue sheets, the invention is not so limited. The invention may also be utilized to dispense other types of folded sheet products. Thus, the term tissue is not intended to be limited to facial tissues but is used herein to include any individual sheet product, such as dry or moistened wipes, for example household or industrial wipes, soap or fabric softening sheets, or the like. The folded edge **51** of the upper most tissue sheet **50** is visible through the dispensing opening **42** and presented for dispensing by a user.

[0028] The stack of tissues may be interfolded, prefolded interfolded, or non-interfolded. As used herein, the phrase "prefolded interfolded" or "interfolded" tissues means that the tissues are folded and interleaved with neighboring tissues immediately above and/or below in the clip of tissues. The tissues can be interleaved by any suitable means, including the use of an interfolder as employed in the papermaking arts. If an interfolder is used, consecutive tissues may be attached to each other at perforation lines. In such cases, the unperforated segments of the perforation lines should be sufficiently weak to permit the consecutive tissues to separate from each other upon removal from the carton. This can be controlled by the degree of perforation of the tissue sheet. Tissues that may be employed in a non-interfolded clip which are not interleaved with neighboring tissues are releasably attached to neighboring tissues so that upon dispensing one tissue, the next adjacent tissue is ready for dispensing. Particularly preferred folding patterns include interfolding patterns that provide somewhat less friction, which tend to avoid tearing of the tissue when extracted from the container.

[0029] The carton **20** is illustrated as a rectangular parallelepiped comprising a top wall **26**, and opposite bottom wall (not illustrated in FIG. **1**), and four sidewalls extending between the top **26** and bottom walls. The sidewalls that are fully visible in FIG. **1** have been given reference numerals **22** and **24**. While the carton of FIG. **1** is rectangular parallelepiped, the invention is not so limited, and the carton may be constructed in a variety of sizes and shapes as are well known in the art. For example, in an alternative embodiment the carton includes a single cylindrical-shaped sidewall extending between the top and bottom walls (not shown). Further, as illustrated in FIG. **1**, any of the sidewalls such as sidewalls **22**, **24** may be constructed of one or more panels that are bonded together by adhesives, thermal bonds, or other suitable means.

[0030] The carton may be constructed from any rigid materials, for example, cardboard, carton stock, paper board, polypropylene, polyethylene, polystyrene, ABS plastic, plastic, metal, wood, and glass amongst other suitable alternatives.

[0031] The top wall **26** of the carton **20** defines a carton opening **30** having a peripheral edge **32** in the form of an aperture through which tissues may be individually removed from the carton. While the carton of FIG. **1** comprises, a carton opening disposed on the top wall of the carton, the invention is not so limited. Furthermore, the shape of the carton opening may vary, however, in certain preferred embodiments the opening is elliptical and being of a size to permit comfortable entry of the finger(s) of a user for access to the sheets in the receptacle but occupying less than the entire area of said top wall whereby at least the major portion of the periphery of said top wall is intact. In a particularly preferred embodiment, the carton opening is a longitudinally elongated ellipse having its major axis oriented generally in the direction of the longer dimension of the folded sheet disposed within the carton.

[0032] In the preferred embodiment illustrated in FIG. **1**, the carton **20** has the shape of a rectangle parallelepiped, and the carton opening **30** has the shape of a longitudinally elongated ellipse. The carton opening may be arranged on one or more walls of the carton such that its longitudinal axis is parallel to the longitudinal axis of the carton. However, it

can be disposed in another way, for example in diagonal or even perpendicular to said longitudinal axis of the carton.

[0033] The carton **20** further comprises a paper dispensing window **40** overlaying the carton opening **30**. The paper dispensing window **40** comprises a dispensing opening **42** through which a tissue sheet **50** may be dispensed. The shape and features of the dispensing opening will be discussed in more detail below. The paper dispensing window **40** may be bonded to the top wall **26** by adhesives or other suitable means. Preferably the dispensing window is adhesively attached to the underside of the top wall and extends at least partially across a portion of the top wall.

[0034] In certain embodiments the carton may comprise a surfboard covering at least a portion of the dispensing opening. Such surfboards are a common feature of current commercially available tissue cartons. In certain embodiments the surfboard may be attached to a cut-out section in the dispensing window to allow for a larger dispensing opening. In certain embodiments, to further facilitate dispensing of the first sheet, the surfboard may be attached to the top sheet of the tissue stack such that when the surfboard is removed by a user the top sheet is dispensed.

[0035] The use of paper for the dispensing window is desirable, particularly for larger carton openings, in order to protect the tissues within the carton and provide sufficient resistance to prevent multiple tissue dispensing. Further, in those instances where the carton is formed from paper, the use of a paper window permits the carton and window to be recycled together. The paper dispensing window may be formed from a fibrous sheet having a basis weight of at least about 40 grams per square meter (gsm), such as from about 40 to about 120 gsm, such as from about 50 to about 80 gsm. More preferably the paper dispensing window comprises a calendered paper that has been coated on one side and has a basis weight from about 50 to about 80 gsm.

[0036] With continued reference to FIG. **1**, the dispensing window **40** has a dispensing opening **42** through which a tissue sheet **50** may be dispensed. The dispensing opening **42** has a dispensing opening peripheral edge **44**, which may be formed by die cutting the paper to remove a portion and form the opening. The dispensing opening peripheral edge **44** is generally curvilinear and has edges that converge to form a plurality of cusps **46***a*-**46***d*. The cusps **46***a*-**46***d* have slits radiating outwardly therefrom and separating the window **40** into four panels **62**, **64**, **66**, **68**.

[0037] In certain preferred embodiments it may be desirable to provide the carton with a window having a dispensing opening that is relatively large, particularly in relation to the carton opening. For example, the dispensing opening may have an area from about 4.0 to about 30 cm^2, such as from about 6.0 to about 20 cm^2, such as from about 8.0 to about 15 cm^2. The area of the dispensing opening may be from about 20 to about 60 percent of the carton opening, such as from about 25 to about 50 percent of the carton opening.

[0038] As illustrated in FIG. **2**, a tissue sheet **50** is dispensed by pulling the sheet through the dispensing opening **42**. Tissue edges **52**, **54** are engaged with and retained by opposed slits **48***a*, **48***b* extending from cusps **46***a*, **46***b* formed in the dispensing window **40**. The engagement of the tissue and slits enables the sheet to be retained in a partially dispensed state, which allows the user to easily grasp and dispense the tissue when needed.

[0039] With reference now to FIG. **3**, one embodiment of a dispensing window **40** useful in the present invention is illustrated. The window **40** comprises four panels **62**, **64**, **66**, **68**. The top and bottom panels **64**, **68** are opposed to one another and have a similar shape and size. The left and right panels **62**, **66** are opposed to one another and have a similar shape and size. The panels **62**, **64**, **66**, **68** are separated from one another by slits **48***a*-**48***d*. Accordingly, in certain preferred embodiments, the cartons of the present invention comprise a dispensing window having a plurality of panels, such as four, six, eight or ten panels, where at least two of the panels differ in terms of size and shape. Further, at least two of the panels are similarly sized and shaped and are disposed opposite one another.

[0040] With continued reference to FIG. **3**, the dispensing opening **42** has a four cusps **46***a*-**46***d*. The cusps are generally formed by portions of the inner peripheral edge converging with one another. The cusps are arranged pairwise and opposite one another. The cusps **46**, which are generally formed by curved portions of the dispensing opening peripheral edge **44** converging with one another, each have a slit **48** extending radially outward from the dispensing opening **42** and towards the carton opening **30**.

[0041] In certain preferred embodiments each slit extends from the cusp to the carton opening peripheral edge. The slits may have a length from about 10 to about 30 mm, such as from about 15 to about 20 mm. Preferably the slits are disposed on the window such that a tissue to be dispensed is fitted through a slit and is frictionally retained therein until it is manually moved through the slit by a user.

[0042] In further preferred embodiments a slit extends from each of the cusps. In this manner a dispensing window may have two or more slits, such as 2, 3, 4, 5, 6, 7, 8, 9 or 10 slits. The slits and cusps may be arranged such that they are aligned with the dispensing opening longitudinal axis. For example, with reference to FIG. **3**, the window **40** comprises four slits **48***a*-**48***d* arranged pairwise in an opposed fashion. Pairs of slits, such as slits **48***a* and **48***c*, are longitudinally aligned with one another. Furthermore, in the illustrated embodiment, pairs of slits, such as **48***a*, **48***c* and **48***b*, **48***d* are arranged at an acute angle relative to the carton opening longitudinal axis **31**.

[0043] With continued reference to FIG. **3**, the slits **48***a*-**48***d* separate the window **40** into four panels **62**, **64**, **66**, **68**. The panels **62**, **64**, **66**, **68** are arranged pairwise with the top and bottom panels **64**, **68** being of similar shape and size and the left and right panels **62**, **66** being of similar shape and size.

[0044] With reference now to FIG. **4**, another embodiment of a paper dispensing window **40** disposed in a carton opening **30** is illustrated. The carton opening **30** is a longitudinally elongated ellipse having its major axis, also referred to herein as the carton opening longitudinal axis **31**, oriented generally in the direction of the longer dimension of the folded sheet **50** disposed within the carton. The paper window **40** comprises two slits **48***a*, **48***b* and each slit **48** extends from the carton opening peripheral edge **32** and terminates at a cusp **46**. In this manner the dispensing opening **42** comprises two cusps **46***a*, **46***b* disposed opposite one another and a pair of slits **48***a*, **48***b* longitudinally aligned with one another along the dispensing opening longitudinal axis **43**. Further, in the illustrated embodiment, the carton opening longitudinal axis **31** and the dispensing opening longitudinal axis **43** are aligned with one another.

[0045] Another dispensing opening is illustrated in FIG. **5**, which shows a paper window **40** comprising six slits **48***a*-**48***f* and six cusps **46***a*-**46***f*. Each slit **48** extends radially outward from the cusp **46** to the carton opening peripheral edge **32**. The slits have two different lengths, with the longer slits having a length about twice that of the shorter slits. For example, the longer slits may have a length of about 26 mm and the shorter slits may have a length of about 12 mm. In the illustrated embodiment, the longer slits **48***a* and **48***d* are disposed opposite one another and longitudinally aligned with the carton opening longitudinal axis **31**. Further, the slits **48** divide the paper window **40** into six panels **61**, **62**, **63**, **64**, **65**, **66**. The panels are arranged pairwise with pairs of panels being of similar size and shape. For example, panels **62**, **65** are arranged pairwise and have a similar size and shape.

[0046] Another embodiment of a dispensing opening according to the present invention is illustrated in FIG. **6**, which illustrates a paper window **40** comprising four cusps **46***a*-**46***d* and two slits **48***a*, **48***b*. A first pair of cusps **46***a*, **46***c* are disposed opposite one another and have a pair of slits **48***a*, **48***b* extending therefrom. The pair of slits **46***a*, **46***b* are substantially parallel to the dispensing opening longitudinal axis **43**, which is substantially aligned with the carton opening longitudinal axis **31**. A second pair of cusps **46***b*, **46***d* extend to the carton opening peripheral edge **32** and do not have slits extending therefrom. The second pair of slits **46***b*, **46***d* are disposed opposite one another and are longitudinally aligned with one another and substantially perpendicular to the dispensing opening longitudinal axis **43**.

[0047] Still other embodiments of dispensing openings useful in the present invention are illustrated in FIGS. **7** and **8**. In each of the embodiments the paper window **40** comprises a plurality of cusps **46**. The cusps **46** are generally formed by portions of the dispensing opening peripheral edge **44** converging with one another and have a slit **48** extending radially outward therefrom. Each slit **48** extends from the cusp **46** to the carton opening peripheral edge **32**. Each window comprises a pair of slits arranged pairwise opposite one another and longitudinally aligned with the dispensing opening longitudinal axis. For example, as shown in FIG. **7**, the pair of slits **48***a*, **48***b* arranged pairwise opposite one another and longitudinally aligned with the dispensing opening longitudinal axis **43**. Further, one or more of the slits may be disposed at an acute angle relative the dispensing opening longitudinal axis **43**, such as slits **48***c* and **48***d*.

[0048] In yet other embodiments, the carton opening **30** may have a substantially circular carton opening peripheral edge **32**, such as illustrated in FIGS. **9** and **10**. In this manner the carton opening **30** may be round and the dispensing opening **42** may be in the shape of a hypocycloid. In the illustrated embodiments the hypocycloid shaped dispensing openings **42** have four and six cusps **46**, respectively. Each of the cusps **46** have a slit **48** extending radially outward therefrom to the carton opening peripheral edge **32**.

[0049] All of the embodiments disclosed herein provide the advantages of ease of dispensing and less sheet tearing during dispensing while providing a carton constructed entirely from environmentally friendly materials and substantially free from polymeric materials. The preferred embodiments herein are also cost effective and easy to manufacture.

[0050] Numerous modifications may be made in the invention without departing from its spirit and purpose, and various modifications have already been set forth and it should be readily apparent that various additional changes and modifications may be made in the structural details of the carton within the scope of the appended claims. It is to be understood that the size of the carton and type and size of the sheets to be dispensed therefrom do not constitute a limitation in the invention and that its size and the dimensions of its parts may vary. Accordingly, in view of the foregoing description, it will be apparent to one of ordinary skill in the art that the following embodiments are within the scope of the present invention:

[0051] In a first embodiment the present invention provides a tissue carton for storing and dispensing a plurality of tissue sheets, the carton comprising: a carton having at least one carton wall; a carton opening disposed on the at least one carton wall, the opening having a carton opening peripheral edge; a paper window attached to the at least one carton wall and at least partially covering the carton opening; a dispensing opening disposed on the paper window, the opening having a peripheral edge shaped to define a first and a second cusp; and a slit extending radially outward from each of the first and the second cusps.

[0052] In a second embodiment the present invention provides the carton of the first embodiment wherein the first and the second cusps are disposed opposite one another and the slits are longitudinally aligned with one another.

[0053] In a third embodiment the present invention provides the carton of the first or the second embodiments wherein the carton opening is a longitudinally elongated ellipse having a carton opening longitudinal axis and the dispensing opening has a dispensing opening longitudinal axis, wherein the carton opening longitudinal axis and the dispensing opening longitudinal axis are aligned with one another.

[0054] In a fourth embodiment the present invention provides the carton of any one of the first through third embodiments wherein the carton opening is a longitudinally elongated ellipse having a carton opening longitudinal axis and the dispensing opening has a dispensing opening longitudinal axis, wherein the carton opening longitudinal axis and the dispensing opening longitudinal axis are not aligned with one another.

[0055] In a fifth embodiment the present invention provides the carton of any one of the first through fourth embodiments wherein each slit extends from the cusp to the carton opening.

[0056] In a sixth embodiment the present invention provides the carton of any one of the first through fifth embodiments wherein the slits define first and second window panels, the first and second window panels arranged opposite one another and having substantially similar size and shape.

[0057] In a seventh embodiment the present invention provides the carton of any one of the first through sixth embodiments wherein the peripheral edge is shaped to define three, four, five or six cusps.

[0058] In an eighth embodiment the present invention provides the carton of any one of the first through seventh embodiments wherein each of the cusps comprises a slit extending radially outward therefrom.

[0059] In a ninth embodiment the present invention provides the carton of any one of the first through eighth

embodiments wherein each of the slits extends from the cusp to the carton opening peripheral edge.

[0060] In a tenth embodiment the present invention provides the carton of any one of the first through ninth embodiments wherein the paper is a coated paper having a basis weight from about 40 to about 80 grams per square meter.

[0061] In an eleventh embodiment the present invention provides the carton of any one of the first through ninth embodiments wherein the carton opening has a carton opening area and the dispensing opening has a dispensing opening area, wherein the dispensing opening area is from about 20 to about 60 percent of the carton opening area.

[0062] In a twelfth embodiment the present invention provides the carton of any one of the first through eleventh embodiments wherein the dispensing window comprises a plurality of panels, each of the panels separated from one another by a slit and wherein at least two of the panels differ in terms of size and shape.

What is claimed is:

1. A tissue carton for storing and dispensing a plurality of tissue sheets, the carton comprising:

a. a carton having at least one carton wall;

b. a carton opening disposed on the at least one carton wall, the opening having a carton opening peripheral edge;

c. a paper window attached to the at least one carton wall and at least partially covering the carton opening;

d. a dispensing opening disposed on the paper window, the dispensing opening having a dispensing opening peripheral edge shaped to define a first and a second cusp; and

e. a first and a second slit extending radially outward from the first and the second cusps.

2. The carton of claim **1** wherein the first and the second cusps are disposed opposite one another and the slits are longitudinally aligned with one another.

3. The carton of claim **1** wherein the carton opening is a longitudinally elongated ellipse having a carton opening longitudinal axis and the dispensing opening has a dispensing opening longitudinal axis, wherein the carton opening longitudinal axis and the dispensing opening longitudinal axis are aligned with one another.

4. The carton of claim **3** wherein the first and the second slits are aligned with the dispensing opening longitudinal axis.

5. The carton of claim **1** wherein the first and the second slits extend from the cusp to the carton opening peripheral edge.

6. The carton of claim **5** wherein the slits define first and second window panels, the first and second window panels arranged opposite one another and having substantially similar size and shape.

7. The carton of claim **1** wherein the dispensing opening peripheral edge is shaped to define three, four, five or six cusps.

8. The carton of claim **7** wherein each of the cusps comprises a slit extending radially outward therefrom.

9. The carton of claim **8** wherein each of the slits extends from the cusp to the carton opening peripheral edge.

10. The dispenser of claim **1** wherein the carton opening peripheral edge is circular and the dispensing opening peripheral edge is shaped to form a hypocycloid having two, three, four, five or six cusps.

11. The tissue dispenser of claim **1** wherein the paper is a coated paper having a basis weight from about 40 to about 80 grams per square meter.

12. The carton of claim **1** wherein the carton opening has a carton opening area and the dispensing opening has a dispensing opening area, wherein the dispensing opening area is from about 20 to about 60 percent of the carton opening area.

13. The carton of claim **1** wherein the dispensing window comprises a plurality of panels, each of the panels separated from one another by a slit and wherein at least two of the panels differ in terms of size and shape.

14. A pop-up tissue dispensing carton comprising: a carton top wall having an elongated carton opening disposed on the carton top wall, a paper window affixed to the top wall and having an elongated opening through which tissues within the carton are withdrawn, the elongated opening having at least two cusps and at least two slits extending therefrom at an acute angle relative to the longitudinal axis of the elongated opening.

15. The carton of claim **14** wherein the elongated opening has four cusps and each cusp has a slit extending therefrom at an acute angle relative to the longitudinal axis of the elongated opening.

16. The carton of claim **15** wherein the slits define four window panels and wherein at least two of the panels have a similar size and shape.

17. A carton for storing and dispensing a stack of interfolded sheets of a paper product, the carton comprising:

a. a top wall having a dispensing opening through which the sheets are withdrawn from the carton;

b. two pairs of opposing side walls;

c. a bottom wall;

d. a paper window affixed to at least a portion of the inner surface of the top wall;

e. a dispensing opening having a plurality of cusps and a plurality of slits disposed on the paper window.

18. The carton of claim **17** wherein the carton opening has a carton opening area and the dispensing opening has a dispensing opening area, wherein the dispensing opening area is from about 20 to about 60 percent of the carton opening area.

19. The carton of claim **17** wherein each of the plurality of cusps have a slit extending radially therefrom, the slits having a length from about 10 to about 30 mm.

20. The carton of claim **19** wherein each of the slits have a substantially similar length.

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