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(71) Applicant: JT INTERNATIONAL SA [CH/CH]; 8 rue Kazem Radjavi, 1202 Geneva (CH).

(72) Inventor: FRANZEN, Jens; Route de Sous-Vincy 29, 1182 Gilly (CH).

(74) Agent: GILL JENNINGS & EVERY LLP; The Broadgate Tower, 20 Primrose Street, London EC2A 2ES (GB).

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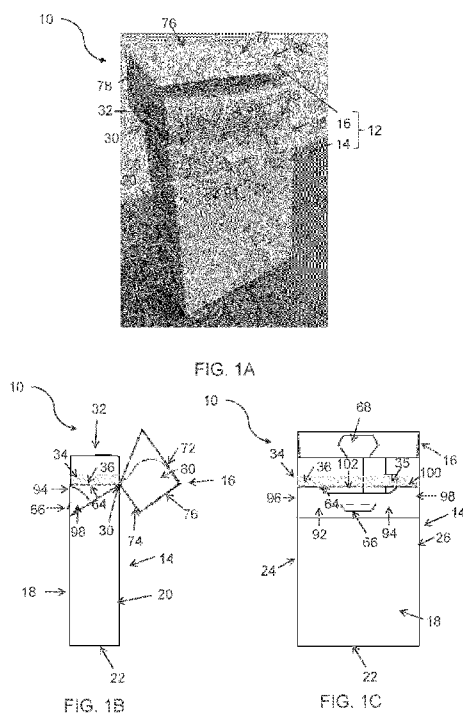
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(54) Title: PACKET FOR SMOKING ARTICLES



(57) Abstract: A packet (10) for smoking articles is disclosed. The packet comprises an outer casing (12) comprising a main body (14) and a lid (16). The main body comprises: a front panel (18); a rear panel (20); a bottom panel (22); a first side panel (24); and a second side panel (26) which cooperatively define a main compartment having an opening (28) opposite to the bottom panel. A hinge (30) is formed between the lid and the rear panel of the main body such that the lid is moveable between an open position and a closed position. The packet further comprises a substantially cuboidal pouch (32) comprising: a front major portion (110); a rear major portion (112); a top minor portion (114); a bottom minor portion (116); a first side portion (118); and a second side portion (120), wherein the pouch is received within the main compartment such that the pouch protrudes from the main compartment through the opening, wherein the pouch is completely contained within the outer casing when the lid is in the closed position, and wherein the pouch comprises a cellulose-based wrapper (122). A tear tape (34) attached to the pouch and arranged to extend around the pouch in a transverse direction with respect to the length of the pouch such that the tear tape is positioned above the hinge. The tear tape is configured to be pulled by a user to separate a top section of the pouch from a bottom section of the pouch.

PACKET FOR SMOKING ARTICLES

FIELD OF THE INVENTION

The invention relates to a packet for smoking articles.

BACKGROUND

- 5 Smoking articles, such as cigarettes, are generally stored within packets which include an outer casing and a sealed pouch that is wrapped around the smoking articles. It is common for the outer casing to have a hinged-lid which is moveable from a closed position to an open position to allow a user to access the pouch and the smoking articles stored therein.
- 10 A known issue regarding existing packets for smoking articles is their resistance to biodegradation, and therefore lack of sustainability. In particular, due to the requirement for smoking articles to be kept sealed from the environment during storage, it is common for pouches to be made from impermeable plastic or metal in order to prevent the ingress of air or moisture. For example, pouches are often
- 15 made from a plastic film or a paper laminate comprising barrier plastic, or a laminate of plastic and metal. Such materials are not biodegradable and are difficult to recycle.

Although it is important for pouches to be sealed from the environment, it is also desirable for pouches to be quickly and easily opened by the user, whilst allowing

20 convenient access to the smoking articles once opened. This combination of properties is difficult to achieve using sustainable materials.

An object of the invention is to address one or more of these issues.

SUMMARY OF INVENTION

- According to a first aspect of the invention, there is provided a packet for smoking
- 25 articles, comprising: an outer casing comprising a main body and a lid, wherein the main body comprises: a front panel; a rear panel; a bottom panel; a first side

panel; and a second side panel which cooperatively define a main compartment having an opening opposite to the bottom panel, and wherein a hinge is formed between the lid and the rear panel of the main body such that the lid is moveable between an open position and a closed position; a substantially cuboidal pouch comprising: a front major portion; a rear major portion; a top minor portion; a bottom minor portion; a first side portion; and a second side portion, wherein the pouch is received within the main compartment such that the pouch protrudes from the main compartment through the opening, wherein the pouch is completely contained within the outer casing when the lid is in the closed position, and wherein the pouch comprises a cellulose-based wrapper; and a tear tape attached to the pouch and arranged to extend around the pouch in a transverse direction with respect to the length of the pouch such the tear tape is positioned above the hinge, and wherein the tear tape is configured to be pulled by a user to separate a top section of the pouch from a bottom section of the pouch, and wherein the top section of the pouch includes at least part of the top minor portion, the front major portion, the rear major portion, the first side portion, and the second side portion of the pouch, and wherein the bottom section of the pouch includes at least part of the bottom minor portion, the front major portion, the rear major portion, the first side portion, and the second side portion of the pouch.

Advantageously, the use of a cellulose-based wrapper in combination with a transverse tear tape results in an environmentally friendly packet which provides easy access to the smoking articles. In particular, by arranging the tear tape and the hinge such that the tear tape is located vertically above the hinge, the top section of the pouch is able to be more easily removed from the bottom section of the pouch using the tear tape. That is, when the lid is in the open position, the tear tape is situated above the hinge such that the outer casing does not prevent the user from pulling the tear tape and opening the pouch.

The skilled person will appreciate that the length of the pouch is the perpendicular distance between the top minor portion and the bottom minor portion. This may also be referred to as the height of the pouch.

Preferably, the wrapper comprises (or consists of) paper, hemp, moulded cellulose pulp, virgin fibre pulp or tobacco dust with paper. In this way, the environmental impact of the packet is reduced.

5 Preferably, the pouch comprises (or consists of) the wrapper and a moisture barrier coating formed on the wrapper. In this way, the pouch is constructed from sustainable materials which are effective in sealing and protecting the smoking articles housed within the pouch from the external environment. Optionally, the pouch comprises (or consists of) the wrapper, the moisture barrier coating formed on the wrapper, and an outer coating formed on an opposite surface of the
10 wrapper to the moisture barrier coating. The outer coating may increase one or more of the strength, thickness, density and opacity of the pouch.

Preferably, the moisture barrier coating is a heat sealable coating (or a heat seal adhesive). The heat sealable coating (e.g. a thermoplastic film) is bonded to the wrapper by applying pressure and heating the coating. The moisture barrier
15 coating may comprise one or more layers or films. Alternatively, the moisture barrier coating may be a water-based lacquer.

In a less preferred option, the moisture barrier coating is a hot melt adhesive, i.e. an adhesive that is applied in a molten state and forms a bond on cooling to the solid state.

20 Preferably, the moisture barrier coating also reduces or prevents the ingress (or transfer) of oxygen, air, flavourings, and/or menthol.

Preferably, the pouch (i.e. the wrapper and the moisture barrier coating) has a water vapour transmission rate of 0 - 10 g/m²/day (at 23°C, 50% RH) and an oxygen transmission rate of <10 ccm/m²/day (at 23°C, 50% RH). In one
25 embodiment, the pouch may have a water vapour transmission rate of 2 - 10 g/m²/day (at 23°C, 50% RH).

Preferably, the thickness of the pouch (i.e. the wrapper, the moisture barrier coating, and optionally the outer coating) is 65 to 85 µm.

Preferably, the density of the pouch (i.e. the wrapper, the moisture barrier coating, and optionally the outer coating) is 50 to 92 grams per square metre, more preferably 50 to 85 gram per square metre.

5 In one example, the pouch may comprise the outer coating, the thickness of the pouch may be 75 μm , the density of the pouch may be 90 grams per square metre, and the mean water vapour transmission rate at 23°C, 50% RH may be <1 g/m²/day. In another example, the pouch may not comprise the outer coating, the thickness of the pouch may be 67 μm , the density of the pouch may be 75 grams per square metre, and the mean water vapour transmission rate at 23°C, 50% RH
10 may be <1 g/m²/day. In another example, the pouch may not comprise the outer coating, the thickness of the pouch may be 65 - 85 μm , the density of the pouch may be 70 grams per square metre, and the mean water vapour transmission rate at 23°C, 50% RH may be <3 g/m²/day. In another example, the pouch may not comprise the outer coating, the thickness of the pouch may be 82 μm , the density
15 of the pouch may be 75 grams per square metre, and the mean water vapour transmission rate at 23°C, 50% RH may be <8 g/m²/day.

Preferably, the moisture barrier coating is formed on the internal surface of the pouch. Preferably, the outer coating is formed on the external surface of the pouch.

20 Preferably, the tear tape extends around the entire pouch. Preferably, the tear tape extends along (the entire widths of each of) the front major portion, the first side portion, the rear major portion, and the second side portion of the pouch.

Preferably, the tear tape is positioned closer to the hinge than the top minor portion of the pouch. For example, the tear tape may be positioned above the hinge such
25 that the distance between the bottom edge of the tear tape and the hinge is less than the width of the tear tape. In this way, by positioning the tear tape adjacent the hinge, rather than adjacent the top minor portion of the pouch, the pouch may be more reliably torn around the circumference of the pouch. In contrast, if the tear tape is located towards or adjacent the top minor portion of the pouch, the

likelihood of the pouch being inadvertently torn across the top minor portion is increased.

Preferably, the bottom edge of the tear tape is arranged substantially level with the hinge. That is, the bottom edge of the tear tape is positioned in the same plane as the hinge. In this way, as the bottom edge of the tear tape is coincident with the hinge, the hinge provides a guiding edge along which the tear tape may be pulled, thereby increasing the speed and reliability of opening.

Preferably, the tear tape is attached to the internal surface of the pouch and extends through the pouch to expose a tear tab to be pulled by a user. In this way, the tear tape is protected from the external environment by the pouch, and it is ensured that the pouch is torn open when the tear tape is pulled by a user.

Preferably, the tear tape comprises (or consists of) a paper-based or cellulose-based material. In this way, the environmental impact of the packet is further reduced.

Preferably, the packet further comprises a stiffening element disposed within the pouch and arranged to lie substantially flush against the internal surface of the pouch. In this way, the presence of the stiffening element allows for a larger proportion of the pouch to be removed, i.e. a larger top section, whilst maintaining high stiffness of the packet.

Preferably, the stiffening element is a cellulose-based stiffening element. For example, the stiffening element may comprise (or consist of) paper, hemp, or moulded cellulose pulp. In this way, the environmental impact of the packet is further reduced.

Preferably, the stiffening element has a higher rigidity than the pouch. For example, the stiffening element may have a density of 130 to 200 grams per square metre.

Preferably, the stiffening element comprises a front portion arranged adjacent to the front major portion of the pouch, wherein the front portion has a cut-out in its

top edge, and wherein the cut-out extends down to at least level with the bottom edge of the tear tape. More preferably, the cut-out extends down to at least level with the line of weakening. In this way, the ease of access to the smoking articles is improved whilst maintaining high stiffness of the packet.

- 5 Preferably, the cut-out extends a distance below the bottom edge of the tear tape, e.g. 1 mm, 2 mm or 3 mm. More preferably, the cut-out extends a distance below the line of weakening. For example, the cut-out may extend a distance below the top-edge of the front portion of 10% to 30% of the height of the front portion, e.g., 10 mm, 11 mm, 12mm, 13mm, 14mm or 15 mm.
- 10 Preferably, the cut-out is centrally positioned along the top edge of the front portion of the stiffening element.

Preferably, the cut-out has a width of at least 50% of the width of the front portion of the stiffening element.

- 15 Preferably, the stiffening element is a folded element further comprising a first side portion and a second side portion, wherein the first side portion and the second side portion of the stiffening element are arranged adjacent to the first side portion and the second side portion of the pouch respectively, and wherein the first and second side portions of the stiffening element each have a length equal to the length of the pouch. More preferably the stiffening element consists of the front
- 20 portion, the first side portion, and the second side portion. In this way, the weight of the packet is reduced whilst maintaining high stiffness.

- Preferably, the packet further comprises an inner frame disposed between the pouch and the outer casing, wherein the frame comprises a front portion arranged adjacent to the front panel of the main body, and wherein the top edge of the front
- 25 portion of the frame is positioned below the tear tape. In this way, the frame further increases the stiffness of the packet without reducing the accessibility of the tear tape.

Preferably, the top edge of the front portion of the frame is arranged substantially level with the bottom edge of the tear tape and/or the line of weakening. In this

way, by arranging the top edge of the front portion of the frame to be coincident with the bottom edge of the tear tape and/or the line of weakening, a further guiding edge is provided along which the tear tape may be pulled and the pouch opened. The preferable combination of the hinge (that is adjacent the rear panel of the outer casing) and the top edge of the frame (that is adjacent the front panel of the outer casing) being arranged in the same plane as the bottom edge of the tear tape optimises the accessibility of smoking articles within the pouch, by ensuring that the tear tape can be reliably pulled around the full circumference of the pouch.

- 5
- 10 Preferably, the frame is a cellulose-based frame. For example, the frame may comprise (or consist of) paper, hemp, or moulded cellulose pulp. In this way, the environmental impact of the packet is further reduced.

Preferably, the front portion of the frame further comprises a cut-out in its top edge which extends a distance below the bottom edge of the tear tape. More preferably, the cut-out extends a distance below the line of weakening. In this way, smoking articles contained within the pouch may be more easily accessed whilst maintaining high stiffness of the packet.

Preferably, the cut-out is centrally positioned along the top edge of the front portion of the frame.

- 20 Preferably, the frame is a folded element further comprising a first side portion and a second side portion, wherein the first side portion and the second side portion of the frame are arranged adjacent to the first side panel and the second side panel of the main body respectively. More preferably the stiffening element consists of the front portion, the first side portion, and the second side portion. In this way, the weight of the packet is reduced whilst maintaining high stiffness.

Preferably, the top edges of the first and second side portions of the frame are arranged below the tear tape.

Preferably, the first and second side portions of the frame are shaped such that the lid is not blocked from being moved into the closed position. For example, the

first and second side portions may slant down or curve away from the opening of the main compartment such that the lid does not contact the first and second side portions when being moved into the closed position.

Preferably, a line of weakening is formed in the pouch, wherein the line of
5 weakening is arranged parallel and adjacent to the bottom edge of the tear tape. For example, the line of weakening may be level with the bottom edge of the tear tape and/or the hinge. Alternatively, the line of weakening may be up to 3 mm below the bottom edge of the tear tape. In this way, the pouch is biased to open
10 along the line of weakening when the tear tape is pulled, thereby further improving the ease of opening of the pouch.

Preferably, the line of weakening is formed in the external surface of the pouch, and wherein the moisture barrier coating is formed on the internal surface of the pouch.

Preferably, the line of weakening partially extends through the wrapper. In this
15 way, the line of weakening does not affect the seal of the pouch to the external environment. Preferably, the line of weakening extends through less than 80%, preferably less than 70%, more preferably less than 60% and more than 20%, preferably more than 30%, more preferably more than 40% of the thickness of the wrapper.

20 Preferably, the line of weakening is a pre-cut line, e.g. made by laser scoring, mechanical indentation, or mechanical scoring. For example, the line of weakening may be cut partially through the wrapper (and/or extends partially or entirely through the outer coating, if present) without extending through the moisture barrier coating such as to form a kiss-cut line.

25 Preferably, the front portion of the frame comprises a tongue configured to engage with a complementary recess formed inside the lid such that the lid may be securely held in the closed position.

Preferably, a pair of slits are formed in the outer casing, wherein the slits are located on either side of the hinge respectively and extend parallel to the hinge.

In this way, the lid may be more easily moved between the open and closed position.

Preferably, each slit has a length of 5% to 10% of the width of the rear panel of the main body, e.g. 4 mm.

- 5 Preferably, the lid comprises: a front panel; a rear panel; a top panel; a first side panel; and a second side panel, wherein the rear panel of the lid is attached to the rear panel of the main body by the hinge, and wherein the ratio of the height of the front panel of the lid to the height of the rear panel of the lid is between 1.8 and 2.2. More preferably, the ratio of the height of the front panel of the lid to the height of the rear panel of the lid is 2. For example, the height of the front panel of the lid may be 30 mm and the height of the rear panel of the lid may be 15mm. In this way, the opening area through which smoking articles may be retrieved is maximised whilst ensuring the lid is not prevented from closing. That is, if the height of the rear panel of the lid is too large, the lid may be prevented from opening or closing, but if the height of the rear panel of the lid is too small, the lid may not close properly after multiple openings, and the likelihood of the lid being separated from the main body is increased. Additionally, a larger height of the front panel of the lid is desirable in terms of providing a larger area for accessing the smoking articles, but a smaller height of the front panel is desirable in terms of reducing the angle about which the lid is required to be pivot in order to open the packet. The particular ratios defined above provides an optimised balance between these various factors.

- 25 Preferably, the ratio of the height of the rear panel of the lid to the height of the outer casing when the lid is in the closed position is between 0.15 and 0.19. More preferably, the ratio of the height of the rear panel of the lid to the height of the outer casing when the lid is in the closed position is 0.18. For example, the height of the rear panel of the lid may be 15 mm and the height of the outer casing when the lid is in the closed position may be 85 mm.

- 30 Preferably, wherein the ratio of the height of the rear panel of the lid to the width of the top panel of the lid is between 0.29 and 0.71. More preferably, wherein the

ratio of the height of the rear panel of the lid to the width of the top panel of the lid is 0.67. For example, the height of the rear panel of the lid may be 15 mm and the width of the top panel of the lid is 22.5 mm. In this way, the accessibility of the packet is further optimised. The skilled person will understand that the width of the top panel is the distance between the front panel and the rear panel of the lid.

Preferably, wherein the pouch is made from material configured and sealed to prevent the ingress of moisture into the pouch.

Preferably, wherein the wrapper which forms the pouch is folded and sealed by: a first fin seal extending along the length of the front major portion of the pouch; a second fin seal extending along the length of the top minor portion of the pouch; and a third fin seal extending along the length of the bottom minor portion of the pouch. The use of fin seals is advantageous as, during sealing of the pouch along the fin seals, the smoking articles contained within the pouch are not compressed. In contrast, the use of lap seals would lead to the smoking articles contained within the pouch being compressed during sealing of pouch along the lap seals.

Preferably, the tear tape is attached to the internal surface of the pouch and extends through the first fin seal to expose a tear tab to be pulled by a user.

Preferably, the tear tape is attached to the pouch such that a single layer of the tear tape extends through the first fin seal. In this way, the bulkiness of the pouch is reduced.

Preferably, the outer casing is a cellulose-based outer casing. For example, the outer casing may comprise (or consists of) paper, hemp, or moulded cellulose pulp. In this way, the environmental impact of the packet is further reduced.

Preferably, the outer casing, pouch, stiffening element and/or frame do not comprise plastic film or metal. In particular, the outer casing, pouch, stiffening element and/or frame are not made of a paper laminate comprising plastic film or metal.

According to a second aspect of the invention, there is provided a system comprising: a packet according to the first aspect; and a plurality of smoking articles contained within the pouch.

BRIEF DESCRIPTION OF DRAWINGS

- 5 Embodiments of the invention are now described, by way of example, with reference to the drawings, in which:

Figure 1A is a perspective view of a packet for smoking articles including a pouch and a lid in an open position;

- 10 Figure 1B is a schematic side view of the packet including the pouch and the lid in the open position;

Figure 1C is a schematic front view of the packet including the pouch and the lid in the open position;

Figure 2A is a schematic front view of the packet including the pouch and the lid in a closed position;

- 15 Figure 2B is a schematic rear view of the packet including the pouch and the lid in the closed position;

Figure 3A is a perspective view of the packet including the pouch in an opened state and the lid in the open position.

- 20 Figure 3B is a schematic side view of the packet including the pouch in the opened state and the lid in the open position;

Figure 3C is a schematic front view of the packet including the pouch in the opened state and the lid in the open position;

Figure 4A is a schematic front view of the pouch in a closed state;

Figure 4B is a schematic side view of the pouch in the closed state;

Figure 4C is a schematic side view of the pouch in the closed state;

Figure 4D is a schematic rear view of the pouch in the closed state;

Figure 5A is a cross sectional view of the pouch comprising a wrapper and a moisture barrier coating formed thereon;

- 5 Figure 5B is a cross sectional view of the pouch additionally comprising an outer coating;

Figure 6 is a schematic view of a frame of the packet in unfolded form;

Figure 7 is a schematic view of a stiffening element of the packet in unfolded form; and

- 10 Figure 8 is a schematic top view of a blank which may be used to form the pouch.

DETAILED DESCRIPTION

- Figures 1A - 1C and 2A - 2B illustrate various views of a packet 10 for smoking articles 8 in accordance with the present invention. The packet 10 comprises an outer casing 12 which includes a main body 14 and a lid 16. The lid 16 is hingedly
15 connected to the main body 14 by a hinge 30 such that the lid 16 may be moved between an open position and a closed position. Figures 1A - 1C show the lid 16 in the closed position, whereas Figures 2A - 2B show the lid 16 in the open position. In the open position, the contents housed within the outer casing 12 may be accessed by a user. In the closed position, the contents of the outer casing 12
20 are not accessible and the main body 14 and the lid 16 cooperatively define a cuboidal box. The skilled person will appreciate the packet 10, or outer casing 12, may also be referred to as a hinged-lid box.

- The main body 14 comprises a plurality panels 18 - 26 including a front panel 18, a rear panel 20, a bottom panel 22, a first side panel 24 (i.e. left side panel), and
25 a second side panel 26 (i.e. right side panel). These panels 18 - 26 cooperatively define a main compartment having an opening 28 opposite to the bottom panel

22. The height of the rear panel 20 is greater than the height of the front panel 18 such that the first side panel 24 and the second side panel 26 increase in height towards the rear panel 20.

5 The lid 16 comprises a plurality of panels 72 – 80 including a front panel 72, a rear panel 74, a top panel 76, a first side panel 78 (i.e. a left side panel), and a second side panel 80 (i.e. a right side panel). These panels 72 - 80 cooperatively define a secondary compartment having an opening opposite to the top panel 76. The height of the front panel 72 is greater than the height of the rear panel 74 such that the first side panel 78 and the second side panel 80 increase in height towards
10 the rear panel 74.

The lid 16 is connected to the main body 14 by the hinge 30 which is positioned between the rear panel 74 of the lid 16 and the rear panel 20 of the main body 14. The skilled person will appreciate that the hinge 30 is not a separable component of the packet 10, but instead is a connecting portion between the rear panel 74 of
15 the lid 16 and the rear panel 20 of the main body 14 about which the lid 16 may be pivoted. That is, the hinge 30 may be described as a fold line or crease line in the outer casing 12 which is formed from the same material as the main body 14 and the lid 16.

20 The outer casing 12 may be made of a cellulose-based material. For example, the outer casing 12 may comprise (or consists of) paper, hemp, or moulded cellulose pulp.

The outer casing 12 is configured such that the ratio of the height A of the front panel 72 of the lid 16 to the height B of the rear panel 74 of the lid 16 is between 1.8 and 2.2. For example, the ratio A/B may be 2. Advantageously, this size ratio
25 optimises the accessibility of the pouch 32, and provides a larger opening area through which the contents of the outer casing 12 may be accessed, whilst ensuring the lid is not blocked from moving into the closed position. For example, if the height B of the rear panel 74 of the lid 16 is too large, the lid 16 is prevented from opening or closing, but if the height B of the rear panel 74 of the lid 16 is too
30 small, it has been found that the lid may not close properly after multiple openings,

and the lid is more likely to be separated from the main body. Moreover, a larger height A of the front panel 72 of the lid 16 provides a larger area for accessing the smoking articles, but a smaller height A of the front panel 72 of the lid 16 reduces the angle about which the lid 16 is required to be pivot in order to open the packet

5 10.

The outer casing 12 is further configured such that the ratio of the height B of the rear panel 74 of the lid 16 to the height C of the outer casing 12 when the lid 16 is in the closed position is between 0.15 and 0.19. For example, the ratio B/C may be 0.18. Additionally, the outer casing 12 is configured such that the ratio of the

10 height B of the rear panel 74 of the lid 16 to the width D of the top panel 76 of the lid 16 is between 0.29 and 0.71. For example, the ratio B/D may be 0.67. These ratios further optimise the accessibility of the packet 10.

A pouch 32 is housed within the outer casing 12. Specifically, the pouch 32 is received within the main compartment of the main body 14 such that a portion of

15 the pouch 32 protrudes through the opening 28 and is completely contained within the outer casing 12 when the lid 16 is moved into the closed position. The pouch 32 is sized to store and collate a plurality of smoking articles 8. That is, the height of the pouch 32 is substantially equal to the height of the smoking articles 8 such that the smoking articles 8 may be securely held within the pouch 32. In one

20 example, the smoking articles 8 may be cigarettes. In other examples, the smoking articles 8 may be heat-not-burn sticks.

The pouch 32 is substantially cuboidal and includes a front major portion 110, a rear major portion 112, a top minor portion 114, a bottom minor portion 116, a first side portion 118 (i.e. a left side portion), and a second side portion 120 (i.e. a right

25 side portion). The pouch 32 is illustrated in further detail in Figures 4A - 4C. Figure 4A shows a schematic view of the front major portion 110 of the pouch 32, Figure 4B shows a schematic view of the first side portion 118 of the pouch 32, Figure 4C shows a schematic view of the second side portion 120, and Figure 4D shows a schematic view of the rear major portion 112 of the pouch 32.

The pouch 32 comprises a wrapper 122 having a moisture barrier coating 124 formed thereon. Optionally, the wrapper 122 may also have an outer coating 125 formed on an opposite side of the wrapper 122 to the moisture barrier coating 124. The wrapper 122 is folded and sealed to form the substantially cuboidal pouch 32, having an exterior surface 126 and an interior surface 128. In particular, the pouch 32 is sealed by a first fin seal 104 extending along the length of the front major portion 110 of the pouch 32, a second fin seal 106 extending along the length of the top minor portion 114 of the pouch 32, and a third fin seal 108 extending along the length of the bottom minor portion of the pouch 32. The skilled person will understand that a fin seal is a seal formed by an edge portion of the interior surface 128 of the wrapper 122 being sealed to another edge portion of the interior surface 128 of the wrapper 122. In contrast, for example, a lap seal is formed by sealing an edge portion of the interior surface of the wrapper to an edge portion of the exterior surface of the wrapper. Advantageously, unlike lap seals, fin seals prevent the smoking articles 8 contained within the wrapper 122 from being compressed during sealing.

A tear tape 34 is attached to the pouch 32 and extends around the pouch 32. The tear tape 34 is attached to the interior surface 128 of the pouch 32 but, for illustrative purposes, is shown in Figures 4A – 4C. The skilled person will appreciate that, in alternative embodiments, the tear tape 34 may be attached to the exterior surface 126 of the pouch 32.

The tear tape 34 (also known as a tear-off ribbon) is a strip of material which is adhesively coupled to the pouch 32. The tear tape may be pulled by a user to open the pouch 32. In particular, the tear tape 34 is stronger than the pouch 32 such that, when pulled, the pouch 32 is torn open along the length of the tear tape 34. The tear tape 34 may be made of (e.g. orientated) polymers, yarns, and filaments, but preferably is made of a cellulose-based material such as paper.

As illustrated, the tear tape 34 extends around substantially the entire circumference of the pouch 32 in a transverse direction. That is, the tear tape 34 extends around the front major portion 110, the first side portion 118, the rear major portion 112, and the second side portion 120 of the pouch 32 in a direction

that is perpendicular to the length of the pouch 32. However, in alternative embodiments, the skilled person will appreciate that the tear tape 34 may only extend around a portion of the circumference of the pouch 32, e.g. at least 90% of the circumference of the pouch 32.

- 5 The tear tape 34 is arranged to extend through the first fin seal 104 of the front major portion 112 of the pouch 32, to expose a tear tab 35 of the tear tape 34 which may be pulled by a user. Advantageously, this increases the ease of manufacturability of the pouch 32. The tear tape 34 may be attached to the pouch 32 such that only a single layer of tear tape 34 protrudes through the first fin seal 104, thereby reducing the bulkiness of the pouch 32.

- As best illustrated in Figures 1A and 1B, the bottom edge 36 of the tear tape 34 is aligned level with the hinge 30 of the outer casing 12. In other words, the tear tape 34 and the hinge 30 are arranged with respect to one another such that the bottom edge 36 of the tear tape 34 is positioned at substantially the same vertical height (i.e. at substantially the same position along the length of the packet 10) as the hinge 30. The hinge 30, or top edge of the rear panel 20 of the main body 14, therefore lies in the same plane as the bottom edge 36 of the tear tape 34. In this way, when the lid 14 is in the open position, it is ensured that the tear tape 34 is not trapped between the pouch 32 and the main body 14 of the outer casing 12. Hence, the ease of removal of the tear tape 34, and thus opening of the pouch 32, is improved. Additionally, by located the bottom edge 36 of the tear tape 34 level with the hinge 30, as opposed to above the hinge 30, the hinge 30 (i.e. the top edge of the rear panel 20 of the main body 14) provides a guiding edge along which the tear tape 34 may be pulled. This further improves the ease of opening of the pouch 32 for a user.

- Of course, the skilled person will appreciate that, in other embodiments, the bottom edge 36 of the tear tape 34 may not be positioned at the same level as the hinge 30. For example, the tear tape 34 may be positioned adjacent and above the hinge 30, e.g. the bottom edge of the tear tape may be positioned 0.5 mm, 1mm, 1.5 mm, 2mm or 3 mm above the hinge, and/or the tear tape 34 may be positioned above the hinge 30 such that the distance between the bottom edge

36 of the tear tape 34 and the hinge 30 is less than the width of the tear tape 34. This arrangement similarly ensures that the tear tape 34 is accessible for users.

It is further preferable for the tear tape 34 to be arranged closer to the hinge 30 than the top minor portion 114 of the pouch 32. Advantageously, this configuration
5 reduces the chance of the pouch 32 being ripped across the top minor portion 114, and instead promotes a clean partitioning of the pouch 32 around its circumference.

A line of weakening 64 is formed in the exterior surface 126 of the pouch 32. The line of weakening 64 enables the pouch 32 to be easily ripped along the line of
10 weakening 64 when the tear tape 34 is pulled by a user. In one example, the line of weakening 64 may comprise a line of indentations, cuts, or scores. The line of weakened may be formed by laser scoring or mechanical cutting or indentation of the wrapper 122. The line of weakening 64 extends partially through the wrapper 122 (and/or extends partially or entirely through the outer coating 125, if present),
15 and does not extend through the moisture barrier coating 124. This form of line of weakening may be referred to as a kiss-cut line. Advantageously, as the line of weakening 64 does not extend all the way through the pouch 32, the pouch 32 remains sealed to the external environment. In another example, the line of weakening 64 may comprise a chemically, radiatively, or mechanically weakened
20 portion.

The line of weakening 64 is aligned adjacent with the bottom edge 36 of the tear tape 34 such that application of a pulling force to the tear tape 34 results in the pouch 32 being partitioned along the line of weakening 64. Specifically, the line of weakening 64 extends around the pouch 32, e.g. along the front major portion
25 110, the first side portion 118, the rear major portion 112, and the second side portion 120 of the pouch 32 in a direction that is perpendicular to the length of the pouch 32. Ideally, the line of weakening 64 is situated level with the bottom edge 34 of the tear tape 34 and/or the hinge 30. However, as illustrated in Figures 4A - 4C, it is possible for the tear tape 34 to be slightly below the tear tape 34. In
30 particular, the tear tape 34 may be up to 3mm below the bottom edge 36 of the

tear tape 34 whilst providing reliable opening of the pouch 32 along the line of weakening 64.

Figure 5A shows a cross-sectional view of the wrapper 122 and the moisture barrier coating 124 which form the pouch 32. As illustrated, the tear tape 34 is attached to the interior surface 128 of the pouch 32 and the line of weakening 64 is formed on the exterior surface 126 of the pouch. The moisture barrier coating 124 is formed on (or forms) the interior surface 128 of the pouch 32.

Figure 5B shows a cross-sectional view of the pouch 32 in an alternative embodiment, in which the pouch 32 further comprises the outer coating 125 formed on an opposite surface of the wrapper 122 to the moisture barrier coating 124. That is, the outer coating 125 is formed on (or forms) the exterior surface 126 of the pouch 32. The outer coating 125 may be configured to increase the tensile strength of the pouch 32 and/or alter the appearance of the pouch 32, such as increasing its opacity. In this example, the line of weakening 64 extends entirely through the outer coating 125 and partially through the wrapper 122. In alternative examples, the line of weakening may extend partially through the outer coating 125.

The thickness of the pouch 32 (i.e. the wrapper 122 and the moisture barrier coating 124 and optionally the outer coating 125) may be 65 to 85 microns. The density of the pouch 32 (i.e. the wrapper 122 and the moisture barrier coating 124 and optionally the outer coating 125) may be 50 to 92 grams per square metre. For example, the density of the pouch 32 may be 50 to 80 grams per square metre/

The wrapper 122 is made of a cellulose-based material, such as paper, hemp, moulded cellulose pulp, virgin fibre pulp or tobacco dust with paper. The moisture barrier coating 124 prevents the ingress of moisture through the wrapper 122, thereby protecting the smoking articles 8 contained within the pouch 32. Advantageously, by using a cellulose-based wrapper 122 with a moisture barrier coating 124, as opposed to a wrapper containing plastic or metal, the biodegradability and sustainability of the package 10 is improved without reducing the seal quality.

In one example, the moisture barrier coating 124 may be a heat sealable coating or film. In another example, the moisture barrier coating 124 may be a water-based lacquer. In another example, the moisture barrier coating 124 may be a hot melt adhesive.

- 5 The moisture barrier coating 124 may also reduce or prevent the transfer of oxygen, air, flavourings, and/or menthol through the pouch 32.

As a result of the fin sealing, and the properties of the moisture barrier coating 124, the pouch 32 (i.e. the wrapper 122, the moisture barrier coating 124, and optionally the outer coating 125) may have a water vapour transmission rate of 0
 10 – 10 g/m²/day (at 23°C, 50% RH) and an oxygen transmission rate of <10 ccm/m²/day (at 23°C, 50% RH). For example, the water vapour transmission rate of may be 2 – 10 g/m²/day (at 23°C, 50% RH).

The wrapper 122, moisture barrier coating 124, and optionally the outer coating 125 (i.e. the blank 130 as discussed further below) may be manufactured using
 15 flexographic or gravure printing.

Exemplary material specifications for the pouch 32 are provided in the following table:

Supplier	Material description	Basis weight (g/m ²)	Thickness (μm)	Mean water vapour transmission rate at 23°C, 50% RH (g/m ² .day)
Sappi	Avantguard S Gloss	90	75	< 1
Sappi	Avantguard S Nature	75	67	< 1
Koehler	NexPlus Tobacco Flavor	75	82	< 8

As seen in Figures 1A - 1C, the packet 10 further comprises a frame 92 (which may be referred to as an inner frame) which is located between the pouch 32 and the main body 14 of the outer casing 12. The frame 92 is a folded element including a front portion 94, a first side portion 96 (i.e. a left side portion), and a second side portion 98 (i.e. a right side portion). Figure 6 illustrates the frame 92 in unfolded form. The first side portion 96 and the second side portion 98 are connected to the opposing sides of the front portion 94 by respective fold lines. When the packet 10 is constructed, the first side portion 96 and the second side portion 98 are folded approximately 90 degrees about the respective fold lines and the frame 92 is arranged between the pouch 32 and the outer casing 12 such that the front portion 94, the first side portion 96 and the second side portion 98 of the frame 92 are arranged adjacent to (i.e. interface with) each of the front panel 18 of the main body 14 and the front major portion 110 of the pouch 32, each of the first side panel 24 of the main body 14 and the first side portion 118 of the pouch 32, and each of the second side panel 26 of the main body 12 and the second side portion 120 of the pouch 32 respectively.

Advantageously, the presence of the frame 92 improves the stiffness of the packet 10, thereby providing enhanced protection and support of the smoking articles 8 contained with the pouch 32. Additionally, the frame 92 helps to ensure reliable closing of the lid 16, for example using the "click-lock" functionality described below.

As best illustrated in Figures 1A and 1B, the bottom edge 36 of the tear tape 34 is aligned level with the top edge 100 of the front portion 94 of the frame 92. In other words, the tear tape 34 and the frame 92 are arranged with respect to one another such that the bottom edge 36 of the tear tape 34 is positioned at substantially the same vertical height (i.e. at substantially the same position along the length of the packet 10) as the top edge 100 of the front portion 94 of the frame 92. The top edge 100 of the frame 92 therefore lies in the same plane as the bottom edge 36 of the tear tape 34. In this way, when the lid 16 is in the open position, it is ensured that the tear tape 34 is not trapped between the pouch 32 and the frame 92.

Hence, the ease of removal of the tear tape 34, and thus opening of the pouch 32, is improved. Additionally, by locating the bottom edge 36 of the tear tape 34 substantially level with the top edge 100 of the frame 92, as opposed to above the top edge 100 of the frame 92, the top edge 100 of the frame 92 provides a further
5 guiding edge along which the tear tape 34 may be pulled, which further improves the ease of opening of the pouch 32 for a user.

The skilled person will appreciate that as the hinge 30, the bottom edge 36 of the tear tape 34, and the top edge 100 of the frame 92 are all positioned in the same plane, the tear tape 34 may be reliably pulled around the entire circumference of
10 the pouch 32 without obstruction.

Of course, the skilled person will also appreciate that, in alternative embodiments, the top edge 100 of the frame 92 may not be exactly level with the hinge 30 and/or the bottom edge 36 of the tear tape 34. In particular, it remains advantageous to arrange the frame 92 such that the top edge 100 of the frame 92 is below the tear
15 tape 34, e.g. 0.5 mm, 1 mm, 1.5 mm or 2mm below the bottom edge 36 of the tear tape 34, as this configuration also ensures that the tear tape 34 is not trapped between the pouch 32 and the frame 92.

A cut-out 102, which may also be referred to as a recessed portion, is formed in the top edge 100 of the front portion 94 of the frame 92. The cut-out 102 is formed
20 by removing a portion of material from the top edge 100 of the front portion 94 of the frame 92. Preferably, the cut-out 102 extends a distance of up to 5 mm. For example, the cut-out 102 may extend 1mm, 1.5mm, 2mm, 2.5mm, or 3mm below the top edge 100 of the frame 92.

The cut-out 102 is centrally positioned along the top edge 100 of the front portion
25 94 of the frame 92, and preferably has a width of at least 50% of the width of the front portion 94 of the frame 92.

Advantageously, the presence of the cut-out 102 improves the accessibility to the smoking articles 8 contained within the pouch 32 when the pouch 32 is opened, without adversely affecting the stiffening effect provided by the frame 92.

The front portion 94 of the frame 92 further comprises a tongue 66, which may also be referred to as a tab, which is arranged to protrude away from the surface of the front portion 94 of the frame 92. A complementary recess 68 is provided within the secondary compartment of the lid 16 on the front panel 72 of the lid 16.

- 5 When the lid 16 is in the closed position, the tongue 66 is configured to engage with the recess 68 such that the lid 16 is held in the closed position. A threshold force applied by a user is required to disengage the tongue 66 from the recess 68 such that the lid 16 is moved into the open position. This may be referred to as a “click-lock” mechanism.
- 10 The first side portion 96 and the second side portion 98 of the frame 92 are shaped such that the lid 16 is not blocked from being moved into the closed position. In particular, the first side portion 96 and the second side portion 98 have upper edges which slant down (e.g. curve down) from the top edge 100 of the front portion 94 of the frame 92. This means that the lid 16 does not impinge on the
- 15 first side portion 96 and the second side portion 98 of the frame 92 when being moved into the closed position. Of course, the skilled person will appreciate that the specific shape of the frame 92 illustrated in Figure 8 is not essential and may be varied. For example, the first side portion 96 and the second side portion 98 of the frame 92 may have flat upper edges.
- 20 The frame 92 may be made from a cellulose-based material, such as paper, hemp, or moulded cellulose pulp. Advantageously, the frame 92 may have a higher rigidity than the pouch 32. For example, the frame 92 may have a density of 130 to 200 grams per square metre.

- Figures 3A - 3C illustrate the pouch 32 in an opened state in which the tear tape
- 25 34 has been pulled to remove a top section 38 of the pouch 32 from a bottom section 40 of the pouch 32, thereby exposing the smoking articles 8 contained within the pouch 32. For ease of illustration, reference numerals for features previously labelled in Figures 1A - 1C have been omitted from Figures 3A - 3C.

A stiffening element 82 is located between the pouch 32 and the smoking articles 8 contained within the pouch 32. The stiffening element 82 is exposed when the pouch 32 is opened.

5 The stiffening element 82 is a folded element comprising a front portion 84, a first side portion 88 (i.e. a left side portion), and a second side portion 90 (i.e. a right side portion). Figure 7 illustrates the stiffening element 82 in unfolded form. The first side portion 88 and the second side portion 90 are connected to the opposing sides of the front portion 84 by respective fold lines. When the packet 10 is constructed, the first side portion 88 and the second side portion 90 are folded
10 approximately 90 degrees about the respective fold lines and the stiffening element 82 is arranged between the pouch 32 and the smoking article 8 such that the front portion 84, the first side portion 88 and the second side portion 90 of the stiffening element 82 are arranged adjacent to (i.e. interface with) the front major portion 110 of the pouch 32, the first side portion 118 of the pouch 32, and the
15 second side portion 120 of the pouch 32 respectively.

Advantageously, the presence of the stiffening element 82 further improves the stiffness of the packet 10, thereby further enhancing the protection and support of the smoking articles 8 contained with the pouch 32, whilst ensuring that the tear tape 34 remains accessible to a user.

20 The height of stiffening element 82, and in particular the height of the first side portion 88 and the second side portion 90 of the stiffening element 82, is equal to the height of the pouch 32. This arrangement provides optimal protection and support for the smoking articles 8 contained with the pouch 32.

The stiffening element 82 has a top edge 85 in which a cut-out 86 is formed. That
25 is, a portion of material is removed along the top edge 85 of the front portion 84 of the stiffening element 82 to form the cut-out 86, which may also be referred to as a recessed portion.

The cut-out 86 extends below the bottom edge 36 of the tear tape 34 and/or the line of weakening 64. In this way, when the tear tape 34 is pulled to open the

pouch 32, the smoking articles 8 are additionally exposed through the cut-out 86, allowing a user to easily grasp and remove the smoking articles 8. Preferably, the cut-out 86 extends below the top edge 85 of the stiffening element 82 a distance of 10% to 30% of the height of the front portion 84 of the stiffening element 82.

- 5 For example, the cut-out may extend 10 mm, 11 mm, 12mm, 13mm, 14mm or 15 mm below the top edge 85 of the stiffening element 82.

The cut-out 86 is centrally positioned along the top edge 85 of the front portion 84 of the stiffening element 82, thereby providing optimal access to the smoking articles 8. The cut-out 86 may have a width of at least 50% of the width of the
10 front portion 84 of the stiffening element 82.

The stiffening element 82 may be made from a cellulose-based material, such as paper, hemp, or moulded cellulose pulp. Advantageously, the stiffening element 82 may have a higher rigidity than the pouch 32. For example, the stiffening element 82 may have a density of 130 to 200 grams per square metre.

- 15 The pouch 32 may be formed from a blank 130 comprising the wrapper 122 and the moisture barrier coating 124 (and, in some embodiments, the outer coating 125). The blank 130 is illustrated in Figure 8.

The blank 130 comprises a plurality of panels 136 - 152 separated by fold lines. The plurality of panels 136 - 152 include a first front blank panel 132 and a second
20 front blank panel 134 for cooperatively forming the front major portion 110 of the pouch 32. The plurality of panels 136 - 152 further include a rear blank panel 136 for forming the rear major portion 112 of the pouch. The plurality of panels 136 - 152 further include a first top blank panel 138, a second top blank panel 140, and a third top blank panel 142 for cooperatively forming the top minor portion 114 of
25 the pouch 32. The plurality of panels 136 - 152 further include a first bottom blank panel 144, a second bottom blank panel 146, and a third bottom blank panel 148 for cooperatively forming the bottom minor portion 116 of the pouch 32. The plurality of panels 136 - 152 further include a first side blank panel 150 and a second side blank panel 152 for forming the first side portion 118 and the second
30 side portion of the pouch 32 respectively.

The blank 130 comprises a first longitudinal fin tab 154 and a second longitudinal fin tab 156, a top transverse fin tab 158, and a bottom transverse fin tab 160 which form the border (i.e. the edge portions) of the blank 130.

5 The blank 130 (and thus also panels 136 - 152 and tabs 154 - 160) may be described as having two surfaces: an exterior surface and an opposed interior surface. When formed, the exterior surface 126 of the pouch 32 corresponds to the exterior surface of the blank 130 and the interior surface 128 of the pouch 32 corresponds to the interior surface of the blank 130. The moisture barrier coating 124 is formed on the interior surface of the blank 130 and the outer coating 125 is
10 optionally formed on the exterior surface of the blank 130.

The tear tape 34 is attached to the interior surface of the blank 130, and extends in a straight line across the second longitudinal fin tab 156, the first front blank panel 132, the second side blank panel 152, the rear blank panel 136, the first side blank panel 150, the front blank panel 134, and the first longitudinal fin tab
15 154. Optionally, the tear tape 34 may only extend over one of the first longitudinal fin tab 154 and the second longitudinal fin tab 156. In this way, when the pouch 32 is constructed, only a single layer of the tear tape 34 extends through the first fin seal 104, thereby reducing the bulkiness of the pouch 32.

The line of weakening 64 is formed in the exterior surface of the blank 130, and
20 extends parallel and adjacent to the bottom edge 36 of the tear tape 36, as previously described.

To form the pouch 32 from the blank 130, each of the panels 136 - 152 and tabs 154 - 160 are folded about the respective fold lines that connect them with other panels 136 - 152 and tabs 154 - 160 of the blank 130. Each of the panels 136 -
25 152 and tabs 154 - 160 are folded about the respective fold lines at approximately 90 degrees. The first longitudinal fin tab 154 is sealed to the second longitudinal fin tab 156 along the interior surface, thereby forming the first fin seal 104. The top transverse fin tab 158 is sealed to itself along the interior surface, thereby forming the second fin seal 106. The bottom transverse fin tab 160 is sealed to
30 itself along the interior surface, thereby forming the third fin seal 108. Each fin

seal 104 - 108 may be sealed using a suitable adhesive. In this way, the pouch 32 is effectively sealed from the external environment. The smoking articles 8 may be provided within the pouch 32 before or during the folding and sealing process.

- 5 As illustrated in Figures 4A- 4C, in the assembled pouch 32, the first fin seal 104, second fin seal 106 and the third fin seal 108 are folded against (e.g. arranged to lie substantially flat against) the front major portion 110, the top minor portion 114, and the bottom minor portion 116 of the pouch 32 respectively. The first fin seal 104 may be folded against the front major portion 110 prior to sealing the second
10 fin seal 106 and the third fin seal 108.

The skilled person will appreciate that, once the pouch 32 has been formed from the blank 130, the tear tab 35 of the tear tape 34 is arranged to protrude through the first fin seal 104 such that it may be pulled by a user.

CLAIMS

1. A packet for smoking articles, comprising:
an outer casing comprising a main body and a lid,
wherein the main body comprises: a front panel; a rear panel; a bottom
5 panel; a first side panel; and a second side panel which cooperatively define a
main compartment having an opening opposite to the bottom panel, and
wherein a hinge is formed between the lid and the rear panel of the main
body such that the lid is moveable between an open position and a closed position;
a substantially cuboidal pouch comprising: a front major portion; a rear
10 major portion; a top minor portion; a bottom minor portion; a first side portion; and
a second side portion, wherein the pouch is received within the main compartment
such that the pouch protrudes from the main compartment through the opening,
wherein the pouch is completely contained within the outer casing when the lid is
in the closed position, and wherein the pouch comprises a cellulose-based
15 wrapper; and
a tear tape attached to the pouch and arranged to extend around the
pouch in a transverse direction with respect to the length of the pouch such that
the tear tape is positioned above the hinge,
wherein the tear tape is configured to be pulled by a user to separate a
20 top section of the pouch from a bottom section of the pouch, and wherein the top
section of the pouch includes at least part of the top minor portion, the front major
portion, the rear major portion, the first side portion, and the second side portion
of the pouch, and wherein the bottom section of the pouch includes at least part
of the bottom minor portion, the front major portion, the rear major portion, the first
25 side portion, and the second side portion of the pouch.
2. The packet of claim 1, wherein the tear tape extends around the entire
pouch.
3. The packet of claim 1 or claim 2, wherein the tear tape is positioned closer
to the hinge than the top minor portion of the pouch.

4. The packet of any preceding claim, wherein the bottom edge of the tear tape is arranged substantially level with the hinge.
5. The packet of any preceding claim, further comprising a stiffening element disposed within the pouch and arranged to lie substantially flush against the internal surface of the pouch, preferably wherein the stiffening element comprises a cellulose-based material.
6. The packet of claim 5, wherein the stiffening element comprises a front portion arranged adjacent to the front major portion of the pouch, wherein the front portion has a cut-out in its top edge, and wherein the cut-out extends down to at least level with the bottom edge of the tear tape.
7. The package of claim 6, wherein the cut-out extends a distance below the bottom edge of the tear tape.
8. The packet of claim 6 or claim 7, wherein the stiffening element is a folded element further comprising a first side portion and a second side portion, wherein the first side portion and the second side portion of the stiffening element are arranged adjacent to the first side portion and the second side portion of the pouch respectively, and wherein the first and second side portions of the stiffening element each have a length equal to the length of the pouch.
9. The packet of any preceding claim, further comprising an inner frame disposed between the pouch and the outer casing, wherein the frame comprises a front portion arranged adjacent to the front panel of the main body, and wherein the top edge of the front portion of the frame is positioned below the tear tape, preferably wherein the frame is a cellulose-based frame.
10. The packet of claim 9, wherein the top edge of the front portion of the frame is arranged substantially level with the bottom edge of the tear tape.
11. The packet of claim 9 or claim 10, wherein the front portion of the frame further comprises a cut-out in its top edge which extends a distance below the bottom edge of the tear tape.

12. The packet of any of claims 9 to 11, wherein the frame is a folded element further comprising a first side portion and a second side portion, wherein the first side portion and the second side portion of the frame are arranged adjacent to the first side panel and the second side panel of the main body respectively.

- 5 13. The packet of any preceding claim, wherein a line of weakening is formed in the pouch, wherein the line of weakening is arranged parallel and adjacent to the bottom edge of the tear tape.

14. The packet of any preceding claim, wherein the lid comprises: a front panel; a rear panel; a top panel; a first side panel; and a second side panel,
10 wherein the rear panel of the lid is attached to the rear panel of the main body by the hinge, and wherein the ratio of the height of the front panel of the lid to the height of the rear panel of the lid is between 1.8 and 2.2.

15. The packet of claim 14, wherein the ratio of the height of the rear panel of the lid to the height of the outer casing when the lid is in the closed position is
15 between 0.15 and 0.19.

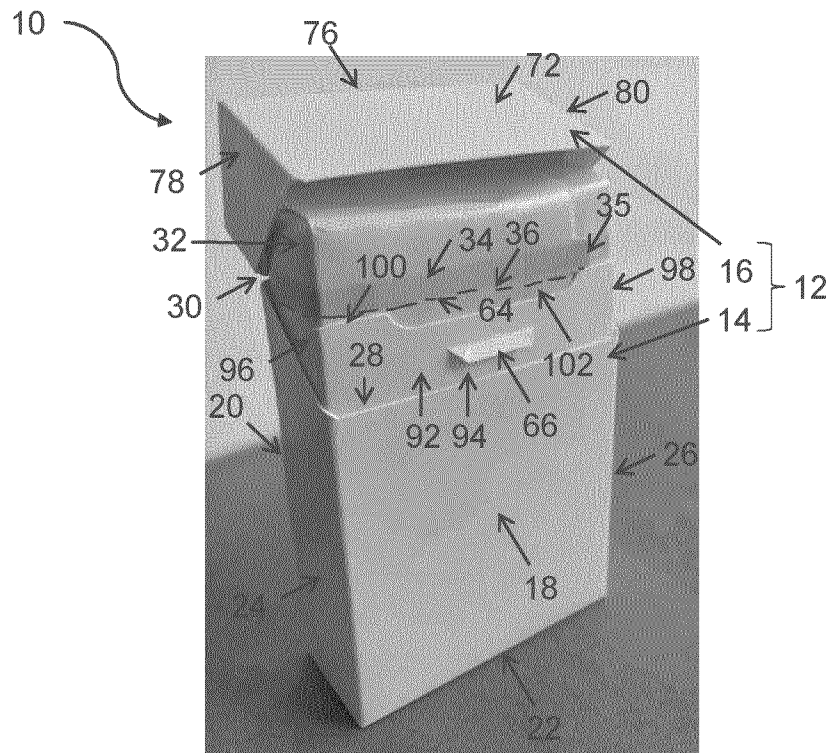


FIG. 1A

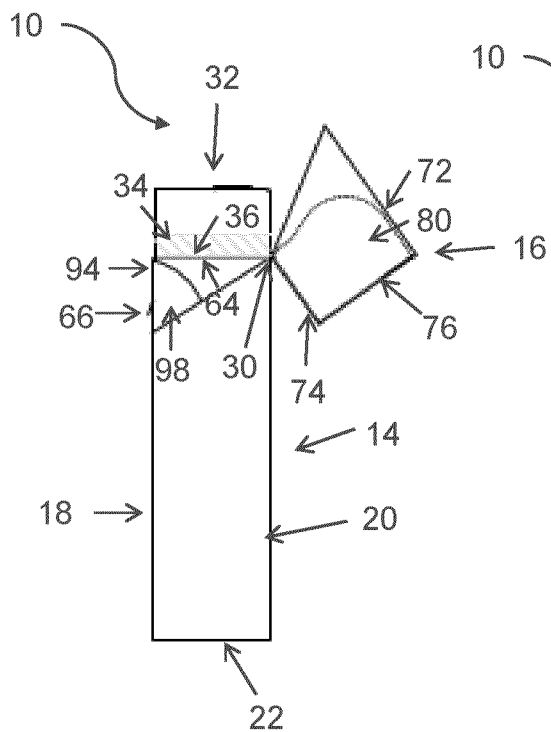


FIG. 1B

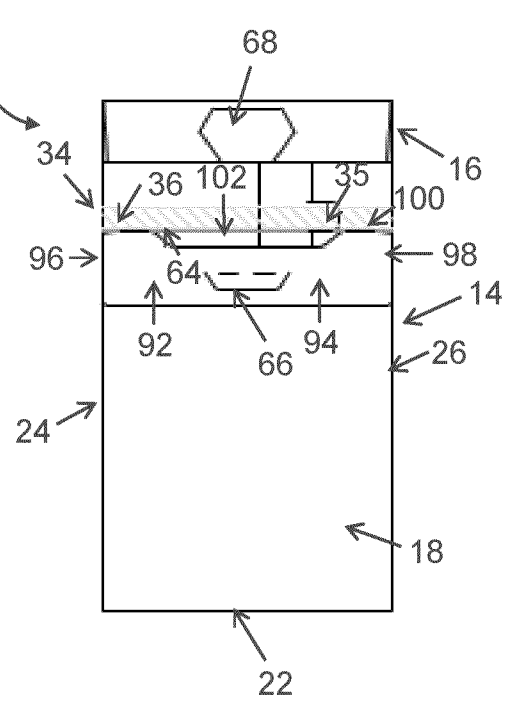


FIG. 1C

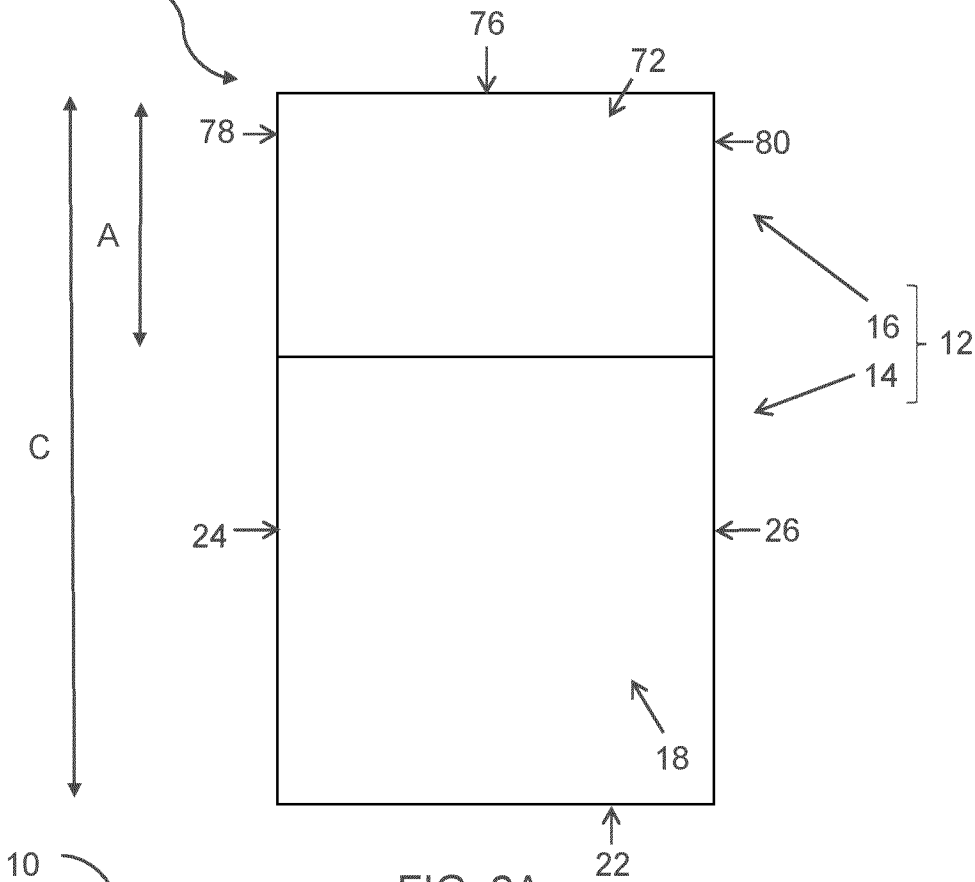


FIG. 2A

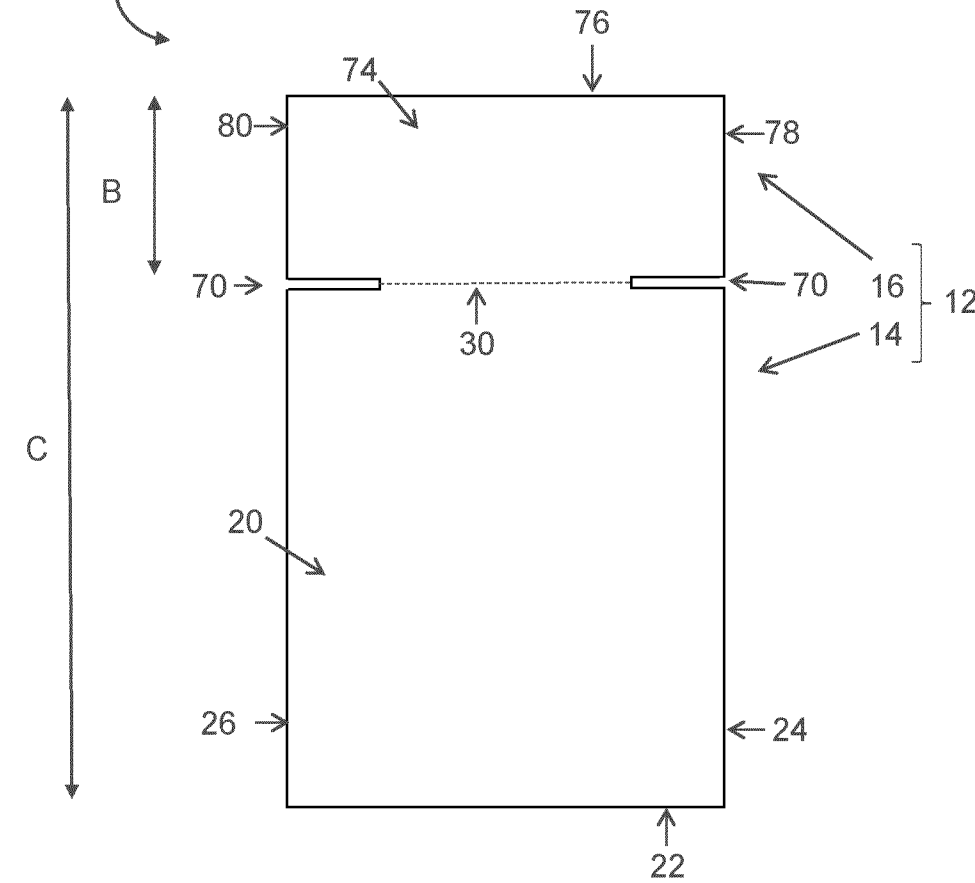


FIG. 2B

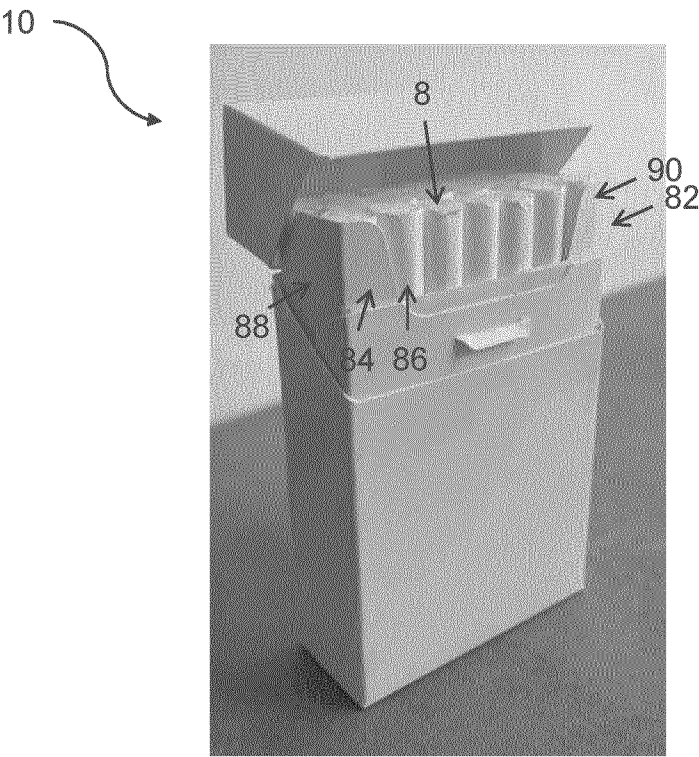


FIG. 3A

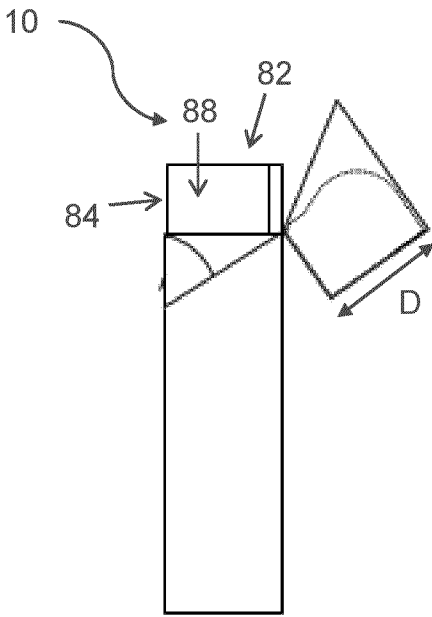


FIG. 3B

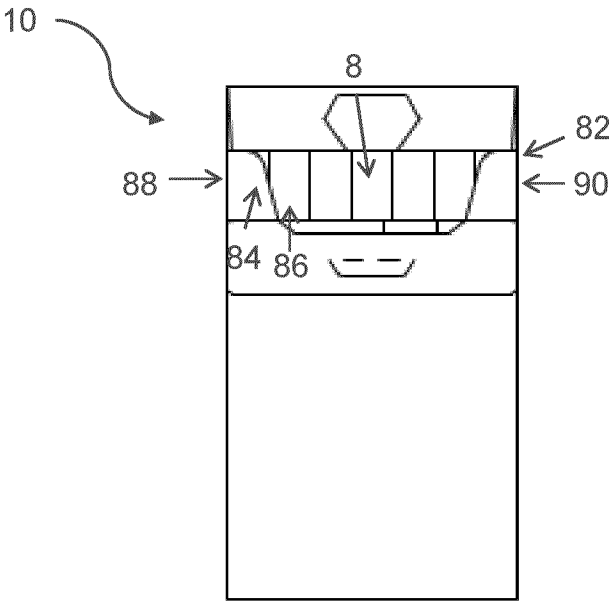


FIG. 3C

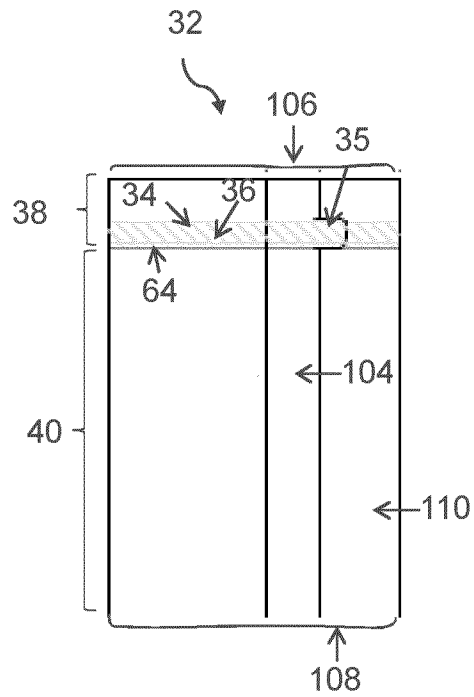


FIG. 4A

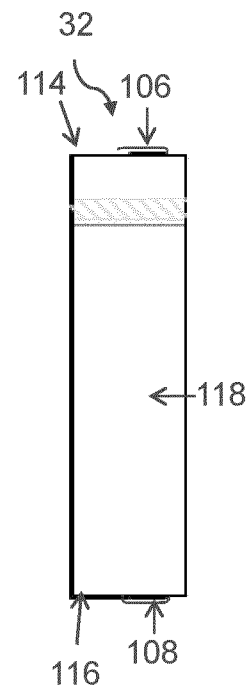


FIG. 4B

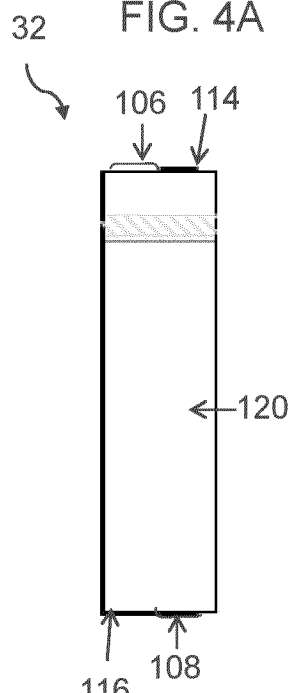


FIG. 4C

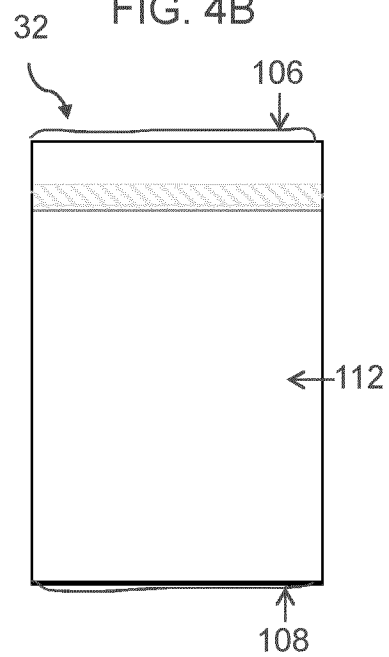


FIG. 4D

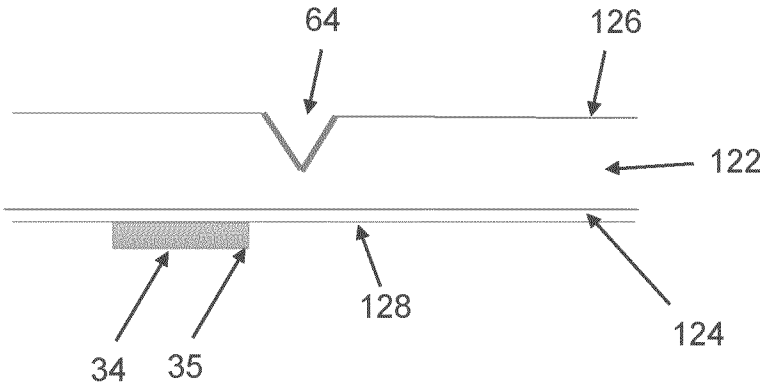


FIG. 5A

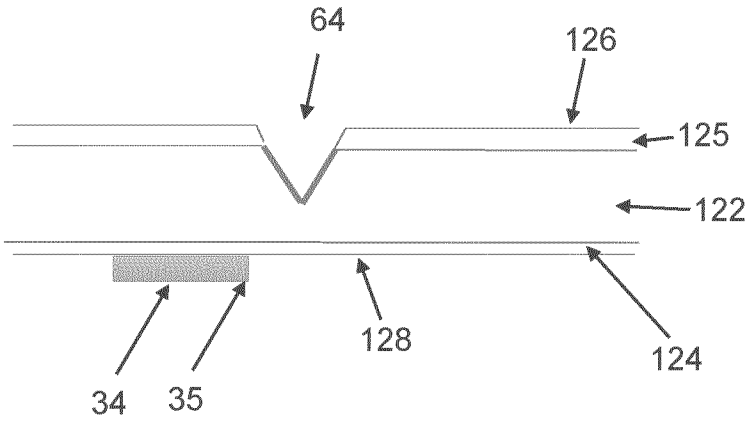
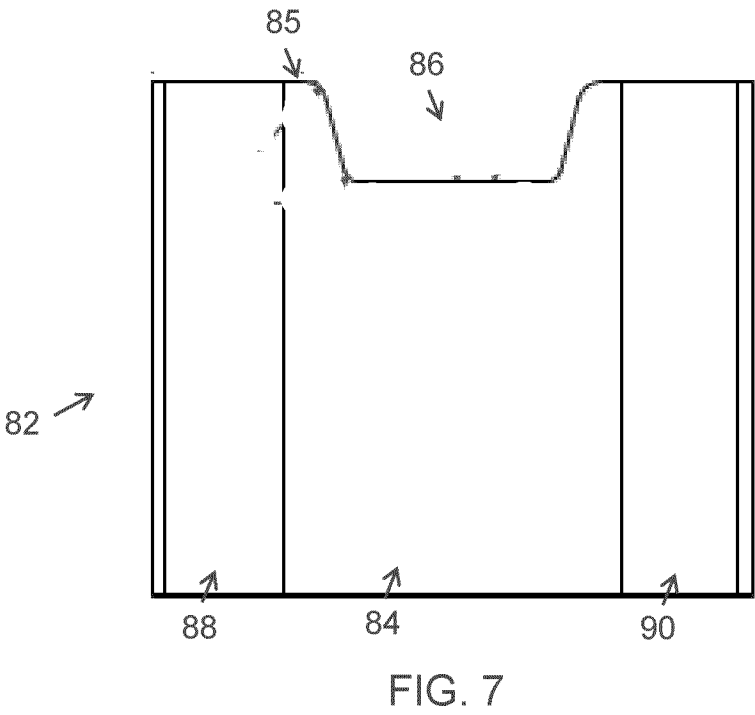
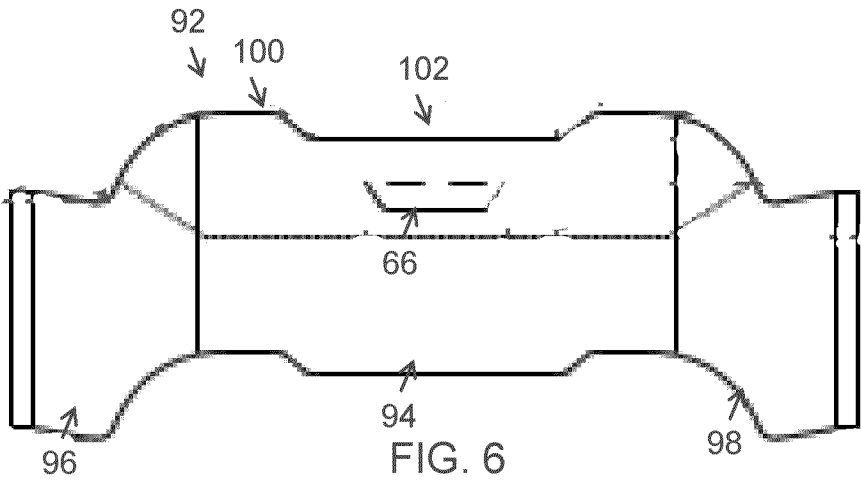


FIG. 5B



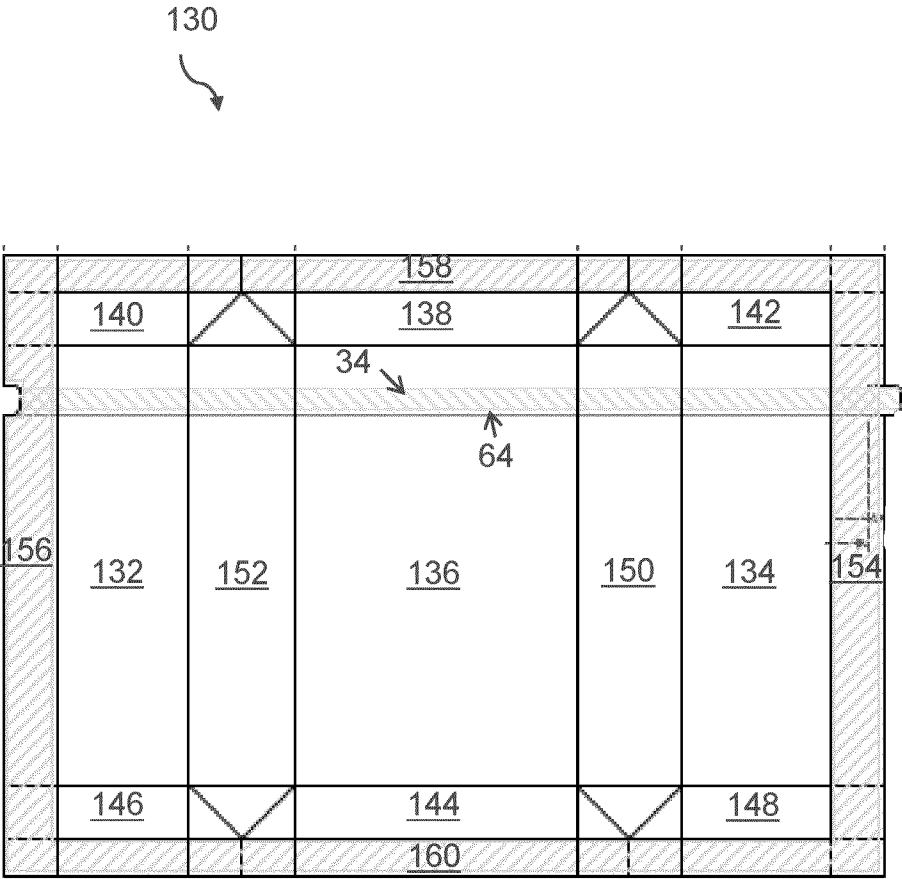


FIG. 8

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2023/062500

A. CLASSIFICATION OF SUBJECT MATTER

INV. B65D5/42 B65D75/68 B65D85/10
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 97/42098 A1 (ROTHMANS INTERNATIONAL LTD [GB]; STEWART COX ADRIAN ROY [GB] ET AL.) 13 November 1997 (1997-11-13) page 3, line 27 - page 4, line 3 page 5, line 10 - page 8, line 27 figures 1-4	1-15
Y	WO 2022/023700 A1 (NICOVENTURES TRADING LTD [GB]) 3 February 2022 (2022-02-03) page 1, line 23 - page 2, line 5 figures 1,2,8	1-4, 9-13
Y	WO 2021/170730 A1 (CCL LABEL AG [CH]) 2 September 2021 (2021-09-02) page 7, line 4 - page 8, line 25	1-4, 9-13
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Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

9 August 2023

Date of mailing of the international search report

18/08/2023

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Leijten, René

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2023/062500

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2015/132770 A1 (GD SPA [IT]) 11 September 2015 (2015-09-11) abstract page 5, paragraph 1 - page 6, paragraph 2; figures 5-9 -----	5-8
Y	US 2021/032012 A1 (FRANZEN JENS [DE]) 4 February 2021 (2021-02-04) paragraphs [0028] - [0029] -----	14
Y	WO 2014/067658 A1 (PHILIP MORRIS PROD [CH]) 8 May 2014 (2014-05-08) page 10, paragraph 7-8; figures 1-3 -----	14,15
A	EP 3 196 148 A1 (G D SOCIETA' PER AZIONI [IT]) 26 July 2017 (2017-07-26) abstract; figures 1-17 -----	5-8
A	WO 2009/148037 A1 (JAPAN TOBACCO INC [JP]; MURAI HIROKO [JP] ET AL.) 10 December 2009 (2009-12-10) machine translation; figures 1-7 -----	5

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2023/062500

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims;; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-15

A packet for smoking articles comprising an outer casing having a hinged lid, a cellulose-based pouch provided with a tear tape which is placed above the hinge.

1.1. claims: 9-12

The packet comprising an inner frame disposed between the pouch and the outer casing.

1.2. claims: 5-8

The packet comprising a stiffening element disposed within the pouch.

1.3. claims: 14, 15

Ratio of the height of the front panel of the lid to the height of the rear panel of the lid is between 1.8 and 2.2.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2023/062500

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