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(54) Title: A PACK

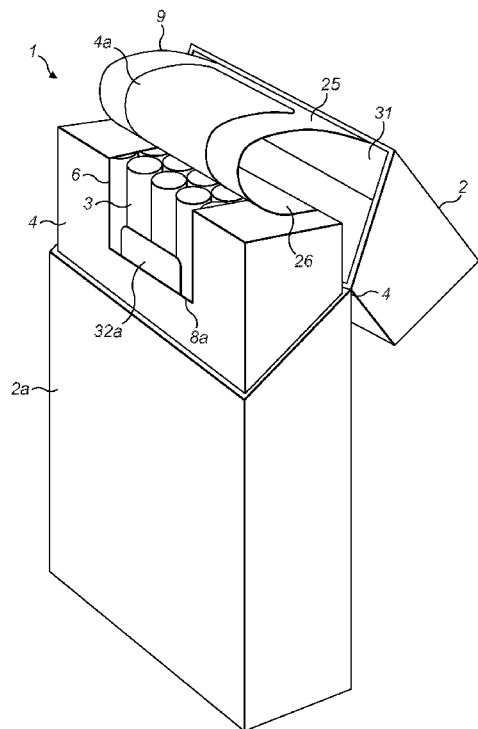


FIG. 4

(57) Abstract: Pack (1) comprising a base (2a) having front and a rear faces is disclosed. The base (2a) contains a group of tobacco industry products (3) wrapped in a barrier layer (4) to form a bundle (5), and a lid (2) is pivotally attached to the rear face of the base for movement between open and closed positions. The barrier layer (4) has a front wall and a region that defines an extraction opening (6) for the removal of tobacco industry products from the bundle. A flexible label (9) extends over said region and has a peripheral section extending beyond an edge of said region over a portion of the barrier layer surrounding said region. The peripheral section releasably adheres to the barrier layer to close said extraction opening. An insert (32) is located within the bundle between the tobacco industry products and the front wall of the barrier layer.

A Pack

Technical Field

The present invention relates to a pack for a tobacco industry product such as smoking
5 articles. In particular, the invention relates to a hinged-lid pack having a base
containing a bundle of smoking articles and a lid mounted to the base for rotation
between open and closed positions to enable access to the bundle of smoking articles to
be obtained.

10 Background

Smoking articles, such as cigarettes, are sold in packs. Known packs often comprise an
outer carton made from cardboard which has a base, a hinged lid and an inner frame
protruding from and attached to the base that is received within the lid when the lid is
closed. The base contains a bundle of smoking articles. The smoking articles are
15 wrapped in a flexible barrier layer having an extraction opening to facilitate
removal of a smoking article from the pack by a consumer when the lid is open.
The opening is closed by a flexible label which extends over the extraction
opening and which may be peeled back by a consumer once the lid has been
pivoted into an open position to reveal the extraction opening. A peripheral
20 region of the label may be coated with a non-permanent re-sealable or 're-stick'
adhesive where it overlaps the barrier layer around the edge of the opening so
that the cover can be peeled back and replaced a number of times to close the
pack and maintain freshness of the smoking articles that remain in the pack.

25 It is also known to provide a sheet-like insert within a pack that is removable
from the pack once the lid has been opened. The insert is received between the
front wall of the pack and the barrier layer that is wrapped around the tobacco
industry product or, more specifically, it is received between the inner frame and
the barrier layer that used to wrap the tobacco industry products. The insert may
30 have information relating to the product printed or otherwise applied to it. The
insert is usually rectangular in shape and may be longer than the height of the
front wall of the base of the pack so that an upper edge portion of the insert is
visible to a consumer upon opening the lid so that it may be grasped and readily
extracted from the pack.

35

Summary

In accordance with embodiments of the invention, there is provided a pack comprising a base having front and a rear faces, the base containing a group of tobacco industry products wrapped in a barrier layer to form a bundle, and a lid pivotably attached to the rear face of the base for movement between open and closed positions, the barrier layer
5 having a front wall and a region that defines an extraction opening for the removal of tobacco industry products from the bundle, wherein a flexible label extends over said region and has a peripheral section extending beyond an edge of said region that overlaps a portion of the barrier layer surrounding said region, wherein adhesive is
10 applied to said label such that it adheres to said region and said peripheral section peelably adheres to said portion of the barrier layer surrounding said region, wherein an insert is located within the bundle between the tobacco industry products and the front wall of the barrier layer, said insert being removable from the bundle after said label has been peeled back together with said region to open the extraction opening.

15 Preferably, the insert is configured so that a portion of said insert extends beyond said edge of said region so that it is visible to a consumer when said label has been peeled back to open the extraction opening, thereby enabling a consumer to grasp said insert and extract it through said extraction opening.

20 The extraction opening may have a width extending in a direction across the front wall of the barrier layer, the width of the insert being less than the width of the extraction opening.

25 Preferably, the barrier layer has a closed end remote from the extraction opening and the insert has a length greater than a distance between said closed end and a lower edge of said region in the front wall of the barrier layer.

In some embodiments, an inner frame is received within the bundle between the tobacco industry products and the barrier layer, said insert being received between the
30 tobacco industry products and the inner frame or between the inner frame and the barrier layer.

Preferably, said region that defines the extraction opening is a part of the barrier layer
35 which is attached to said label.

In a preferred embodiment and prior to first opening, the region is attached to the remainder of the barrier layer by a line of weakness that breaks on first opening of the lid.

- 5 In a modified embodiment, a portion of the label may be adhered to an inside surface of the lid so that the label is peeled back in response to pivotal movement of the lid into its open position.

10 The label may comprise a tab extending from an edge, the tab being folded relative to the remainder of the label and adhered to an inside surface of the lid, so that it faces said remainder of the label when the lid is closed.

Alternatively, the label may comprise a tab extending from an edge, the tab being adhered to an inside surface of the lid without being folded when the pack is closed.
15

In some embodiments, the tab is separated from the remainder of the label by a fold-line so that the tab rotates relative to the remainder of the label about the fold-line as the lid is rotated between its open and closed positions.

- 20 The label may be formed from a multi-layered laminate and the fold-line is formed by a cut in at least one of said layers of said multi-layered laminate of the label as the lid rotates between said open and closed positions.

25 The tab can have a width extending along the edge of the label and the cut extends for the width, or part of the width, of the tab. Alternatively, the cut is formed in multiple sections along the width of the tab.

Brief Description of the Drawings

Embodiments of the invention will now be described, by way of example only, with
30 reference to the accompanying drawings, in which:

FIGURE 1 shows a perspective view of a general embodiment of a pack according to the invention, with its lid pivoted into an open position to reveal a wrapped bundle received within it;

FIGURE 2 shows an inner frame in an unfolded condition and which is received within
35 the wrapped bundle of the pack of Figure 1;

FIGURE 3 shows an end view of the inner frame of Figure 2, after it has been folded about a charge of smoking articles and prior to being wrapped in a barrier layer and inserted into the pack of Figure 1;

FIGURE 4 shows a modified pack according to the present invention, containing a
5 bundle of smoking articles and with its lid, and the label, in an open position to reveal an insert received within the bundle;

FIGURE 5 shows the pack of Figure 4, with the insert partially extracted;

FIGURE 6 shows a cross-sectional side elevation of the pack shown in Figures 4 and 5 with the lid in an open position; and

10 FIGURE 7 shows the same view as Figure 6, but with the lid in a closed position.

Detailed Description

Reference is made herein to a 'tobacco industry product'. This refers to any item made in, or sold by the tobacco industry, typically including a) cigarettes, cigarillos, cigars,
15 tobacco for pipes or for roll-your-own cigarettes, (whether based on tobacco, tobacco derivatives, expanded tobacco, reconstituted tobacco or tobacco substitutes); b) non-smoking products incorporating tobacco, tobacco derivatives, expanded tobacco, reconstituted tobacco or tobacco substitutes such as snuff, snus, hard tobacco, heat-not-burn products and electronic cigarettes. This list is not intended to be exclusive, but
20 merely illustrates a range of products which are made and sold in the tobacco industry.

It is common to provide an insert or sheet in the pack that lies between a front wall and the wrapped bundle of smoking articles, or at least between the inner frame and the wrapped bundle. When the lid is opened, a portion of the insert may be grasped by a
25 consumer and pulled upwardly to extract the insert from the pack. However, it is often difficult to provide an insert in the pack during assembly and insertion of the wrapped bundle of smoking articles into the pack. Embodiments of the present invention therefore seek to provide an improved pack.

30 Figure 1 shows a general embodiment with a rigid card pack 1 with a hinged lid 2 and a base 2a containing a group of cigarettes 3 (see Figures 2 and 3) wrapped in a barrier layer 4 to form a bundle 5. The bounds or edges 8 of an extraction opening 6 formed from a removable region 4a of the barrier layer for allowing access to the cigarettes 3 is indicated by dotted lines extending from the rearside of the barrier layer 4 across the
35 top of the bundle 5 and down the front as far as a lower front wall extraction opening edge 8a. The barrier layer 4, which wraps about the cigarettes 3, may be made of

metallized plastics or of a plastics/metal foil laminate. Over the extraction opening 6 lies an element in the form of a label 9, which is a layer of material having on its undersurface nearer to the barrier layer 4 a re-stick adhesive. The re-stick adhesive covers the undersurface of the label 9. Alternatively, a permanent bonding adhesive
5 may be on the portion of the undersurface of the label 9 which does not overlie the edges of the barrier layer 4, i.e. on the portion that overlies the removable region 4a of the barrier layer 4. However, where the label 9 extends beyond the edges 8 of the extraction opening 6, the undersurface is provided with re-stick adhesive.

10 Beyond one lower front wall edge 10 of the label 9 is a tab 11 which is at least partly free of restick adhesive so that it may be flicked up by the user and used to pull the label 9 to open the bundle 5.

On first use, the edge 8 of the extraction opening 6 may be defined by lines of
15 weakening in the barrier material 4 or by actual cuts. When the cover 9 is pulled back, the section 4a of the barrier layer is separated from the remainder of the barrier layer 4 to open the extraction opening 6 and the consumer is then free to remove cigarettes 3 from the bundle 5 through the extraction opening 6 and, after having done so, reseal or close the extraction opening 6 by bringing down the tab 11 so that the edge of the label 9
20 re-adheres to the adjacent portions of the barrier layer 4 surrounding the extraction opening 6. The region 4a of barrier material 12 formed by the separation when the tab 11 is lifted is returned to its previous position. Although there is a line of separation in the barrier layer 4, it is covered by the adhered edges of the label 9.

25 To ensure efficient adhesion, an inner frame 13, as shown in Figures 2 and 3, is provided within the bundle 5 so that it extends around the cigarettes 3 beneath the barrier layer 4. The inner frame 13 provides a reaction surface underneath the barrier layer 4 against the resealing pressure exerted by the label 9 around the periphery of the extraction opening 6. As shown in Figure 2, the inner frame 13, which may be made of
30 card, has a front panel 16, two side flaps 17 and a top flap 18. Score or fold lines 19, 20 form corners as seen in Figure 3 when the wings 17 are folded to right angles with the panel 16. Top flap 18 is also folded to right angles. It can be seen that when the inner frame 13 has been folded there is an aperture 21 formed through which the cigarettes 3 will be accessible, as indicated in Figure 2. The aperture 21 extends to a base edge 23 in
35 the front panel 16.

As the tab 11 is relatively difficult to grasp in order to remove the label 9, in a modified embodiment, the label 9 and/or tab 11 is attached to the inside surface 31 of the front wall of the lid 2 so that the label 9 is peeled back to reveal the extraction opening 6 at the same time the lid 2 is opened. In particular, with the lid 2 in an open position, as
5 shown in Figure 4, region 4a of the barrier layer 4 is drawn back to reveal the extraction opening 6 and enable a consumer to readily extract a cigarette 3 from the bundle 5.

To achieve simultaneous opening of the lid 2 and label 9, the label 9 has a tab 27 at a lower edge of the label 9. The tab 27 is folded back on itself about a fold-line 28
10 separating the tab 27 from the remainder of the label 9 so that a surface 29 (see Figure 7) of the tab 27 lies against or faces an outer surface 26 of the label 9 when the lid 3 is closed. The opposite surface 30 of the tab 27, which faces outwardly, is attached to an inner surface 31 of the lid 2 using a permanent adhesive, and in the manner and position as shown in Figures 6 and 7.

15 It will also be appreciated that the outer surface of the tab 27 can be permanently adhered to the inner surface 31 of the lid 3 without folding it back prior to gluing. In this arrangement, the tab 27 will be folded back relative to the remainder of the label 9 when the lid 2 is in an open position.

20 When the lid 2 is pivoted about the hinge 4 into its open position, the label 9 is also pulled due to the connection between the tab 27 and the lid 2. This results in the label 9 being peeled back or rolled away from the extraction opening 6 with the section 4a of the barrier layer 4 also being lifted away from the extraction opening 6 together with
25 the label 9. If the pack 1 is being opened for the first time, then region 4a will also separate from the remainder of the barrier layer 4 along the line of weakening that separates region 4a from the remainder of the barrier layer 4, as the lid 2 is opened. As the lid 2 opens, the tab 27 pivots relative to the remainder of the label 9 about the fold-line 28.

30 It will be appreciated that, when the lid 2 is rotated about the hinge 4 back into its closed position, the label 9 will roll back across the extraction opening 6 and the region of the barrier layer 4a will re-position itself within the extraction opening 6. The peelable adhesive coating the peripheral region of the label 9 will also re-adhere to the
35 barrier layer 4 surrounding the extraction opening 6, thereby closing the pack 1.

In all the embodiments of the invention, an insert or leaflet 32 is received in the pack and is located inside the bundle 5, i.e. so that it lies between the smoking articles 3 and the front wall of the barrier layer 4 wrapped around the smoking articles 3 to form the bundle 5. Alternatively, if an inner frame 13 is received in the bundle 5 between the smoking articles 3 and the barrier layer 4, the insert 32 can be located either between the smoking articles 3 and the inner frame 13 or, between the inner frame 13 and the barrier layer 4. The insert 32 has an upper end portion 32a that protrudes beyond a lower front wall edge 8 of the extraction opening 6, as most clearly shown in Figure 4. To ensure that the upper end portion 32a protrudes beyond a lower front wall edge 8 of the extraction opening 6, the length L of the insert 32 may exceed the distance between the bottom of the pack 1, or the bundle 5, and the lower front wall edge 8 of the extraction opening 6, as indicated by 'H' in Figure 5. Alternatively, the insert 32 may be a relatively tight sliding fit within the bundle 5 so that it will be held in position after insertion or, it may be partially and releasably adhered to either the inner frame 13 or to an inside surface of the barrier layer 4, although it must be possible to enable any such adhesive to be broken easily to allow the insert 32 to be withdrawn from the bundle 5 by a consumer, when the insert 32 is pulled. It will be appreciated that the inner frame 13 is not shown in Figures 6 and 7, although it may be present.

The insert 32 can be rectangular in shape and it may have a width ('W' in Figure 5) that is less than the width of the access aperture 6 measured in a direction extending across the front wall of the bundle 5, to enable the insert 32 to be easily extracted through the access aperture 6, as shown in Figure 6. However, the insert 32 may be folded prior to insertion so that the width of a folded section of the insert 32 is less than the width of the extraction opening 6, thereby enabling it to be easily removed through the extraction opening 6 prior to unfolding it.

As indicated above, the insert 32 may have a length L that is greater than the distance between a lower end of the bundle 5 and the lower front wall edge 8 of the access aperture 6, so that a portion 32a of an upper end of the insert 16 is visible to a consumer when the lid 2 is open and the cover layer 9 has been pulled back, as shown in Figure 4. This visible portion 32a may be grasped by a consumer to enable them to extract the insert 32 from the pack 1. Again the insert 32 may be folded so that it assumes a predetermined size to enable it to be removed easily through the extraction opening 6 prior to being unfolded by a consumer.

The cover 9 may have a laminate structure and the line 28 about which the tab 27 folds relative to the remainder of the label 9 can be defined by a cut that extends through one of the layers of the laminate forming the cover 9. The cut may extend through one or more layers of a multi-layered laminate. The tab 27 has a width extending along the edge of the label 9 and the cut can extend for the entire width, part of the width or for multiple sections spaced from each other along the width of the tab 27.

A cut in the laminate between the tab 27 and the remainder of the label provides a more positive and consistent folding action, allows the tab 27 to pivot more easily relative to the remainder of the label 9 as the lid 2 is opened and closed, ensures that the tab 27 pivots relative to the remainder of the tab 27 at the correct position and angle and also provides a well-defined fold in the cover 9. The fold-line 28 also ensures that the tab 27 readily sits flush or flat against the remaining uncut portion of the cover 9 when the lid 2 is closed to prevent any tendency for the tab 27 to push against the lid 2 which may urge the lid 2 into a slightly open position and which may result in a less well defined shut line along the front of the pack 1. However, it will be appreciated that it is not essential for the cover 9 to be formed from a laminate material or for the fold-line 28 to be formed by a cut.

It will be appreciated that the cover 9 may be formed from a laminate having any number of layers and that a cut may be formed partially or entirely through one or more of those layers from either side so as to form the fold-line 28 between the tab 27 and the remainder of the label 9 and that the cut may extend for the whole or only part of the length of the tab 27 where it joins the remainder of the label 9.

In order to address various issues and advance the art, the entirety of this disclosure shows by way of illustration embodiments in which the claimed invention(s) may be practiced and provide a superior pack for smoking articles. The advantages and features of the disclosure are of a representative sample of embodiments only, and are not exhaustive and/or exclusive. They are presented only to assist in understanding and teach the claimed features. It is to be understood that advantages, embodiments, examples, functions, features, structures, and/or other aspects of the disclosure are not to be considered limitations on the disclosure as defined by the claims or limitations on equivalents to the claims, and that other embodiments may be utilised and modifications may be made without departing from the scope of the disclosure. Various

embodiments may suitably comprise, consist of, or consist essentially of, various combinations of the disclosed elements, components, features, parts, steps, means, etc. In addition, the disclosure includes other inventions not presently claimed, but which may be claimed in future.

Claims

1. A pack comprising a base having front and a rear faces, the base containing a group of tobacco industry products wrapped in a barrier layer to form a bundle, and a
5 lid pivotably attached to the rear face of the base for movement between open and closed positions, the barrier layer having a front wall and a region that defines an extraction opening for the removal of tobacco industry products from the bundle, wherein a flexible label extends over said region and has a peripheral section extending beyond an edge of said region that overlaps a portion of the barrier layer surrounding
10 said region, wherein adhesive is applied to said label such that it adheres to said region and said peripheral section peelably adheres to said portion of the barrier layer surrounding said region, wherein an insert is located within the bundle between the tobacco industry products and the front wall of the barrier layer, said insert being removable from the bundle after said label has been peeled back together with said
15 region to open the extraction opening.
2. A pack according to claim 1, wherein said insert is configured so that a portion of said insert extends beyond said edge of said region so that it is visible to a consumer when said label has been peeled back to open the extraction opening, thereby enabling
20 a consumer to grasp said insert and extract it through said extraction opening.
3. A pack according to claim 1 or 2, wherein the extraction opening has a width extending in a direction across the front wall of the barrier layer, the width of the insert being less than the width of the extraction opening.
25
4. A pack according to any preceding claim, wherein the bundle has a closed end remote from the extraction opening and the insert has a length which is greater than a distance between said closed end and a lower edge of said region in the front wall of the barrier layer.
30
5. A pack according to any preceding claim, comprising an inner frame received within the bundle between the tobacco industry products and the front wall of barrier layer, said insert being received between the tobacco industry products and the inner frame or, between the inner frame and the front wall of the barrier layer.
35

6. A pack according to any preceding claim, wherein said region that defines the extraction opening is a part of the barrier layer which is attached to said label.
7. A pack according to claim 6, wherein, prior to first opening, said region is
5 attached to the remainder of the barrier layer by a line of weakness that breaks when the label is peeled back for the first time.
8. A pack according to any preceding claim, wherein a portion of the label is adhered to an inside surface of the lid so that the label is peeled back in response to
10 pivotal movement of the lid into its open position.
9. A pack according to any preceding claim, wherein the label comprises a tab extending from an edge of the label, the tab being folded relative to the remainder of the label and adhered to an inside surface of the lid, so that it faces said remainder of
15 the label when the lid is closed.
10. A pack according to any of claims 1 to 8, wherein the label comprises a tab extending from an edge of the label, the tab being adhered to an inside surface of the lid without being folded when the pack is closed.
20
11. A pack according to claim 9 or 10, where the tab is separated from the remainder of the label by a fold-line so that the tab rotates relative to the remainder of the label about the fold-line as the lid is rotated between its open and closed positions.
- 25 12. A pack according to claim 11, wherein the label is formed from a multi-layered laminate and the fold-line is formed by a cut in at least one of said layers of said multi-layered laminate of the label as the lid rotates between said open and closed positions.
13. A pack according to claim 12, wherein the tab has a width extending along the
30 edge of the label and the cut extends for the width of the tab.
14. A pack according to claim 12, wherein the tab has a width extending along the edge of the label and the cut extends for part of the width of the tab.

15. A pack according to claim 12, wherein the tab has a width extending along the edge of the body portion and the cut is formed in multiple sections along the width of the tab.

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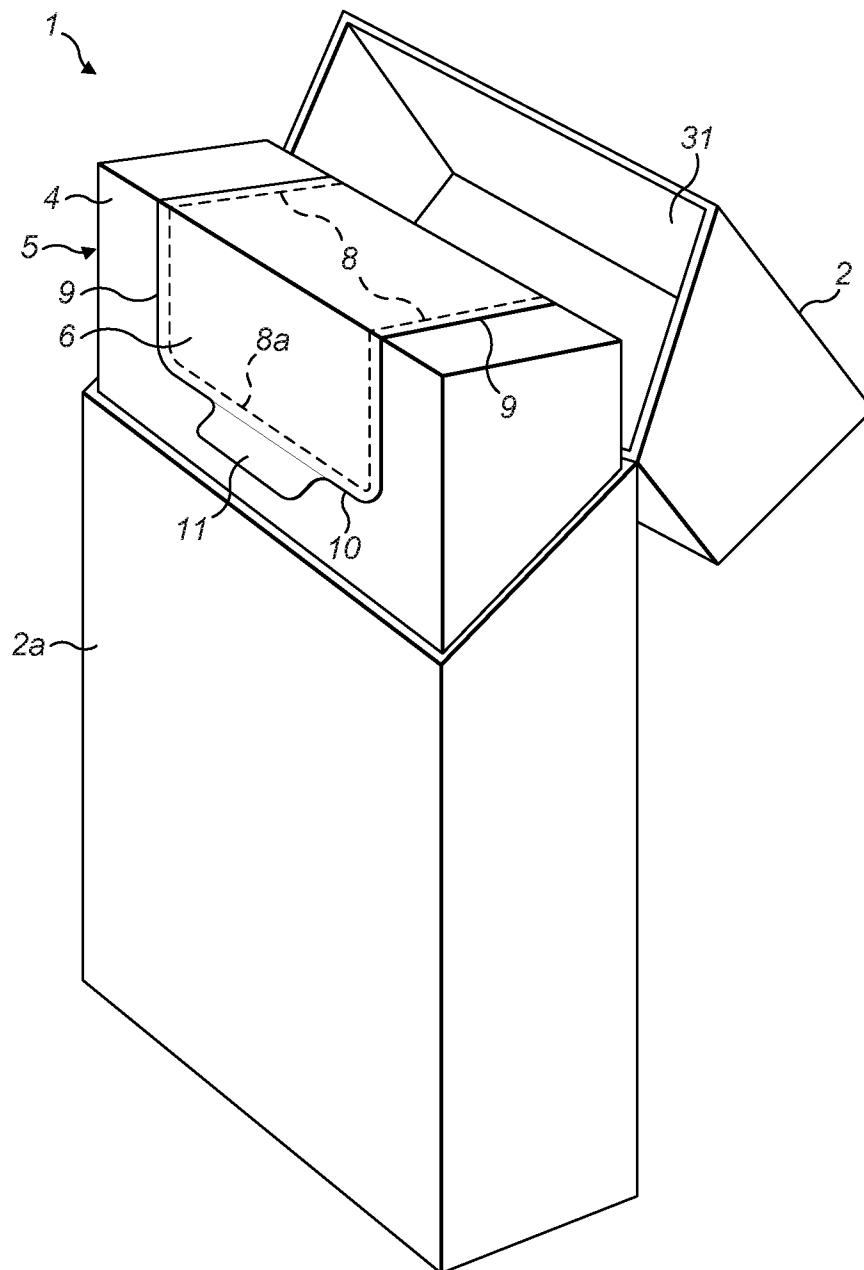


FIG. 1

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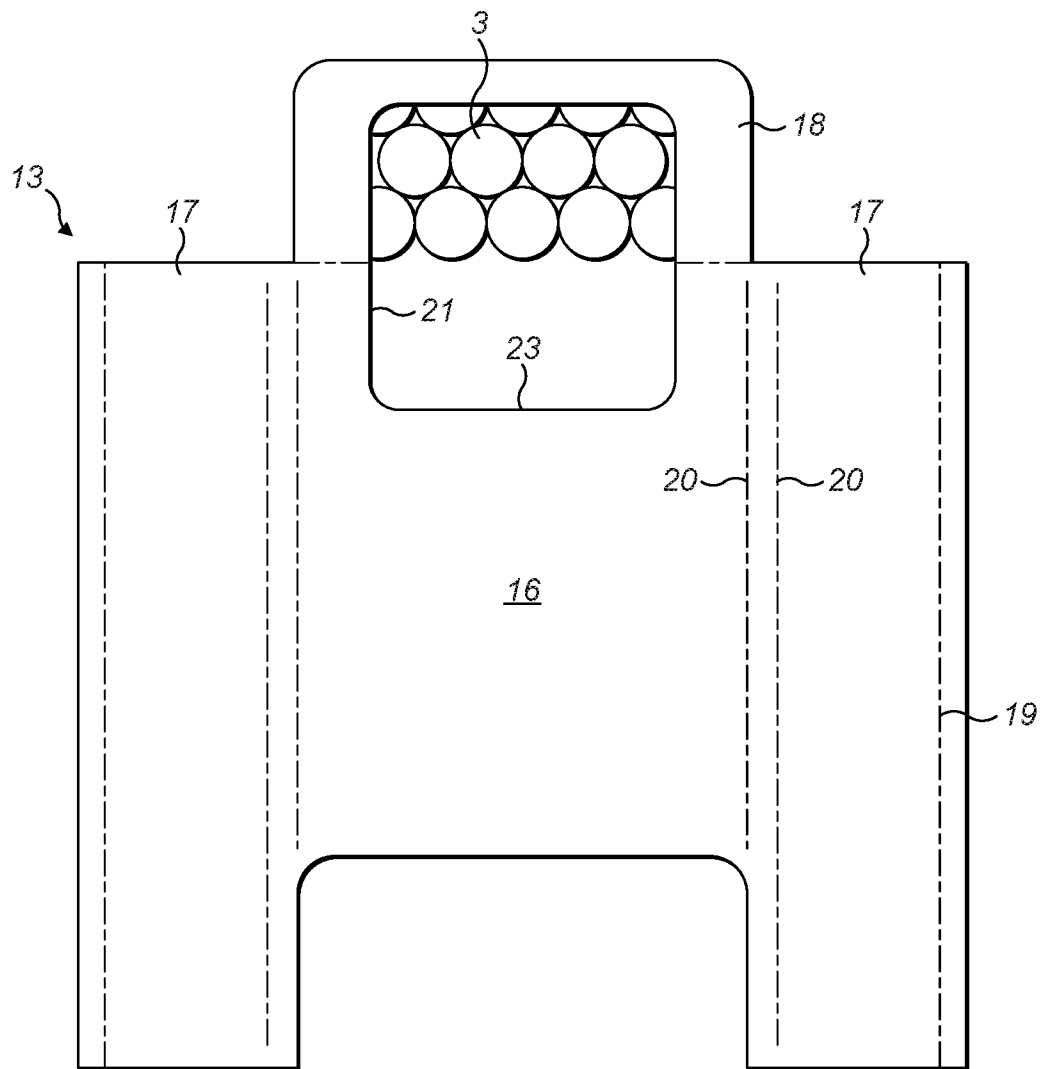


FIG. 2

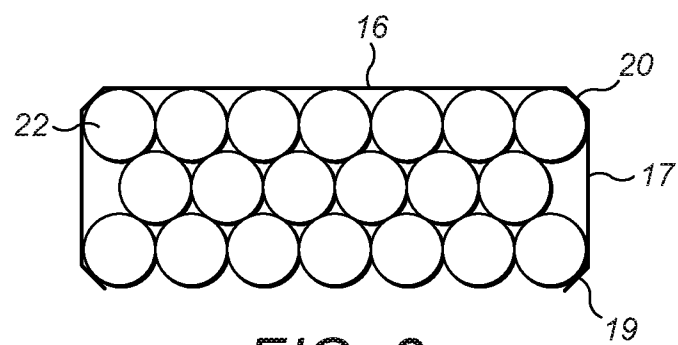


FIG. 3

3 / 6

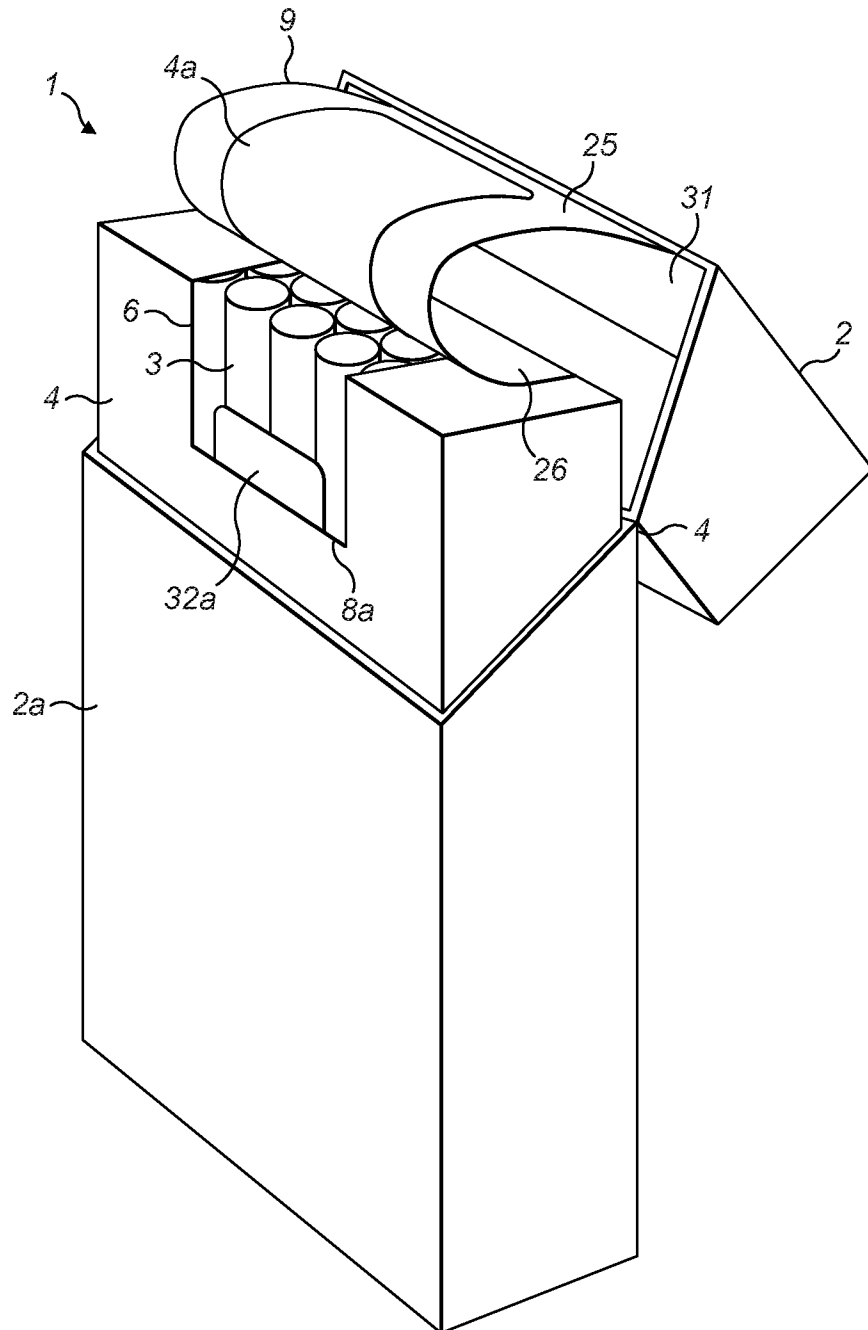
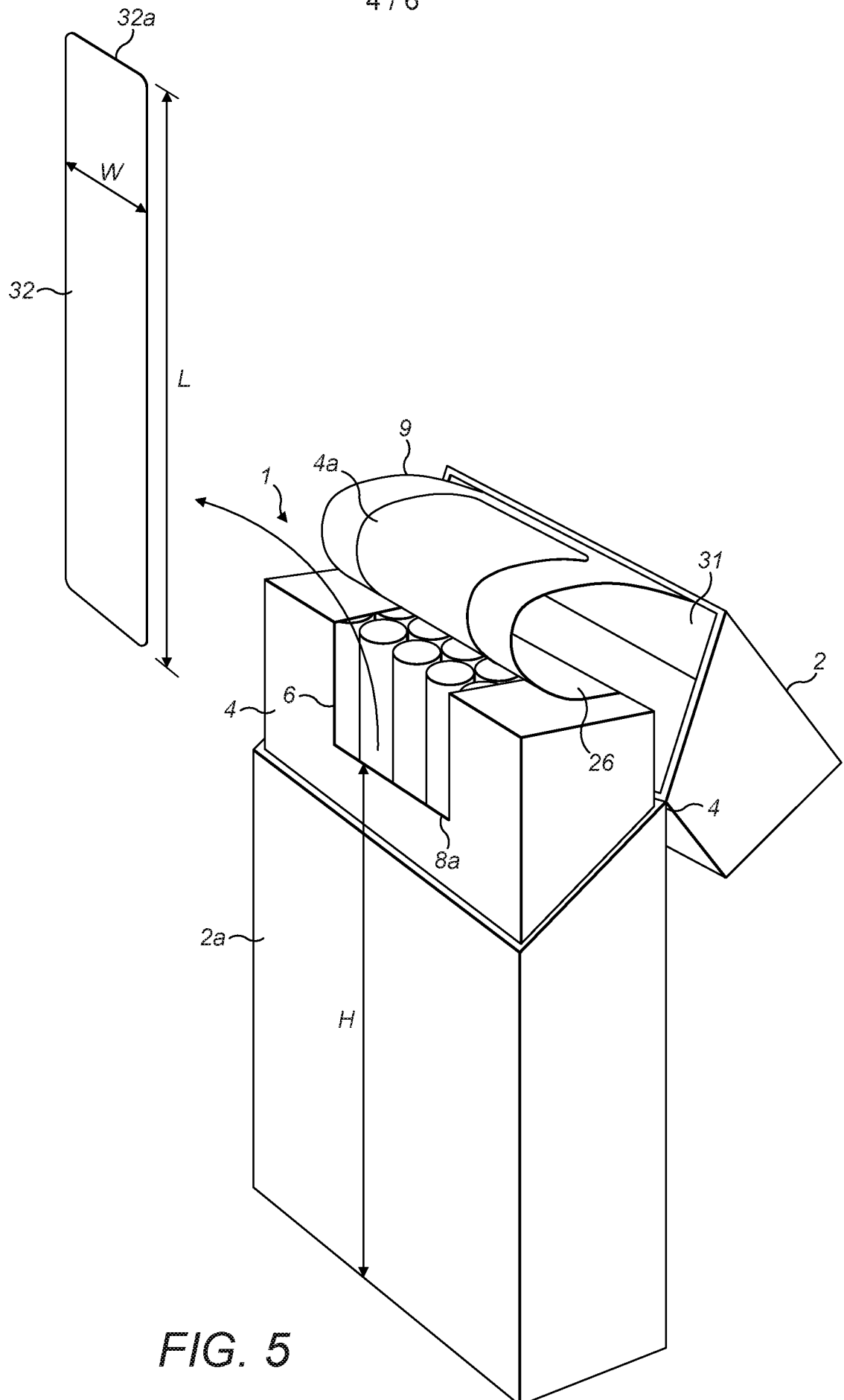


FIG. 4

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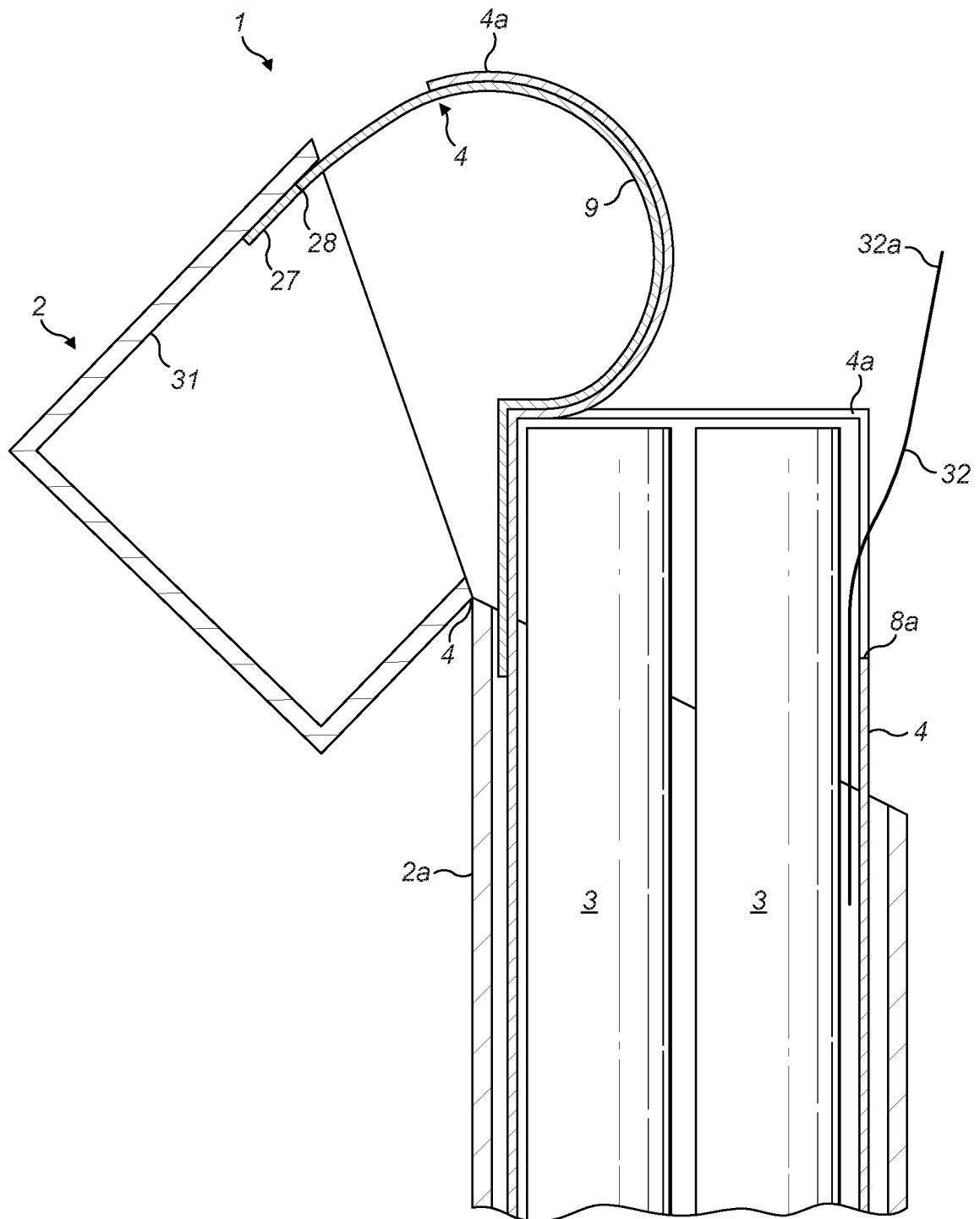


FIG. 6

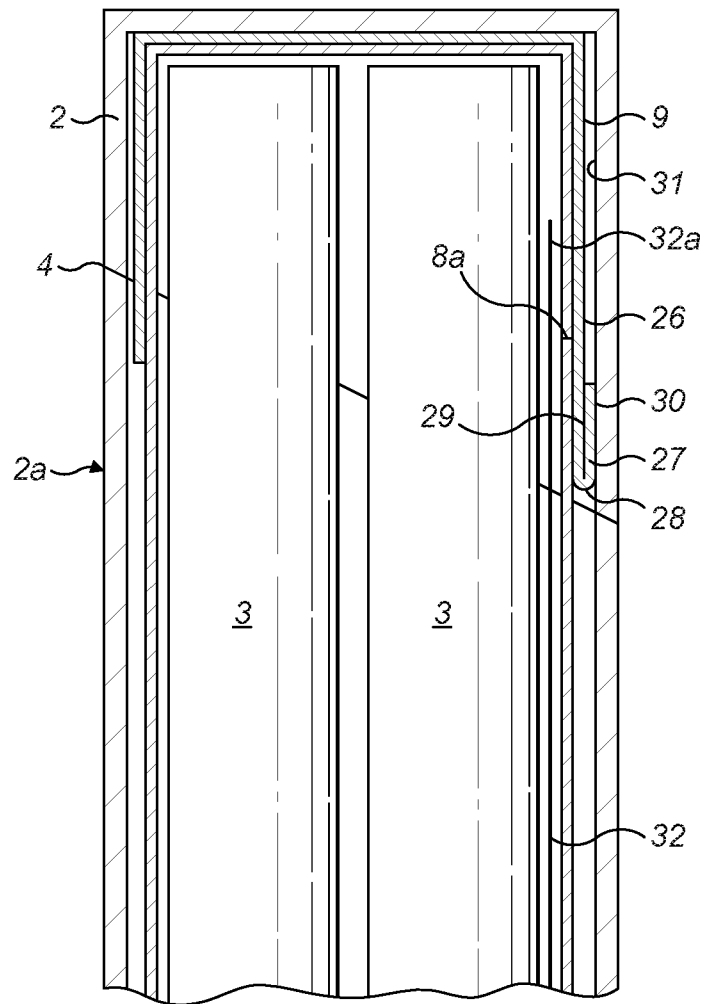


FIG. 7

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2015/052717

A. CLASSIFICATION OF SUBJECT MATTER
INV. 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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98/22367 A1 (ROTHMANS INTERNATIONAL LTD [GB]; BRAY ANDREW JONATHAN [GB]; PARKER MIC) 28 May 1998 (1998-05-28) pages 1-26 figures 1-31	1,5-9
Y	----- WO 2012/147073 A1 (GD SPA) 1 November 2012 (2012-11-01) pages 1-13 figures 1-14	1,6-15
Y	----- WO 2013/098109 A1 (PHILIP MORRIS PROD [CH]) 4 July 2013 (2013-07-04) pages 1-11 figures 1-7	1,5-8, 10-15
	----- -/-	



Further documents are listed in the continuation of Box C.



See patent family annex.

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Date of the actual completion of the international search

13 November 2015

Date of mailing of the international search report

26/11/2015

Name and mailing address of the ISA/

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Duc, Emmanuel

INTERNATIONAL SEARCH REPORT

International application No

PCT/GB2015/052717

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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Information on patent family members

International application No

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