

Description

Field of the Invention

[0001] The present invention relates to a container for consumer goods, in particular a container for smoking articles such as cigarettes.

Background

[0002] Some cigarette containers comprise a rigid outer housing and an inner package within which cigarettes are contained. These containers have a hinged lid so as to protect the cigarettes stored within the inner package when the lid is closed. The lid is usually attached to or formed in the outer housing of the container.

[0003] In such conventional containers, the lid covers an opening in the inner package of the container to protect the goods when the lid is closed. However, the lid may not provide sufficient protection if it is not properly closed or if it becomes loose due to frequent use. In such cases, the consumer goods such as cigarettes stored inside in the container may be exposed to the external environment and deteriorate over time.

[0004] Providing a secure closing mechanism for the container that is complex or fiddly is not ideal as it leads to user inconvenience. Therefore, it is desirable that the closing of the container is smooth and intuitive as well as secure.

[0005] In addition, the front surface of the container, which is not covered by the lid in the closed position, may contain some messaging for consumers. However, the visual impact of the messaging may be limited as it is provided below the lid, in the closed position, and may not be necessarily noticed by the consumers.

[0006] To solve these problems there have been attempts to use more complex, and therefore costly, construction of the cigarette container. These solutions are unsatisfactory as they are more costly and increase manufacturing complexity.

[0007] Therefore, it is an object of the invention to provide an improved container for consumer goods with a secure lid with smooth operation.

Statement of Invention

[0008] According to a first aspect of the invention, there is provided a container for consumer goods comprising a box having an access opening; and a hinged lid rotatable between open and closed positions, wherein the lid is hinged to a back wall of the box and the lid comprises a front edge or a front wall having a flap that extends beyond the access opening in the box when the lid is in the closed position.

[0009] Preferably, the hinged lid is configured to cover the access opening when the lid is in the closed position and to expose the access opening when the lid is in the open position.

[0010] Preferably, the flap is attached only to the front edge or the front wall of the lid.

[0011] Preferably, the flap is configured to extend at least halfway along the front wall of the box when the lid is in the closed position.

[0012] Preferably, the lid covers at least two-thirds of the surface of the front wall of the box when the lid is in the closed position.

[0013] Preferably, the flap is connected to a back wall of the lid via generally triangular side walls, without connection to the top wall of the lid.

[0014] Preferably, the box further comprises an outer body and an inner body formed integrally with the outer body, the access opening being defined by the inner body.

[0015] Preferably, the flap comprises a locking tab projecting outwards from a free edge of the flap, the locking tab being received by a slot defined in the front surface of the outer body such that the slot engages with the locking tab formed in the flap when the lid is in the closed position.

[0016] Preferably, the box further comprises an outer body having a first opening and an inner body disposed inside the first opening, the access opening being defined by the inner body.

[0017] Preferably, the flap comprises a locking tab projecting outwards from a free edge of the flap, the locking tab being received by a slot defined at an interface between the outer body and the inner body such that the locking tab engages with the slot formed in the flap when the lid is in the closed position.

[0018] Preferably, the flap is arranged to provide a closing mechanism so as to facilitate ease of closing the lid.

[0019] Preferably, the flap is configured to be resiliently biased away from the front edge of the box during initial movement of the lid from the open position towards the closed position when a force is exerted on the top wall of the lid, whereby continued movement of the lid past an intermediate position causes the flap to snap close against the box.

[0020] Preferably, the intermediate position is a position at which the inner surface of the flap makes contact with the front edge of the box.

[0021] Preferably, the flap is provided with indicia on its outer surface, which is the side that is visible when the lid is closed. Further, an inner surface of the flap and/or the front surface of the inner frame is imposed with a second indicia, preferably different from the first indicia. Furthermore, at least one side of the box is imposed with a third indicia, preferably similar to the first indicia.

[0022] Preferably, the container is used for storing smoking articles.

[0023] As described above, the container of the present invention provides a long lid front panel having a different lid construction. The front lid panel may extend about more than 50% of the length of the pack, preferably

about 60-65%. This length provides inherent flexibility to the front lid panel, which is advantageous to help proper closing of the package, in particular as a locking tab is arranged at the lip end of the front lid panel, to enter a corresponding opening in the pack body front panel.

[0024] Further advantageously, in the first embodiment, the front lid counter panel is prolonged with a reinforcing tab which is arranged to be folded in and against the lid top panel, while triangular lid side tabs structurally link the lid back panel to the front panel without connection to the lid top panel, as opposed to standard crush-proof boxes (CPBs). A locking tab is also provided at the split end of the front lid panel to cooperate with a corresponding opening. Further, the inner frame may be integral to the front body panel, as opposed to standard CPB.

Brief Description of the Drawings

[0025] The invention(s) will be further described, by way of example only, with reference to the accompanying drawings in which:

Fig. 1 shows a perspective view of a container in a first embodiment of the invention in a lid open position;

Fig. 2 shows a perspective view of a container of Fig. 1 in a lid closed position;

Fig. 3 shows a perspective view of a container in a second embodiment of the invention in a lid open position;

Fig. 4 shows a perspective view of a container of Fig. 3 in a lid closed position;

Fig. 5 shows a blank for forming the container of Fig. 1;

Fig. 6 shows a blank for forming the container of Fig. 3; and

Fig. 7 shows a system for forming an inner body of the present invention.

Detailed Description

[0026] A container 1 shown in Fig. 1 comprises a box 2 and a lid 3 that is hinged to the box 2 along a hinge line. Fig. 1 shows the container 1 with the lid 3 in an open position. The box 2 has a rigid outer frame 4 integrated with an inner frame (not shown). A bundle of cigarettes 14, wrapped in the inner frame, is housed in the box 2 of the container 1.

[0027] The box 2 has a box front wall, a box left side wall, a box right side wall, a box back wall, and a box bottom wall. The upper side of the box 2 is open, to provide an access opening 6 through which the cigarettes

can be removed.

[0028] The inner front wall of the outer frame 4 (integrated with the inner frame) comprises a rectangular cut-out 15 at the top free edge, in order to facilitate removal of the cigarettes from the box 2. The rectangular cut-out 15 substantially corresponds to a front wall portion of the access opening 6. A flat panel 7 may be attached to the cut-out along a line of weakness 16. The panel 7 protects the cigarettes contained in the front row of the access opening 6. A consumer may remove the panel 7 along the line of weakness 16 and discard it after opening the container 1. The panel 7 can be used to display one or more messages for the consumer, for example, branding or promotional messages. The upper side edges 17a, 17b of the outer frame 4 have inclined slopes such that the top of the front wall is higher than the top of the back wall.

[0029] The lid 3 has a lid top wall, a lid left side wall, a lid right side wall, a lid back wall but has no prominent lid front wall. Alternatively, the lid 3 has a narrow lid front wall. The lid 3 has a flap 8 extending from the top front edge or the narrow front wall of the lid 3. The flap 8 is resiliently deformable. The flap 8 is connected to the hinge lid back wall via the lid left and right side walls. The left and right side walls are generally triangular shaped and slope downwards from the front wall to the back wall of the lid 3. The flap 8 is either attached to the lid front edge or formed integrally into the lid 3. The flap 8 is preferably made of the same material as the lid 3. The flap 8 may also extend and fold back onto itself to provide added rigidity. When the container 1 is closed, the free side edges of the walls of the lid 3 abut the free side edges of the walls of the box 2 defining a line of abutment between them. The flap 8 abuts the surface of the front wall of the box 2. As shown in Fig. 1, the front wall of the box 2 comprises a front surface of the outer frame 4. Preferably, when the lid 3 is closed, the flap 8 extends beyond the access opening 6 to cover at least half of the surface of the front wall of the box 2. More preferably, the flap 8 covers two-thirds or 60 to 70 percent of the surface of the front wall of the box 2.

[0030] The flap 8 is configured such that when the lid 3 is pushed towards the closed position, the flap 8 is snap closed onto the front wall of the box 2. As pressure is exerted by a user on the top wall of the lid 3, the flap 8 is biased (e.g. deflected) away from the upper edge of the front wall of the box 2 by contact therebetween. Once the flap 8 (e.g. the point of contact) has moved past the upper edge of the box 2 a sufficient amount, the resilience of the flap 8 causes it to snap close against the front wall of the box 2. Therefore, the container 1 is securely "auto-closed" by the flap 8 to protect the cigarettes stored inside it. As the flap 8 extends much further from the access opening 6, the cigarettes are better protected.

[0031] The flap 8 may also comprise a locking tab 9 projecting outwards from the front edge of the flap 8. The locking tab 9 is configured to engage with a cut-out portion 10 provided in the surface of the inner frame 5. The

cut-out portion 10 is formed as a trapezoid-shaped segment with partial cuts in the angled sides 10a, 10b and a full cut substantially midway between the parallel sides 10c, 10d of the segment. The upper segment containing the side 10c is embossed and the lower segment containing the side 10d is debossed. By virtue of the cut-out portion 10, the locking tab 9 can be securely contained inside the cut-out portion or slot 10 when the lid 3 is closed, and the cigarettes stored in the container 1 are further well protected from accidental opening.

[0032] As shown in Fig. 2, when the lid 3 is closed, the flap 8 extends over the front wall of the box 2. In order to access the cigarettes within the inner frame (integrated with the outer frame 4), the lid 3 is moved from the closed position to the open position shown in Fig. 1. As the lid 3 is moved from the closed position, the tab 9 contained in the slot 10 is pulled out and the flap 8 is moved upwards exposing the access opening 6. In order to close the container 1, the lid 3 is moved from the open position to the closed position.

[0033] As the lid 3 is moved from the open position, the flap 8 is urged across the front edge of the box 2, which biases the resilient flap 8 away from the box 2. Once a certain point along the flap 8 is reached, preferably, past a point where the free side edges of the box 2 meet the flap 8 or the point at which the flap 8 extends from the front wall of the lid 3, the bias resistance provided by the upper edge of the box 2 against the flap 8 is removed, which allows the flap 8 to snap close onto the front wall of the box 2 abutting its surface. The tab 9 is guided to the slot 10 on snap closing of the flap 8.

[0034] The lid 3 is therefore movable about the box 2 between open and closed positions through an intermediate, stable position, as explained above. Movement of the lid 3 between the closed position and the intermediate position, or vice versa, requires overcoming a biasing force, caused by resilient flexure of the flap 8 away from the front edge of the box 2.

[0035] Fig. 3 shows a second embodiment of the present invention. Parts of the container similar to those in the container of Fig. 1 are denoted by same reference numerals.

[0036] A container 1 shown in Fig. 3 comprises a box 2 and a lid 3 that is hinged to the box 2 along a hinge line. Fig. 3 shows the container 1 with the lid 3 in an open position. The box 2 has a rigid outer frame 4 with an opening 13, inside which is disposed an inner frame 5. A bundle of cigarettes 14, wrapped in the inner frame 5, is housed in the box 2 of the container 1.

[0037] The box 2 has a box front wall, a box left side wall, a box right side wall, a box back wall, and a box bottom wall. The upper side of the box 2 is open, to provide an access opening 6 through which the cigarettes can be removed.

[0038] The inner frame 5 may be optionally connected, for example, glued, to the outer frame 4. The inner frame front wall includes a rectangular cut-out 15 at the top free edge, in order to facilitate removal of the cigarettes from

the box 2. The rectangular cut-out substantially corresponds to a front wall portion of the access opening 6. The walls of the inner frame extend above the upper edges of the box 2. A flat panel 7 may be attached to the cut-out 15 along a line of weakness 16. The panel 7 protects the cigarettes contained in the front row of the access opening 6. A consumer may remove the panel 7 along the line of weakness 16 and discard it after opening the packet. The panel 7 can also be used to display one or more messages for the consumer, for example, branding or promotional messages.

[0039] The lid 3 has a lid front wall, a lid left side wall, a lid right side wall, a lid back wall and a lid top wall. The lid 3 has a flap 8 extending from the lid front wall. The flap 8 is resiliently deformable. The flap 8 is connected to the hinge lid back wall via the lid left and right side walls. The left and right side walls of the lid 3 are generally right-trapezoidal shaped, each having two parallel sides perpendicular to their respective base. The side walls preferably slope downwards from the front wall to the back wall of the lid 3. The flap 8 is either attached to the lid front wall or formed integrally into the lid 3. The flap 8 is preferably made of the same material as the lid 3. The flap 8 may also extend and fold back onto itself to provide added rigidity and resilience. When the container 1 is closed, the free side edges of the walls of the lid 3 abut the free side edges of the walls of the box 2 along a line of abutment. The flap 8 abuts the surface of the front wall of the box 2. As shown in Fig. 1, the front wall of the box 2 comprises a front surface of the inner frame 5 and a front surface of the outer frame 4 below the inner frame 5. When the lid 3 is closed, the flap 8 covers the entire front surface of the inner frame 5 and lies just above the outer frame 4 (as shown in Fig. 2). Preferably, the flap 8 covers at least half of the surface of the front wall of the box 2 when the lid 3 is in the closed position. More preferably, the flap 8 covers two-thirds or 60 to 70 percent of the surface of the front wall of the box 2.

[0040] Similar to the first embodiment, the flap 8 is configured such that when the lid 3 is pushed towards the closed position, the flap 8 is snap closed against the front wall of the box 2. As pressure is exerted by a user on the top wall of the lid 3, the flap 8 is biased (e.g. deflected) away from box 2 by contact with the upper edge of the front wall of the box 2. Once the flap 8 (e.g. the point of contact) has moved past the upper edge of the box 2 a sufficient amount, the resilience of the flap 8 causes it to snap close against the front wall of the box 2. Therefore, the container 1 is securely "auto-closed" by the flap 8 to protect the cigarettes stored inside it. As the flap 8 extends much further from the access opening 6, the cigarettes are better protected.

[0041] The flap 8 may also comprise a locking tab 9 projecting outwards from the front edge of the flap 8. The locking tab 9 is configured to engage with a slot 10 formed by the interface between the outer frame 4 and the inner frame 5. As the tab 9 may be securely contained inside the slot 10 when the lid 3 is closed, the cigarettes stored

in the container 1 are further well protected from accidental opening.

[0042] As shown in Fig. 4, when the lid 3 is closed, the flap 8 extends over the front wall of the box 2. In order to access the cigarettes within the inner frame 5, the lid 3 is moved from the closed position to the open position shown in Fig. 1. As the lid 3 is moved from the closed position, the tab 9 contained in the slot 10 is pulled out and the flap 8 is moved upwards exposing the access opening 6. In order to close the container 1, the lid 3 is moved from the open position to the closed position.

[0043] As the lid 3 is moved from the open position, the flap 8 is urged across the front edge of the box 2, which biases the resilient flap 8 away from the box 2. Once a certain point along the flap 8 is reached, preferably, past a point where the free side edges of the box 2 meet the flap 8 or the point at which the flap 8 extends from the front wall of the lid 3, the bias resistance provided by the upper edge of the box 2 against the flap 8 is removed, which allows the flap 8 to snap close against the front wall of the box 2 abutting its surface. The tab 9 is guided to the slot 10 on snap closing of the flap 8.

[0044] The lid 3 is therefore movable about the box 2 between open and closed positions through an intermediate, stable position, as explained above. Movement of the lid 3 between the closed position and the intermediate position, or vice versa, requires overcoming a biasing force caused by resilient flexure of the flap 8 away from the front edge of the box 2.

[0045] In both embodiments, the flap 8 may be provided with indicia 11 such as health warnings, on its outer surface, which is the side that is visible when the lid 3 is closed. The indicia 11 may be provided at multiple locations on the flap 8. But, in particular, the indicia 11 are provided on the front face of the flap 8 and on one or both sides of the box 2. As the flap 8 covers at least the half of the front face of the box 2 from the top, visual impact of the indicia 11 is more prominent.

[0046] In this example, the indicia 11 are text. However, any other type or combination of indication or marking could be provided including numerals, logos and images.

[0047] Indicia 11 can also be provided on other parts of the flap 8, such as on the inside surface of the flap 8 and the front surface of the outer frame 4. Indicia 11 on such surfaces are selected such that they can be viewed effectively by the consumer when the container 1 is opened. This could be any branding or promotional messages.

[0048] The indicia 11 can be provided by one or more of an ink, a varnish, a lacquer, embossing, debossing, and hot foil stamping. Where the indicia 11 are provided by an ink they can be separated from the consumer goods in the inner frame 5 (in the second embodiment) in order to prevent any potential migration of compounds to the consumer goods. This may be achieved by providing the indicia 11 at a position on the flap 8 that is offset from the access opening 6 when the lid 3 is in the closed position. Alternatively, or in addition, a coating (not shown)

may be provided on the flap 8 in the vicinity of the indicia 11 to prevent egression of compounds therefrom and into the consumer goods. In one arrangement a frame (not shown) can be provided on the flap 8 around the portion of the flap 8 that overlies the access opening 6 when the lid 3 is in the closed position.

[0049] Advantageously the indicia 11 can be visible at all times when the lid 3 is moved from the closed position to the open position. In an example, the indicia 11 are visible in the perspective view shown in Figs. 2 and 4.

[0050] Fig. 5 shows a blank for forming the outer frame 4 of the container represented in Figs. 1-2. The blank 12 is divided into two blank portions, a box portion 20 and a lid portion 30. Each blank portion comprises a plurality of panels in which each individual panel is connected to at least another panel, for example, by a crease line or fold line, a cut line, emboss and deboss sections as shown in the figure. In this mode, the inner frame is an integral part of the blank.

[0051] Likewise, Fig. 6 shows a blank for forming the outer frame 4 of the container represented in Figs. 3-4. The blank 12 is divided into two blank portions, a box portion 20 and a lid portion 30. Each blank portion comprises a plurality of panels in which each individual panel is connected to at least another panel, for example, by a crease line or fold line and a cut line as shown in the figure. In this mode, the inner frame 5 is formed by a separate blank part forming the flat panel 7 and the cut-out 15.

[0052] Fig. 7 shows a system or apparatus 100 for forming an inner package 5 housing smoking articles, such as cigarettes or the like. A series of inner frames 4, each of which is respectively combined with a charge of cigarettes, is transported in direction of arrow A along a packaging path by apparatus 100. The framed charged cigarettes G are conveyed under a continuous sheet of wrapping material 500 (e.g. a metallised plastics laminate film) which is fed from a supply roll (not shown). The wrapping sheet 500 has pre-formed reclosable flaps 8 for alignment with the respective access apertures 44 in the inner frame front panel 41 of each inner frame 4 transported under the wrapping sheet 500.

[0053] Rollers 101 arranged below the serially progressing inner frames 4 draw the wrapping sheet 500 tautly over the front and back faces of the framed charge of cigarettes G and against opposite ends of the framed charge of cigarettes G, thereby wrapping the same to form inner package front, top, back and bottom walls. The rollers 101 then cooperate with a sealing head 102 to fuse or seal the drawn wrapping sheet 500 to form a transverse seam at the inner package back wall (not shown). A further elongate sealing head 103 (or pair thereof) following the rollers 101 then operate(s) to clamp and fuse a lateral seam (e.g. as a "fin seal") in the barrier sheet 500 between each of the framed charge of cigarettes G to form the inner package left and right side walls. Trimmers 104 and rollers 105 may then trim and flatten the seams 13, 14 to complete the individual inner

packages 5.

[0054] A set of blanks for forming the outer frame 4 according to any of the embodiments are folded and glued about the inner package 5 to form the box 2 and lid 3, as previously explained.

Claims

1. A container for consumer goods comprising:

a box having an access opening; and
a hinged lid rotatable between open and closed positions, wherein the lid is hinged to a back wall of the box and the lid comprises a front edge or a front wall having a flap that extends beyond the access opening in the box when the lid is in the closed position.

2. The container of claim 1, wherein the hinged lid is configured to cover the access opening when the lid is in the closed position and to expose the access opening when the lid is in the open position.

3. The container of claim 1 or 2, wherein the flap is attached only to the front edge or the front wall of the lid.

4. The container of any preceding claim, wherein the flap is configured to extend at least halfway along the front wall of the box when the lid is in the closed position.

5. The container of claim 4, wherein the lid covers at least two-thirds of the surface of the front wall of the box when the lid is in the closed position.

6. The container of any preceding claim, wherein the flap is connected to a back wall of the lid via generally triangular side walls, without connection to the top wall of the lid.

7. The container of any preceding claim, wherein the box further comprises an outer body and an inner body formed integrally with the outer body, the access opening being defined by the inner body.

8. The container of claim 7, wherein the flap comprises a locking tab projecting outwards from a free edge of the flap, the locking tab being received by a slot defined in the front surface of the outer body such that the slot engages with the locking tab formed in the flap when the lid is in the closed position.

9. The container of any of claims 1 to 5, wherein the box further comprises an outer body having a first opening and an inner body disposed inside the first opening, the access opening being defined by the

inner body.

10. The container of claim 9, wherein the flap comprises a locking tab projecting outwards from a free edge of the flap, the locking tab being received by a slot defined at an interface between the outer body and the inner body such that the locking tab engages with the slot formed in the flap when the lid is in the closed position.

11. The container of any of any preceding claim, wherein the flap is arranged to provide a closing mechanism so as to facilitate ease of closing the lid.

12. The container of claim 11, wherein the flap is configured to be resiliently biased away from the front edge of the box during initial movement of the lid from the open position towards the closed position when a force is exerted on the top wall of the lid, whereby continued movement of the lid past an intermediate position causes the flap to snap close against the box.

13. The container of claim 12, wherein the intermediate position is a position at which the inner surface of the flap makes contact with the front edge of the box.

14. The container of any preceding claim, wherein the flap is provided with indicia on its outer surface, which is the side that is visible when the lid is closed.

15. The container of any preceding claim, wherein the container is used for storing smoking articles.

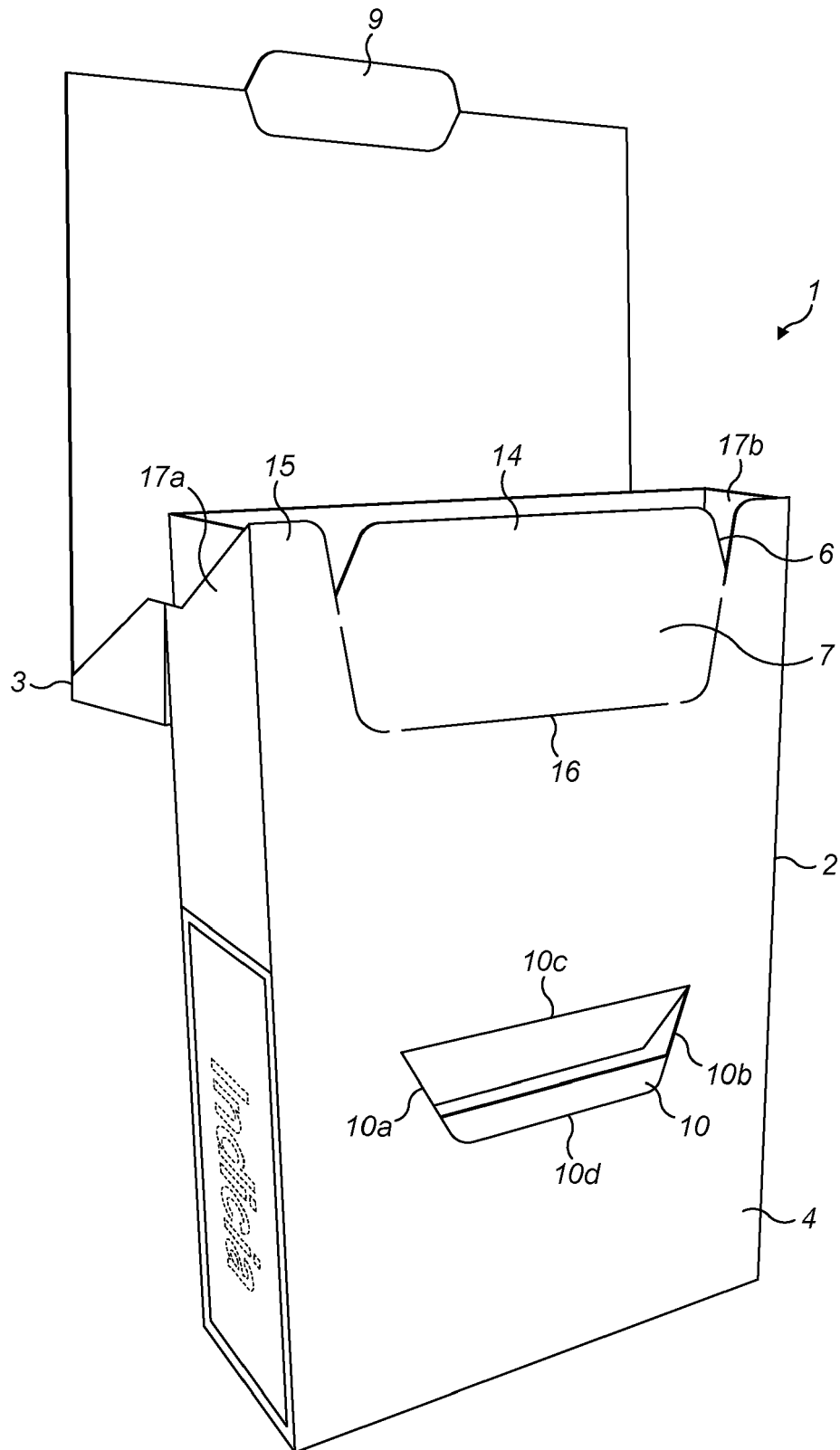


FIG. 1

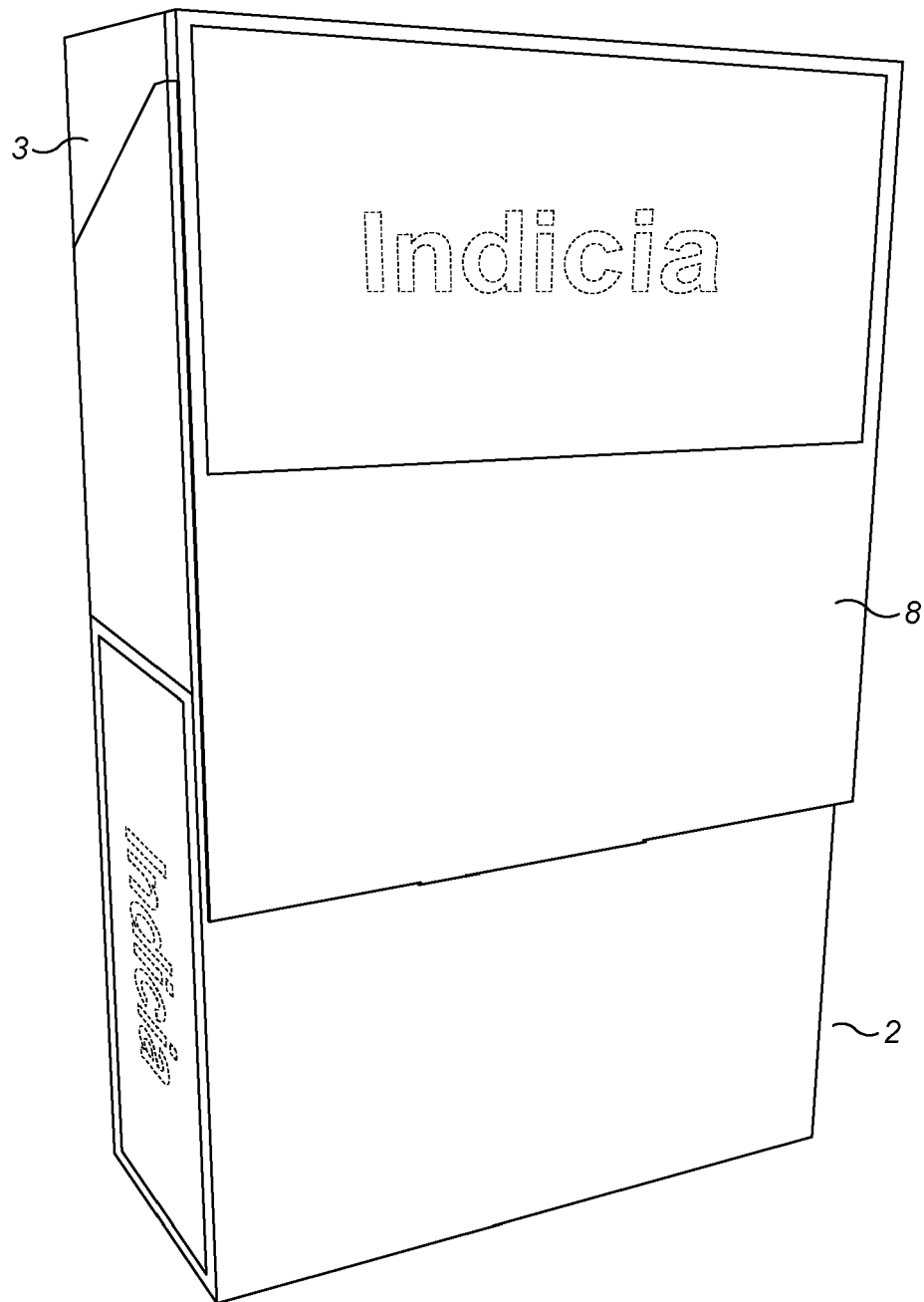


FIG. 2

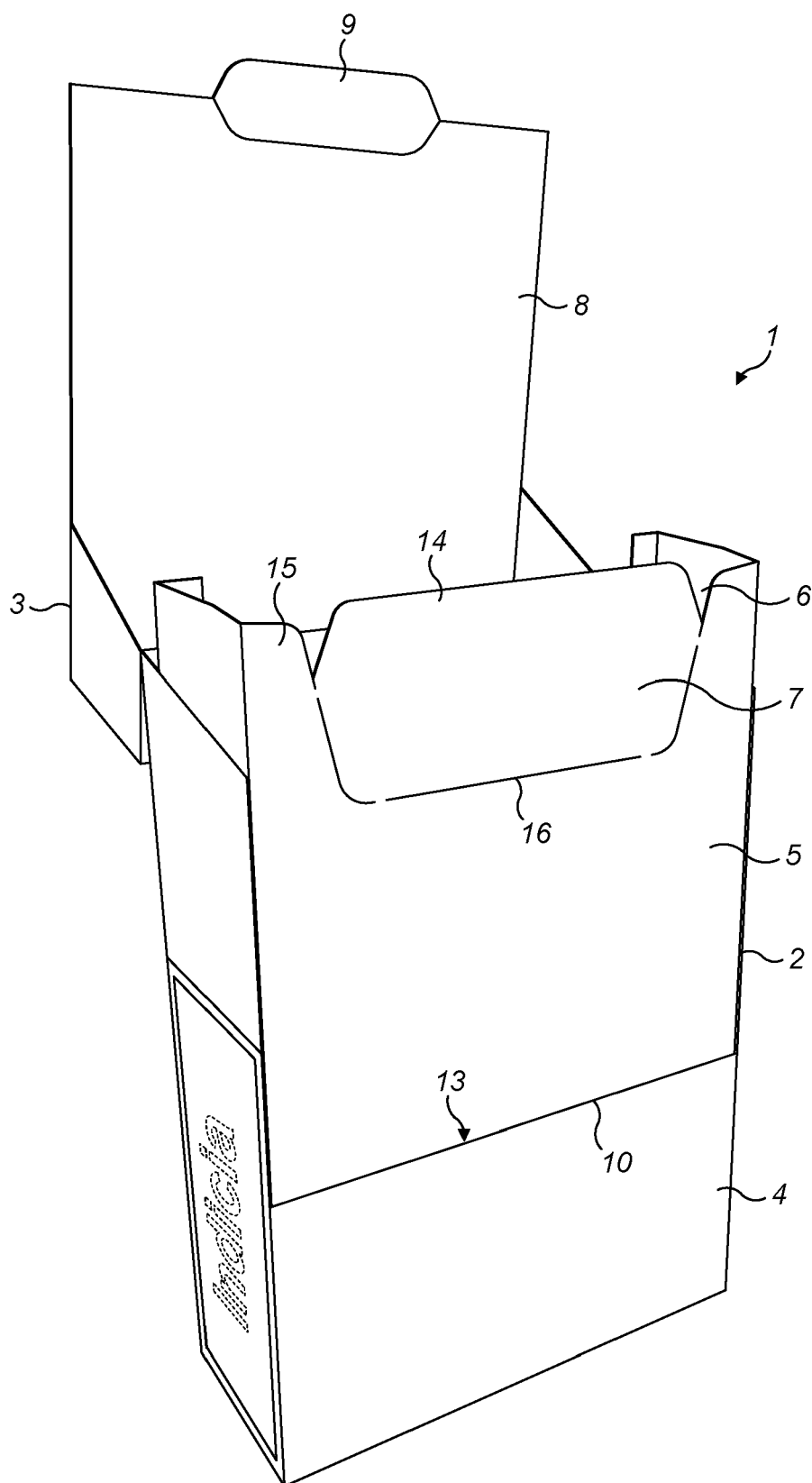


FIG. 3

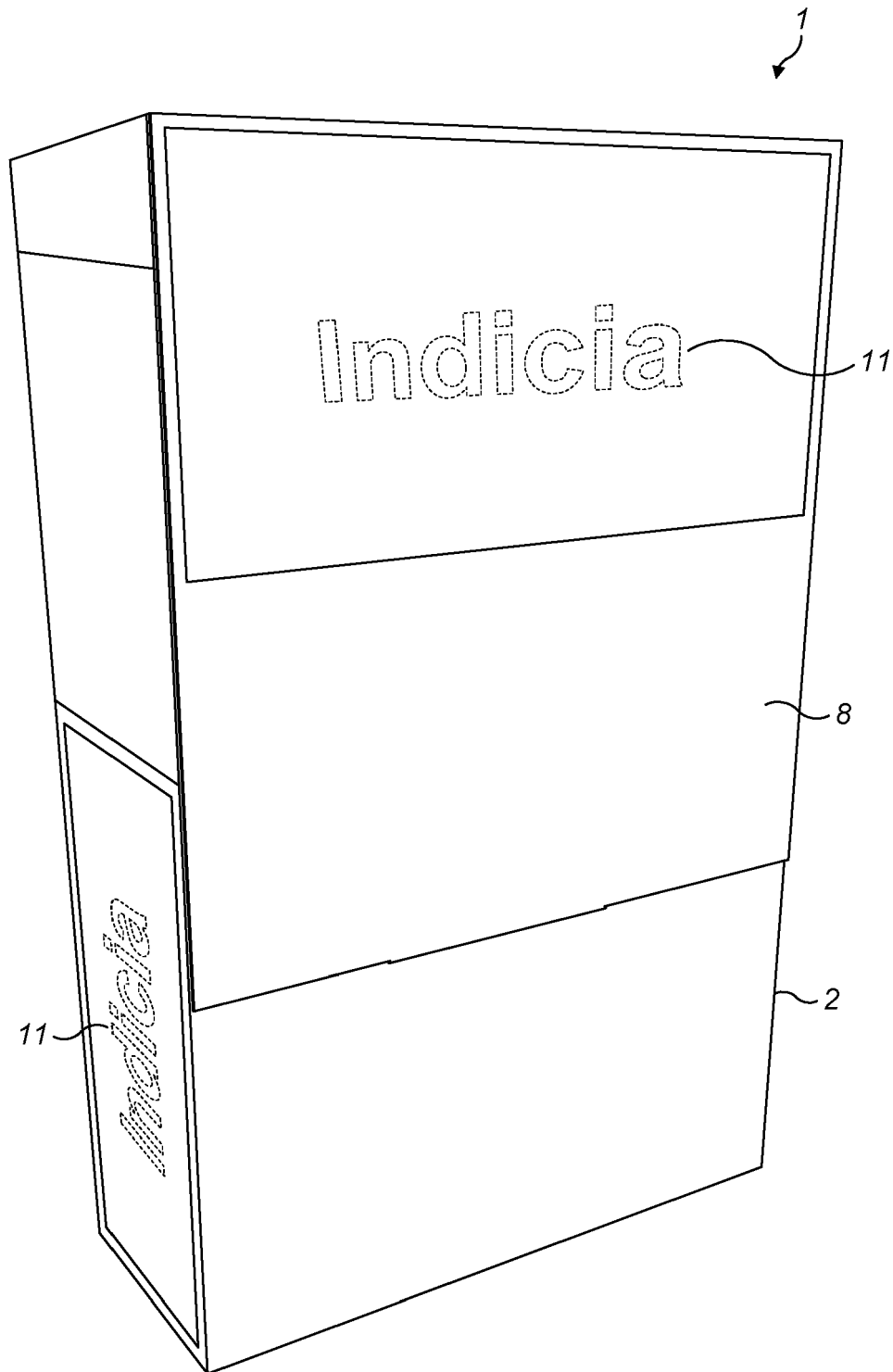


FIG. 4

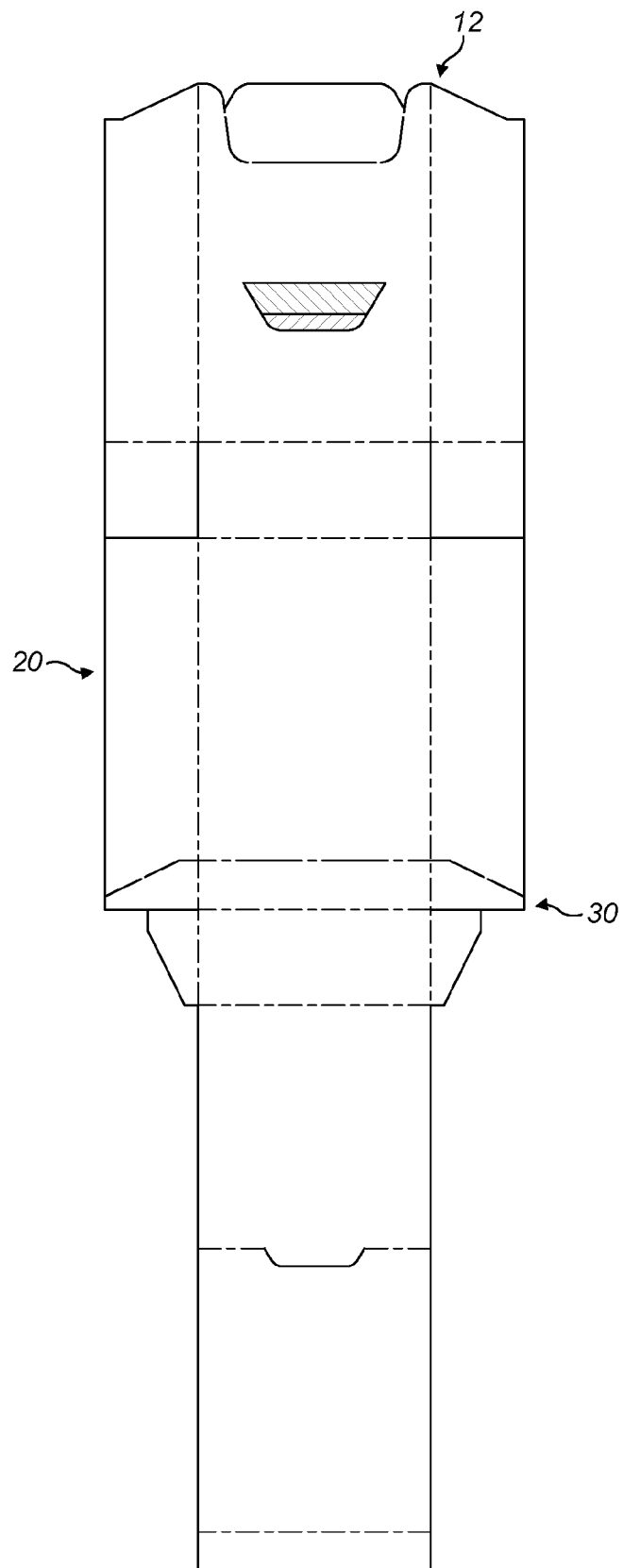


FIG. 5

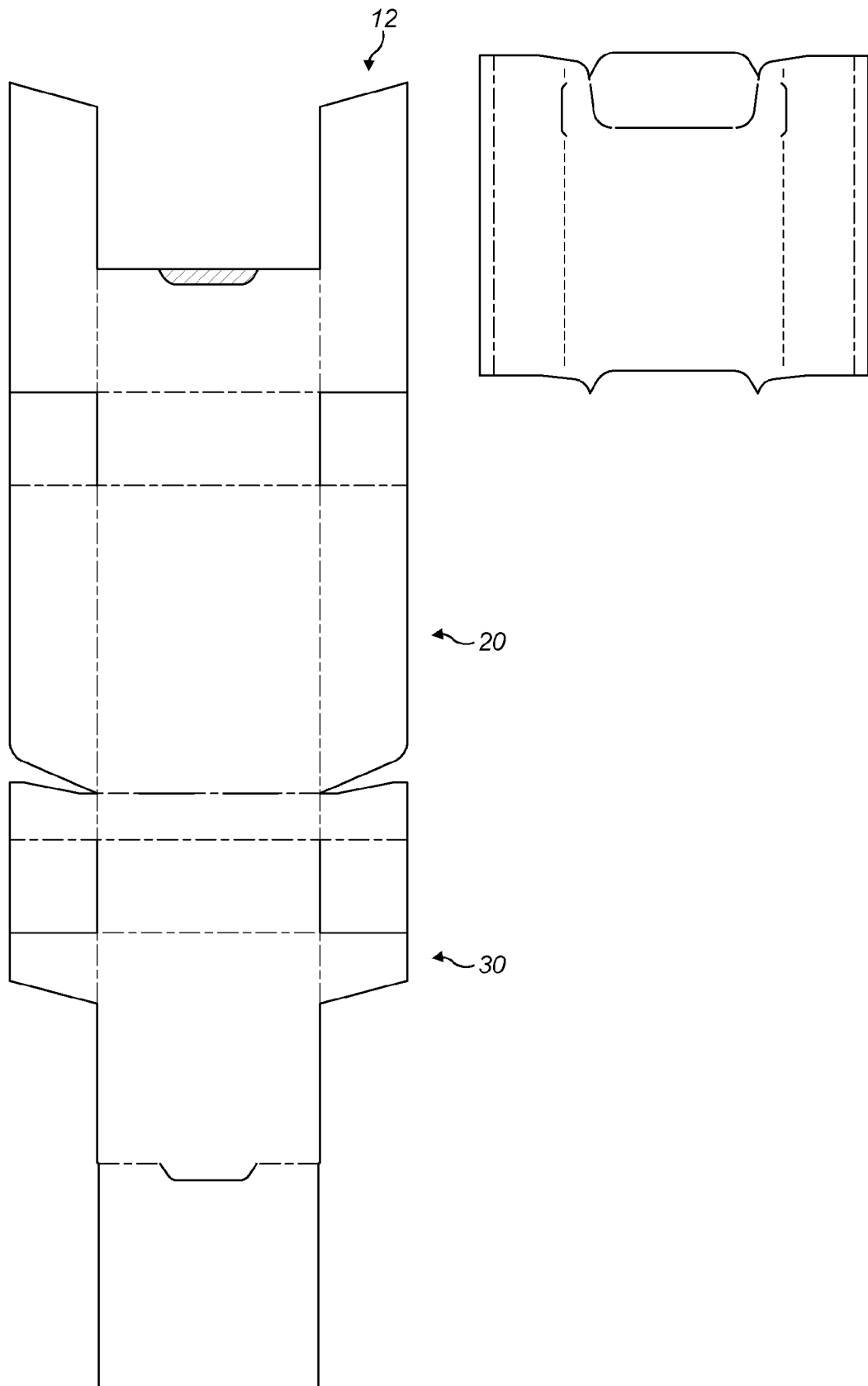


FIG. 6

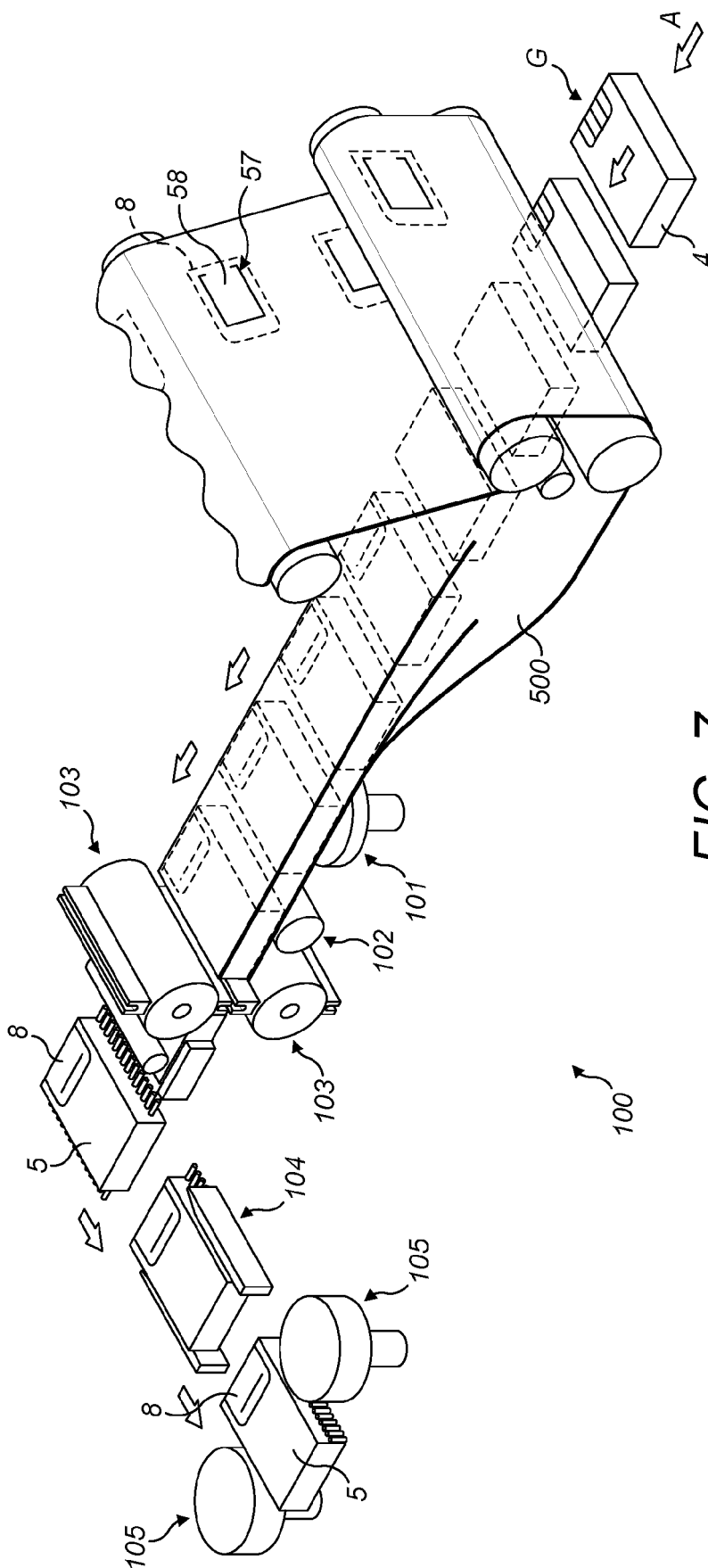


FIG. 7



EUROPEAN SEARCH REPORT

Application Number
EP 20 18 0926

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 2 433 881 A1 (PHILIP MORRIS PROD [CH]) 28 March 2012 (2012-03-28) * abstract; figures 1,2 * * paragraph [0053]; claim 1 *	1-15	INV. B65D85/10
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			TECHNICAL FIELDS SEARCHED (IPC)
			B65D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 10 November 2020	Examiner Segerer, Heiko
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 20 18 0926

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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10-11-2020

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