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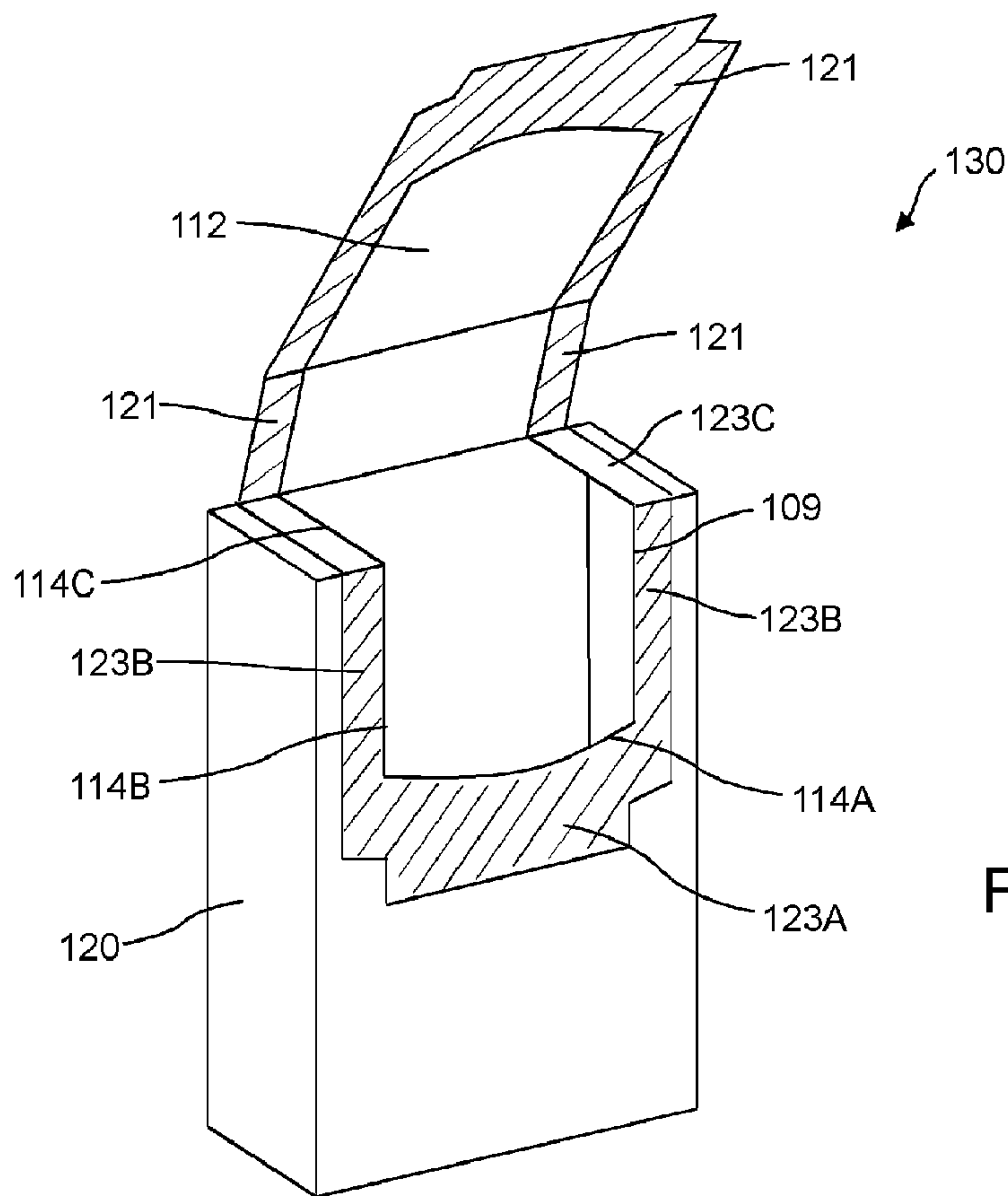


Fig. 9

(57) Abrégé/Abstract:

Package comprising a container (10, 110) and a wrapper (20, 120) of flexible multi-layer laminate sheet material surrounding the container. The wrapper comprises a first layer and a second layer outside the first layer. A first cut line in the first layer defines a first

(57) **Abrégé(suite)/Abstract(continued):**

region of the first layer which overlies a lid (12, 112) of the container (10, 110). A second cut line in the second layer is offset from the first cut line. The second cut line defines a second region of the second layer. The second region overlies the lid and includes a peripheral portion (21, 121) where the second layer extends beyond the lid (12, 112). The peripheral portion (21, 121) of the second layer is separable from the first layer, can be used to lift the lid (12, 112) into the open position, and can be resealed against the first layer.

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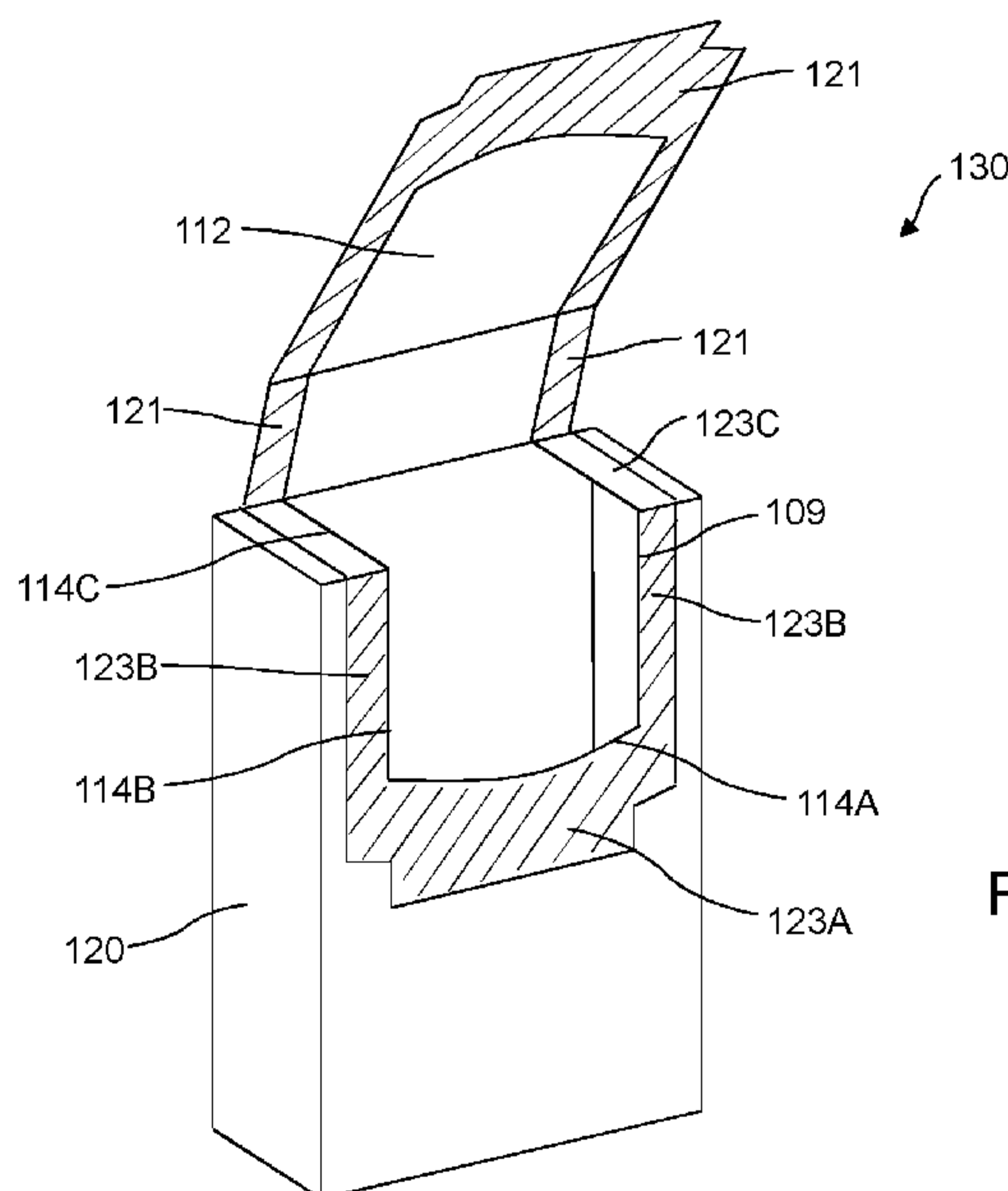


Fig. 9

(57) **Abstract:** Package comprising a container (10, 110) and a wrapper (20, 120) of flexible multi-layer laminate sheet material surrounding the container. The wrapper comprises a first layer and a second layer outside the first layer. A first cut line in the first layer defines a first region of the first layer which overlies a lid (12, 112) of the container (10, 110). A second cut line in the second layer is offset from the first cut line. The second cut line defines a second region of the second layer. The second region overlies the lid and includes a peripheral portion (21, 121) where the second layer extends beyond the lid (12, 112). The peripheral portion (21, 121) of the second layer is separable from the first layer, can be used to lift the lid (12, 112) into the open position, and can be re-sealed against the first layer.

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PACKAGE

Background

5 It is desirable that a packaged product remains fresh for as long as possible. One type of packaged product is a tobacco industry product, such as cigarettes.

A popular type of cigarette packaging comprises a container with a box and a hinged lid. A plastic film wrapper is initially provided around the container. After initial opening of the package, the plastic film is discarded. A disadvantage of this packaging is that the container offers little protection against moisture once the package has been opened for the first time.

10 Another known type of cigarette packaging comprises a laminate wrapper around a container which does not have a lid. Access to the cigarettes is gained by a resealable label. A disadvantage of this packaging is that a separate label is required in addition to the laminate wrapper. This requires additional processing steps.

There is a requirement for alternative packaging.

15

Summary

This Summary is provided to introduce a selection of concepts in a simplified form that are further described below in the Detailed Description. This Summary is not intended to identify key features or essential features of the claimed subject matter, nor is it intended to be used as an aid in determining the scope of the claimed subject matter.

20

An aspect of the invention provides a package comprising:

a container comprising a body and a lid, wherein the lid is attached to the body by a hinge, the lid being movable between a closed position in which the lid meets the body along a line of contact and an open position;

25

a wrapper of flexible multi-layer laminate sheet material surrounding the container, the wrapper comprising:

a first layer;

a second layer outside the first layer;

30

a first cut line in the first layer but not the second layer, the first cut line defining a first region of the first layer which overlies the lid;

a second cut line in the second layer but not the first layer, wherein at least part of the second cut line is offset from the first cut line, the second cut line defining a second region of the second layer, wherein the second region overlies the lid and includes a peripheral portion where the second layer extends beyond the lid;

a resealable adhesive between the peripheral portion of the second layer and the first layer;

wherein the peripheral portion of the second layer is separable from the first layer and can be used to lift the lid into the open position, and wherein the peripheral portion
5 can be resealed against the first layer.

The first cut line may be aligned with the line of contact between the lid and the body.

The container may comprise a front face, a rear face and two side faces, wherein the hinge is located on the rear face, and wherein the line of contact extends along the front face and the two side faces of the container.

10 The first cut line may be offset from the second cut line by a smaller amount on the side faces of the container compared to on the front face of the container.

The first cut line may be co-located with the second cut line on the side faces of the container.

15 The container may comprise a front face, a rear face, two side faces and a top face, wherein the lid is a flap comprising at least part of the top face and a cut-out part of the front face of the container.

The flap may be attached to the first region of the wrapper and is movable with the flap portion when the peripheral portion of the second layer is lifted.

20 The hinge may be located on an edge of the container between the top face and the rear face.

The second cut line may be offset from the first cut line on the top face and the front face of the container to provide the peripheral region around a perimeter of the flap.

The line of contact may be offset inwardly from side edges of the top face and side edges of the front face.

25 The wrapper may be attached to the lid of the container.

The wrapper may be attached to the body of the container.

The first cut line may be a line of weakness which requires an opening force to separate the first layer along the line of weakness.

30 The second cut line may be a line of weakness which requires an opening force to separate the second layer along the line of weakness.

The line of weakness may be one of: a perforated line, a score line, a scribe line, a crenellated line.

Another aspect of the invention provides a wrapper of flexible multi-layer laminate sheet material for forming a package around a container of the type comprising a body and a lid, wherein the lid is attached to the body by a hinge, the lid being movable between a closed position in which the lid lies against the body along a line of contact and an open position, the wrapper comprising a flexible multi-layer laminate sheet material to surround the container, the wrapper comprising:

5 a first layer;
a second layer outside the first layer;
a first cut line in the first layer but not the second layer, the first cut line defining a first region of the first layer to overlie the lid;

10 a second cut line in the second layer but not the first layer, wherein at least part of the second cut line is offset from the first cut line, the second cut line defining a second region of the second layer, wherein the second region is configured to overlie the lid and includes a peripheral portion where the second layer extends beyond the lid;

15 a resealable adhesive between the peripheral portion of the second layer and the first layer;

wherein the peripheral portion of the second layer is separable from the first layer and can be used to lift the lid into the open position, and wherein the peripheral portion can be resealed against the first layer.

20 Another aspect of the invention provides a package comprising:

providing a container comprising a body and a lid, wherein the lid is attached to the body by a hinge, the lid being movable between a closed position in which the lid lies against the body along a line of contact and an open position;

25 fitting a wrapper of flexible multi-layer laminate sheet material around the container, the wrapper comprising:

a first layer;
a second layer outside the first layer;
a first cut line in the first layer but not the second layer, the first cut line defining a first region of the first layer which overlies the lid;

30 a second cut line in the second layer but not the first layer, wherein at least part of the second cut line is offset from the first cut line, the second cut line defining a second region of the second layer, wherein the second region overlies the lid and includes a peripheral portion where the second layer extends beyond the lid;

35 a resealable adhesive between the peripheral portion of the second layer and the first layer;

wherein the peripheral portion of the second layer is separable from the first layer and can be used to lift the lid into the open position, and wherein the peripheral portion can be resealed against the first layer.

In this specification, the term “resealable adhesive” means an adhesive which allows two surfaces to adhere to one another and which also allows the surfaces to be separated non-destructively from one another and to re-adhere to one another. An example of a resealable adhesive is a Pressure Sensitive Adhesive (PSA), such as a peelable PSA, where
5 an adhesive bond is achieved by applying pressure to the adhesive.

In this specification, the term “resealed” means that two surfaces can be refastened to one another. A degree of sealing may be achieved between the two surfaces when they are refastened to one another. However, the term “resealed” does not require the two surfaces to form a fully airtight seal during the subsequent fastening of the surfaces.

10 The preferred features may be combined as appropriate, as would be apparent to a skilled person, and may be combined with any of the aspects of the invention.

Brief Description of the Drawings

Embodiments of the invention will be described, by way of example, with reference to
15 the following drawings, in which:

Figures 1 and 2 show a first example of a container (with lid open) which can form an inner part of a package;

Figure 3 shows a package comprising a laminate wrapper around the container of Figures 1 and 2, the package shown in an unopened state;

20 Figure 4 shows the package of Figure 3 in an opened state;

Figure 5A shows the package of Figure 4 in a resealed state;

Figure 5B shows a cross-section through Figure 5A;

Figures 6 and 7 show a second example of a container (open) which can form an inner part of a package;

25 Figure 8 shows a package comprising a laminate wrapper around the container of Figures 7 and 8, the package shown in an unopened state;

Figure 9 shows the package of Figure 8 in an opened state;

Figure 10 shows the package of Figure 9 in a resealed state;

Figure 11A shows an example of a two-layer laminate wrapper;

30 Figures 11B and 11C show cut lines in the layers of the laminate wrapper of Figure 11A;

Figure 12A shows an example of a three-layer laminate wrapper;

Figures 12B and 12C show lines of weakness in the layers of the laminate wrapper of Figure 12A;

Figure 13 shows a web of laminate material;

Figure 14 shows a method of forming a package.

5 Common reference numerals are used throughout the figures to indicate similar features.

Detailed Description

Embodiments of the present invention are described below by way of example only. These examples represent the best ways of putting the invention into practice that are currently known to the Applicant although they are not the only ways in which this could be achieved. The description sets forth the functions of the example and the sequence of steps for constructing and operating the example. However, the same or equivalent functions and sequences may be accomplished by different examples.

10 Figures 1-5B show a first example of a package. Figure 1 shows a container 10 which can form an inner part of the package. The container 10 is shaped as a cuboid, with a front face 1, rear face 2, side faces 3, base 4 and top face 5. The container 10 comprises a first container portion (body) 11 and a second container portion (lid) 12. The second container portion 12 is hingedly connected to the first container portion 11 about a hinge line 13 located part-way down the rear face 2. In use, items (e.g. cigarettes) are held in the first container portion 11. The second container portion 12 forms a hinged lid for the first container portion 11. In this example the lid 12 is in the form of a hood-shaped part of the container. Figure 1 shows the hinged lid 12 in an open position. Figure 2 shows the hinged lid in the closed position. A frame 8 is fixed to the first container portion 11. The frame 8 defines an access opening 9. The frame 8 retains contents of the container, while also allowing access to the contents. The frame 8 serves to provide frictional resistance when the lid 12 is closed, and serves to prevent the lid from accidentally opening. The frame 8 can be fixed (e.g. by adhesive) to an inner region of the front face 1. The lid 12 meets the first container portion along a line of contact 14A, 14B. In the closed position the lid 12 abuts against the body 11 along the line of contact 14A, 14B. A part of the line of contact 14A extends along the front face 1. Another part of the line of contact 14B extends diagonally along each of the side faces 3, from 14A to the hinge line 13.

The package can be for tobacco industry products, such as cigarettes. More generally, a package can be provided for any type of packaged commodity.

35 Figures 3-5B show a package 30 comprising a laminate wrapper 20 fitted around the container 10 shown in Figures 1 and 2. Figure 3 shows the package 30 in an initial,

unopened, state. Figure 4 shows the package 30 in an opened state. Figures 5A, 5B show the package 30 in a re-sealed state.

The laminate wrapper 20 comprises two or more layers of flexible sheet material which are laminated together. The laminate wrapper 20 is secured around the container 10 and, advantageously, is sealed along all free edges. For example, an edge located along a longitudinal face (e.g. side face 3 or back face 2) is sealed. Edges 26 of the wrapper located on top and bottom faces 4, 5 of the package are sealed. Advantageously, the wrapper 20 is sealed in an airtight manner (i.e. hermetically sealed) around the container 10. The wrapper 20 is intended to remain around the container after the package has been opened for the first time. The wrapper 20 has a flap 21 which can be opened by a user.

The wrapper 20 has cut lines defined in the layers of the laminate. In use, the wrapper can be separated along the cut lines to allow part of an outer layer of the wrapper to function as a flap 21. The flap 21 can be lifted to open the lid 12 of the package. The flap 21 can be resealed against the inner layer of the wrapper to close the package. In a simplest case of a two layer laminate wrapper 20, the flap 21 comprises a portion of an outer layer of the laminate wrapper 20. The remaining, inner, layer of the laminate wrapper 20 remains located alongside the front face 1 of the container 10. Resealable adhesive 23 can be provided in all, or a part of, region 23. Resealable adhesive in region 23 allows the outer layer of the laminate wrapper 20 to separate from the inner layer to form the flap 21. Adhesive in region 23 allows the flap 21 to reseat against the inner layer of the laminate when the package is closed.

The laminate wrapper 20 has two cut lines. There is a first cut line in the first (inner) layer of the laminate wrapper 20 but not the second (outer) layer of the laminate wrapper 20. Advantageously, the first cut line is defined along, or adjacent to, the line of contact 14A, 14B between the body 11 and the lid 12 of the container. This allows the inner layer of the laminate wrapper 20 to separate along the line of contact 14A, 14B. Part of the inner layer of the laminate wrapper 20 remains around the body 11 of the container. Part of the inner layer of the laminate wrapper 20 overlies the lid 12 of the container and moves with the lid 12 when the lid is opened. There is a second cut line in the second layer of the laminate wrapper 20 but not the first layer of the laminate wrapper 20. This allows the outer layer of the laminate wrapper 20 to separate along the second cut line when the lid is opened. Part of the outer layer of the laminate wrapper 20 remains around the body 11 of the container. Part of the outer layer of the laminate wrapper 20 overlies the lid 12 of the container and moves with the lid 12 when the lid is opened. The second cut line is offset from part 14A of the line of contact between the body 11 and the lid 12 of the container. The part of the second (outer) layer which overlies the lid 12 includes a peripheral portion 21 which extends beyond the lid 12. This allows the peripheral portion 21 of the second (outer) layer of the wrapper 20 to serve as a flap 21. The flap 21 can be resealed against the first layer in region 23, as shown in Figure

5A. In the hatched regions shown in Figure 4 only one of the layers of the laminate wrapper is present. Both layers of the laminate wrapper are present where the wrapper surrounds the lid 12, and in all other places where the wrapper surrounds the body apart from region 23. The second cut line can be co-located with the first cut line on the sides of the container. Alternatively, the second cut line can be offset from the first cut line on the sides of the container.

A tight fitting of the wrapper 20 around the container can maintain the wrapper in place around the lid 12 when the flap 21 is lifted. Advantageously, the wrapper 20 is secured to the lid 12 in all, or a part of, region 28 shown in Figures 3 and 5. This improves grip between the part of the wrapper 20 around the lid 12, and allows the wrapper 20 to securely remain around the lid 12 when the flap 21 is lifted. It prevents the wrapper 20 from slipping off the lid 12 when the flap 21 is lifted. Health and Safety regulations in a territory may also require that any wrapper is secured to the container.

Advantageously, the flap 21 is of a suitable area to provide a reliable reclosing. Referring to Figure 5A, the flap 21 has a height 32. The front face of the package has a height 31. In a non-limiting example, the flap can have a maximum height of around 25% of the height of the front face. In other examples the flap can have a maximum height which is greater than, or less than, 25% of the height of the front face.

Figure 5B shows a cross-section along the line A-A' of Figure 5A. This shows detail of the wrapper 20 and container 10 in the region where the flap 21 is formed. Wrapper 20 comprises a first (inner) layer 201 and a second (outer) layer 202. The first cut line 206 is through the first layer 201 but not through the second layer 202. The second cut line 208 is through the second layer 202 but not through the first layer 201. The cut lines 206, 208 are offset to form a flap 21. Resealable adhesive 204 is present between the first layer 201 and the second layer 202 in the region where the flap 21 is formed. In this example, the first cut line 206 is aligned with the line of contact 14A between the body 11 and the lid 12 of the container. In use, the flap 21 of the second layer 202 is separable from the first layer 201 due to the cut line 208 and the resealable adhesive 204 between the layers 201, 202. This allows a user to lift the flap 21. Due to cut line 206, the layers 201, 202 of the wrapper in region 36 beyond the cut line 206 remain attached to one another. Also, due to adhesive 35 and/or due to tight fitting of the wrapper around the lid 12, lifting the flap 21 causes the lid 12 to open. The flap 21 of the second layer 202 can be resealed against the first layer 201.

Figure 5B shows an optional feature of a region 209 without adhesive adjacent the second cut line 208 which allows the flap 21 to be grasped more easily by a user. Figure 5B shows adhesive 35 between the first (inner) layer 201 and the lid 12. Adhesive 35 may also be present between the first (inner) layer 201 and the body 11 of the container (as shown) or

it may be omitted. Figure 5B is not to scale, to improve clarity. For example, the layers can have different relative thicknesses to that shown in Figure 5B.

Figures 6-10 show a second example of a package. Figure 6 shows a container 110 which can form an inner part of the package. The container 110 is shaped as a cuboid, with a front face 101, rear face 102, side faces 103, base 104 and top face 105. The container 110 comprises a first container portion (body) 111 and a second container portion (lid) 112. The lid 112 is of a different configuration in this example and is in the form of a flap. The second container portion 112 is hingedly connected to the first container portion 111 about a hinge line 113 located along an edge of the container 110 between the top face 105 and rear face 102. In use, items (e.g. cigarettes) are held in the first container portion 111. The second container portion 112 forms a hinged lid for the first container portion 111. The lid 112 is a flap comprising at least part of the top face 105 and a cut-out part of the front face 101 of the container. Figure 6 shows the hinged lid 112 in an open position. Figure 7 shows the hinged lid 112 in the closed position. An access opening 109 is defined in the front face 101 of the container. A perimeter of the access opening 109 is set inwardly from an outside edge of the container. The front face 101 of the container has a shoulder portion 128 between the side edge of the front face 101 and the perimeter of the access opening 109. Similarly, the top 105 of the container has a shoulder portion 129 between the side edge of the top 105 and the perimeter of the access opening 109. These shoulder portions 128, 129 are present on both sides of the container. In use, the shoulder portions 128, 129 provide a support surface when resealing the wrapper 120. The lid 112 meets the first container portion along a line of contact 114A, 114B, 114C. In the closed position the lid 112 abuts against the body 111 along the line of contact 114A, 114B, 114C. Parts 114A, 114B of the line of contact extend along the front face 101. Another part of the line of contact 114C extends along the top face 105, from the front face 101 to the hinge line 113.

Figures 8-10 show a package 130 comprising a laminate wrapper 120 fitted around the container 10 shown in Figures 6 and 7. Figure 8 shows the package 130 in an initial, unopened, state. Figure 9 shows the package 130 in an opened state. Figure 10 shows the package 130 in a re-sealed state.

The laminate wrapper 120 comprises two or more layers of flexible sheet material which are laminated together. The laminate wrapper 120 is secured around the container 110 and, advantageously, is sealed along all free edges. The wrapper 120 has a portion 121 which can be opened by a user and resealed.

The wrapper 120 has cut lines defined in the layers of the laminate. In a simplest case of a two layer laminate wrapper 120, the flap 121 comprises part of an outer layer of the laminate wrapper 120. The remaining, inner, layer of the laminate wrapper 120 remains located alongside the front face 101 of the container 110. Resealable adhesive can be

provided in all, or a part of, region 123. Adhesive in region 123 allows the outer layer of the laminate wrapper 120 to separate from the inner layer to form the flap 121. Adhesive in region 123 allows the outer layer of the laminate to reseal against the inner layer of the laminate when the package is reclosed.

5 The laminate wrapper 120 has two cut lines. There is a first cut line in the first (inner) layer of the laminate wrapper 120 but not the second (outer) layer of the wrapper 120. Advantageously, the first cut line is defined along, or adjacent to, the line of contact 114A, 114B, 114C between the body 111 and the lid 112 of the container. This allows the inner layer of the laminate wrapper 120 to separate along the line of contact 114A, 114B, 114C.

10 Part of the inner layer of the laminate wrapper 120 remains around the body 111 of the container. Part of the inner layer of the laminate wrapper 120 overlies the lid 112 of the container and moves with the lid 112 when the lid is opened. There is a second cut line in the second (outer) layer of the laminate wrapper 120 but not the first (inner) layer of the laminate wrapper 120. Part of the outer layer of the laminate wrapper 120 remains around the body

15 111 of the container. Part of the outer layer of the laminate wrapper 120 overlies the lid 112 of the container and moves with the lid 112 when the lid is opened. The second cut line is offset from the line of contact 114A, 114B, 114C. This provides a peripheral portion of the wrapper where the second (outer) layer of the wrapper 120 extends beyond the lid 112. The peripheral portion 121 is separable from the first (inner) layer. In the hatched regions shown

20 in Figure 9 only one of the layers of the laminate wrapper is present. The peripheral portion can be resealed against the first layer in regions 123A, 123B, 123C: region 123A is beneath the front lip of the access opening 109; region 123B is alongside the access opening 109 on the front face and region 123C is alongside the access opening 109 on the top face. These regions fully surround the perimeter of the access opening 109 and therefore provide a more

25 effective resealing of the wrapper. Although a cross-section is not shown through the wrapper of Figure 10, it has the same features as shown in Figure 5B.

Advantageously, the wrapper 120 is secured to the lid 112 in the region where the wrapper overlies the lid 112. This allows the wrapper 120 to remain connected to the lid 112 when the peripheral portion is lifted. Health and Safety regulations in a territory may also

30 require that any wrapper is secured to the container.

In any of the examples described above the container can be formed of card, a polymer material, or any other suitable material. The material may be biodegradable and/or compostable.

In any of the examples described above the package can be for tobacco industry

35 products, such as cigarettes. More generally, a package can be provided for any type of packaged commodity.

In any of the examples described above the first cut line and/or the second cut line can be a laser-formed cut line, or a cut line formed by another type of cutting machine, such as a die cutter.

5 In any of the examples described above the first cut line can be a cut line which extends fully through the inner layer of the wrapper. Alternatively, the first cut line can be a line of weakness, such as a perforated line, a score line or a crenellated line. An opening force is required to fully separate, or sever, the inner layer along the line of weakness. This can provide evidence of tampering. In a perforated cut line, the cut line comprises perforated portions where the cut line extends fully through the layer and uncut portions where the layer
10 is intact. In a score or scribe line, the cut line extends partially through the layer. In a crenellated line the cut line alternates between a first cut depth and a second cut depth. The first depth may be zero, such that the line has some portions which are not cut at all, and some portions where the cut line extends partially into the layer.

15 The second cut line can be a cut line which extends fully through the outer layer of the wrapper. Alternatively, the second cut line can be a line of weakness, such as a perforated line, a score line or a crenellated line. An opening force is required to fully sever the outer layer along the line of weakness when the flap is first lifted. This provides evidence that any tampering has occurred.

20 An advantage of this package is that it can help to keep the products fresh after the package has been opened for the first time, as the outer wrapper 20, 120 and the flap 21, 121 continue to provide protection to the contents. An advantage of providing a wrapper 20, 120 around a container 10, 110 is that the container can be a simpler, lower cost, item as it no longer forms the exterior of the package. For example, the exterior finish of the container can be a simpler, lower cost, finish (e.g. matt instead of glossy) and does not need to be printed.

25 An example of a two layer laminate is shown in Figure 11A, comprising: a first (inner) layer 201 and a second (outer) layer 202. The first layer 201 is bonded to the second layer 202 by adhesive 204. The first layer 201 can be formed, for example, of a polymer material, such as orientated polypropylene (OPP), a foil or a metallised polymer. The second layer 202 can be formed of a similar material as the first layer, or a different material. A metal layer is
30 particularly advantageous at providing a moisture barrier to maintain freshness. A resealable flap 21 can be created in the laminate package by using a resealable adhesive, such as a Pressure Sensitive Adhesive (PSA), to bond the second layer 202 to the first layer 201 at least in the region 21. The Pressure Sensitive Adhesive can be used between these layers 201, 202 locally in the region 23 where the flap 21 overlies the first layer 202, or can be used
35 generally between these layers.

Figures 11B and 11C show cut lines formed in the layers 201 and 202 respectively. First layer 201 will form the inside of the wrapper 20 and second layer 202 will form the

outside of the wrapper 20. Solid lines denote cut lines formed in that layer. Dashed lines denote cut lines formed in the other layer. A first cut line 205, 206 is formed in the first layer 201. Portions 205 of the cut line will be aligned, in the assembled package, with the parts 14B of the line of contact between the lid 12 and body 11 of the container. Portion 206 of the line of weakness will be aligned, in the assembled package, with the part 14A of the line of contact between the lid 12 and body 11 of the container. The first cut line defines a first region 231 which, in the assembled package, overlies the lid. A second cut line 207, 208 is formed in the second layer 202. Portions 207 of the second cut line can be aligned to, or slightly offset from and parallel to, parts 14B of the line of contact between the lid 12 and body 11 of the container. The second cut line 207, 208 defines a first region 232 which, in the assembled package, overlies the lid and includes a peripheral portion (flap) 21 which extends beyond the lid. Portion 208 of the second cut line will be offset, in the assembled package, from the part 14A of the line of contact between the lid 12 and body 11 of the container. This offsetting of the second cut line 208 from the first cut line 206 defines the flap 21 of the second layer 202. The cuts 206, 208 form a flap 21 of laminate material which is unitary with the rest of the sheet 202 along the top edge of the flap 21. Resealable adhesive in the region 23 between the layers 201, 202 provides a resealable seal for the flap 21.

Cut lines 205, 207 can be slightly offset from one another to maintain seal integrity of the package before the first opening of the package. The offsetting of the cut lines provides a peripheral portion where the second layer 202 overlies the first layer 201 and can reseal against the first layer 201. Cut lines 205, 207 on the side faces of the container are offset by a much smaller amount compared to the cut lines 206, 208 on the front face of the container. The cut lines 205, 207 may be lines of weakness which do not fully cut through their respective layer (or layers). This can further help to maintain seal integrity of the package before the first opening of the package.

In an alternative arrangement cut lines 205, 207 can be aligned, and the peripheral portion is not present. The cut lines 205, 207 are lines of weakness which do not fully cut through their respective layer, thereby maintaining seal integrity of the package before the first opening of the package. The cut lines 205, 207 can be formed as lines of weakness on just the side faces of the container, or on the side faces and front face.

It will be understood that the same principles are applied to obtain the wrapper 120 for the package of Figures 6-10. Offset cut lines provide a peripheral portion 121 in the second layer of the wrapper which extends beyond the lid.

Figures 12A-12C show a three layer laminate wrapper comprising: a first (inner) layer 301, a second (intermediate) layer 302 and a third (outer) layer 303. Similar to Figure 11A, the first layer 301 is bonded to the second layer 302 by adhesive 304. The second layer 302

is bonded to the third layer 303 by adhesive 305. One or more of the layers can be a metal foil, or a metallised polymer layer.

Figures 12B and 12C show cut lines formed in the layers 301-303. Two of the three layers have the same cut lines. Layer 301 will form the inside of the wrapper 20 and layer 303 will form the outside of the wrapper 20. A cut line 205, 206 is formed in at least the layer 301. A cut line 207, 208 is formed in at least layer 303.

The intermediate layer 302 can have the same cut lines as layer 301 or layer 303. In a first example, layer 301 has the cut lines 205, 206 shown in Figure 12B and the pair of layers 302, 303 have the cut lines 207, 208 shown in Figure 12C. Resealable adhesive is provided in the region 23 between the layers 301 and 302 having different cut lines to provide a resealable seal for the flap 21. In a second example, layers 301, 302 have the same cut lines 205, 206 shown in Figure 12B and the layer 303 has the cut lines 207, 208 shown in Figure 12C. Resealable adhesive is provided in the region 23 between the layers 302 and 303 having different cut lines to provide a resealable seal for the flap 21. The first example provides the flap 21 with additional thickness as the flap 21 comprises the pair of layers 302 and 303.

The adhesive (e.g. pressure sensitive adhesive) applied to region 23 of any of the embodiments may be patterned to leave an area without any adhesive to make the flap easier to open. In Figure 11B, an area 209 can be left free of adhesive. This allows layer 202 to be easily lifted up and used to pull open the flap 21. Similarly, in Figure 12B, an area 209 can be left free of adhesive. This allows the flap comprising layers 302 and 303, or layer 203, to be easily lifted up and used to pull open the flap 21. In the three-layer example, a permanent adhesive can be used between the layers which are not required to separate.

As will be appreciated the shape and design of the cuts may be varied according to the aesthetic and functional requirements of each design. For example, different shapes may be utilised according to design, or the curvature and shape of the cuts may be selected to avoid tearing of the materials as the flap is opened. As the cut designs become more complex and/or the dimensions of the cut lines increase the time taken to form the openings may increase.

The above embodiments have been described in relation to a two-layer and three-layer laminates, but as will be appreciated any number of layers may be utilised. The layers of the laminate material may be selected to provide the desired mechanical and tactile performance. For example, a thicker material may give a better feel to a user opening the flap. Different aspects of the package may require different characteristics, requiring a design compromise to select an appropriate material. For example, the body of the package may preferably have a thicker material to give a more rigid package, whereas the flap may preferably use a thinner material to make opening the closure more tactile. The relative

thicknesses of the materials may also affect the performance of the product. For example, thickening a metallic layer will have a different effect to thickening a plastic layer.

The PSA is selected such that a sufficient bond is formed to retain the flap 21 in the closed position, while also allowing the flap to be opened by the application of an appropriate force. A PSA can be used to bond the layers 201 and 202 in other regions away from the region 23 that retains the flap 21. The strength of the PSA bond in the other regions can be modified compared to the strength of the bond used for the flap region 23. Advantageously, the bond in the other regions can be of higher strength than the bond in region 23 to prevent delamination during use. The required bond may be achieved by the selection of an appropriate adhesive and/or by the amount of that adhesive utilised.

Although the illustrated example is of a standard size and shape of a cigarette box, the package can be designed for any quantity of products and is not limited to the size and/or shape shown in the illustrated example. The size of the lid relative to the body of the container can be modified, as necessary. The package is not limited to a package for tobacco products and can be applied to a package for other types of products such as, for example, confectionery or foodstuffs.

Figure 13 shows a web 70 of laminate material for forming the wrappers described above. The web 70 comprises a continuous length of laminate material. The web 70 can be divided into pieces 71 by cutting along lines 72. Each piece 71 is used to form a wrapper 20. The web has the cut lines 205, 206, 207, 208 to define a flap 21. Typically, the outer surface of the web is printed with labelling indicia.

A method of packaging a product will now be described with reference to Figure 14. At block 401 a container is provided. The container has a body and a lid. The container has a line of contact between the body and lid. At block 402 the container is filled with a product, such as tobacco industry product (e.g. cigarettes) or a foodstuff. At block 403 a laminate wrapper is fitted around the container. The wrapper is fitted such that lines of weakness in the wrapper are in register with a line of contact between the body and the lid of the container. Edges of the wrapper 20 are sealed. At block 403 the wrapper 20 is sealed to the container 10. This can be achieved in various ways. In a first way, adhesive is applied to an outer face of the container 10 (e.g. to the front face 1 of the lid) and the wrapper adheres to the container when it is fitted. In a second way, adhesive is applied to an inner surface of the wrapper 20 before the wrapper is fitted around the container 10 and the wrapper adheres to the container when it is fitted. In a third way, the wrapper 20 is provided, in advance, with an adhesive layer. The adhesive layer may be covered by a cover sheet during storage of the wrapper. When the wrapper is fitted to the container the cover sheet is removed to expose the adhesive, and the wrapper adheres to the container when it is fitted around the container.

It will be understood that the benefits and advantages described above may relate to one embodiment or may relate to several embodiments. The embodiments are not limited to those that solve any or all of the stated problems or those that have any or all of the stated benefits and advantages.

5 Any reference to 'an' item refers to one or more of those items. The term 'comprising' is used herein to mean including the method blocks or elements identified, but that such blocks or elements do not comprise an exclusive list and a method or apparatus may contain additional blocks or elements.

10 The steps of the methods described herein may be carried out in any suitable order, or simultaneously where appropriate. Additionally, individual blocks may be deleted from any of the methods without departing from the spirit and scope of the subject matter described herein. Aspects of any of the examples described above may be combined with aspects of any of the other examples described to form further examples without losing the effect sought.

15 It will be understood that the above description of a preferred embodiment is given by way of example only and that various modifications may be made by those skilled in the art. Although various embodiments have been described above with a certain degree of particularity, or with reference to one or more individual embodiments, those skilled in the art could make numerous alterations to the disclosed embodiments without departing from the spirit or scope of this invention.

20

Claims

1. A package comprising:
a container comprising a body and a lid, wherein the lid is attached to the body by a hinge, the lid being movable between a closed position in which the lid meets the body along
5 a line of contact and an open position;
a wrapper of flexible multi-layer laminate sheet material surrounding the container, the wrapper comprising:
a first layer;
a second layer outside the first layer;
10 a first cut line in the first layer but not the second layer, the first cut line defining a first region of the first layer which overlies the lid;
a second cut line in the second layer but not the first layer, wherein at least part of the second cut line is offset from the first cut line, the second cut line defining a second region of the second layer, wherein the second region overlies the lid and includes a
15 peripheral portion where the second layer extends beyond the lid;
a resealable adhesive between the peripheral portion of the second layer and the first layer;
wherein the peripheral portion of the second layer is separable from the first layer and can be used to lift the lid into the open position, and wherein the peripheral portion
20 can be resealed against the first layer.
2. A package according to claim 1 wherein the first cut line is aligned with the line of contact between the lid and the body.
- 25 3. A package according to claim 1 or 2 wherein the container comprises a front face, a rear face and two side faces, the hinge is located on the rear face, and wherein the line of contact extends along the front face and the two side faces of the container.
4. A package according to claim 3 wherein the first cut line is offset from the second cut line by a smaller amount on the side faces of the container compared to on the front face of
30 the container.
5. A package according to claim 3 wherein the first cut line is co-located with the second cut line on the side faces of the container.
- 35 6. A package according to claim 1 or 2 wherein the container comprises a front face, a rear face, two side faces and a top face, wherein the lid is a flap comprising at least part of the top face and a cut-out part of the front face of the container.

7. A package according to claim 6 wherein the flap is attached to the first region of the wrapper and is movable with the flap portion when the peripheral portion of the second layer is lifted.

5

8. A package according to claim 6 or 7 wherein the hinge is located on an edge of the container between the top face and the rear face.

9. A package according to any one of claims 6 to 8 wherein the second cut line is offset from the first cut line on the top face and the front face of the container to provide the peripheral region around a perimeter of the flap.

10

10. A package according to any one of claims 6 to 9 wherein the line of contact is offset inwardly from side edges of the top face and side edges of the front face.

15

11. A package according to any one of the preceding claims wherein the wrapper is attached to the lid of the container.

12. A package according to any one of the preceding claims wherein the wrapper is attached to the body of the container.

20

13. A package according to any one of the preceding claims wherein the first cut line is a line of weakness which requires an opening force to separate the first layer along the line of weakness.

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14. A package according to any one of the preceding claims wherein the second cut line is a line of weakness which requires an opening force to separate the second layer along the line of weakness.

15. A package according to claim 13 or 14 wherein the line of weakness is one of: a perforated line, a score line, a scribe line, a crenellated line.

30

16. A wrapper of flexible multi-layer laminate sheet material for forming a package around a container of the type comprising a body and a lid, wherein the lid is attached to the body by a hinge, the lid being movable between a closed position in which the lid lies against the body along a line of contact and an open position, the wrapper comprising a flexible multi-layer laminate sheet material to surround the container, the wrapper comprising:

35

a first layer;

a second layer outside the first layer;

a first cut line in the first layer but not the second layer, the first cut line defining a first region of the first layer to overlie the lid;

a second cut line in the second layer but not the first layer, wherein at least part of the second cut line is offset from the first cut line, the second cut line defining a second region of the second layer, wherein the second region is configured to overlie the lid and includes a peripheral portion where the second layer extends beyond the lid;

a resealable adhesive between the peripheral portion of the second layer and the first layer;

wherein the peripheral portion of the second layer is separable from the first layer and can be used to lift the lid into the open position, and wherein the peripheral portion can be resealed against the first layer.

17. A method of forming a package comprising:

providing a container comprising a body and a lid, wherein the lid is attached to the body by a hinge, the lid being movable between a closed position in which the lid lies against the body along a line of contact and an open position;

fitting a wrapper of flexible multi-layer laminate sheet material around the container, the wrapper comprising:

a first layer;

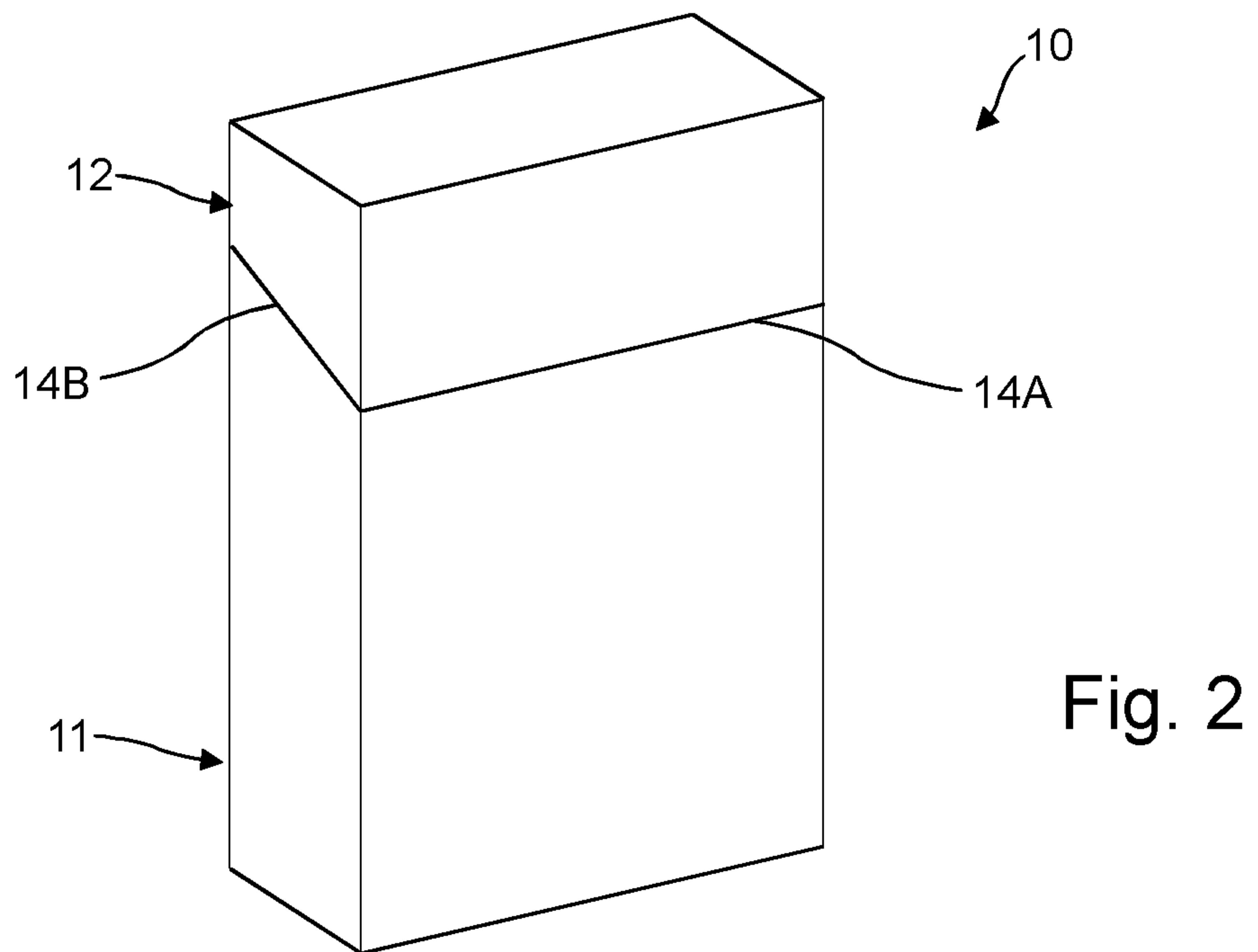
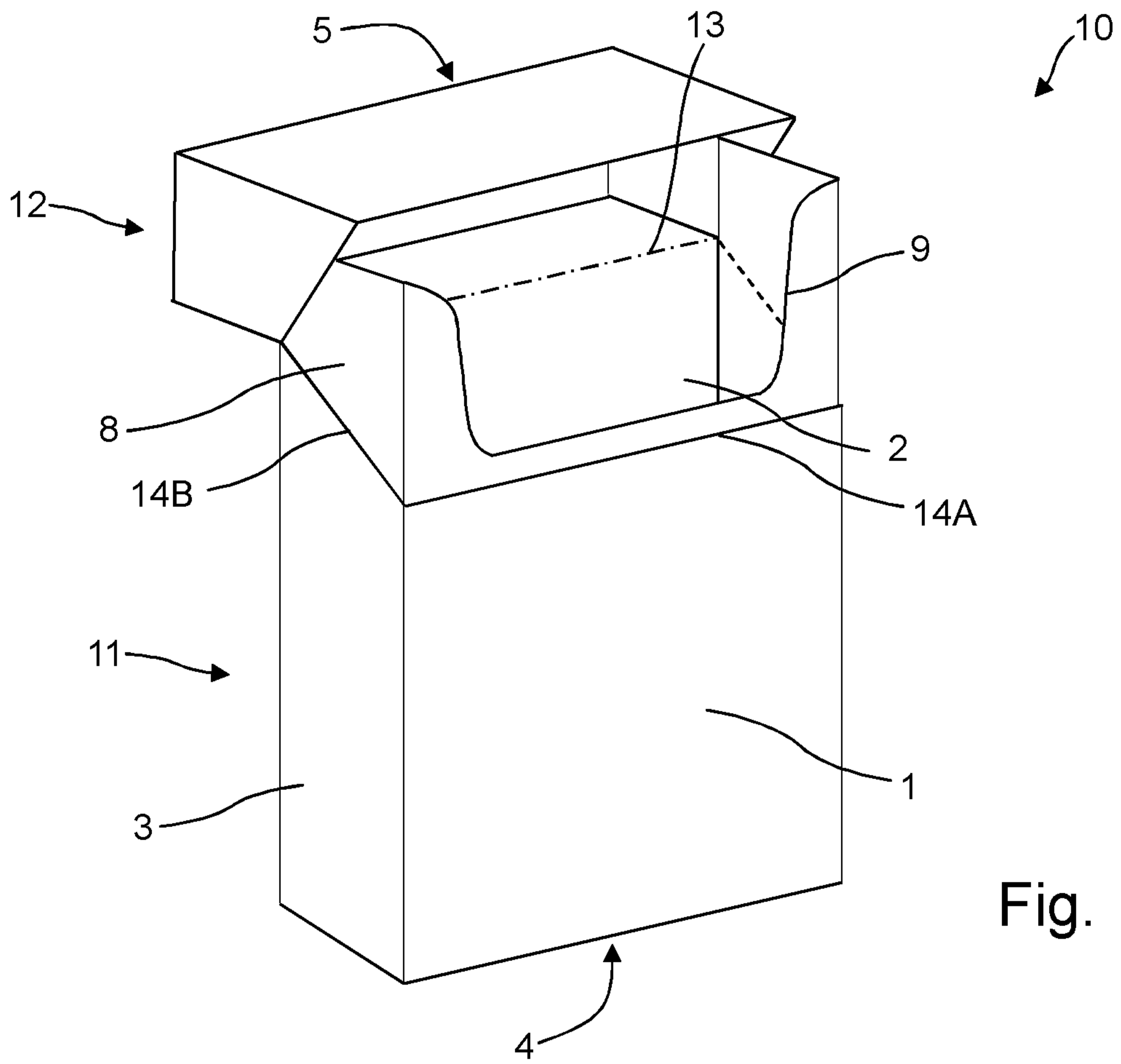
a second layer outside the first layer;

a first cut line in the first layer but not the second layer, the first cut line defining a first region of the first layer which overlies the lid;

a second cut line in the second layer but not the first layer, wherein at least part of the second cut line is offset from the first cut line, the second cut line defining a second region of the second layer, wherein the second region overlies the lid and includes a peripheral portion where the second layer extends beyond the lid;

a resealable adhesive between the peripheral portion of the second layer and the first layer;

wherein the peripheral portion of the second layer is separable from the first layer and can be used to lift the lid into the open position, and wherein the peripheral portion can be resealed against the first layer.



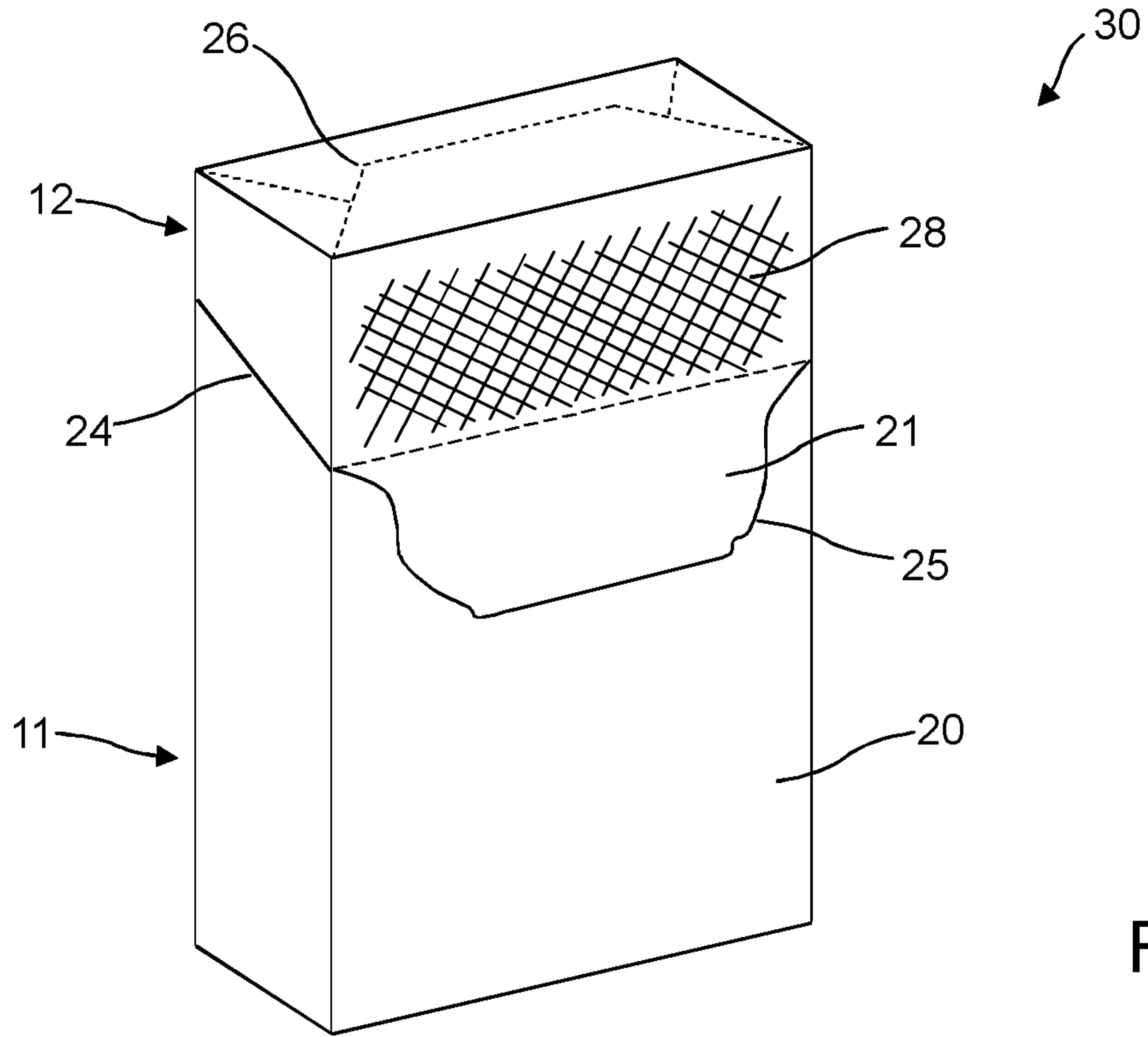


Fig. 3

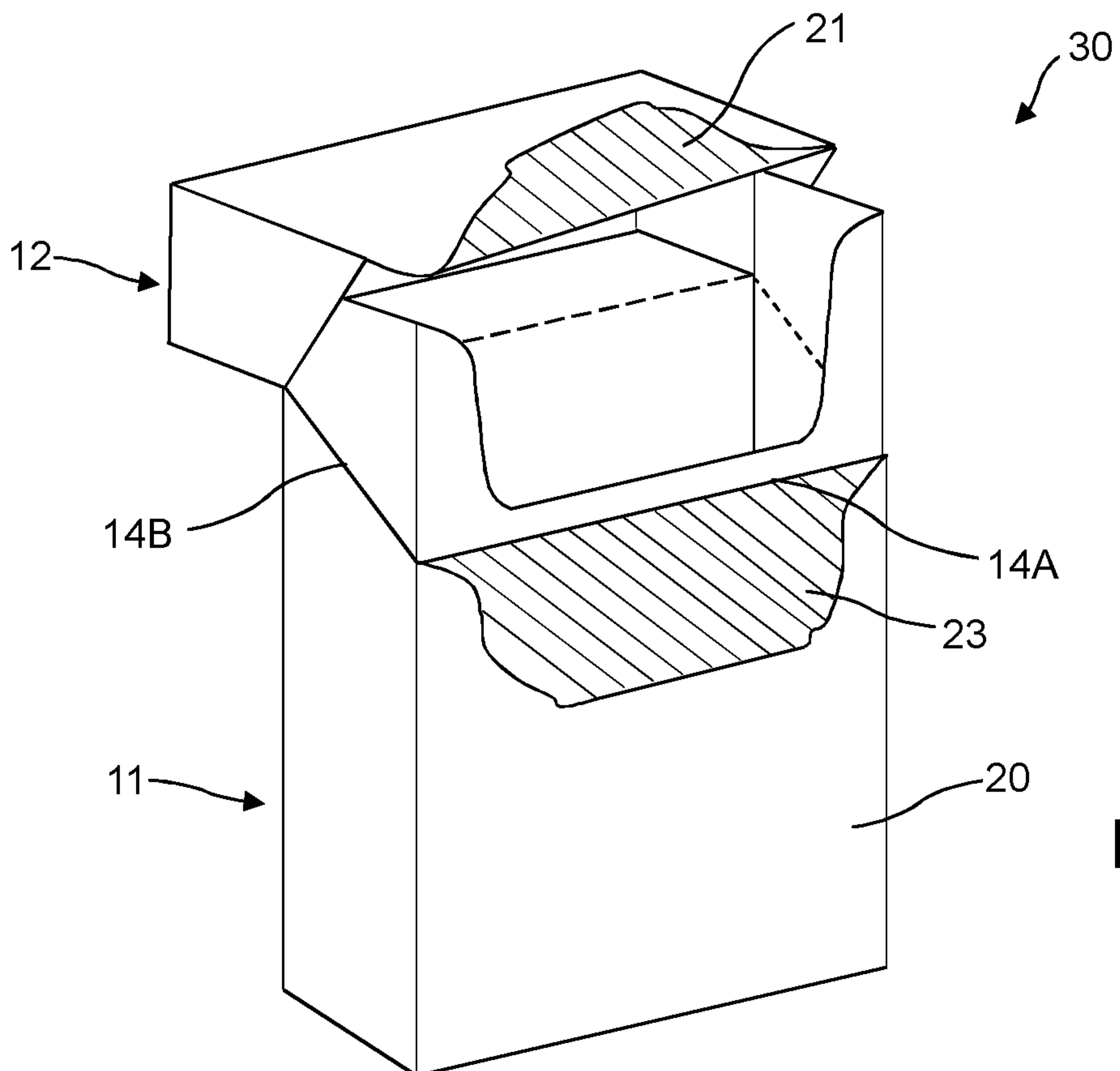


Fig. 4

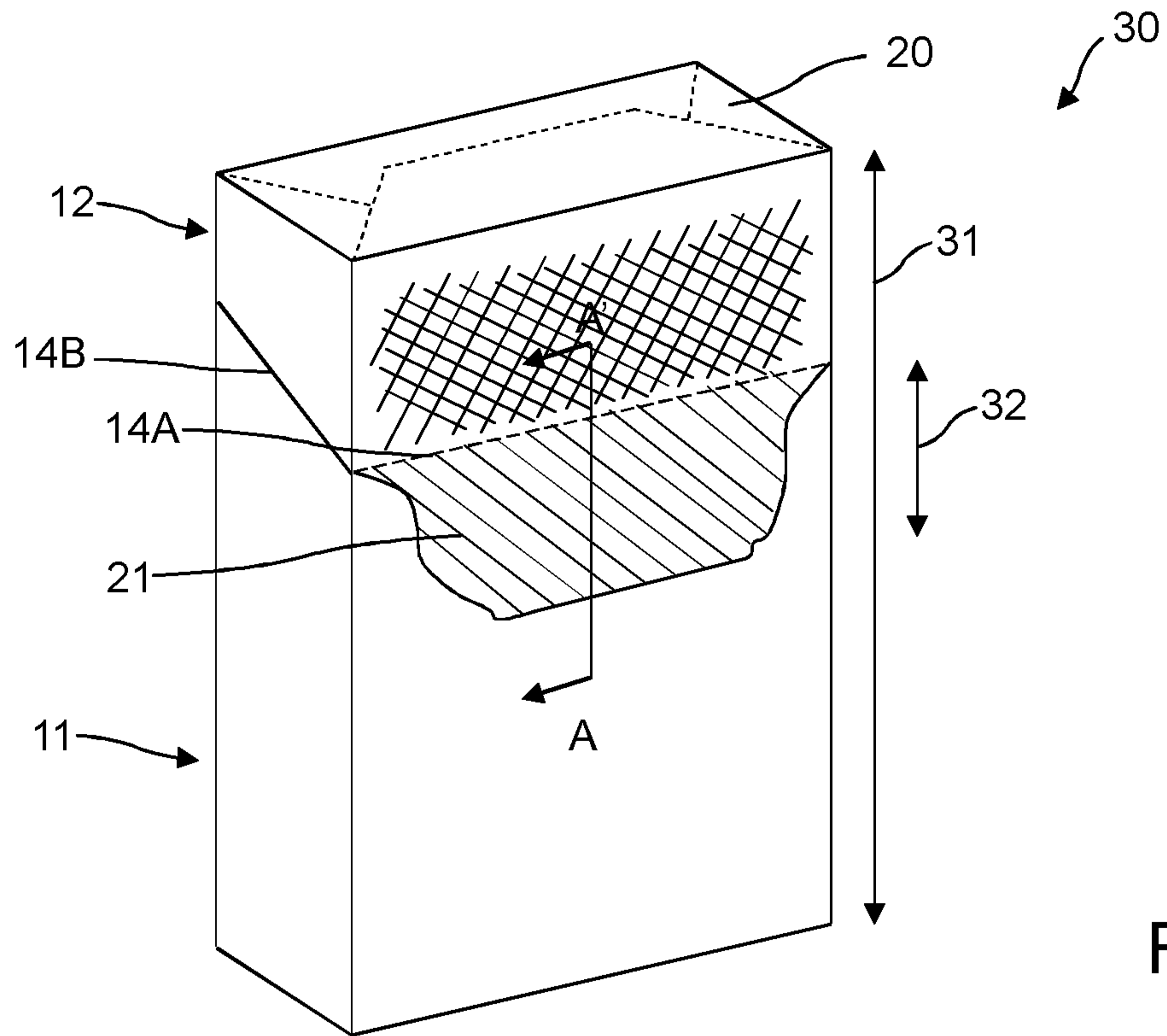


Fig. 5A

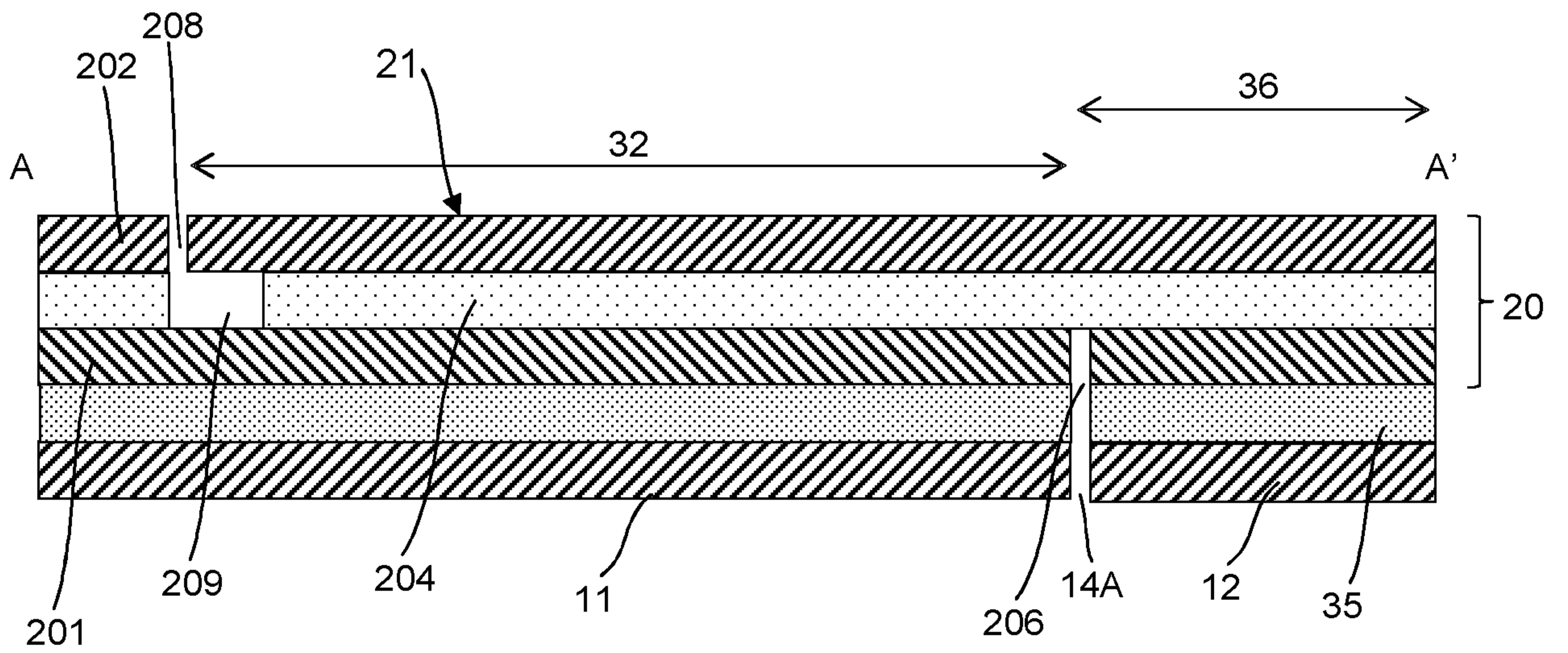


Fig. 5B

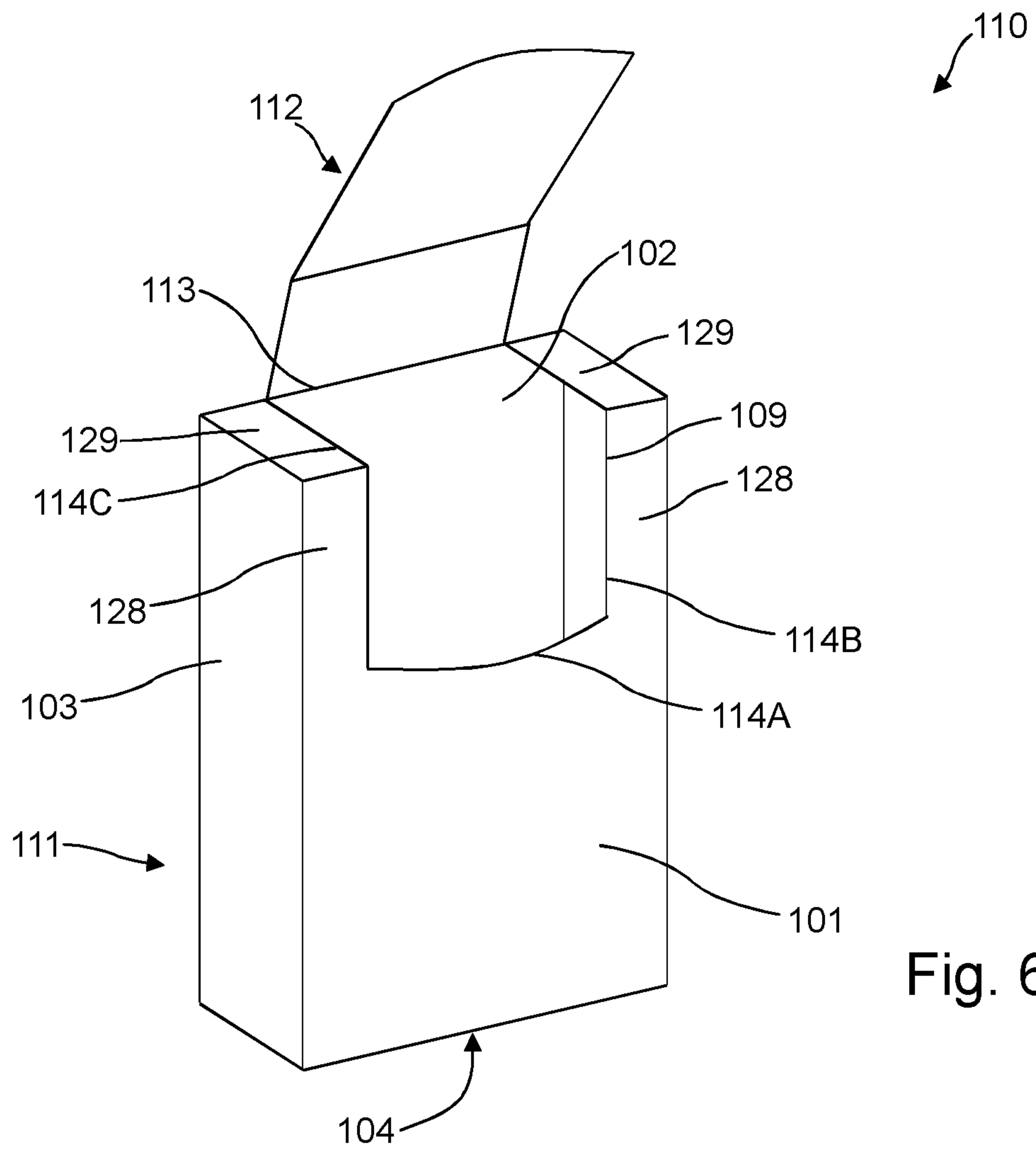


Fig. 6

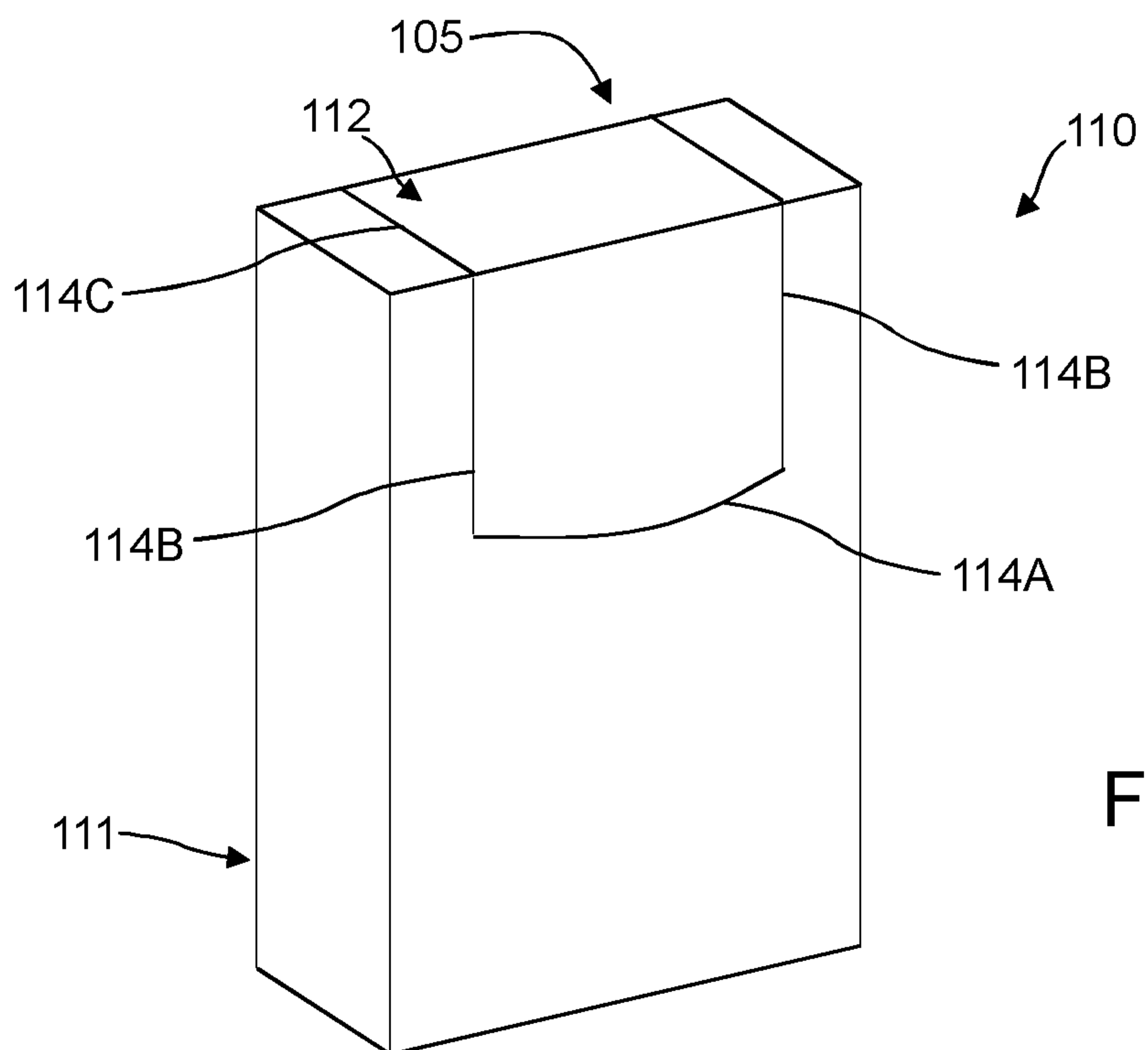


Fig. 7

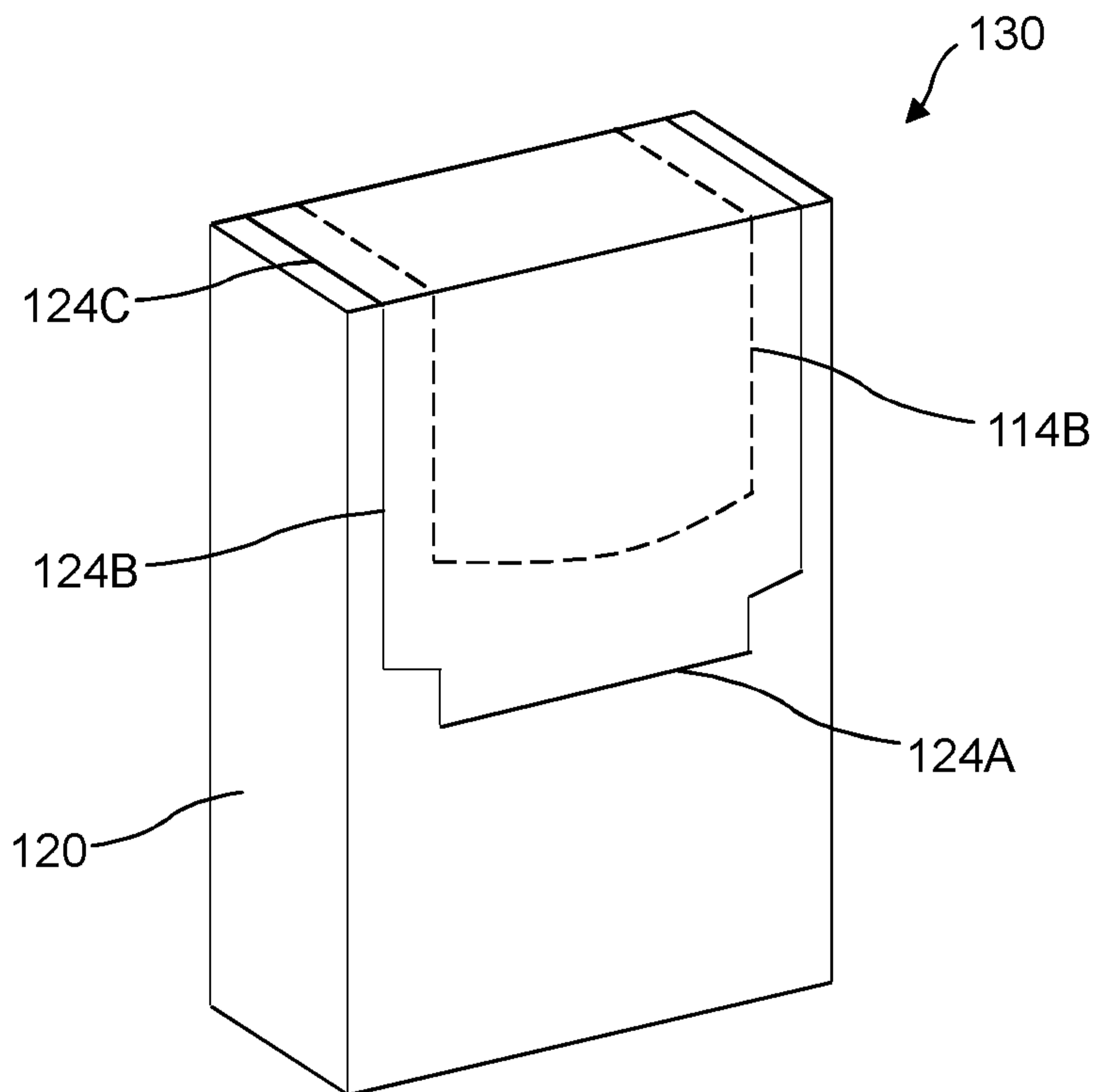


Fig. 8

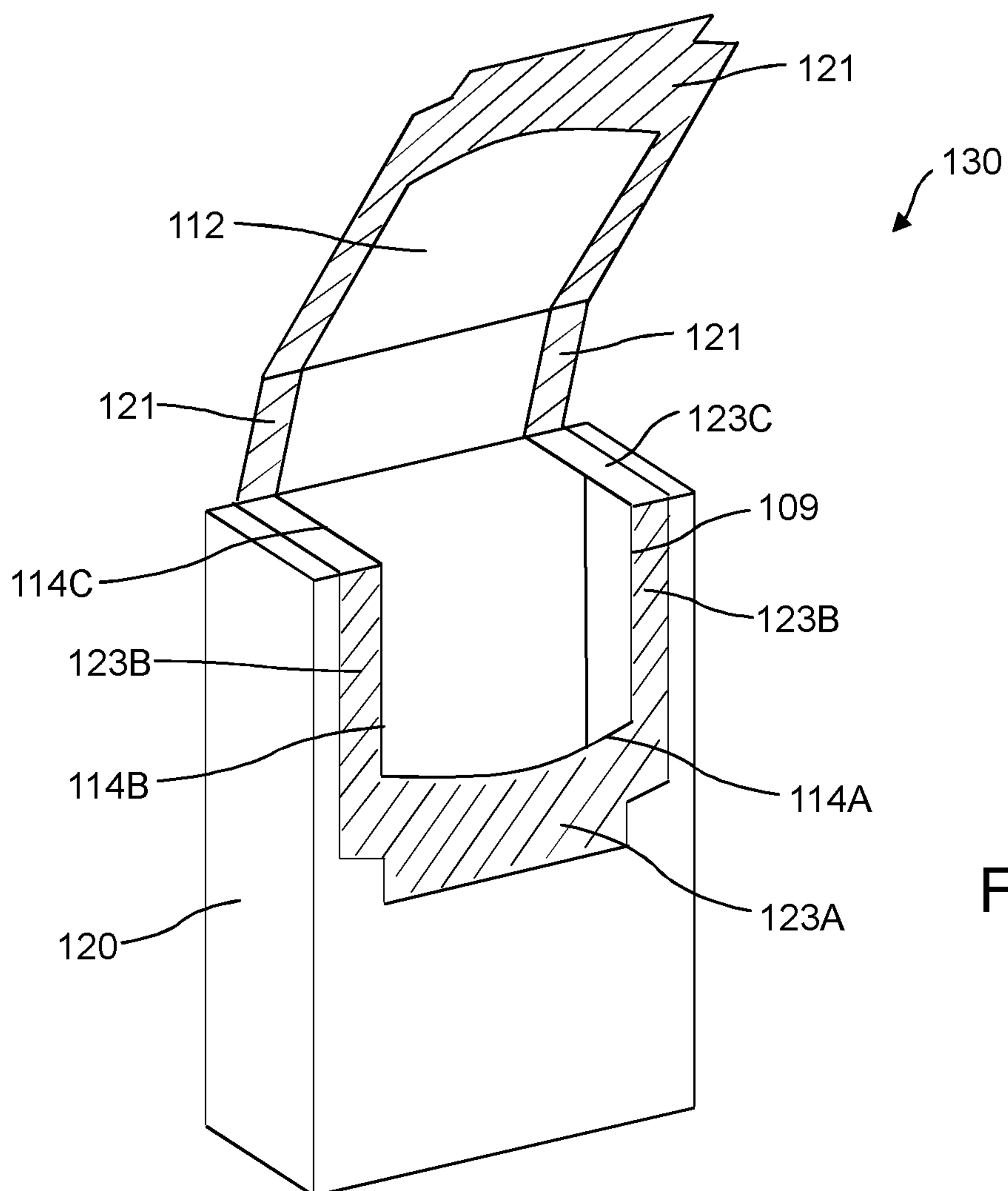


Fig. 9

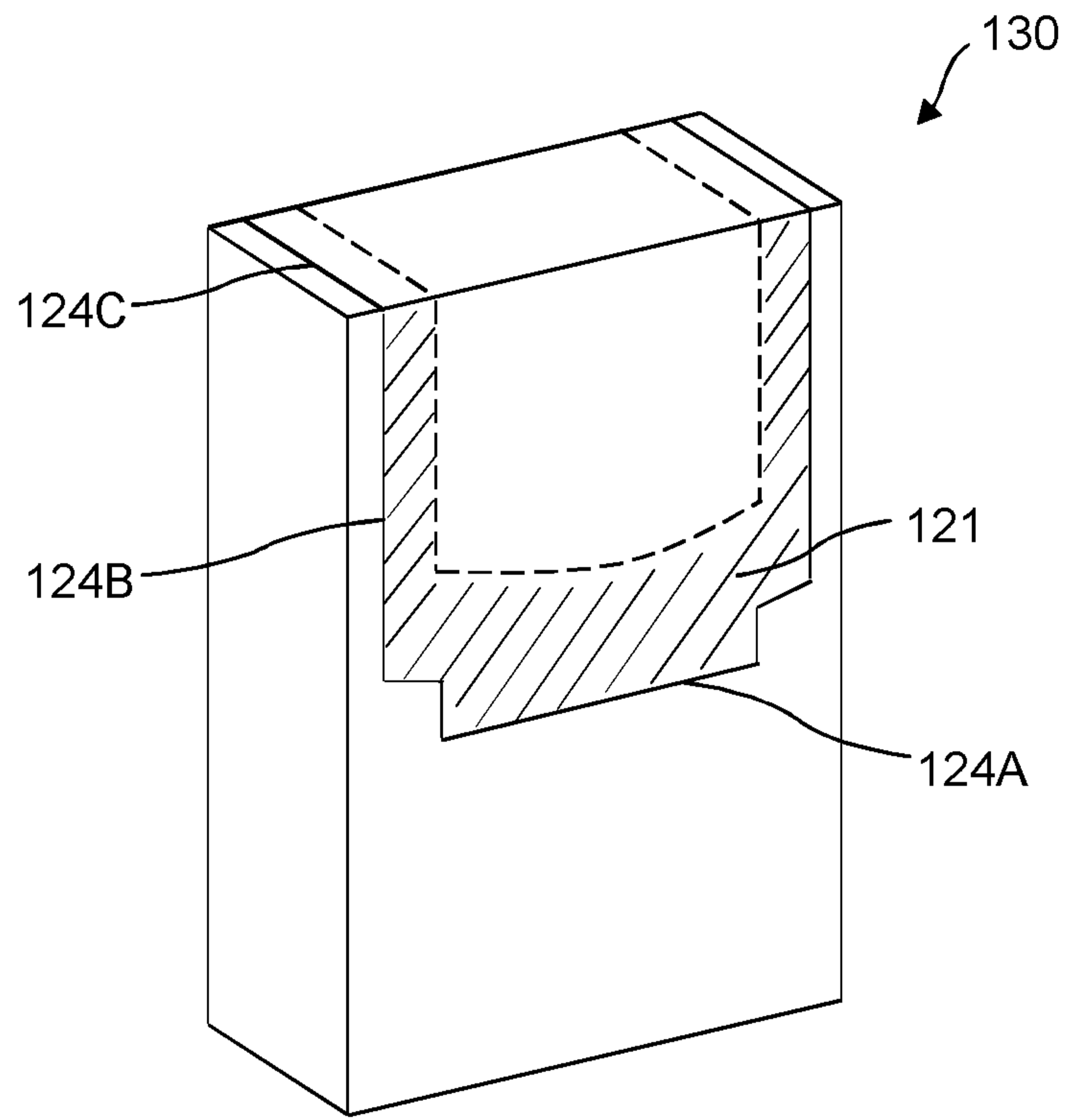


Fig. 10

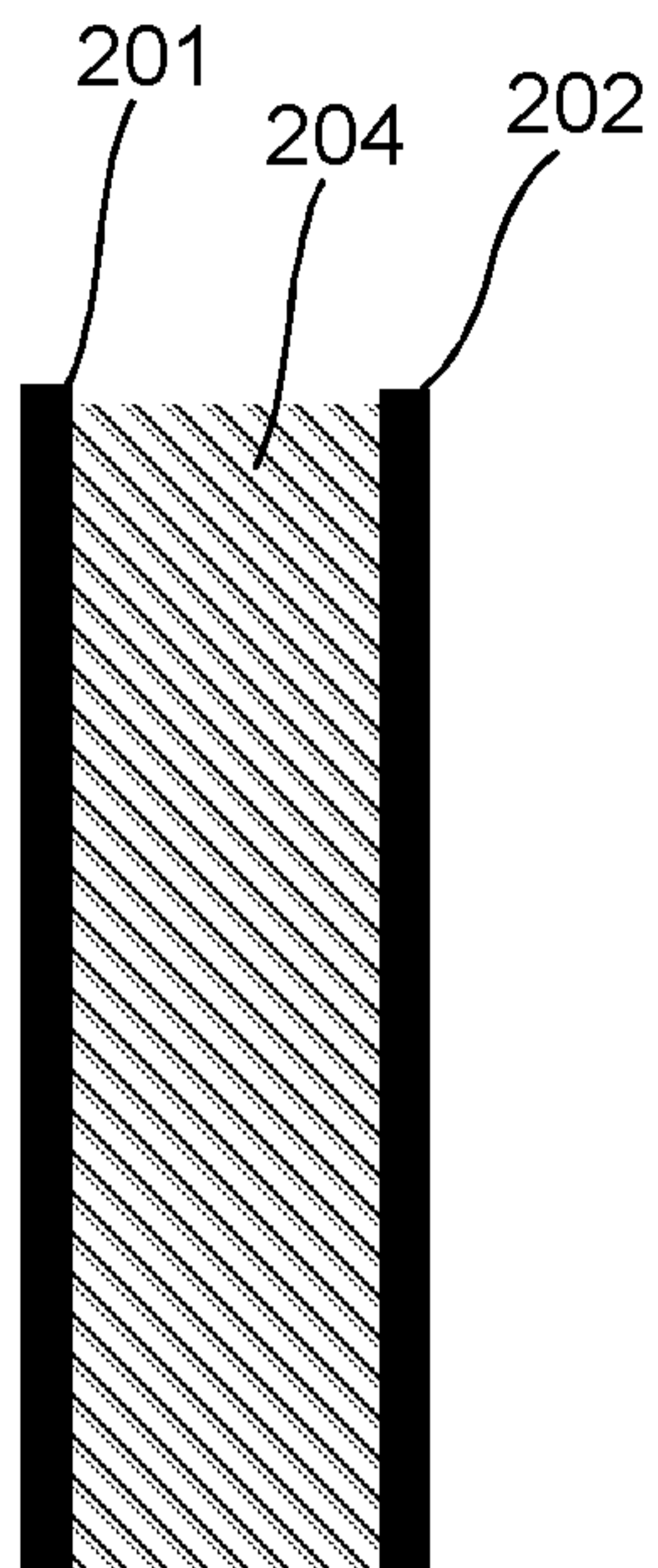


Fig. 11A

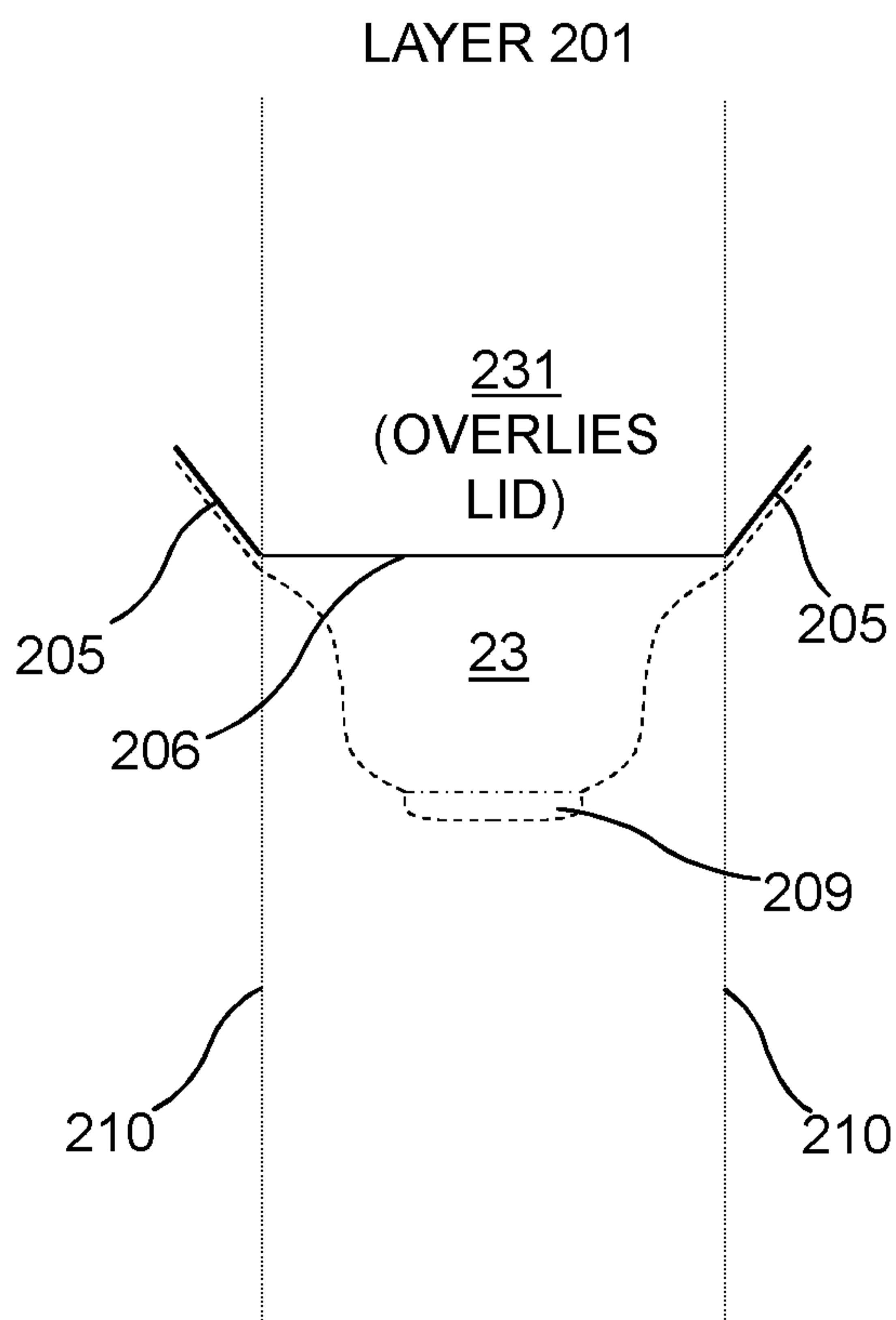


Fig. 11B

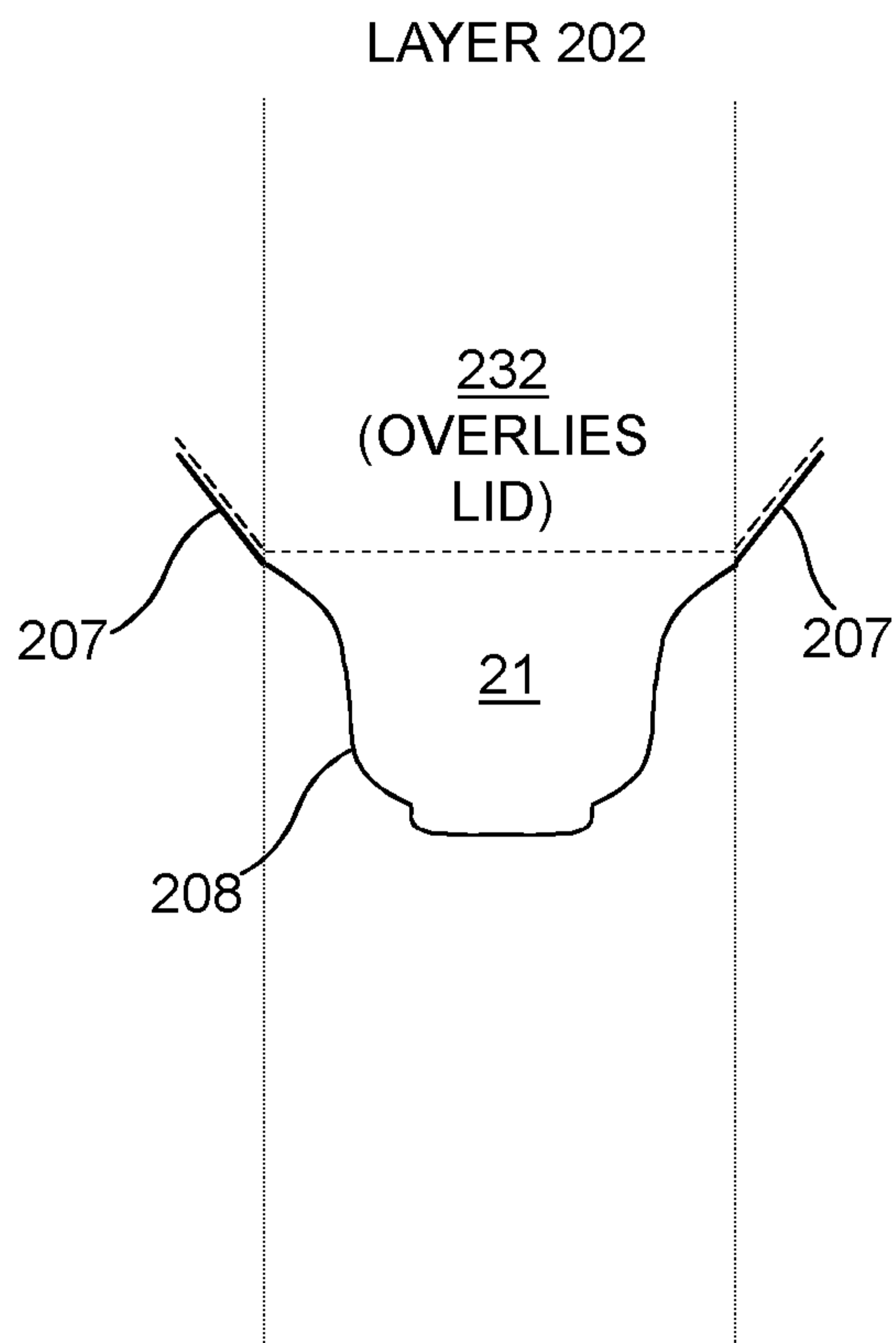


Fig. 11C

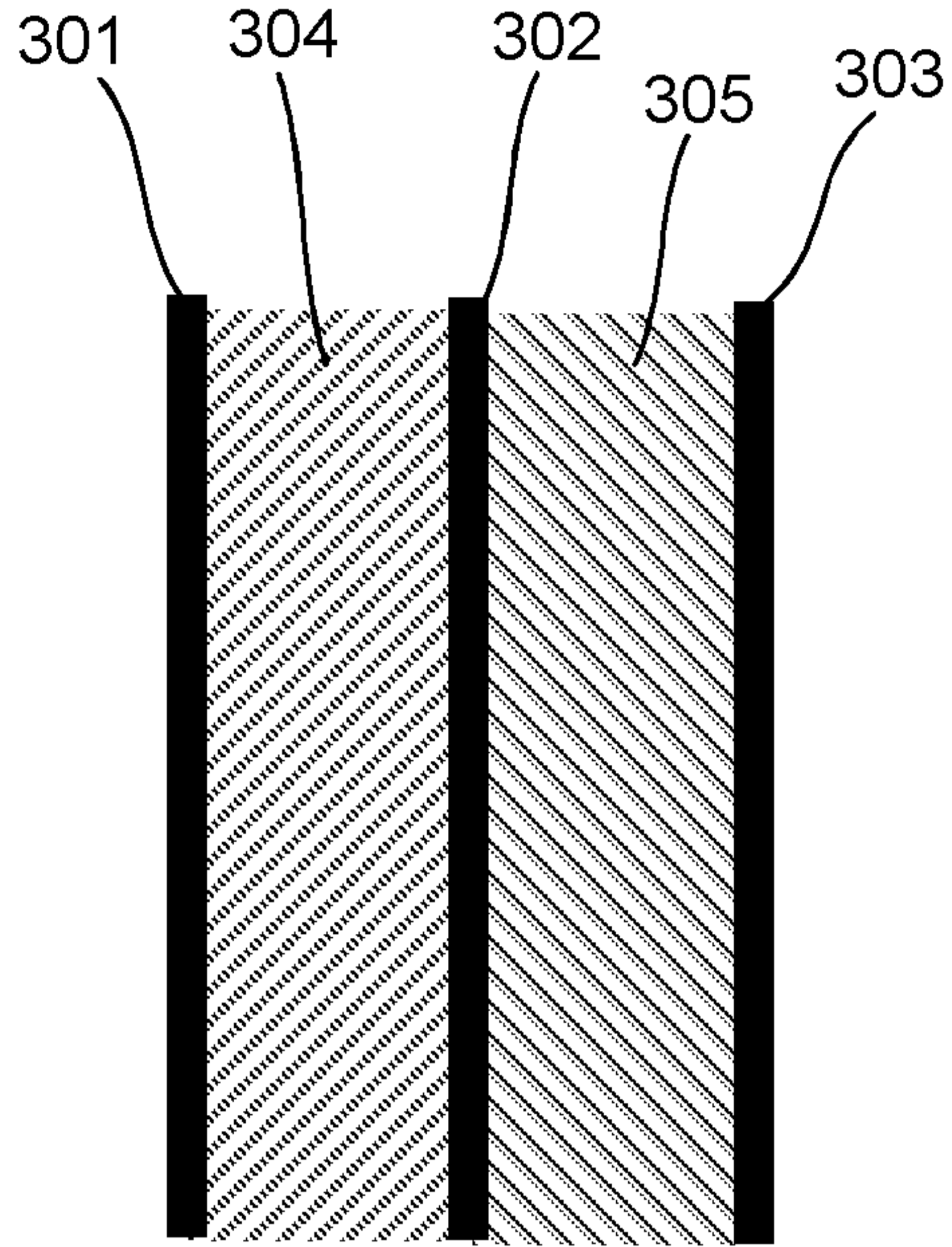


Fig. 12A

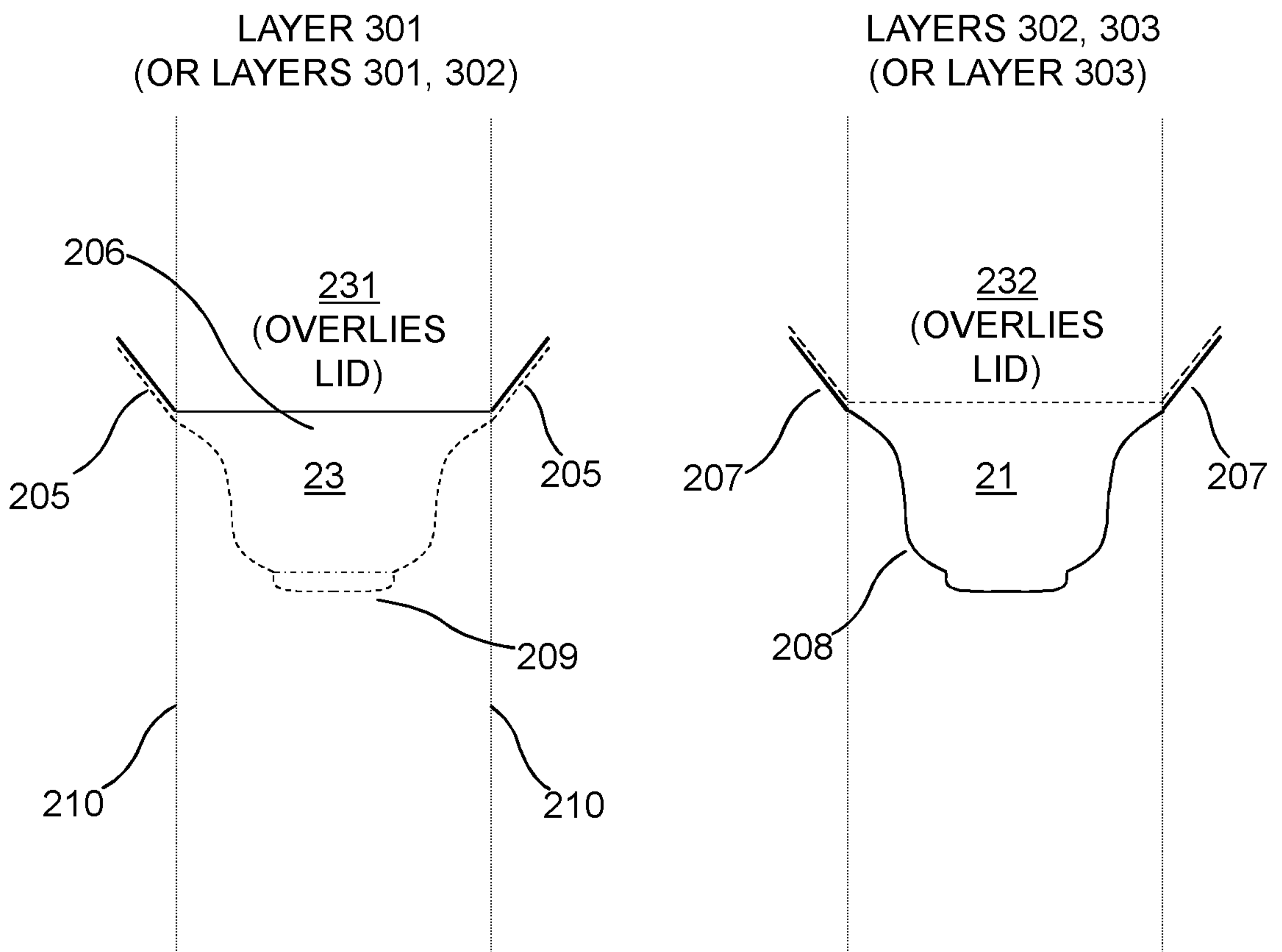


Fig. 12B

Fig. 12C

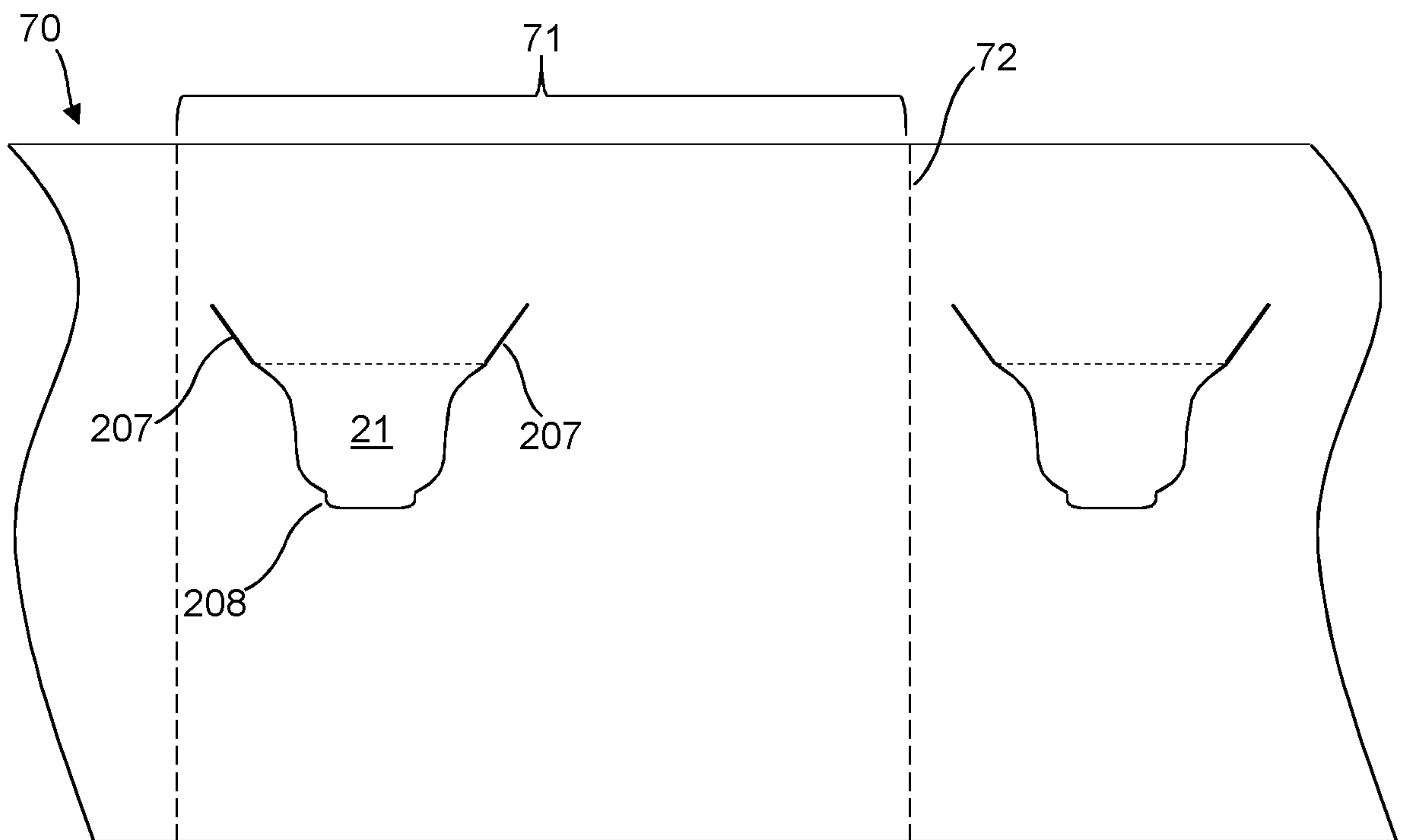


Fig. 13

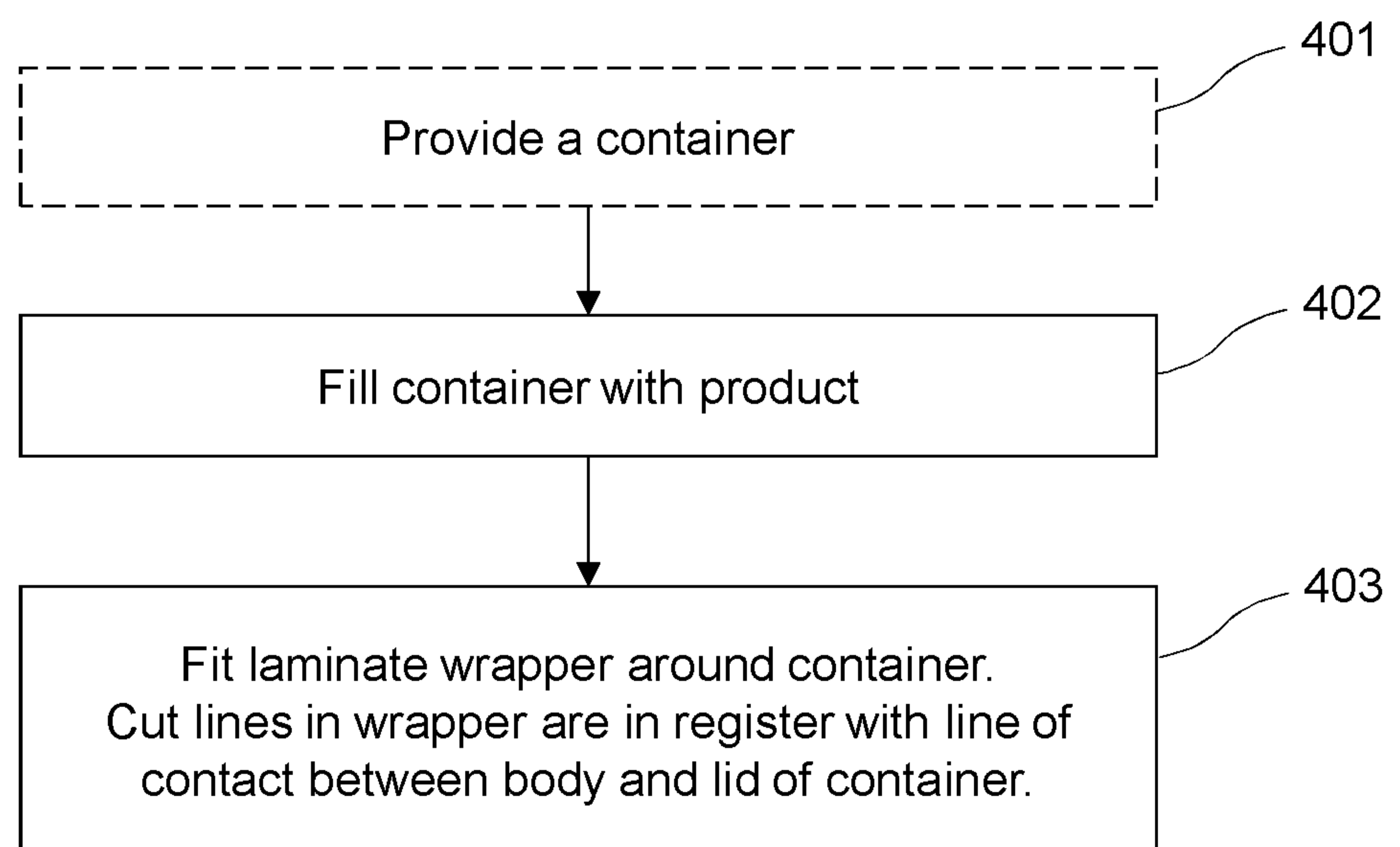


Fig. 14

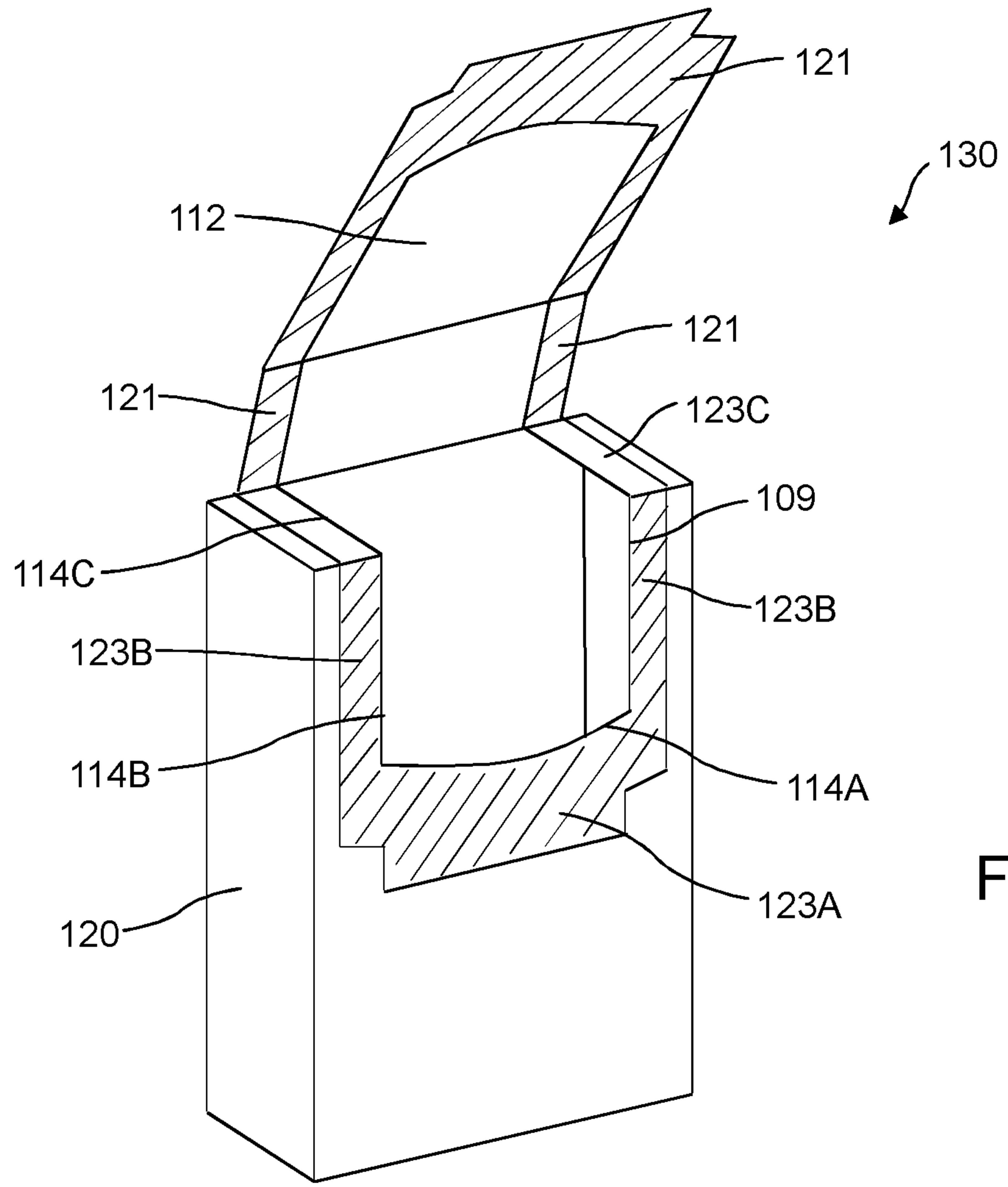


Fig. 9