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DESCRIPTION

BACKGROUND

Field of the Disclosure

[0001] The present application relates generally to the field of containers and packages for items such as cigarettes.

Background

[0002] GB 2 031 385 A discloses a composite blank for production of a hinged-lid packet by folding and sealing, in which the blank is of laminated material comprising a foundation layer of card carrying on one face a cover layer of overwrapper material, the foundation layer being provided with a slit along a line corresponding to separable edges of the body and lid in the finished packet, the cover layer being continuous over said slit, and a tear strip being provided on the cover layer along the line of said slit.
US 2 909 312 A discloses a ripper structure for a box, the box being made from a unitary blank an having a joint comprising a flap panel disposed in underlying flatwise relation to a wall panel thereof and having an area bonded thereto, comprising in combination: an interiorally exposed tear tape secured to the inner face of the blank and extending coextensively along the entire length of the blank transversely to the joint and through said bonded area, a tab overlying said tear tape, integral with and formed from said blank by perforations, and having a transverse edge defined by one of said perforations which extends completely through the box and completely through said tear tape transversely intermediate its length at a point therealong registering with a crease in the blank by which said flap panel is defined and is integrally hinged, whereby the box may be completely ripped at its perimeter by a generally encircling pulling movement of substantially 360° applied to said tab.

[0003] Popular smoking articles such as cigarettes have a substantially cylindrical rod shaped structure and include a charge of smokable material such as shredded tobacco (e.g., cut filler) surrounded by a paper wrapper thereby forming a "tobacco rod." It has become desirable to manufacture cigarettes having cylindrical filter elements aligned in an end-to-end relationship with the tobacco rod. Typically, filter elements are manufactured from fibrous materials such as cellulose acetate and plug wrap, and are attached to the tobacco rod using a circumscribing tipping material. Such cigarettes having filter elements are referred to as "filter cigarettes."

[0004] Filter cigarettes conventionally have been sold in packages, each package normally containing twenty (20) cigarettes. Typical cigarette packages have a generally rectangular parallelepiped form. One type of popular cigarette package employs a container having the

form of a so-called "hard pack," "crush proof box" or "hinged lid package." See, for example, U.S. Pat. No. 3,874,581 to Fox et al.; U.S. Pat. No. 3,944,066 to Niepmann; U.S. Pat. No. 4,852,734 to Allen et al.; European Pat. 0392737 to Moeller; U.S. Pub. Pat. App. No. 2008/0230410 to Jones et al.; U.S. Pub. Pat. App. No. 2011/0042249 to Guerrera et al.; U.S. Pub. Pat. App. No. 2010/0248926 to Pipes et al.; and U.S. Patent No. 5,682,986 to Cobler. Another type of popular cigarette package employs a container having the form of the so-called "soft pack." See, for example, U.S. Pat. No. 3,695,422 to Tripodi; U.S. Pat. No. 4,717,017 to Sprinkel, Jr., et al.; and, U.S. Pat. No. 5,333,729 to Wolfe. Both types of cigarette packages are normally packed in cartons also of generally rectangular parallelepiped form.

[0005] These conventional cigarette packages are generally configured to maintain the freshness and moisture content of the cigarettes and to protect the cigarettes from adverse environmental conditions that could degrade their freshness and quality. Such conventional cigarette packages typically comprise three separate wrappings: (1) an inner foil liner comprising a metal foil laminated to a paper substrate or a metallized paper which is wrapped about the cigarettes and folded, but not sealed, at the ends of the cigarettes; (2) a "soft" or "hard" paper or paperboard package which is usually imprinted with brand specific information; and (3) an exterior clear overwrap of a heat sealable polymeric film polymeric film which is heat sealed. For example, an exterior clear overwrap is disclosed in U.S. Patent No. 4,807,745 to Langley et al.

[0006] A strip of polymeric material known as a "tear tape" is provided for easy opening of the polymeric overwrap films. Exemplary tear tapes are disclosed in U.S. Pat. No. 4,717,017 to Sprinkel, Jr. et al.; U.S. Pat. No. 4,836,378 to Lephardt; U.S. Pat. No. 5,192,262 to Amendola et al.; U.S. Pat. No. 5,595,803 to May et al.; U.S. Pat. No. 6,363,691 to Flaherty; U.S. Pub. Pat. App. No. 2004/0261361 to Pinchen; and U.S. Pat. No. 7,118,792 to Hewitt et al. The tear tape typically is positioned adjacent and parallel to the top edge of the package. One end of the tear tape normally projects slightly from the package as a tab. To open the package, the tab is pulled by the smoker to open the polymeric overwrap. In particular, the projecting tab of the tear tape is pulled to slit the polymeric overwrap along both edges of the tear tape and the polymeric overwrap covering the top of the container is removed.

[0007] Such polymeric "tear tapes" may also be tamper-evident. For example, tamper-evident tear tapes are disclosed in U.S. Pub. Pat. App. No. 2007/0130811 to Shevelev et al., U.S. Patent No. 5,333,729 to Wolfe, U.S. Patent No. 5,248,031 to Burrows et al., and U.S. Patent No. 5,139,140 to Burrows et al. A tamper-evident label or tear tape is a commonly used label that provides an indication that the label may have been removed. In one form, the tear tape is an adhesive label that can be applied to a substrate that provides visible evidence of the label's removal. For instance, upon the tear tape being removed, the tape leaves behind a residue on the substrate as evidence of its removal. Often the residue forms a text message, such as VOID or OPENED, or may form a repeated pattern, such as a checkerboard pattern. Once removed, even if the tear tape is re-applied to the substrate, the patterned residue or textual message makes it difficult to re-align the removed portion back on the substrate to appear as if the label was never removed. Accordingly, even if re-applied, the tear tape typically provides

evidence of its prior removal.

[0008] Once a tear tape is removed, the top of the package is then opened, i.e., the foil inner liner is torn open in the case of the soft pack or the hinged lid of the hard pack is pivoted open and a portion of the foil inner liner is removed to expose the ends of the cigarettes contained therein. The smoker then grasps the end, usually the filter end, of a cigarette with his/her fingers to remove it from the package.

[0009] Cigarette packages having other tamper-evident features are known in the art. For example, U.S. Patent No. 4,911,302 to Butler, discloses a tamper-evident pattern disposed between an underside of an overwrap closure and an outer surface layer of an underlying package structure. International Application No. PCT/EP2013/003274, discloses a container having a removable portion, the removable portion positioned on a front of the container. U.S. Patent Application Publication 2014/0305821, discloses a line of weakness formed in the blank for a cigarette package and a tear element disposed between an outer and inner frame.

[0010] However, there are a number of potential issues with various conventional tamper-evident cigarette package designs. Some tamper-evident cigarette package designs may lead to increased litter of material (e.g., transparent outer wrappings, peripheral tear tapes, various tear strip designs, etc.). Other cigarette package designs may include tamper-evident features that are formed by manufacturing processes that require expensive tooling and/or greater precision (e.g., processes used to perforate a portion of a paperboard blank).

SUMMARY OF THE DISCLOSURE

[0011] The package according to the invention comprises the features recited in the claims 1-8 appended thereto. Various embodiments of the present disclosure provide for a box having a lower body portion defining a base, an upper body portion defining a lid, and a tear strip. The base includes a base bottom wall, a base front wall having first base side tabs coupled thereto, and a base rear wall having second base side tabs coupled thereto. The lid includes a lid top wall, a lid front wall having first lid side tabs coupled thereto, and a lid rear wall having second lid side tabs coupled thereto. The tear strip is adhesively coupled to the base front wall and the lid front wall.

[0012] According to an aspect of the present disclosure, a package containing cigarettes may include a box having a lower body portion defining a base, an upper body portion defining a lid, and a tear strip. The base includes a base bottom wall, a base front wall, and a base rear wall. The lid includes a lid top wall, a lid front wall, and a lid rear wall. The tear strip is adhesively coupled to the lid front wall and the base front wall, and an outer surface of the lid and the lower body portion is exposed to be touched by a user.

[0013] According to a further aspect of the present disclosure, a package containing cigarettes may include a box having a lower body portion defining a base, an upper body portion defining

a lid, and a tear strip. The base includes a base bottom wall, a base front wall, and a base rear wall. The lid includes a lid top wall, a lid front wall, and a lid rear wall. The tear strip is adhesively coupled to the base front wall and the lid front wall, and the base rear wall and the lid rear wall may be coupled via an adhesive strip.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] Exemplary embodiments of the present disclosure will now be described, way of example only, with reference to the accompanying diagrammatic drawings, in which:

FIG. 1 is a perspective view of a cigarette package having a tear strip comprising a reinforcing member, the package being shown in a closed position, according to an exemplary embodiment.

FIG. 2 is a detail view of the tear strip represented in FIG. 1.

FIG. 3 is a top plan view of a blank used for the cigarette package shown in FIG. 1.

FIG. 4 is a perspective view of a cigarette package having a perforated front lid, with the package being shown in a closed position, according to another exemplary embodiment.

FIG. 5 is a top plan view of a blank used for the cigarette package shown in FIG. 4.

FIG. 6 is another perspective view of a cigarette package having a perforated front lid, with the package being shown in a closed position, according to yet another exemplary embodiment.

FIG. 7 is a top plan view of a blank used for the cigarette package shown in FIG. 6.

FIG. 8 is a perspective view of a cigarette package having a pair of tear-away portions positioned on left and right sides thereof.

FIG. 9 is a top plan view of a blank used for the cigarette package shown in FIG. 8.

FIG. 10 is a bottom plan view of a blank for a cigarette package having a tear strip, according to an exemplary embodiment.

FIG. 11 is a bottom plan view of another blank for a cigarette package having a tear strip.

FIG. 12 is a bottom plan view of yet another blank for a cigarette package having a tear strip.

FIG. 13 is a bottom plan view of yet another blank for a cigarette package having a tear strip.

DETAILED DESCRIPTION

[0015] The present disclosure now will be described more fully hereinafter with reference to the accompanying drawings, in which some, but not all aspects of the disclosure are shown. Indeed, the disclosure may be embodied in many different forms and should not be construed as limited to the aspects set forth herein; rather, these aspects are provided so that this disclosure will be thorough and complete, will fully convey the scope of the disclosure to those skilled in the art, and will satisfy applicable legal requirements. Like numbers refer to like elements throughout. As used in this specification and the claims, the singular forms "a," "an," and "the" include plural referents unless the context clearly dictates otherwise.

[0016] FIGS. 1 and 3 show an exemplary package 10 containing cigarettes. The package 10 comprises an outer protective case 11 (e.g., box, container, etc.) and an inner case (not shown) that is configured to fit within the outer case 11. Generally, the inner case defines a storage volume which is used to contain tobacco product (e.g., cigarettes, cigarillos, cigars, etc.) therein. The outer case 11 shown in FIG. 1 may be formed from a paperboard blank, such as the blank shown in FIG. 2. According to other exemplary embodiments, the outer case 11 may be formed from any suitable material, such as a polymeric material. Those skilled in the art will appreciate that the exemplary packages disclosed herein may be completely manufactured using recyclable materials. Thus, compared to other packages that are provided with an outer polymeric film, the packages disclosed herein may be advantageously 100% recyclable.

[0017] Referring to FIG. 1, the outer case 11 comprises an upper body portion which defines a lid 12 and a lower container body portion which defines a base 14. The base 14 and the lid 12 may be cooperatively configured to selectively engage and disengage from each other. For example, the lid 12 may be configured as having a "snap fit" with the base 14.

[0018] Referring now to FIG. 3, the lid 12 and the base 14 are depicted as being coupled together on a rear side of the outer case 11 via a hinge portion 16 (e.g., a hinge, living hinge, etc.). More particularly, the hinge portion 16 is defined between a rear wall of the base 14 (e.g., a base rear wall 18) and a rear wall of the lid 12 (e.g., a lid rear wall 20). As the outer case 11 is formed from a blank, the base rear wall 18 and the lid rear wall 20 may be coupled together via an adhesive joint (e.g., formed from an adhesive, such as glue or double-sided tape). Accordingly, the lid 12 may be configured to pivot rearwardly relative to the base 14 about an axis generally defined by the hinge portion 16. Thereby, the outer case 11 may be opened or closed. According to another exemplary embodiment, a hinge portion for a package containing cigarettes may be defined between a rear wall of a lower body portion and a lid top wall of a lid. The package containing cigarettes may be configured in other suitable manners as well.

[0019] Referring still to FIG. 3, the lid 12 includes a lid top wall 22, the lid rear wall 20, and a lid front wall 24. Additionally, first lid side tabs 26 (e.g., side wall portions) are provided on left and right sides of the lid front wall 24, and second lid side tabs 28 (e.g., side wall portions) are provided on left and right sides of the lid rear wall 20. When the lid 12 is in folded form, the second lid side tabs 28 of the lid rear wall 20 may be coupled to an inner, or bottom surface of the lid top wall 22, and the first lid side tabs 26 of the lid front wall 24 may be coupled to the

second lid side tabs 28. For instance, an adhesive (e.g., glue, double-sided tape, etc.) may be used to couple the aforementioned walls. According to an exemplary embodiment, the lid rear wall 20 is shorter than the lid front wall 24. In other words, the lid front wall 24 may extend below the lid rear wall 20 when the lid 12 is closed. According to other exemplary embodiments, the various walls comprising the lid 12 may have any suitable size, and the relative sizes disclosed herein are not intended to be limiting.

[0020] As also shown in FIG. 3, the base 14 includes a base front wall 30, a base bottom wall 32, and the base rear wall 18. Additionally, first base side tabs 34 (e.g., side wall portions) are provided on a left and right side of the base front wall 30, and second base side tabs 36 (e.g., side wall portions) are provided on a left and right side of the base rear wall 18. When the outer case 11 is in folded form, the second base side tabs 36 of the base rear wall 18 may be coupled to an inner, or upper surface of the base bottom wall 32, and the first base side tabs 34 of the base front wall 30 may be coupled to the second base side tabs 36. According to an exemplary embodiment, the base rear wall 18 of the is taller than the base front wall 30. In other words, the base rear wall 18 may extend upwardly above the base front wall 30 when the outer case 11 is in folded form. According to other exemplary embodiments, the various walls comprising the base 14 may have any suitable size, and the relative sizes disclosed herein are not intended to be limiting.

[0021] When the lid 12 of the outer case 11 is in the closed configuration, the inner surfaces of the second lid side tabs 28 and the lid front wall 24 may engage outer surfaces of the inner case. Further, bottom portions of the first lid side tabs 26, the second lid side tabs 28, and the lid front wall 24 may engage top portions of the first base side tabs 34, the second base side tabs 36, and the base front wall 30.

[0022] According to an exemplary embodiment, the lid front wall 24 and the base front wall 30 are coupled together via a tear strip 38. The tear strip 38 may be configured in the manner shown in FIGS. 10-13, in which a reinforcing member 37 is coupled to the outer case 11 and positioned between two weakened portions 39. The tear strip 38 may also be configured as shown in FIGS. 1-2, in which a middle tear strip portion 41 is positioned between two adhesive portions that are coupled to the outer case 11. The reinforcing member 37 and a middle tear strip portion 41 may be made from any suitable material (e.g., excess paper material, polypropylene, polyethylene, another recyclable material, etc.), and the materials described herein are not intended to be limiting. As shown in FIGS. 1-2 and 10-11, the tear strip 38 may extend from a left side of the lid front wall 24 and the base front wall 30 to a right side of the lid front wall 24 and the base front wall 30.

[0023] Once the outer case 11 is in a folded form - with the tear strip 38 in place and the lid rear wall 20 and the base rear wall 18 coupled together via an adhesive joint - the outer case 11 may generally be in the form of a parallelepiped (e.g., a rectangular box). Although an adhesive joint is shown as coupling the lid rear wall 20 and the base rear wall 18, a blank for an outer case may be configured in other ways such that an adhesive joint is used to couple another pair of walls. Also, according to other embodiments, various walls of an outer case

may be coupled using fasteners (e.g., staples, etc.) or in any other suitable way.

[0024] According to an exemplary embodiment, when the outer case 11 is in folded form, the tear strip 38 may be tamper-evident. "Tamper-evident" refers to an element or feature used to indicate the existence or non-existence of unauthorized or prior access of a product. Thus, the tear strip 38 may be used to indicate the existence or non-existence of unauthorized access of the package 10 containing cigarettes. For example, the package 10 may be generally sold with the tear strip 38 coupled to the lid front wall 24 and the base front wall 30. If the tear strip 38 is in place and intact, it would indicate to a user that the package 10 has not suffered prior unauthorized access. In contrast, if a user purchases a package 10 in which the tear strip 38 is either out-of-place, or not intact, this would indicate to the user that the package 10 has potentially been tampered with, and the integrity of the cigarettes therein may be compromised. Further, an adhesive joint used to couple a pair of walls of the outer case 11 (e.g., the lid rear wall 20 and the base rear wall 18) may be configured to be tamper-evident. Therefore, if one were to separate or detach two walls coupled together via an adhesive joint, this would indicate to a user that the package 10 has potentially been tampered with.

[0025] The tear strip 38 may be configured to be removed from the package 10 in various ways, according to various exemplary embodiments. For example, the tear strip 38 is illustrated in FIGS 1-2, which includes a tear strip portion 41, an upper adhesive portion 39, and a lower adhesive portion 43, is configured to tear away from the upper and lower adhesive portions 39, 43. The tear strips 38 illustrated in FIGS. 10-13, in which a reinforcing member 37 is positioned between upper and lower weakened portions (e.g., perforated lines), is configured to be pulled away from the outer case 11, in order to remove the material between the upper and lower weakened portions.

[0026] The tear strips 38 disclosed herein may obviate a need for alternative tamper-evident features, such as a separate, transparent outer wrapping or pull tabs. Advantageously, the tear strip 38 consists of a relatively small amount of recyclable material, compared to a transparent outer wrapping commonly used to seal cigarette containers. A tear strip 38 may be formed as having any suitable thickness and any suitable width. Thus, containers having a tear strip 38 as a tamper-evident feature may contribute to less waste and less litter, compared to other tamper-evident devices.

[0027] The tear strips 38 shown in FIGS. 2 and 10-13 may be bonded onto a medium, such as paperboard used for an individual blank for the outer case 11. The tear strips 38 may also be bonded in a continuous fashion to paperboard that has not yet been formed into individual blanks for the outer case 11. Further, the tear strips 38 disclosed herein may be coupled onto either an inner surface of an outer case 11, or onto an outer surface of an outer case 11.

[0028] According to the embodiments shown in FIGS. 1-2, in which the tear strip 38 comprises a tear strip portion 41, an upper adhesive portion 39, and a lower adhesive portion 43. The tear strip 38 is coupled to an outer surface of the outer case 11, before the tear strip 38 is coupled to the outer case 11 such that a linear cut (e.g., a slit) may be formed in a portion of a

blank that will define a bottom edge of the lid front wall 24 and a top edge of the base front wall 30, when the outer case 11 is in folded form. The tear strip 38 may then be coupled to an outer surface of the outer case 11 such that the tear strip 38 covers the linear cut. Thus, once the tear strip 38 is removed from the medium, the lid front wall 24 and the base front wall 30 will be separated and the lid 12 will be free to pivot about the hinge portion 16.

[0029] In contrast to the embodiment described above, a tear strip (not shown) similar to the tear strip 38 shown in FIG. 2 may be coupled to an inner surface of the outer case 11. Similar to the embodiment described immediately above, a linear cut (e.g., a slit) or a weakened portion (e.g., a series of perforations) may be formed in a portion of a blank that will define a bottom edge of the lid front wall 24 and a top edge of the base front wall 30, when the outer case 11 is in folded form. The tear strip 38 may be coupled to an inner surface of the outer case 11 that relates to the linear cut. A tail end of a tear strip portion may extend outside the outer case 11. The tail end of the tear strip portion may be pulled in order to break the linear cut between the lid front wall 24 and the base front wall 30.

[0030] Referring still to FIG. 2, according to an exemplary embodiment, an upper adhesive portion 39 may be provided above a middle tear strip portion 41 of the tear strip 38 and a lower adhesive portion 43 may be provided below the middle tear strip portion 41. The upper and lower adhesive portions 39, 43 may be adhesively coupled to both the lid front wall 24 and the base front wall 30. The middle tear strip portion 41 may or may not include adhesive. Further, the upper and lower adhesive portions 39, 43 of the tear strip 38 may be coupled to inner surfaces (e.g., rear-facing surfaces) of the lid front wall 24 and the base front wall 30. According to another exemplary embodiment, the upper and lower adhesive portions 39, 43 of the tear strip 38 may be coupled to front-facing outer surfaces of the lid front wall 24 and the base front wall 30.

[0031] According to an exemplary embodiment, the tear strip 38 may include a first end (not shown, but approximately 3-5 mm in length) which is configured to be pulled away from the lid front wall 24 and the base front wall 30. For example, the tear strip 38 may include a middle tear portion 41 sandwiched between upper and lower adhesive portions 39, 43, and the middle tear portion may include a first end configured to be pinched by a user and torn away from outer case 11. According to one exemplary embodiment, the first end of the middle tear portion of the tear strip 38 may extend or hang outwardly past the first lid side tabs 26 and the first base side tabs 34 (proximate the bottom edge of the lid front wall 24 and the upper edge of the base front wall 30). According to another exemplary embodiment, the first end of the middle tear portion of the tear strip 38 may extend proximal to a corner defined between the lid front wall 24 and the base front wall 30 and the first base side tabs 34 and the second base side tabs 36. According to this latter embodiment, a relatively minor section (approximately 3-5 mm) between the lid front wall 24 and the base front wall 30 may be either be coupled together via material of the medium, or left uncoupled. For example, a linear cut may be formed in a blank which falls approximately 3-5 mm short of one end (proximate a corner defined between the lid front wall 24 and the base front wall 30 and the first base side tabs 34 and the second base side tabs 36).

[0032] A middle tear strip portion 41 of the tear strip 38 may extend laterally from a first, free-hanging end proximate a left or right side of the lid front wall 24 and the base front wall 30 to a second end opposite the first end. The middle tear strip portion 41 of the tear strip 38 may be configured to tear apart from surrounding portions of the tear strip 38 when pulled therefrom. Further, the middle tear strip portion 41 may be configured to provide a visual indication of removal once it is torn or removed from the outer case 11. For example, the tear strip 38 may be configured such that the word "void" appears either on the outer case 11 or the tear strip 38 once a middle tear strip portion 41 is removed therefrom. Also, the tear strip 38 may be configured such that one is able to identify broken edges between a middle tear strip portion 41 and surrounding portions of the tear strip 38. While some methods for providing a tamper-evident tear strip have been disclosed herein, it should be understood that tear strips may be configured in other ways in order to indicate to a user that a package has been tampered with or opened.

[0033] According to another exemplary embodiment, a free-hanging first end of the tear strip 38, approximately 3-5 mm in length, may be coupled at one end of the tear strip. A middle tear strip portion 41, which may be sandwiched between upper and lower adhesive portions 39, 43, may also extend from the first end of the tear strip 38 to an opposite side of the front walls 24, 30. Further, the middle tear strip portion 41 may be configured to tear from upper and lower adhesive portions 39, 43, as well as the lid front wall 24 and the base front wall 30, as the first end of the tear strip 38 is pulled away from the lid front wall 24 and the base front wall 30. Once a middle tear strip portion 41 of the tear strip 38 is pulled from the lid front wall 24 and the base front wall 30, the lid 12 may be pivoted about the hinge portion 16 in order to place the outer case 11 into an open configuration. Also, the middle tear strip portion 41 may be discarded appropriately once it is removed from the lid front wall 24 and the base front wall 30.

[0034] FIGS. 10-13 illustrate additional exemplary embodiments for a tear strip 38, in which the tear strip 38 comprises a reinforcing member 37. The reinforcing member 37 in each of these embodiments may be coupled to a portion of an inner surface of the outer case 11 which corresponds to the boundary between the base front wall 30 and the lid front wall 24. A line of weakness, which may be configured in a variety of ways, may be positioned above the reinforcing member 37 within the lid front wall 24, and another line of weakness may be positioned below the reinforcing member 37 within the base front wall 30. Thus, a section of material is defined between the lines of weakness within the base front wall 30 and the lid front wall 24. The tear strip 38 may comprise the reinforcing member 37 and the section of material between the lines of weakness.

[0035] In order to facilitate the removal of the tear strip 38 (e.g., comprising the material between both weakened portions of the base front wall 30 and the lid front wall 24, and the reinforcing member 37), the reinforcing member 37 may be more narrow than the amount of material defined between the weakened portions of the base front wall 30 and the lid front wall 24. For example, the weakened portion within each of the base front wall 30 and the lid front wall 24 may be provided 1-2 mm above and below the reinforcing member 37. The height of

the reinforcing member 37 itself may be any suitable height. For example, according to an exemplary embodiment, a height of the reinforcing member 37 may be approximately 1-3 mm. According to another exemplary embodiment, a height of the reinforcing member 37 may be approximately 3-8 mm.

[0036] Referring to FIGS. 10-11, it is shown that a tear strip 38 may be configured such that the reinforcing member 37 extends across the front side of the outer case 11, and does not extend on either side of the outer case 11. Referring to FIGS. 12-13, it is shown that a tear strip 38 may be configured such that the reinforcing member 37 and lines of weakness may extend along the left and right sides of the outer case 11, as well as across the front side of the outer case 11.

[0037] According to the embodiments for a tear strip 38 described herein, removal of the reinforcing member 37 (as shown in FIGS. 1-2) or a tear strip portion 41 (as shown in FIGS. 10-13) may also remove material of the medium of the outer case 11 (i.e., material comprising the perforated line(s) or the line(s) of weakness between the lid front wall 24 and the base front wall 30) in order to separate the lid front wall 24 and the base front wall 30. In order for the reinforcing member 37 or the tear strip portion 41 to remove material of the medium, the material used for the reinforcing member 37 and/or the tear strip portion 41 may be configured to have suitable tear resistance, a sufficient tensile strength to overcome the stresses the tear strip 38 experiences when being pulled from the outer case 11, low elongation, and high resistance to flex cracking. The reinforcing member 37 and/or the tear strip portion 41 may be coupled or bonded to a medium via an adhesive (e.g., a pressure sensitive adhesive), or in any other suitable manner. For example, the tear strips 38 disclosed herein may be produced in bulk (e.g., in rollform), and then rolled or placed lengthwise onto a medium.

[0038] FIGS. 4-5 show an additional embodiment of an outer case 111 of a cigarette package 110. The outer case 111 includes a lid 112 and a base 114. The lid 112 includes a lid top wall 122, a lid rear wall 120, and a lid front wall 124. The lid front wall 124 includes first lid side tabs 126 coupled thereto, and the lid rear wall 120 includes second lid side tabs 128 coupled thereto. The lower body portion defines a base 114 which includes a base front wall 130, a base bottom wall 132, and a base rear wall 118. The base front wall 130 includes first base side tabs 134 coupled thereto, and the base rear wall 118 includes second base side tabs 136 coupled thereto. A hinge portion 116 is formed between the base rear wall 118 and the lid rear wall 120. The lid 112 may pivot about the hinge portion 116 between open and closed positions.

[0039] The lid 112 of an outer case 111 of a cigarette package 110 may be coupled to the base 114 via a perforated line 42. When the outer case 111 is in folded form, a height of a rear edge of the second base side tabs 126 may generally correspond to a height of the lid rear wall 120, and a height of a front edge of the first lid side tabs 126 may generally correspond to a height of the lid front wall 124. Similarly, a height of a rear edge of the first base side tabs 134 may generally correspond to a height of the base rear wall 118, and a height of a front edge of the first base side tabs 134 may generally correspond to a height of the base front wall 130. As

shown, the base front wall 130 may be shorter than the base rear wall 118, and the lid rear wall 120 may be shorter than the lid front wall 124. Thus, when the outer case 111 is in folded form, the perforated line 42 may extend downwardly from the base rear wall 118 and the lid rear wall 120 to the lid front wall 124 and the base front wall 130.

[0040] According to an exemplary embodiment, the perforated line 42 is formed having three generally linear portions (e.g., a horizontal front portion which is provided between two downwardly angled side portions). The perforated line 42 may be formed in any suitable way. For example, the perforated line 42 may be formed by punching a series of holes (e.g., perforations) through a blank for the outer case 111, which are arranged linearly along the lid front wall 124 and the base front wall 130, as well as the first lid side tabs 126 and the first base side tabs 134. The holes comprising the perforated line 42 may have any suitable size, and consecutive holes may be spaced apart any suitable distance.

[0041] The perforated line 42 shown in FIGS. 4-5 may be configured to be tamper-evident. That is, the perforated line 42 may be used to indicate the existence or non-existence of unauthorized access of the package 110 containing cigarettes. For example, the package 110 may be generally sold with the lid front wall 124, the base front wall 130, the first lid side tabs 126, and the first base side tabs 134 coupled via the perforated line 42. If the perforated line 42 is intact, it would indicate to a user that the package 110 has not suffered prior unauthorized access. In contrast, if a user purchases a package 110 in which the perforated line is torn or broken open, this would indicate to the user that the package 110 has potentially been tampered with, and the integrity of the cigarettes therein may be compromised. Further, an adhesive joint used to couple a pair of walls of the outer case 111 (e.g., the lid rear wall 120 and the base rear wall 118) may be configured to be tamper-evident. Therefore, if one were to separate or detach two walls coupled together via an adhesive joint, this would indicate to a user that the package 110 has potentially been tampered with.

[0042] FIGS. 6-7 show yet another embodiment of an outer case 211 of a cigarette package 210. The outer case includes an upper body portion defining a lid 212 and a lower body portion defining a base 214. The lid 212 includes a lid top wall 222, a lid rear wall 220, and a lid front wall 224. The lid front wall 224 includes first lid side tabs 226 (e.g., side wall portions) coupled thereto, and the lid rear wall 220 includes second lid side tabs 228 (e.g., side wall portions) coupled thereto. The base 214 includes a base front wall 230, a base bottom wall 232, and a base rear wall 218. The base front wall 230 includes first base side tabs 234 (e.g., side wall portions) coupled thereto, and the base rear wall 218 includes second base side tabs 236 (e.g., side wall portions) coupled thereto. A hinge portion 216 is formed between the base rear walls 218 and the lid rear wall 220. The lid 212 may pivot about the hinge portion 216 between open and closed positions.

[0043] According to an exemplary embodiment, the lid 212 of the outer case 211 of a cigarette package 210 may be coupled to the base 214 via a perforated line 44. Unlike the perforated line 42 shown in FIGS. 4-5, the perforated line 44 only couples the lid front wall 224 and the base front wall 230. The first lid side tabs 226 and the first base side tabs 234 are separated

by forming a cut therebetween. Except for this difference, the disclosure relating to the exemplary embodiment shown in FIGS. 4-5 is intended to apply similarly to the exemplary embodiment shown in FIGS. 6-7.

[0044] FIGS. 8-9 show still another embodiment of an outer case 311 of a cigarette package 310. The outer case 311 includes an upper body portion defining a lid 312 and a lower body portion defining a base 314. The lid 312 includes a lid top wall 322, a lid rear wall 320, and a lid front wall 324. The lid front wall 324 includes first lid side tabs 326 (e.g., side wall portions) coupled thereto, and the lid rear wall 320 includes second lid side tabs 328 (e.g., side wall portions) coupled thereto. The base 314 includes a base front wall 330, a base bottom wall 332, and a base rear wall 318. The base front wall 330 includes first base side tabs 334 (e.g., side wall portions) coupled thereto, and the base rear wall 318 includes second base side tabs 336 (e.g., side wall portions) coupled thereto. A hinge portion 316 is formed between the base rear wall 318 and the lid rear wall 320. The lid 312 may pivot about the hinge portion 316 between open and closed positions.

[0045] According to an exemplary embodiment, the lid 312 of the outer case 311 of the cigarette package 310 may be coupled to the base 314 via a pair of tear-away portions 46 (e.g., tear-away strips, perforated tear strips, etc.) positioned on left and right sides thereof. For example, the first lid side tabs 326 may be coupled to the first base side tabs 334 via the tear-away portions 46. According to this exemplary embodiment, the lid front wall 324 and the base front wall 330 may be separated by forming a cut therebetween. Similar to the outer cases, 11, 111, and 211, the lid front wall 324 may be taller than the lid rear wall 320. Thus, when the outer case 311 is in folded form, the tear-away portions 46 may extend downwardly from rear to front.

[0046] As shown in FIGS. 8-9, the tear-away portions 46 may be formed by cutting two generally parallel dashed lines, with each dash of the dashed lines including a portion that extends inwardly at an angle. A first end of the tear-away portions 46, which is configured as a tab, may be formed by making two parallel cuts within rear edges of the first lid side tabs 326 and the first base side tabs 334. The cuts within the rear edges of the first lid side tabs 326 and the first base side tabs 334 form a pull tab. Accordingly, a user can pinch the pull tab, and pull each tear-away portion 46 from the first lid side tabs 326 and the first base side tabs 334 in order to open the lid 312. According to another exemplary embodiment, a pull tab may be formed along front edges of the first lid side tabs 326 and the first base side tabs 334 by making two parallel cuts within front edges of the first lid side tabs 326 and the first base side tabs 334. Although the tear-away portions 46 shown in FIGS. 8-9 are formed as a series of dashes that include inwardly extending portions, according to another exemplary embodiment, tear-away portions may be formed by cutting a pair of parallel dashed lines which do not include portions that extend inwardly. Further, it should be understood that the dashes comprising the parallel dashed lines of the tear-away portions may have any suitable length, according to other exemplary embodiments, and that consecutive dashes may be spaced apart by any suitable distance.

[0047] The tear-away portions described herein are configured to be tamper-evident. That is, the tear-away portions 46 may be used to indicate the existence or non-existence of unauthorized access of the package 310 containing cigarettes. For example, the package 310 may be generally sold with the lid front wall 324, the base front wall 330, the first lid side tabs 326, and the first base side tabs 334 coupled together via the tear-away portions 46. If the tear-away portions 46 are intact, it would indicate to a user that the package 310 has not suffered prior unauthorized access. In contrast, if a user purchases a package 310 in which the tear-away portions 46 are torn or broken open, this would indicate to the user that the package 310 has potentially been tampered with, and the integrity of the cigarettes therein may be compromised. Further, an adhesive joint used to couple a pair of walls of the outer case 311 (e.g., the lid rear walls 320 and the base rear wall 318) may be configured to be tamper-evident. Therefore, if one were to separate or detach two walls coupled together via an adhesive joint, this would indicate to a user that the package 310 has potentially been tampered with.

[0048] Advantageously, the tamper-evident features of the packages 10, 110, 210, 310 described herein (e.g., the tear strip 38, the perforated line 42, the perforated line 44, and tear-away portions 46) may be intact while an outer surface of the outer cases 11, 111, 211, 311 is left exposed (e.g., uncovered). That is, an outer surface of the outer cases 11, 111, 211, 311 may be touched by a user while the tamper-evident features described herein are in place and intact. For example, the packages 10, 110, 210, 310 may be tamper-evident without an outer polymeric film being wrapped around the outer cases 11, 111, 211, 311. As a result, the packages 10, 110, 210, 310 may result in reduced waste. Further, the tobacco products contained within the packages 10, 110, 210, 310 may be more readily accessible.

[0049] Referring to FIGS. 1, 4, and 6, a finger opening 40, 140, 240 (e.g., finger hole) may be provided on an upper portion of the base front walls 30, 130, 230. Although not shown in FIG. 8, it should be understood that the base front wall 330 of the outer case 311 may include a similar finger opening. The finger openings 40, 140, 240 may be in the form of a semicircle, with the flat portion of the semicircle proximate an upper edge of the base front walls 30, 130, 230. The finger openings may be configured to facilitate opening the lids 12, 112, 212 with a finger. For example, the finger holes may be large enough to receive a finger, and a finger may be used to lift the lids.

[0050] As utilized herein, the terms "approximately," "about," "substantially," "essentially," and similar terms are intended to have a broad meaning in harmony with the common and accepted usage by those of ordinary skill in the art to which the subject matter of this disclosure pertains. It should be understood by those of skill in the art who review this disclosure that these terms are intended to allow a description of certain features described and claimed without restricting the scope of these features to the precise numerical ranges provided. Accordingly, these terms should be interpreted as indicating that insubstantial or inconsequential modifications or alterations of the subject matter described and claimed are considered to be within the scope of the disclosure as recited in the appended claims.

[0051] It should be noted that the term "exemplary" as used herein to describe various embodiments is intended to indicate that such embodiments are possible examples, representations, and/or illustrations of possible embodiments (and such term is not intended to connote that such embodiments are necessarily extraordinary or superlative examples).

[0052] The terms "coupled," "connected," and the like as used herein mean the joining of two members directly or indirectly to one another. Such joining may be stationary (e.g., permanent) or moveable (e.g., removable or releasable). Such joining may be achieved with the two members or the two members and any additional intermediate members being integrally formed as a single unitary body with one another or with the two members or the two members and any additional intermediate members being attached to one another.

[0053] References herein to the positions of elements (e.g., "top," "bottom," "above," "below," etc.) are merely used to describe the orientation of various elements in the FIGURES. It should be noted that the orientation of various elements may differ according to other exemplary embodiments, and that such variations are intended to be encompassed by the present disclosure.

[0054] It is important to note that the construction and arrangement of the outer case 11 as shown in the various exemplary embodiments is illustrative only. Although only a few embodiments have been described in detail in this disclosure, those skilled in the art who review this disclosure will readily appreciate that many modifications are possible (e.g., variations in sizes, dimensions, structures, shapes and proportions of the various elements, values of parameters, mounting arrangements, use of materials, colors, orientations, manufacturing processes, etc.) without materially departing from the novel teachings and advantages of the subject matter described herein. For example, elements shown as integrally formed may be constructed of multiple parts or elements, the position of elements may be reversed or otherwise varied, and the nature or number of discrete elements or positions may be altered or varied. The order or sequence of any process or method steps may be varied or re-sequenced according to alternative embodiments. Other substitutions, modifications, changes and omissions may also be made in the design, operating conditions and arrangement of the various exemplary embodiments without departing from the scope of the present disclosure.

REFERENCES CITED IN THE DESCRIPTION

Patent documents cited in the description

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- US20100248926A [0004]
- US5682986A [0004]
- US3695422A [0004]
- US4717017A [0004] [0006]
- US5333729A [0004] [0007]
- US4807745A [0005]
- US4836378A [0006]
- US5192262A [0006]
- US5595803A [0006]
- US6363691B [0006]
- US20040261361A [0006]
- US7118792B [0006]
- US20070130811A [0007]
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- US5139140A [0007]
- US4911302A [0009]
- EP2013003274W [0009]
- US20140305821 [0009]

Patentkrav

1. Pakke, der er udformet til at indeholde cigaretter, omfattende:
en nedre elementdel, der definerer en basisdel (14), hvor basisdelen (14) omfatter:
en basisbundvæg (32),
en basisforvæg (30), der har første basissideflapper (34) forbundet med denne, og
en basisbagvæg (18), der har andre basissideflapper (36), der er forbundet med denne, og
en øvre elementdel, der definerer et låg (12), hvor låget (12) omfatter:
en lågtopvæg (22),
en lågforvæg (24), der har første lågsideflapper (26) forbundet med denne, og
en lågbagvæg (20), der har andre lågsideflapper (28) forbundet med denne, og
en afrivningsstrimmel (38), der er forbundet klæbende med lågforvæggen (24) og basisforvæggen (30), hvor afrivningsstrimlen (38) er fastgjort fra en indvendig overflade af lågforvæggen (24) til en indvendig overflade af basisforvæggen (30), fra en venstre side af lågforvæggen (24) til en højre side af lågforvæggen (24), og fra en venstre side af basisforvæggen (30) til en højre side af basisforvæggen (30), og
hvor en udvendig overflade af låget (12) og den nedre elementdel er eksponeret med henblik på at blive berørt af en bruger, og **kendetegnet ved, at**
der er tilvejebragt en fingeråbning (40; 140; 240) på en øvre del af basisforvæggen (30), hvor fingeråbningen (140; 240) gør det nemmere for en bruger at åbne låget (12).

2. Pakke ifølge krav 1, hvor låget (12) er svingbart i forhold til basisdelen (14) omkring en hængseldel (16), efter at afrivningsstrimlen (38) er fjernet fra pakken (10) ved at trække i en første ende af denne.

3. Pakke ifølge krav 1, hvor pakken generelt er sikret som et parallelepipedum via afrivningsstrimlen (38) og en klæbesamling,
hvor mindst to vægge af pakken er forbundet med hinanden via klæbesamlingen, når pakken er formet som et parallelepipedum, og

hvor klæbesamlingen er udformet til at være manipulationssikker, og, især, hvor de mindst to vægge af pakken, der er forbundet med hinanden via klæbesamlingen, er basisbagvæggen (18) og lågbagvæggen (20).

4. Pakke ifølge krav 3, hvor afrivningsstrimlen (38) er placeret inden i et indre af pakken, når pakken er sikret som et parallelpipedum, hvor en svækkelseslinje er dannet inden i hver af basisforvæggen (30) og lågforvæggen (24), og hvor afrivningsstrimlen (38) er udformet til at fjerne materiale tilvejebragt mellem svækkelseslinjerne inden i basisforvæggen (30) og lågforvæggen (24), når afrivningsstrimlen (38) trækkes af pakken.

5. Pakke ifølge krav 1, hvor en samling mellem basisbagvæggen (18) og lågbagvæggen (20) definerer en hængseldel (16).

6. Pakke ifølge krav 1, hvor fingeråbningen (40; 140; 240) er et fingerhul.

7. Pakke ifølge krav 1, hvor pakken er fremstillet fuldstændigt ud af genbrugsmaterialer.

8. Pakke ifølge krav 1, hvor afrivningsstrimlen (38) omfatter en midterste afrivningsstrimmeldel (41) og øvre (39) og nedre (43) klæbedel,
hvor den øvre klæbedel (39) er forbundet med lågforvæggen (24), og hvor den nedre klæbedel (43) er forbundet med basisforvæggen (30).

DRAWINGS

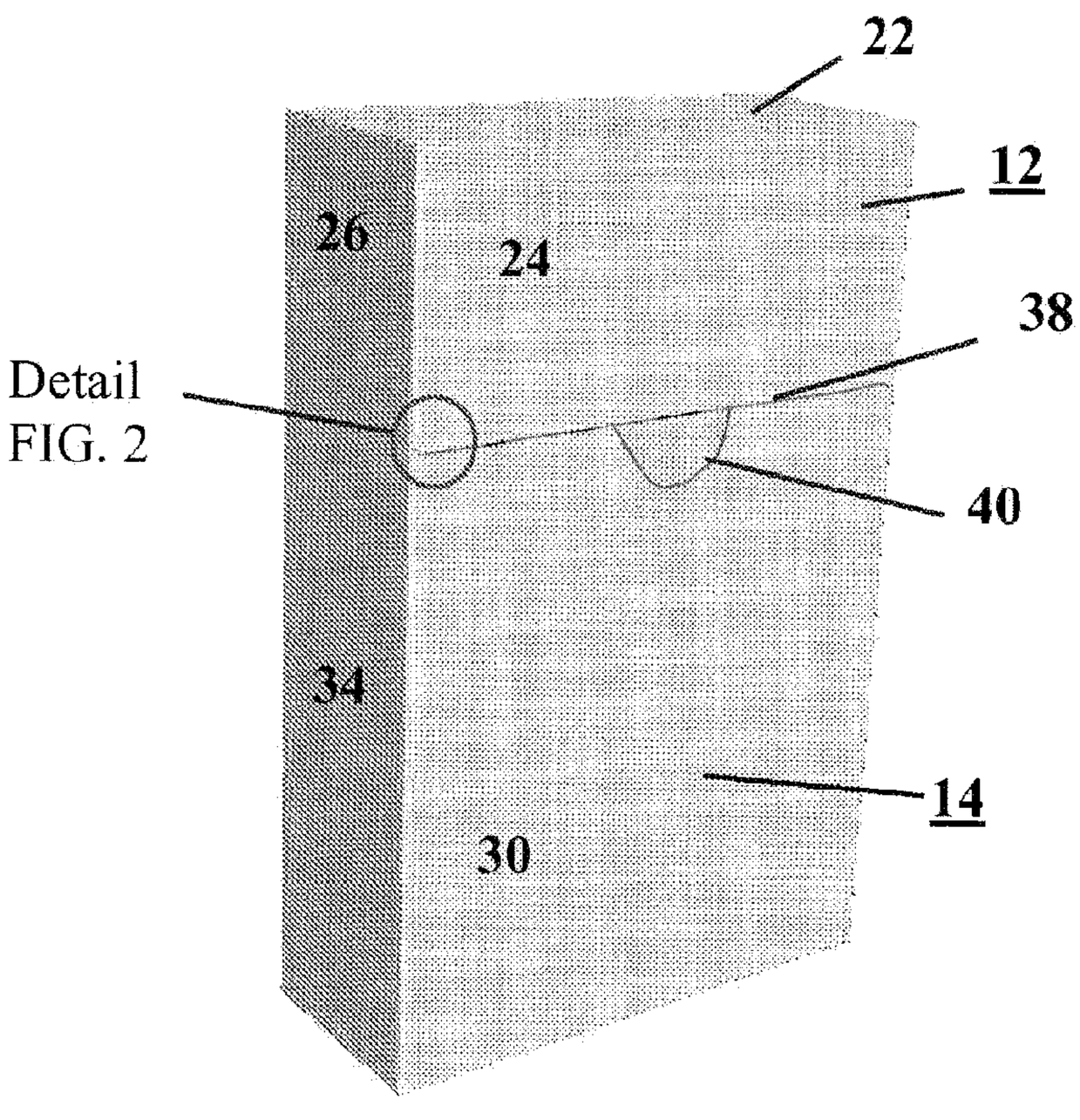

FIG. 1

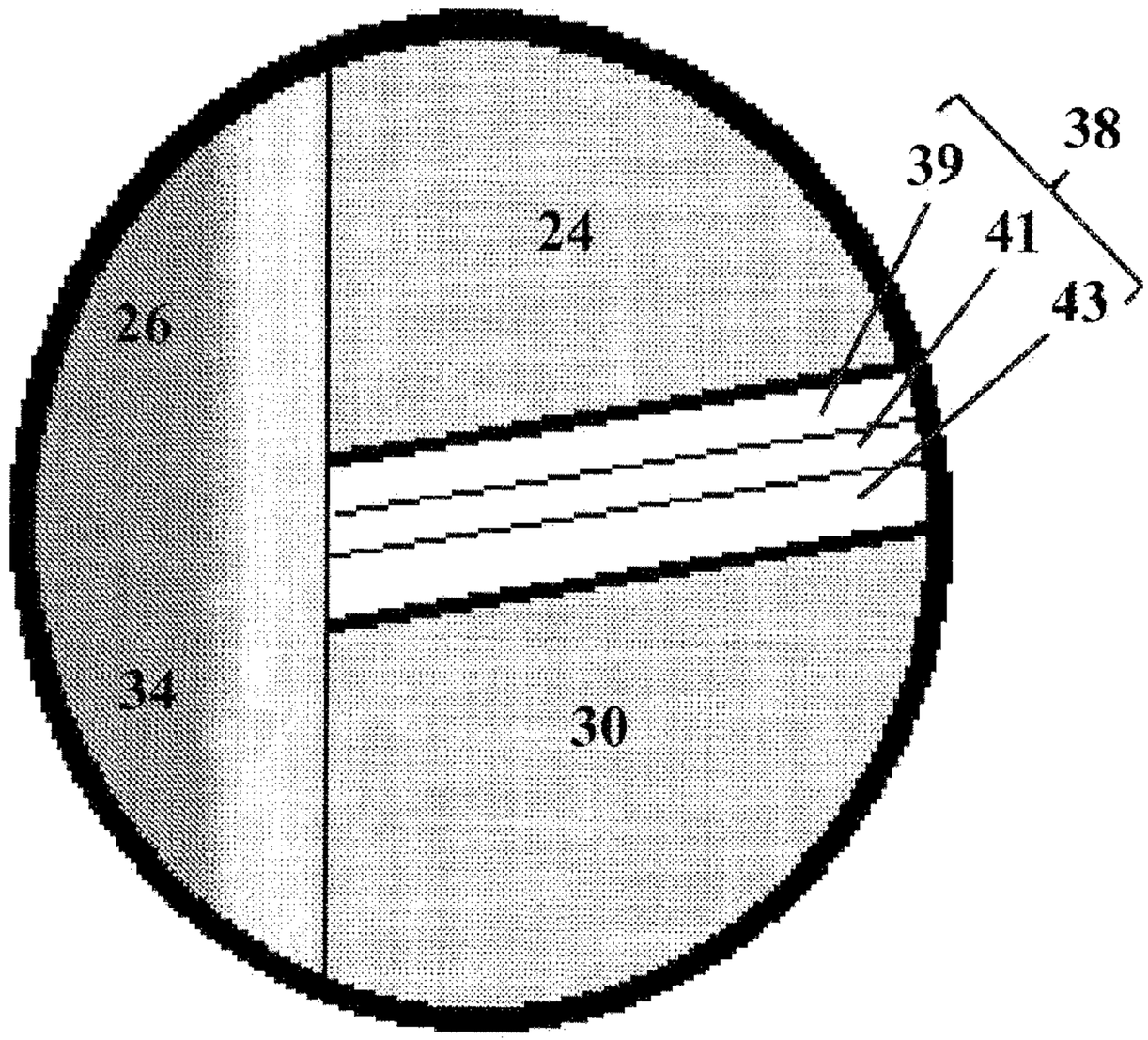

FIG. 2

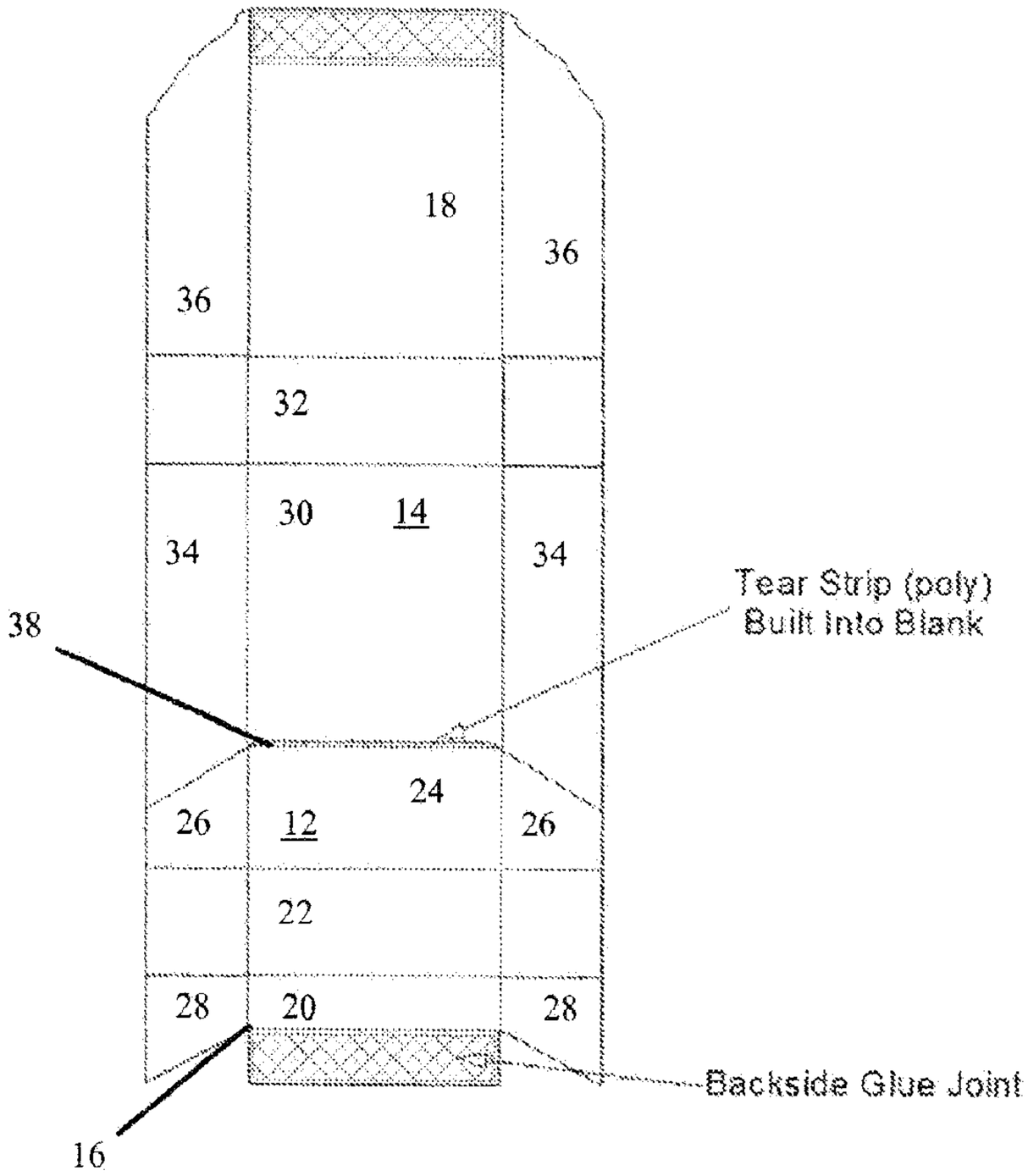
18
36
36
32
30
14
34
34
38
Tear Strip (poly)
Built Into Blank
24
26
12
26
22
28
20
28
Backside Glue Joint
16

FIG. 3

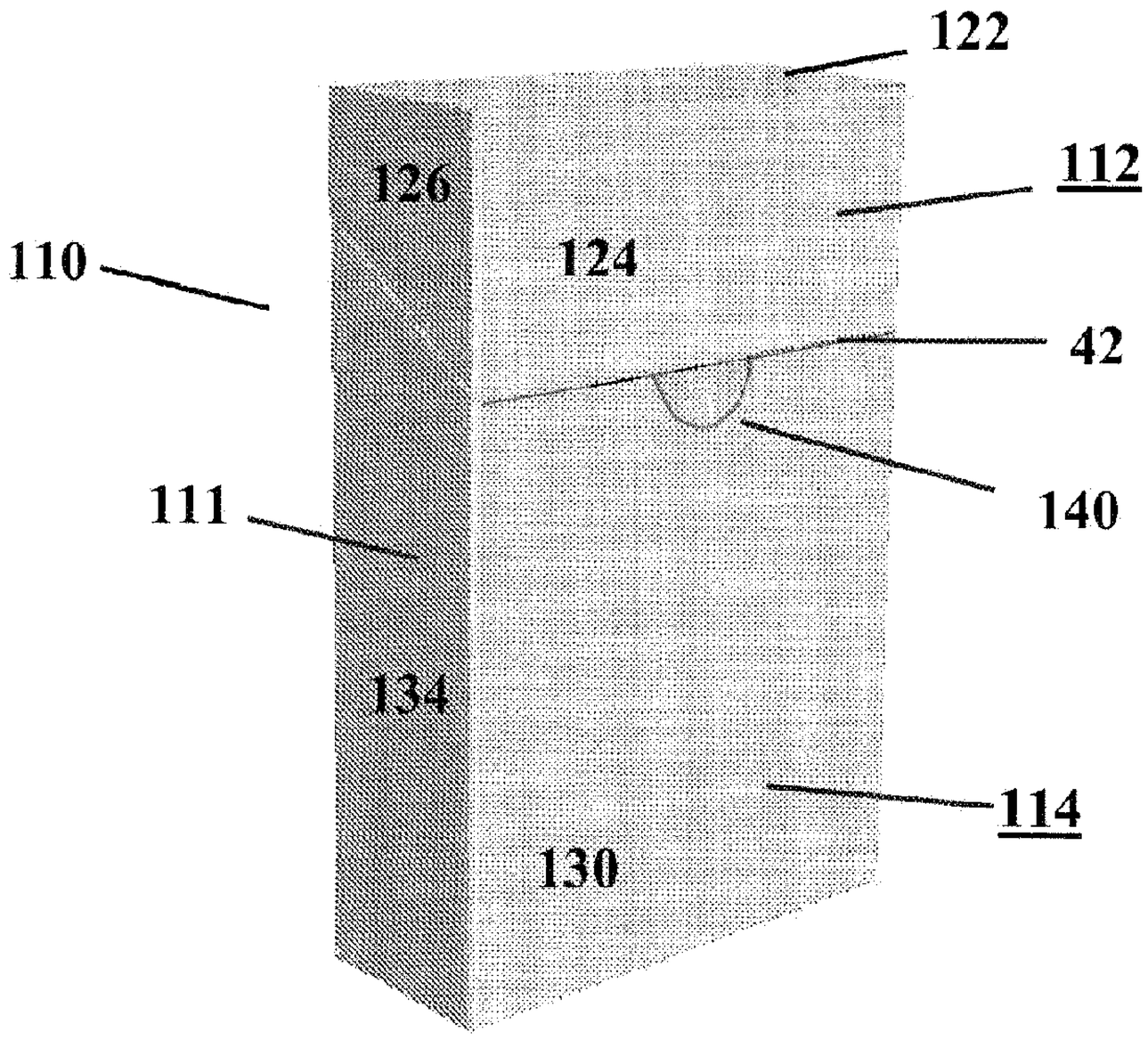

FIG. 4

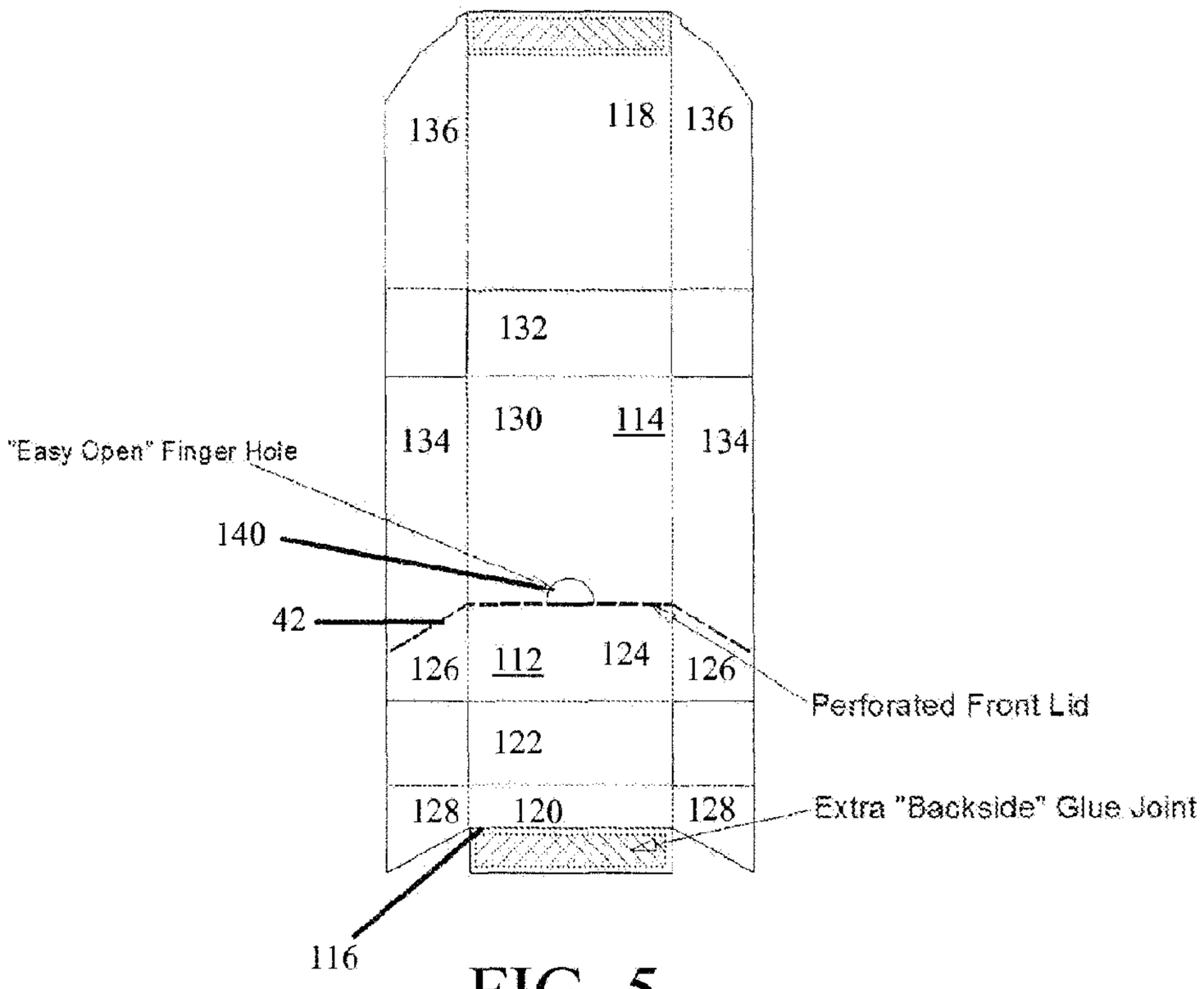
136
118
136
132
134
130
114
134
"Easy Open" Finger Hole
140
42
126
112
124
126
Perforated Front Lid
122
128
120
128
Extra "Backside" Glue Joint
116

FIG. 5

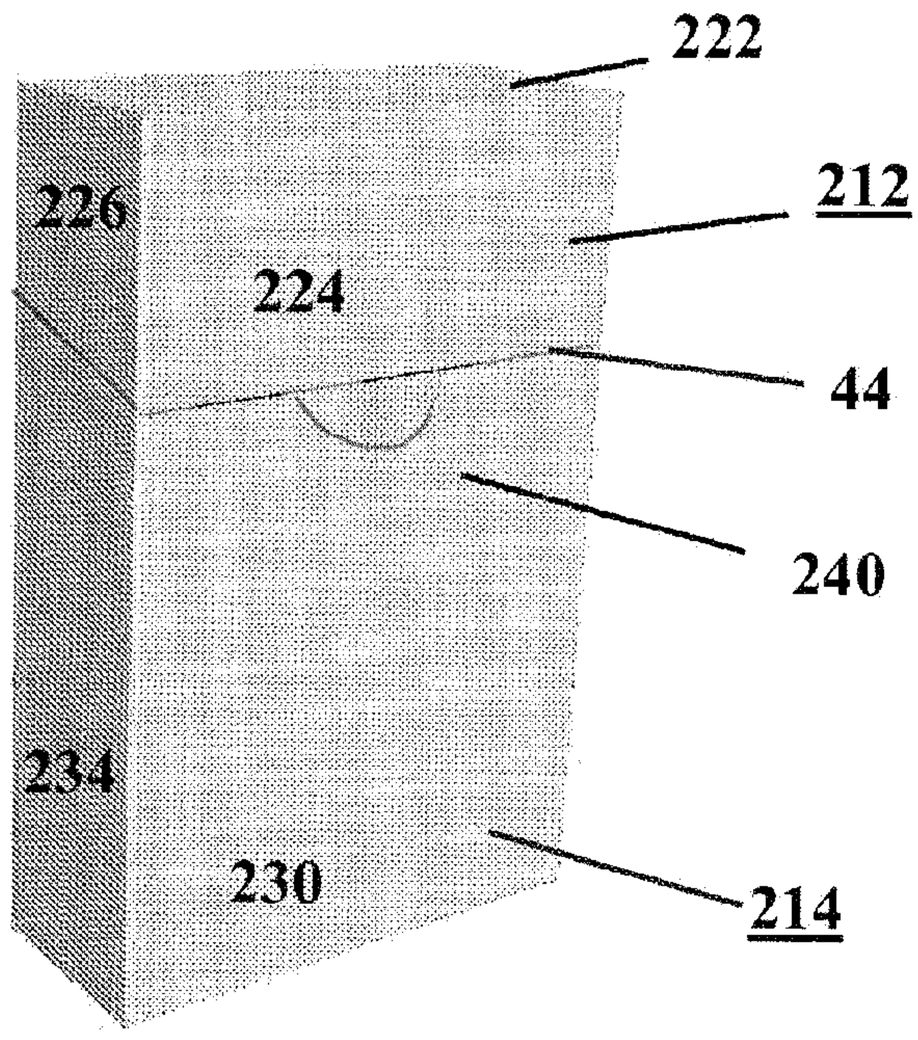

FIG. 6

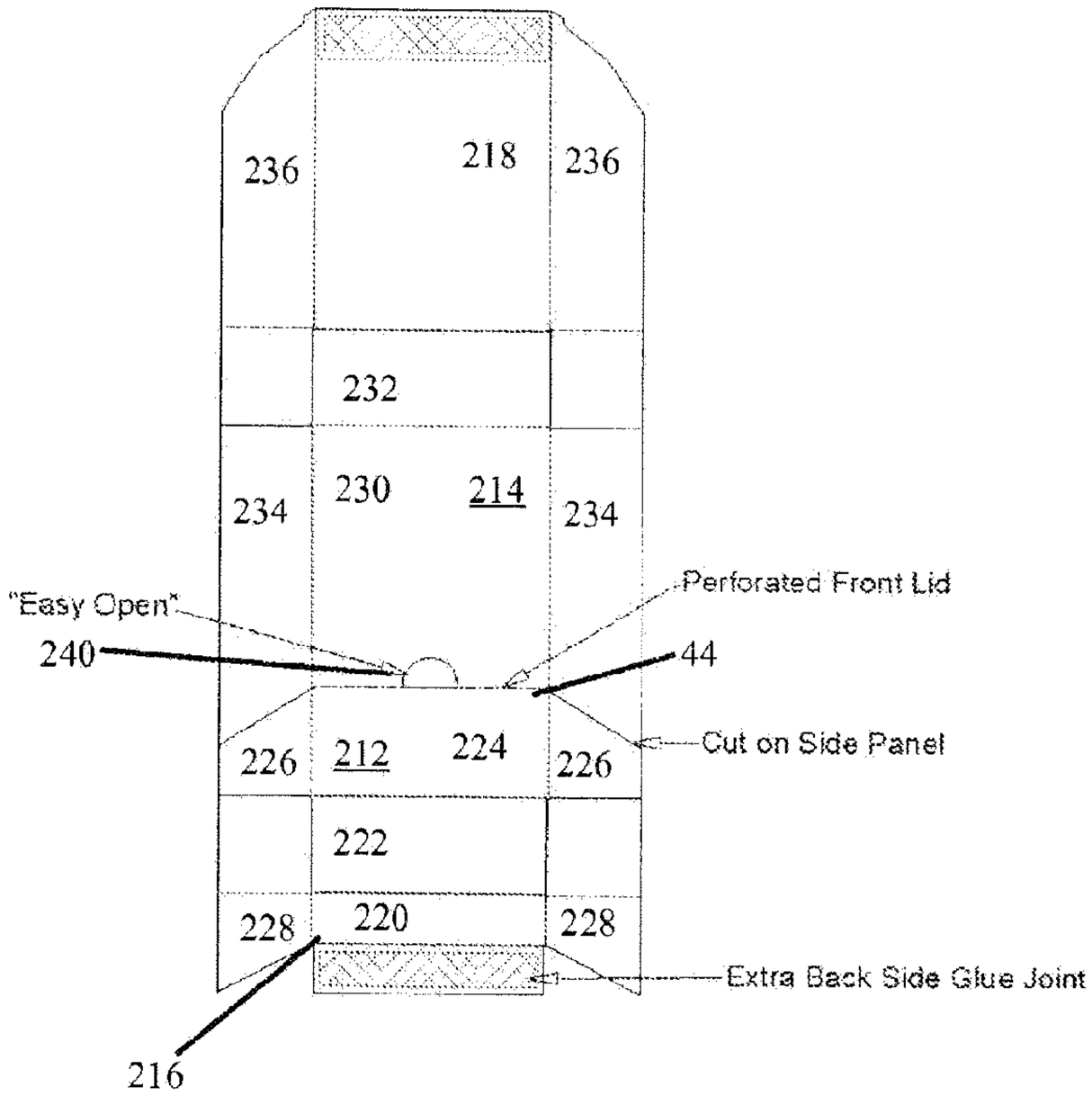
236
218
236
232
234
230
214
234
"Easy Open"
240
Perforated Front Lid
44
Cut on Side Panel
226
212
224
226
222
228
220
228
Extra Back Side Glue Joint
216

FIG. 7

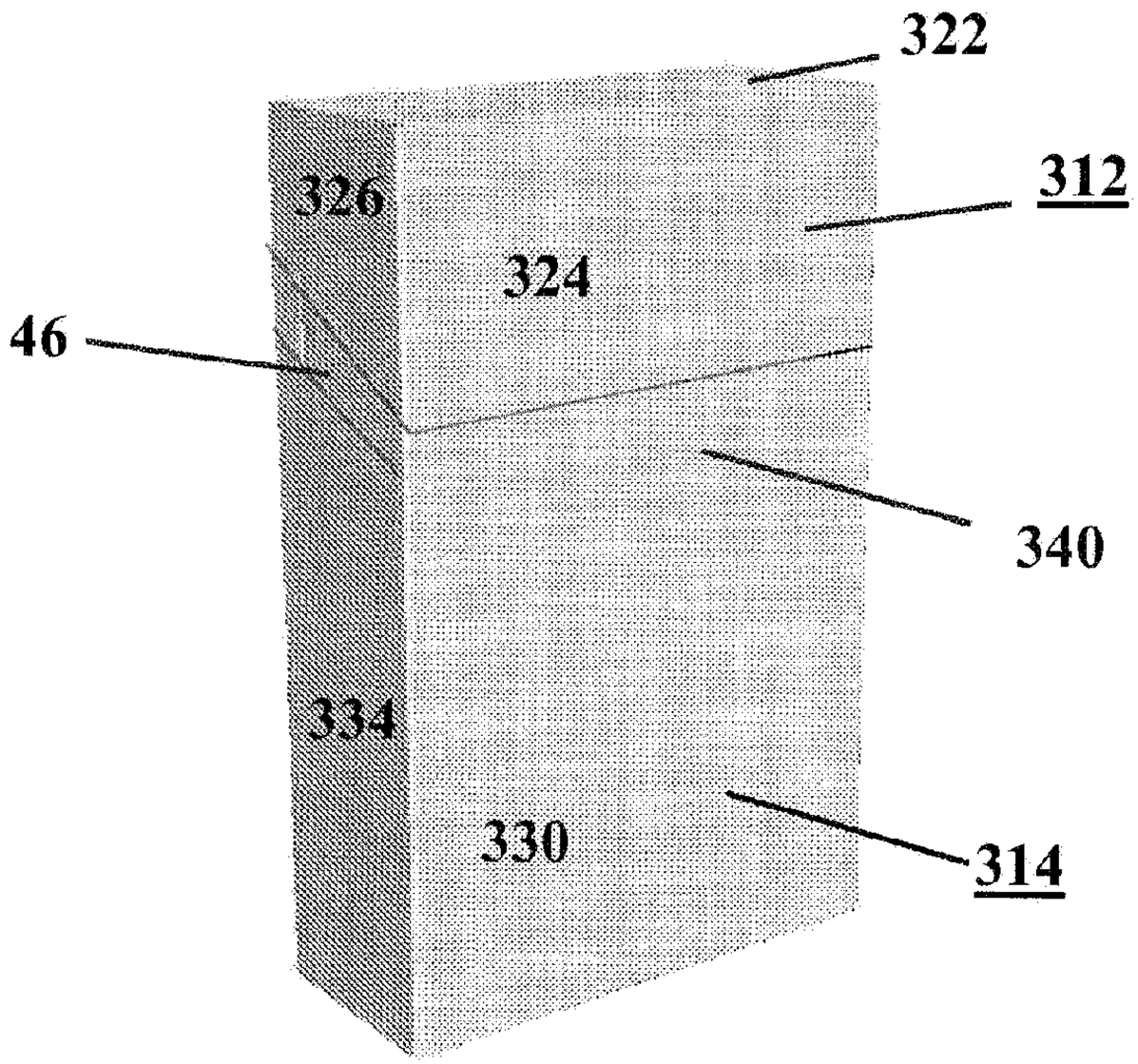

FIG. 8

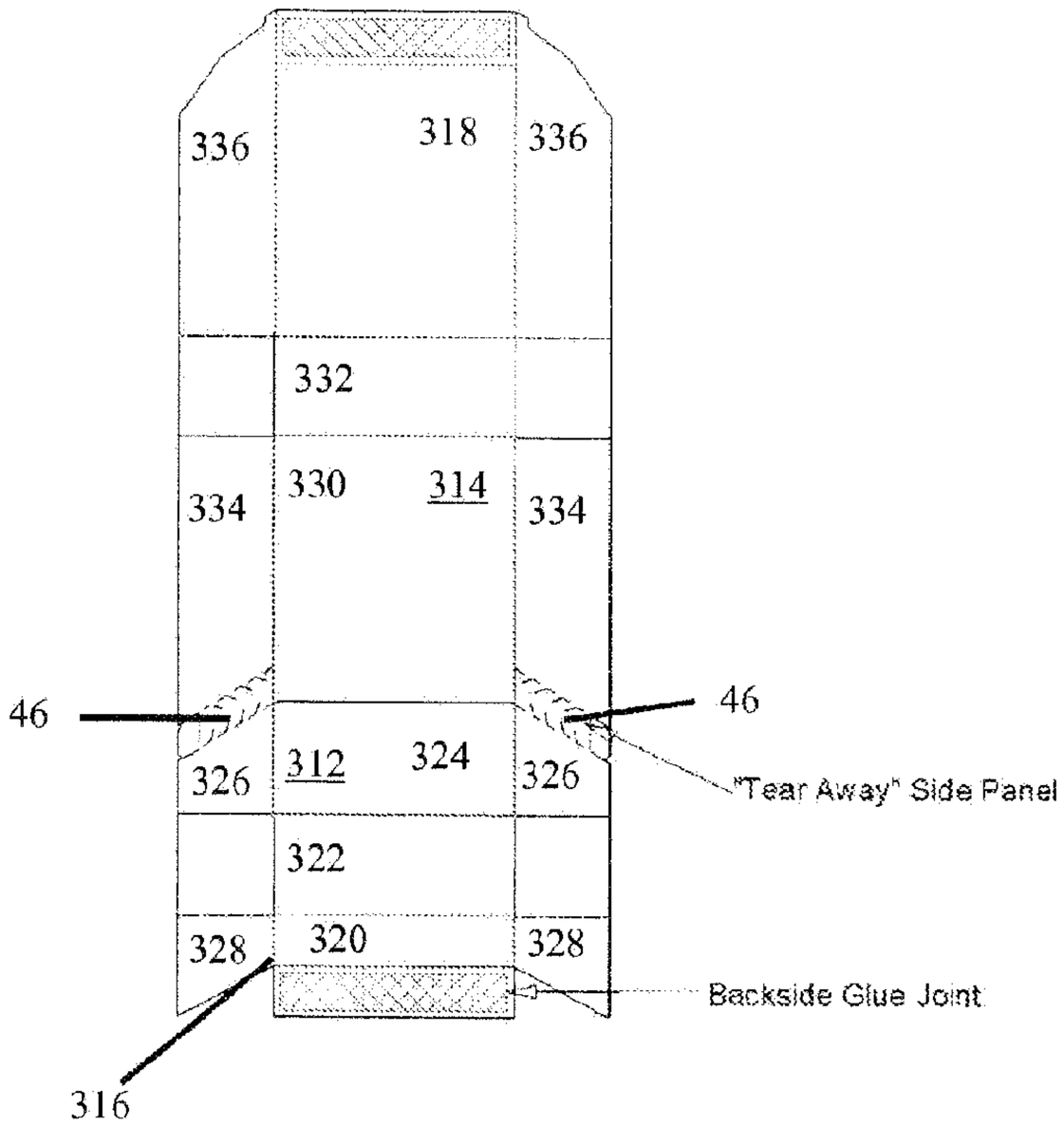
336
318
336
332
334
330
314
334
46
46
326
312
324
326
"Tear Away" Side Panel
322
328
320
328
Backside Glue Joint
316

FIG. 9

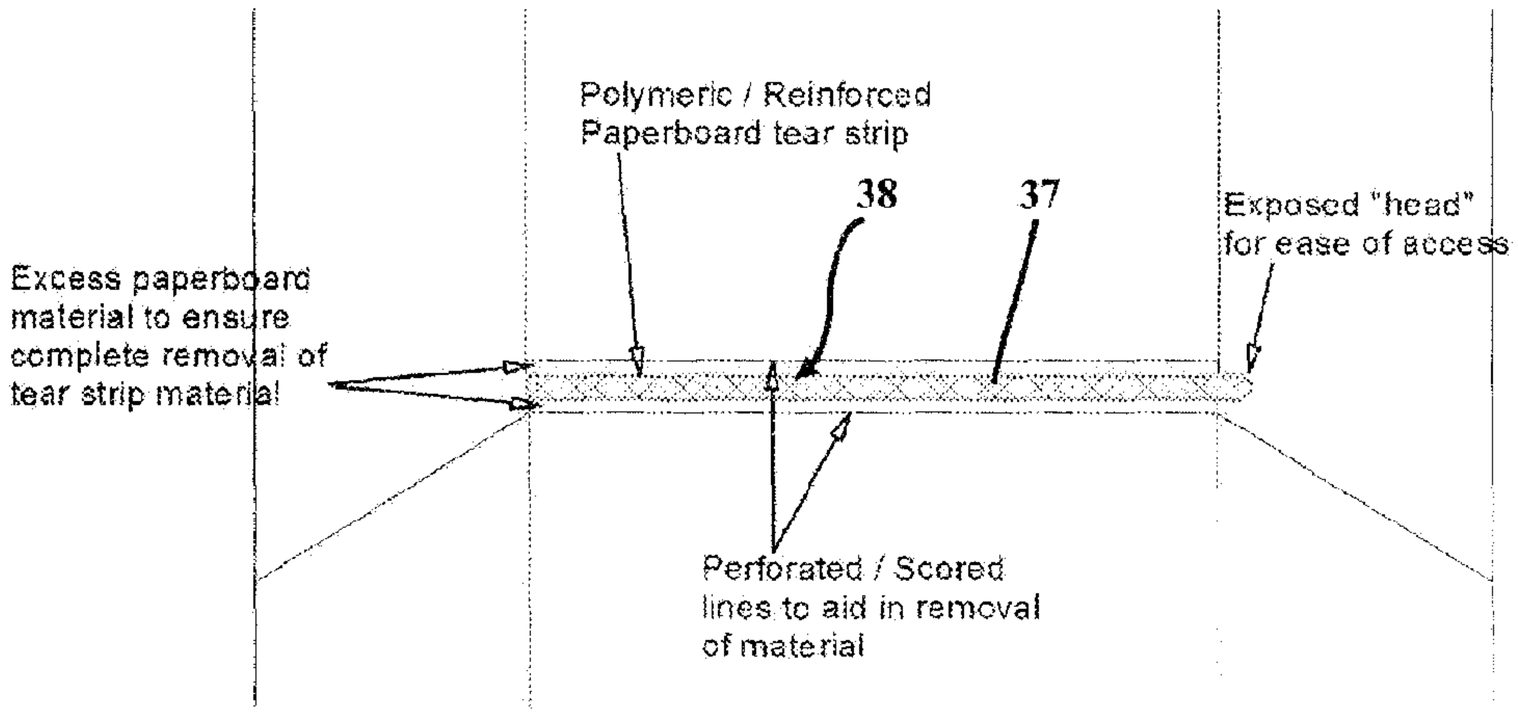
Polymeric / Reinforced
Paperboard tear strip
38
37
Exposed "head"
for ease of access
Excess paperboard
material to ensure
complete removal of
tear strip material
Perforated / Scored
lines to aid in removal
of material

FIG. 10

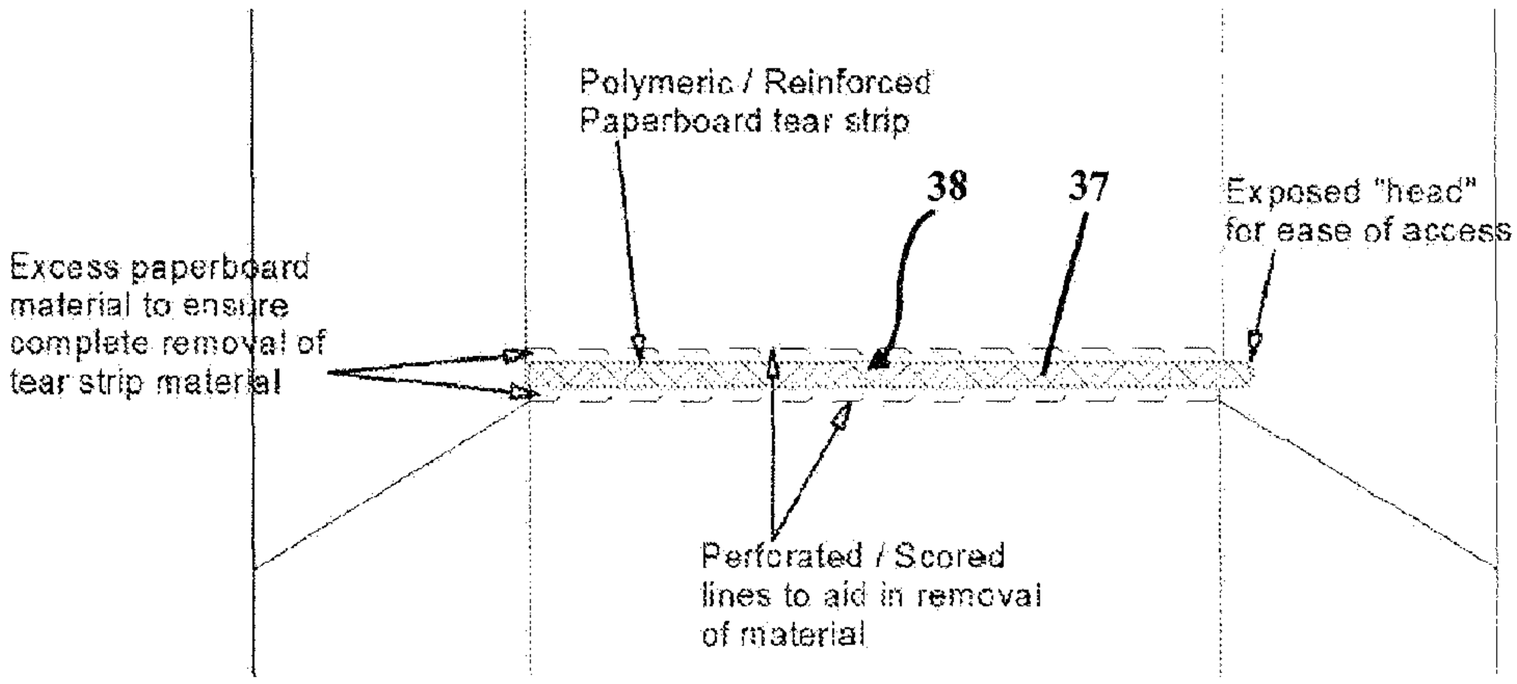
Polymeric / Reinforced
Paperboard tear strip
38
37
Exposed "head"
for ease of access
Excess paperboard
material to ensure
complete removal of
tear strip material
Perforated / Scored
lines to aid in removal
of material

FIG. 11

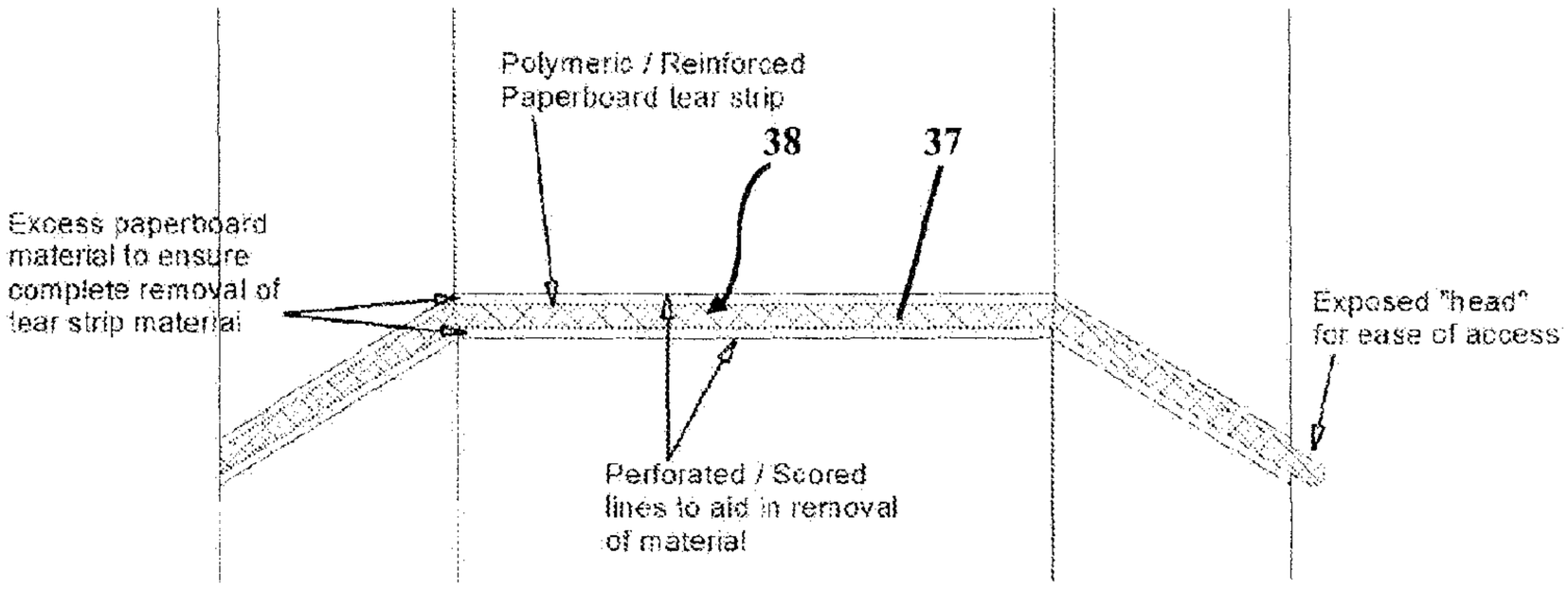
Polymeric / Reinforced
Paperboard tear strip
38
37
Excess paperboard
material to ensure
complete removal of
tear strip material
Exposed "head"
for ease of access
Perforated / Scored
lines to aid in removal
of material

FIG. 12

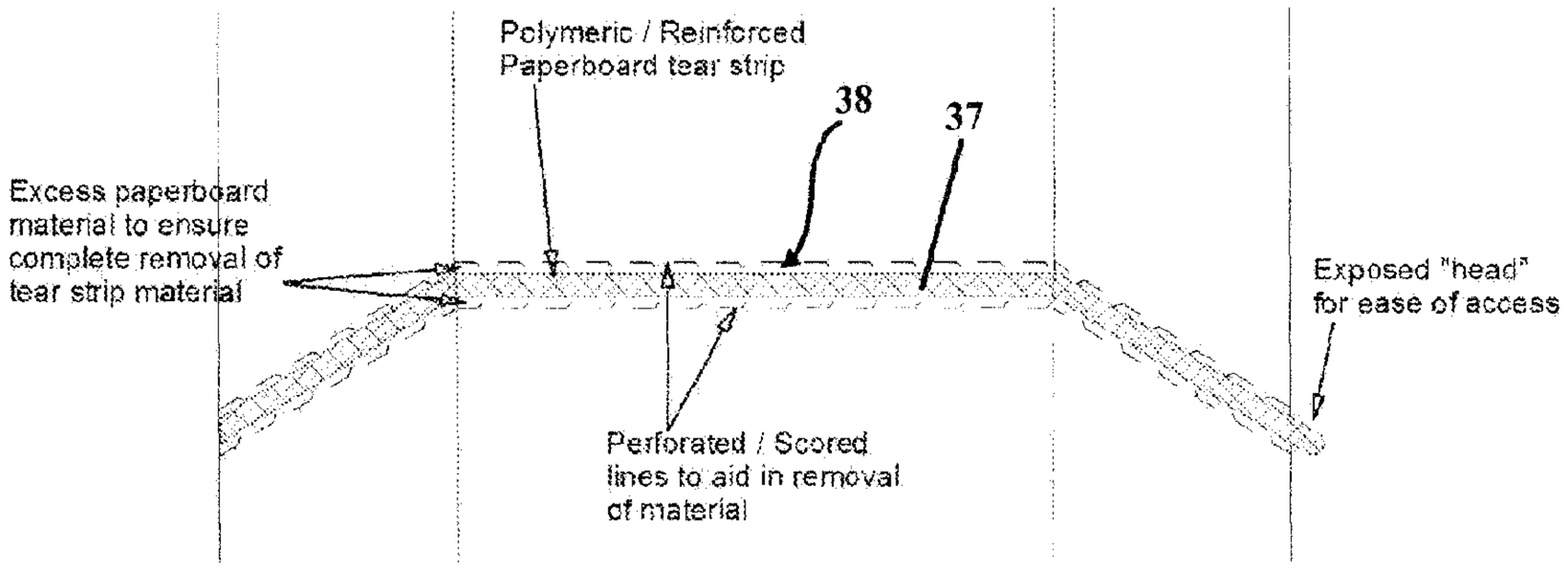
Polymeric / Reinforced
Paperboard tear strip
38
37
Excess paperboard
material to ensure
complete removal of
tear strip material
Exposed "head"
for ease of access
Perforated / Scored
lines to aid in removal
of material

FIG. 13