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(54) **CIGARETTE PACKAGE HAVING AT LEAST ONE RECLOSEABLE LID**

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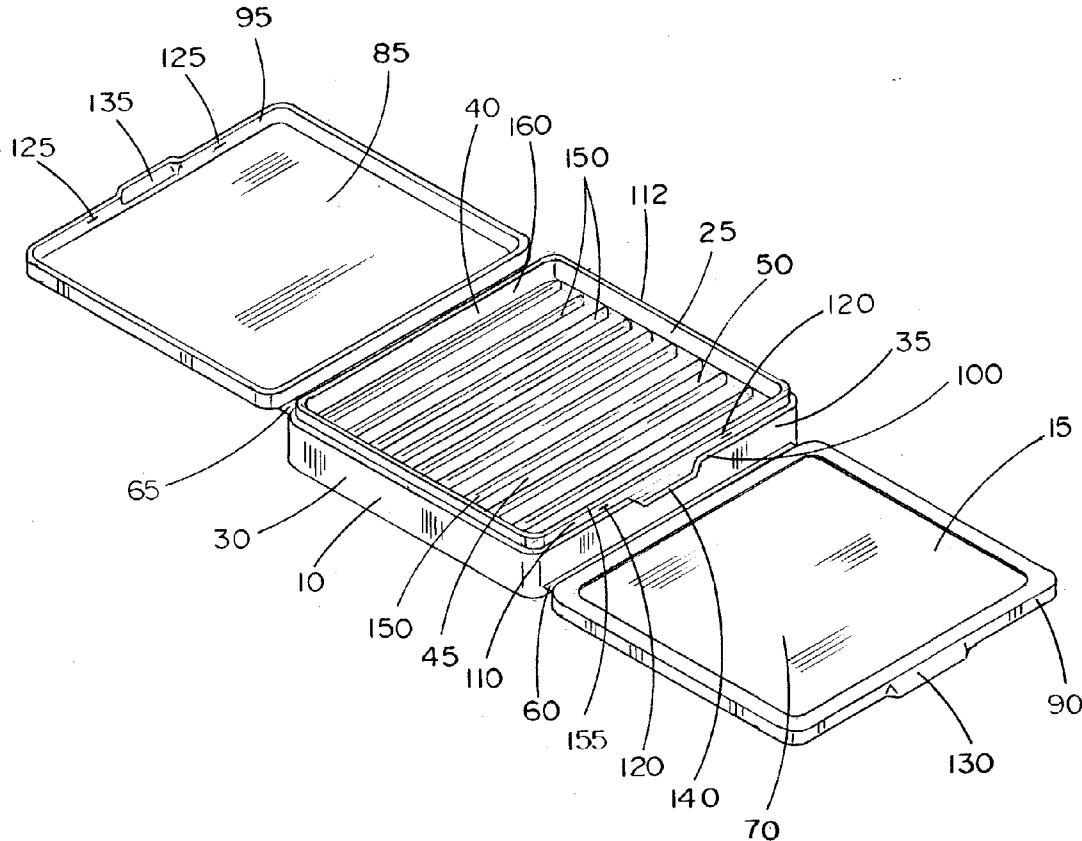
Publication Classification

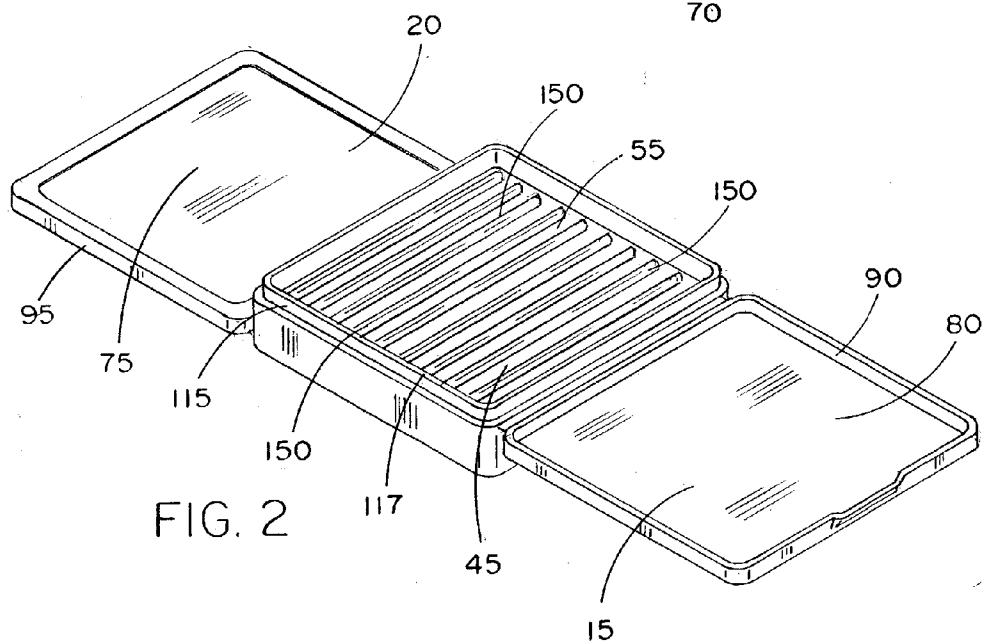
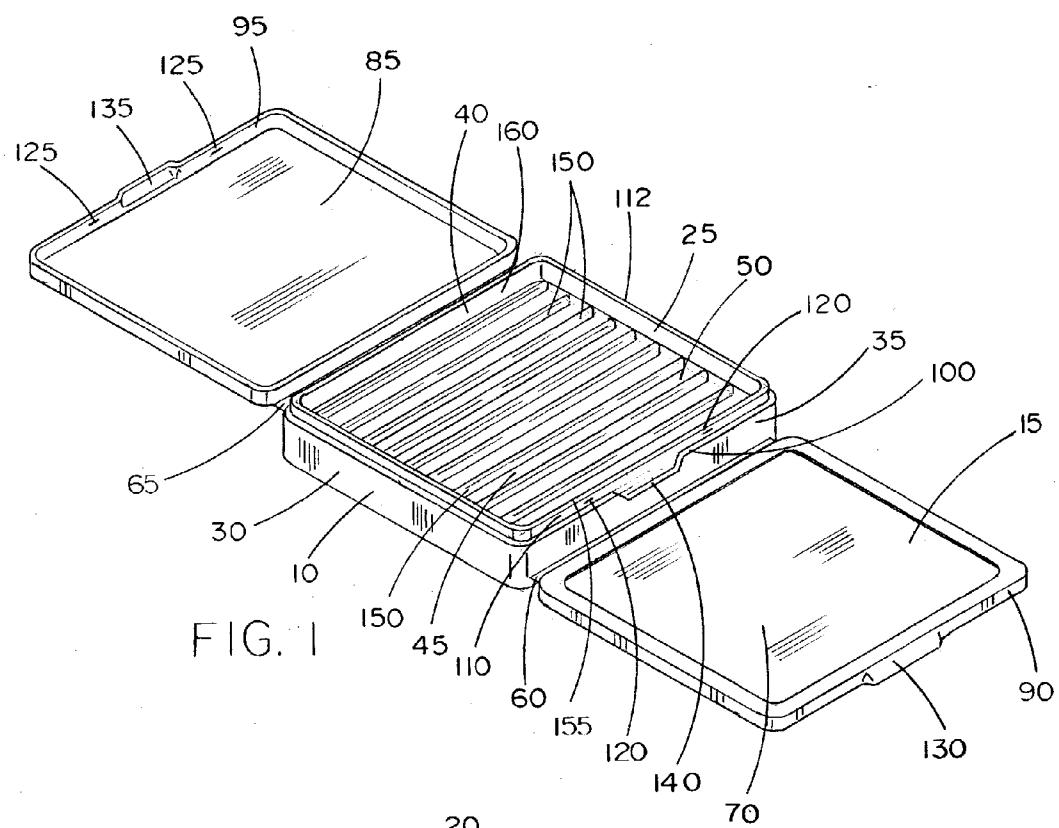
(51) **Int. Cl.⁷** **B65D 85/10; B65D 85/12**

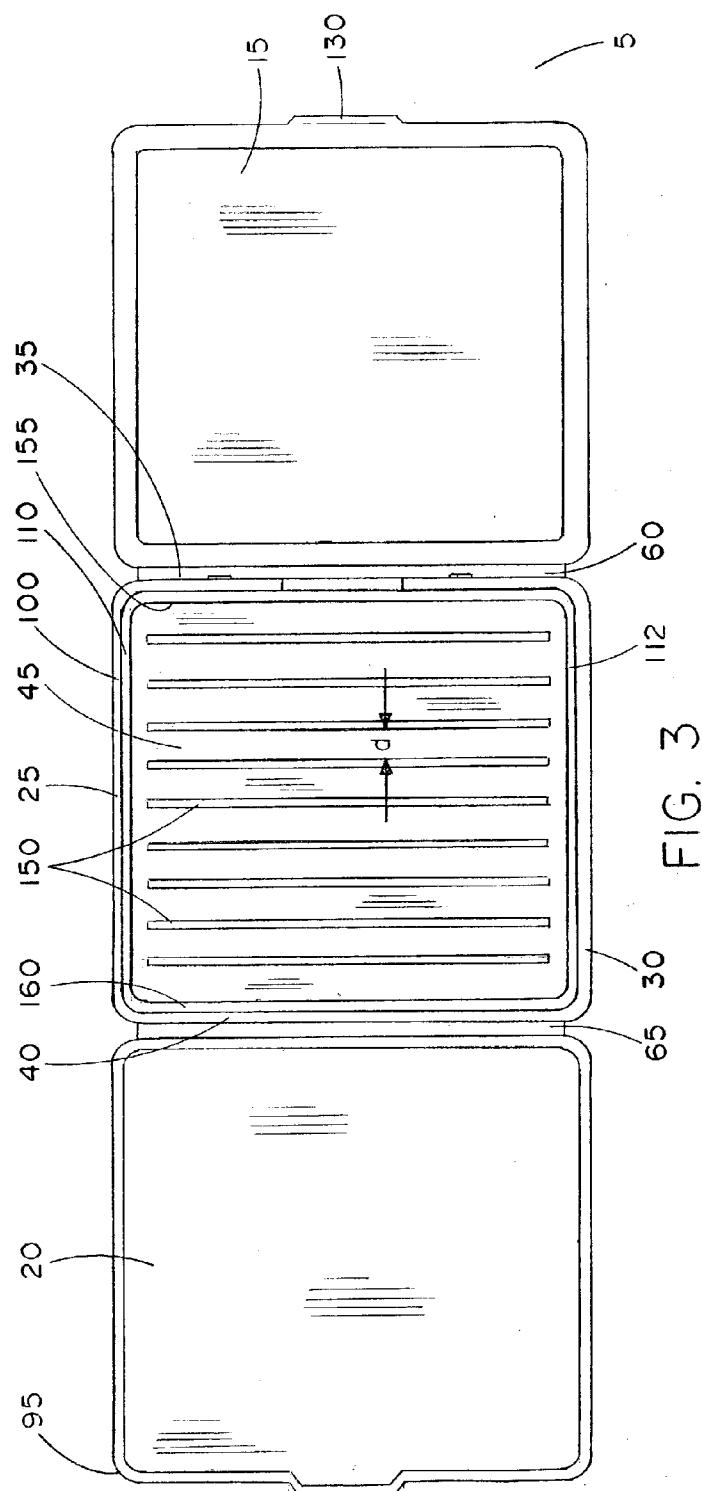
(52) **U.S. Cl.** **206/242**

(57) **ABSTRACT**

A cigarette package comprises a main body having a front recessed portion and a rear recessed portion opposite the front recessed portion. A first reclosable lid covers the front recessed portion and a second reclosable lid covers the second recessed portion. A plurality of cigarettes may be positioned in the front and rear recessed portions.







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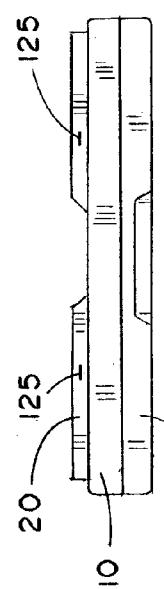


FIG. 4

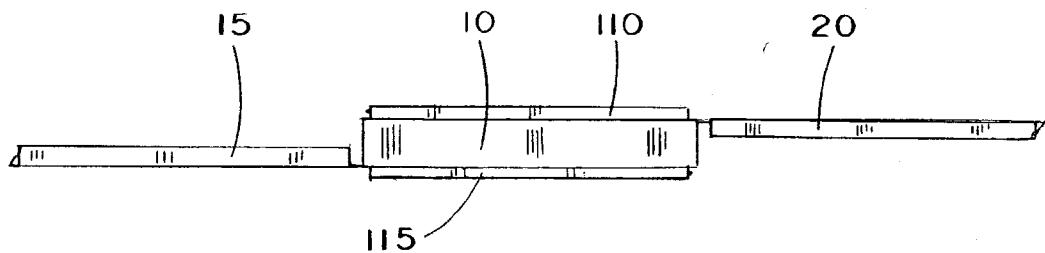


FIG. 5

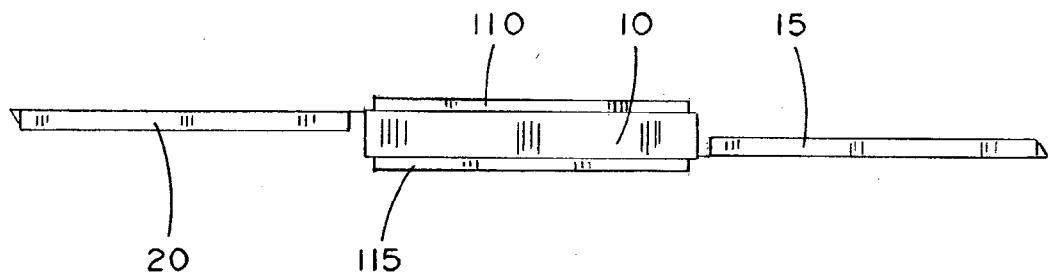


FIG. 6

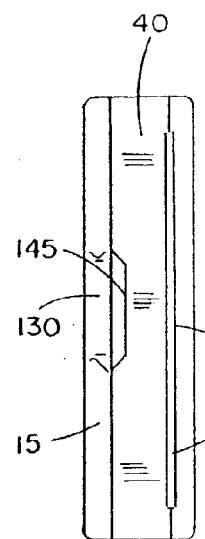


FIG. 9

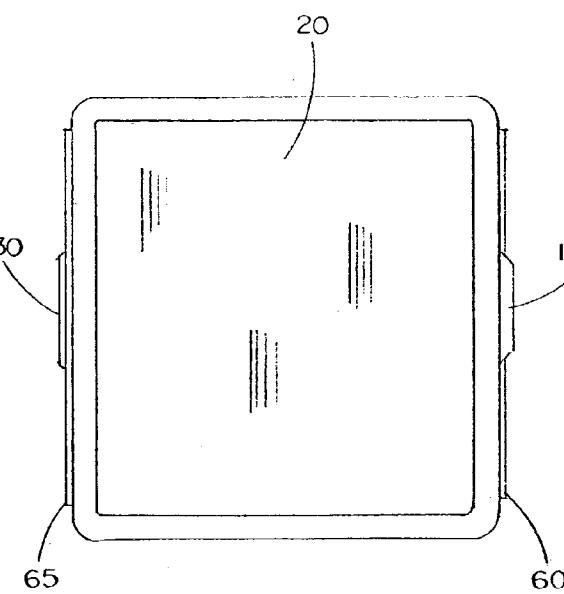


FIG. 7

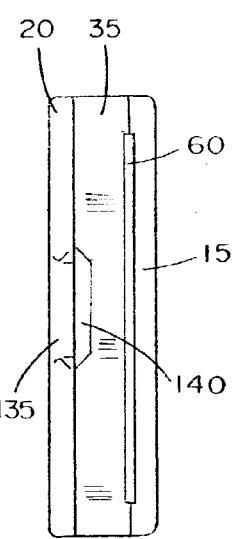


FIG. 10

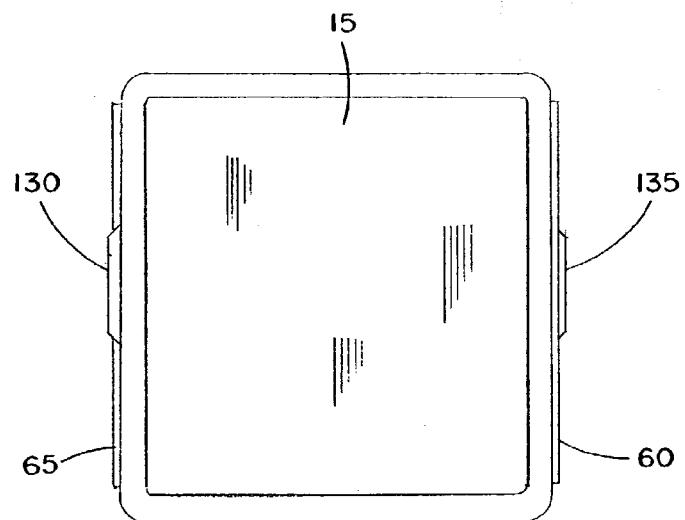


FIG. 8

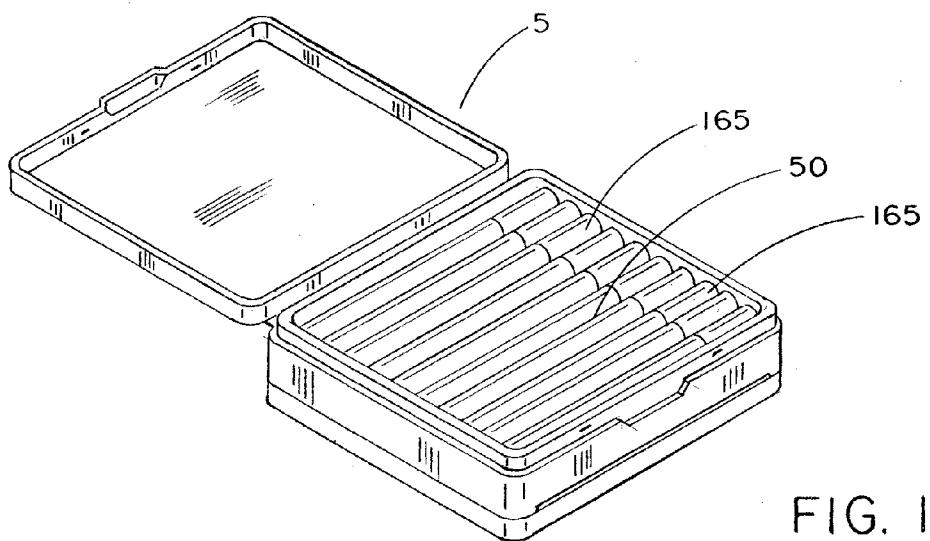


FIG. 11

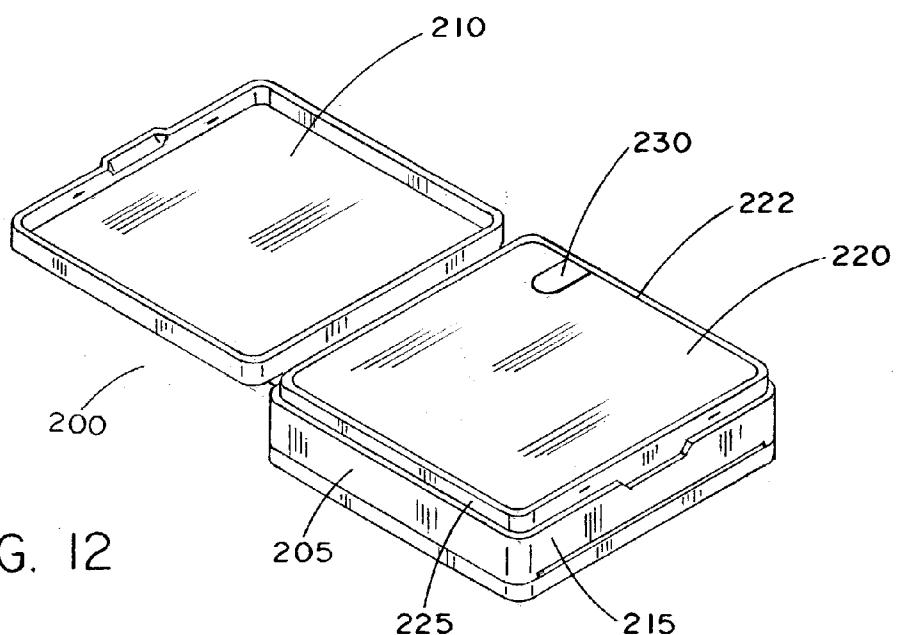


FIG. 12

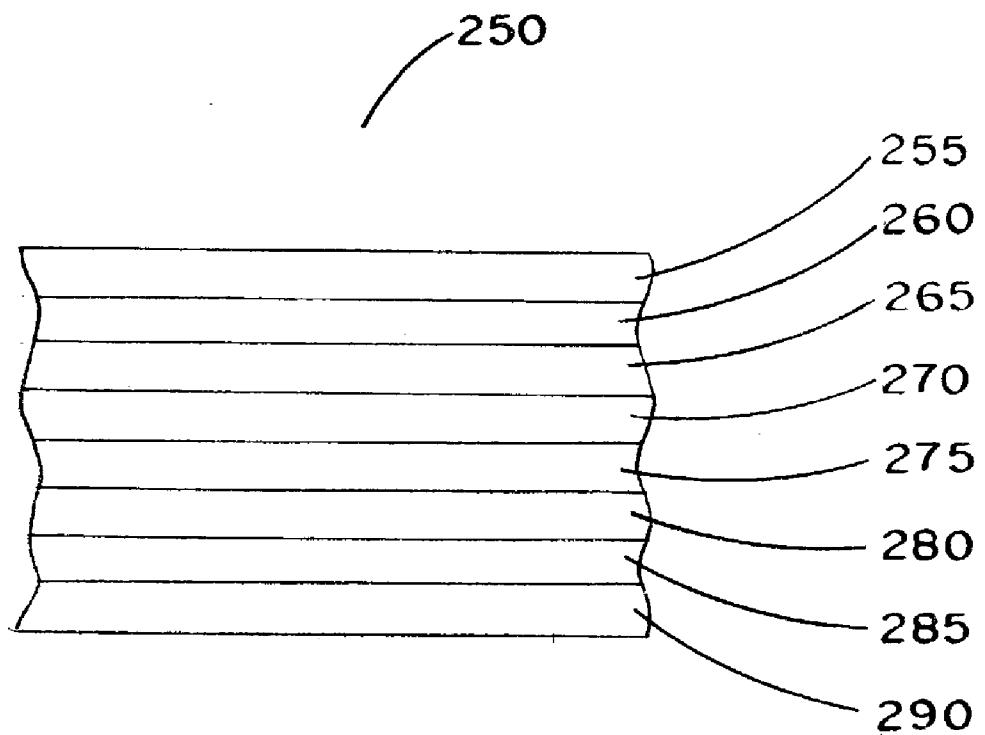


FIG. 13

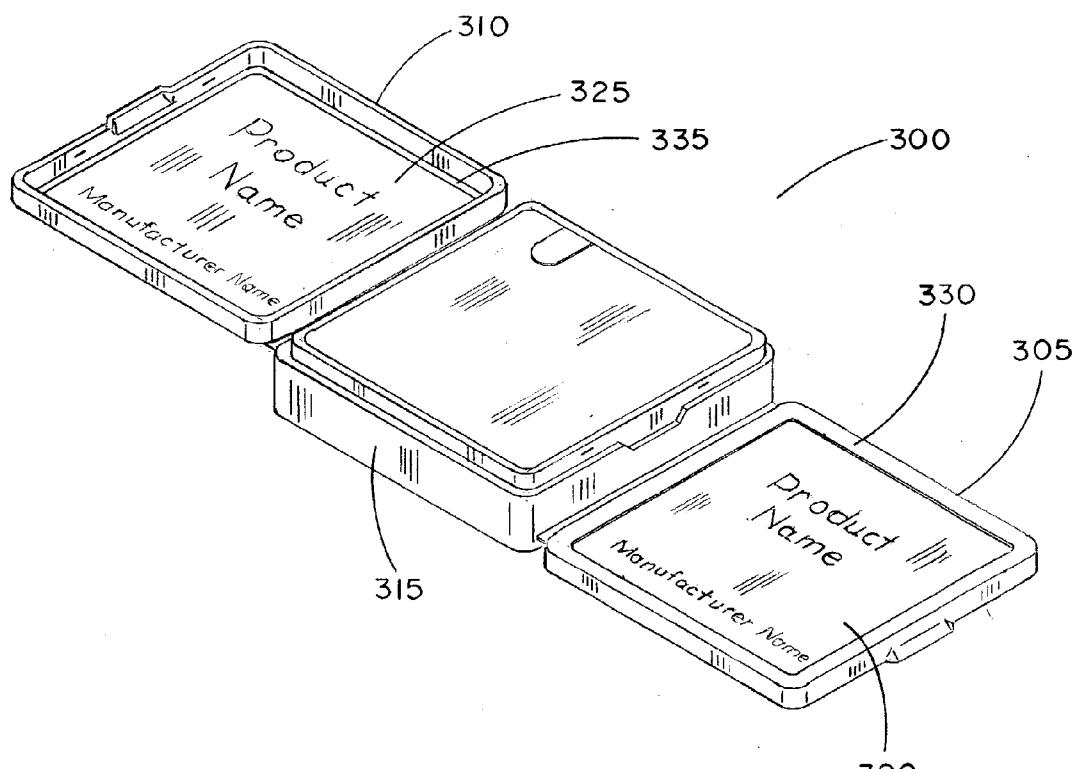


FIG. 14

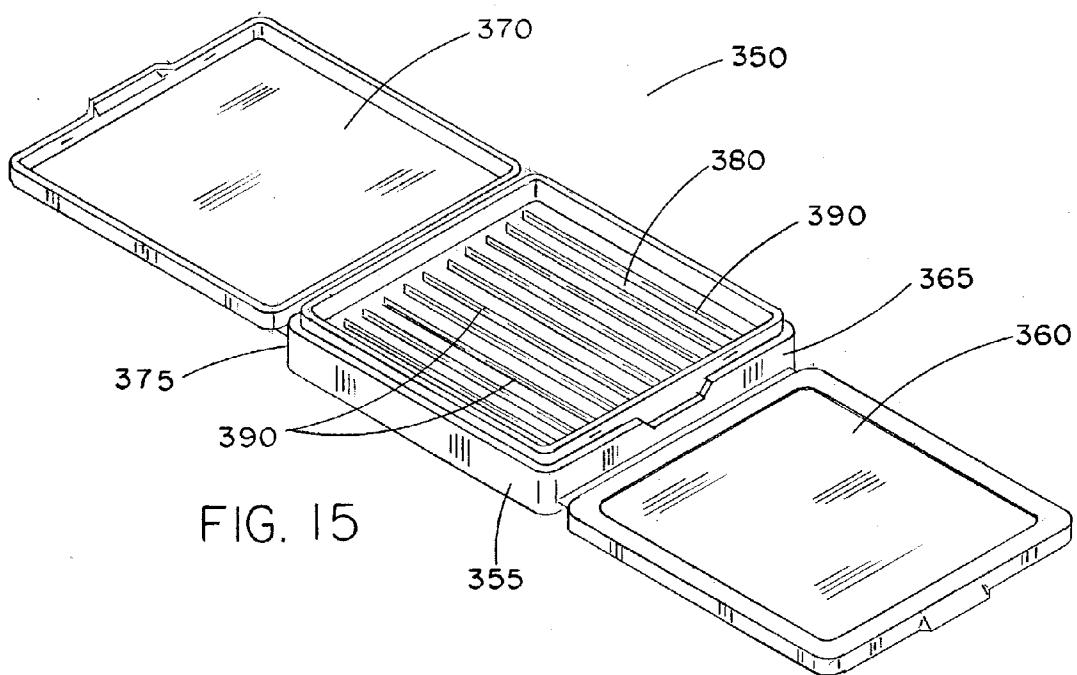


FIG. 15

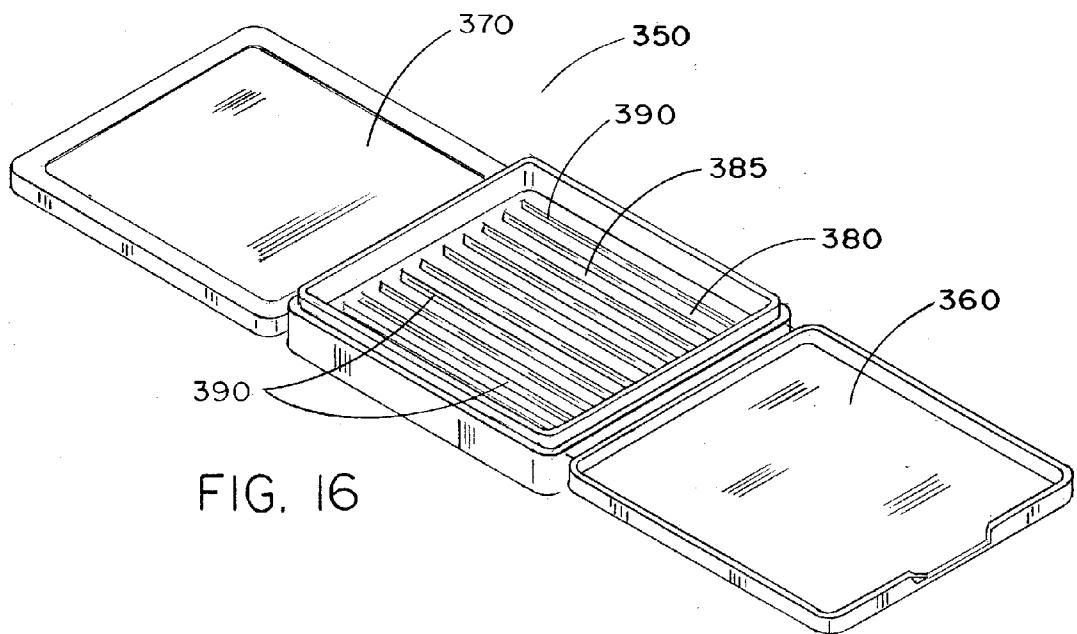


FIG. 16

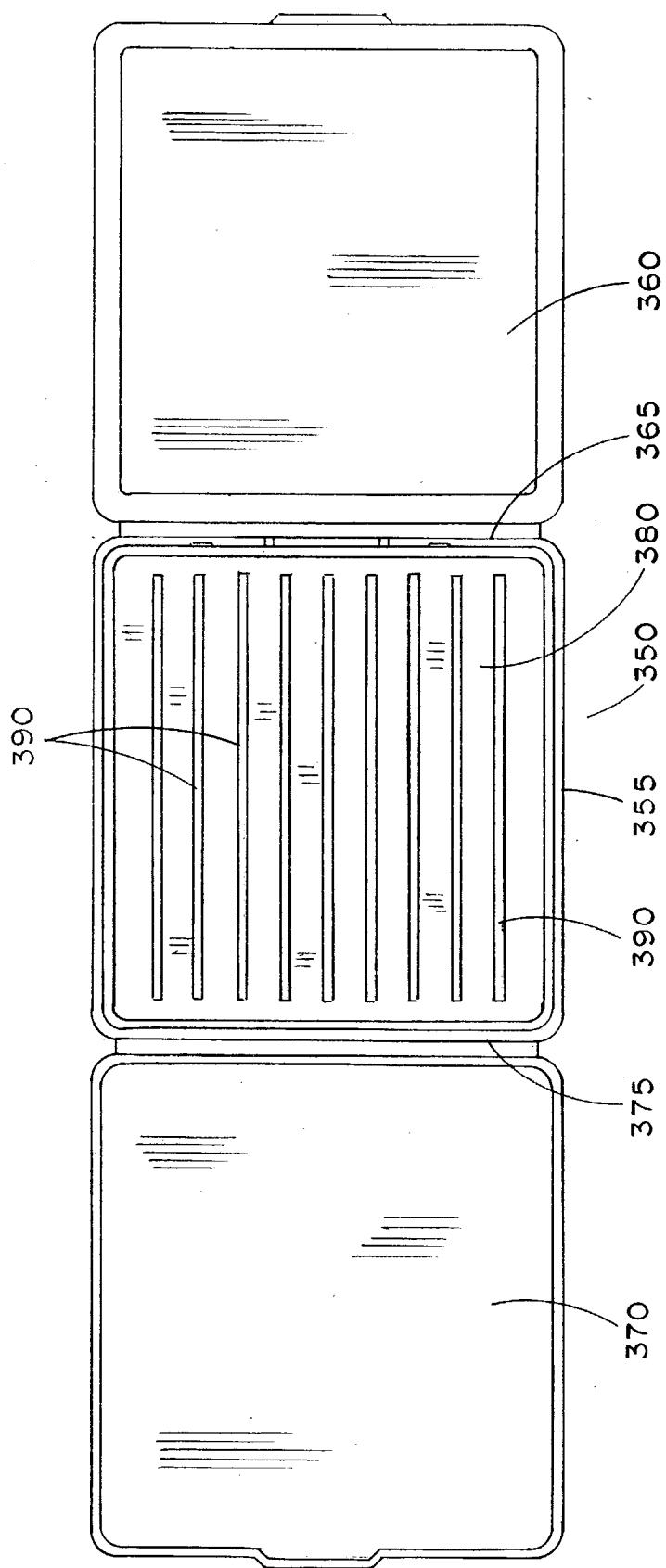


FIG. 17

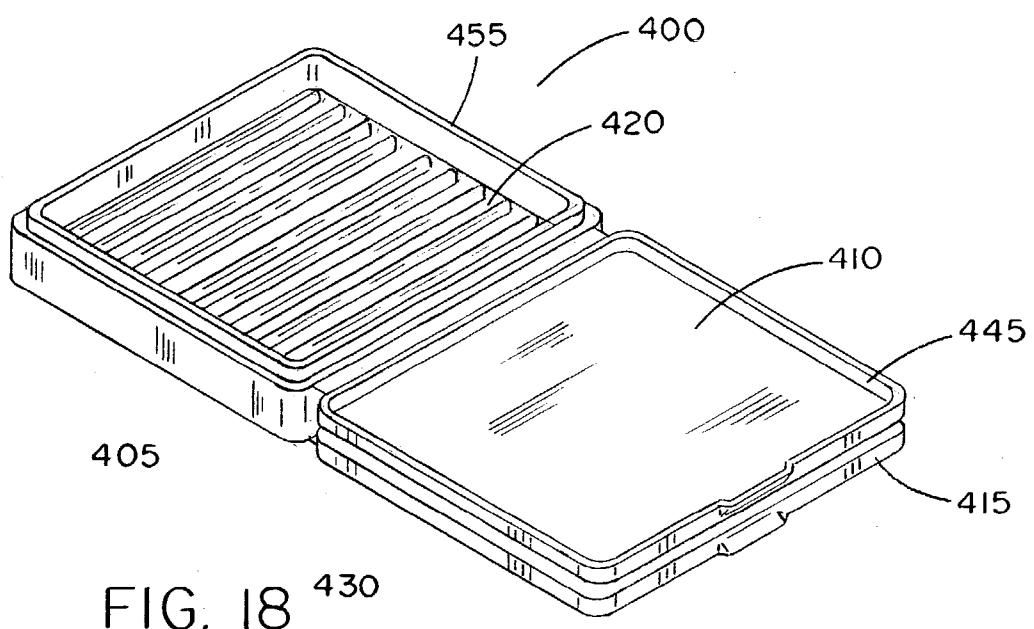


FIG. 18

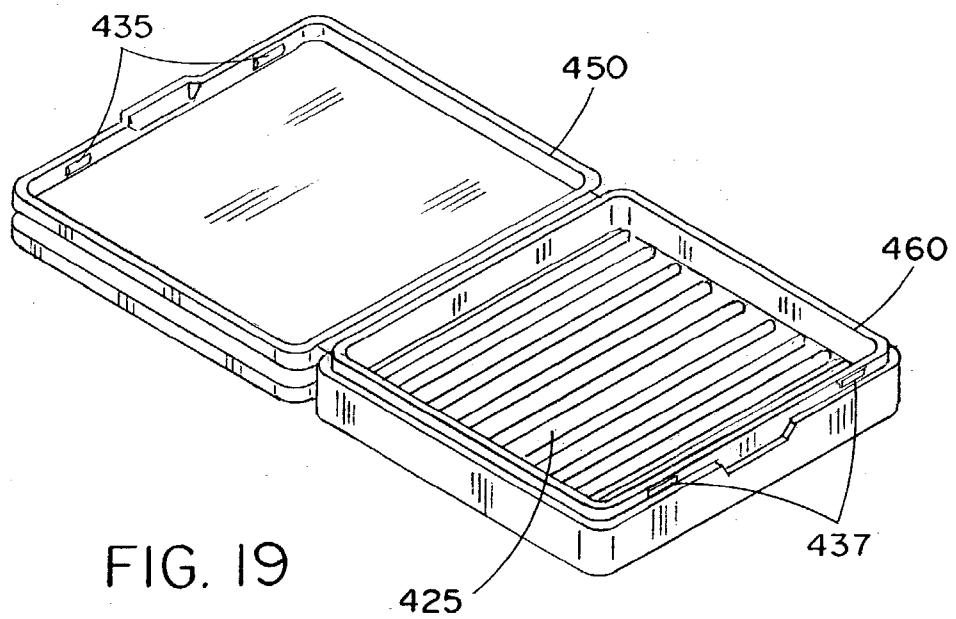


FIG. 19

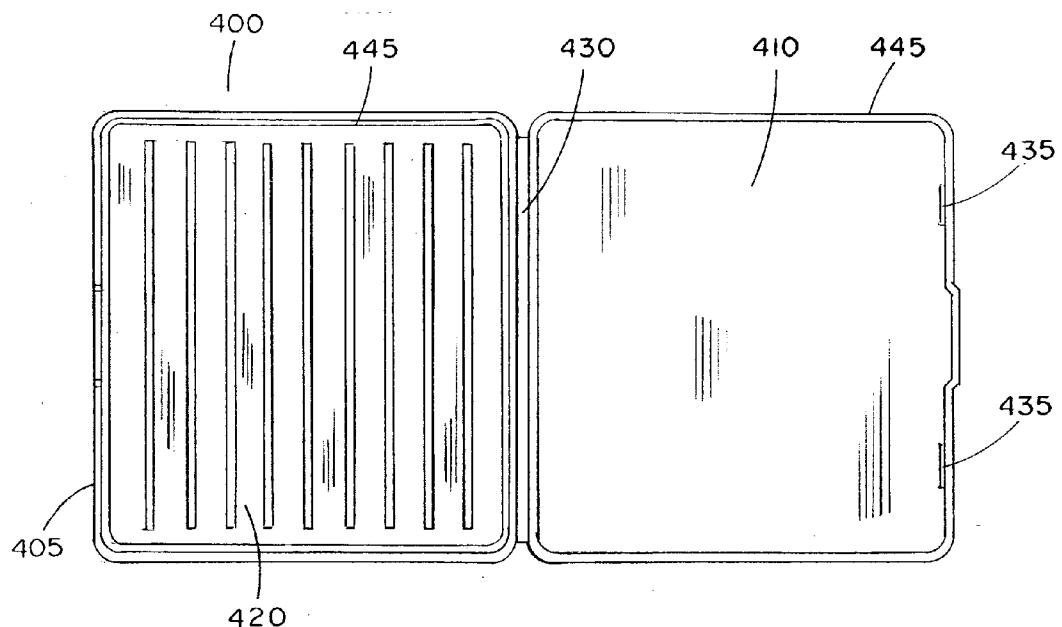


FIG. 20

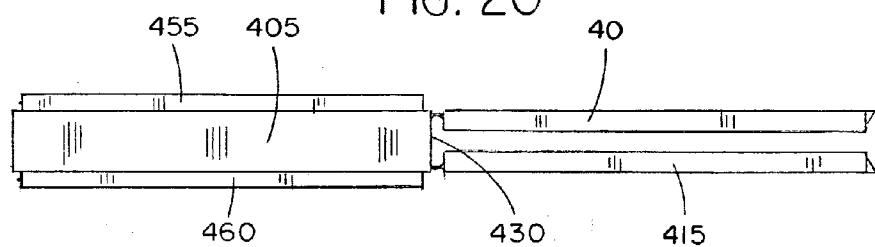


FIG. 22

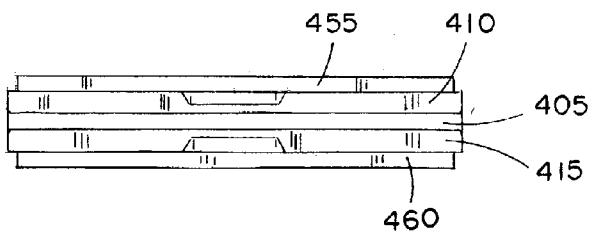


FIG. 21

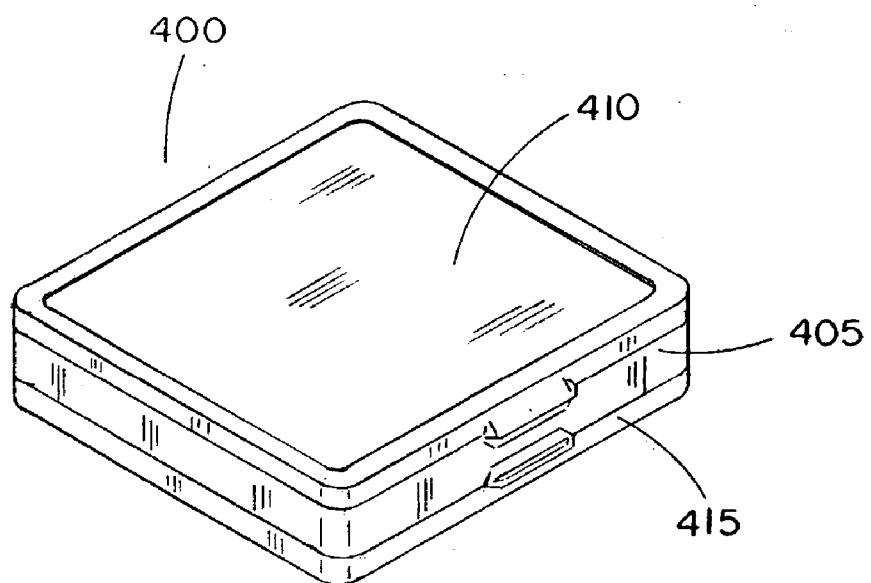


FIG. 28

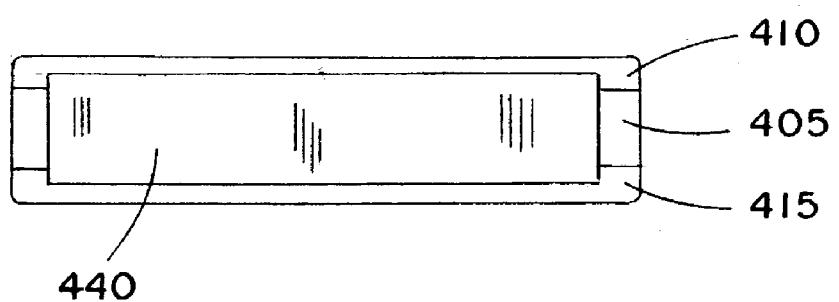


FIG. 23

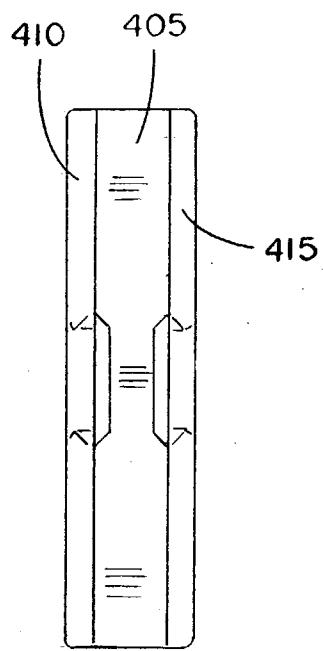


FIG. 24

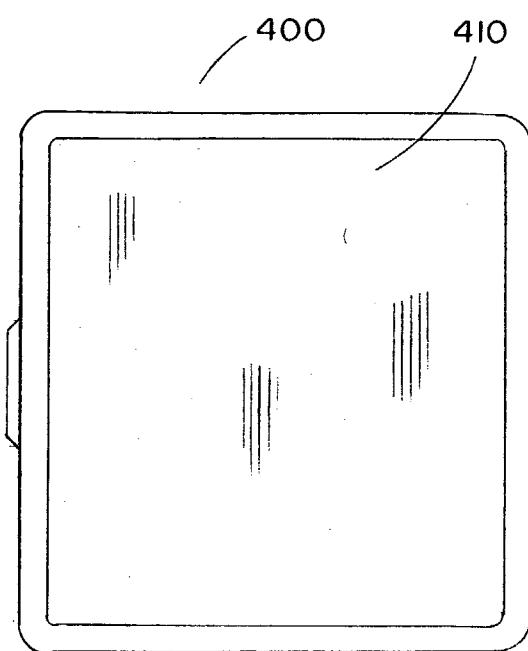


FIG. 25

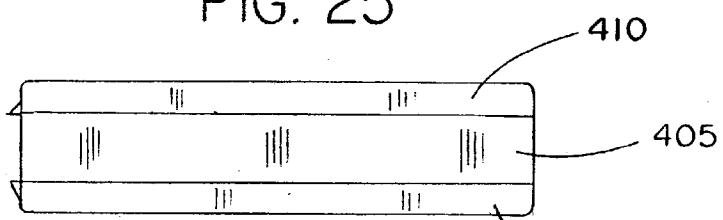


FIG. 27

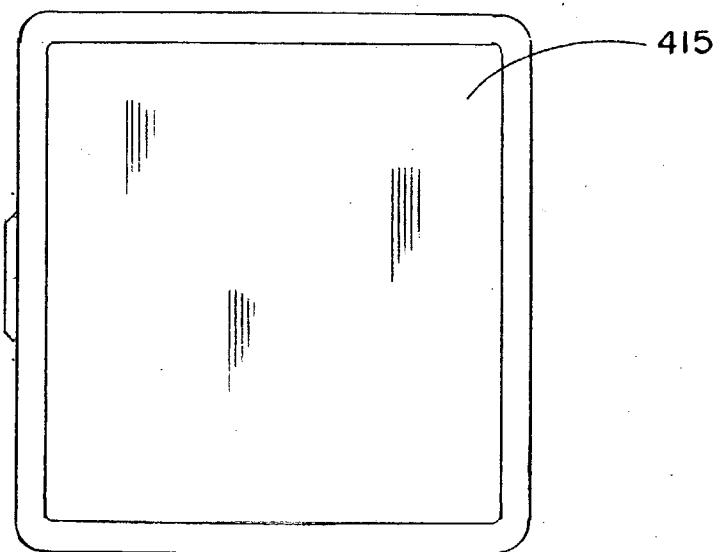
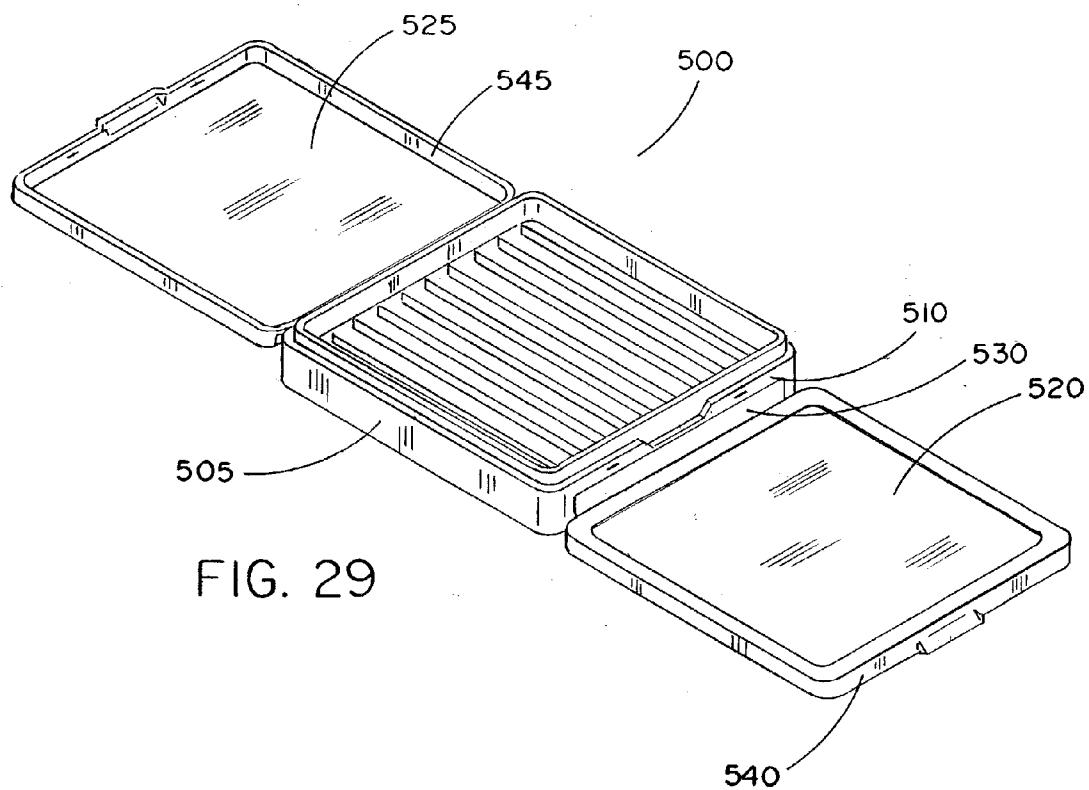


FIG. 26



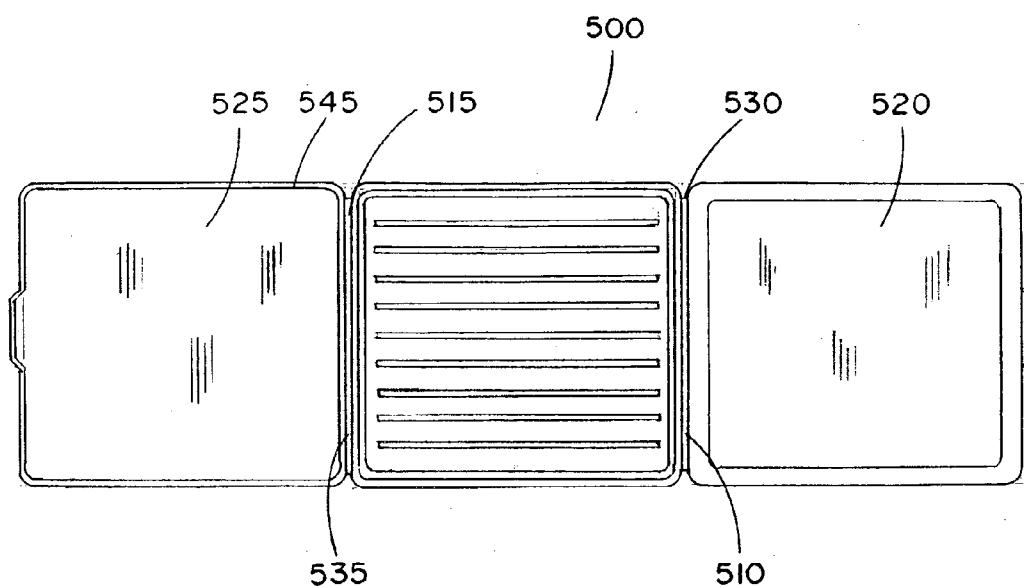


FIG. 30

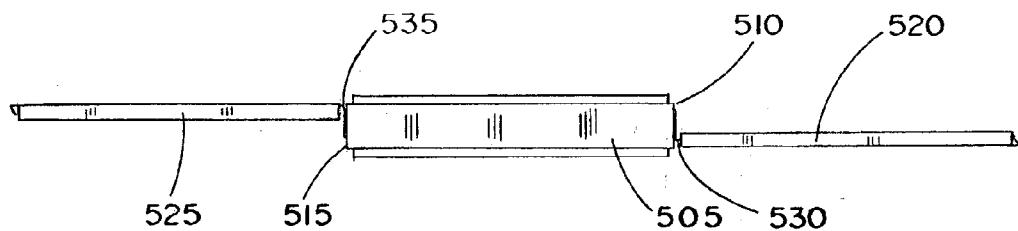


FIG. 31

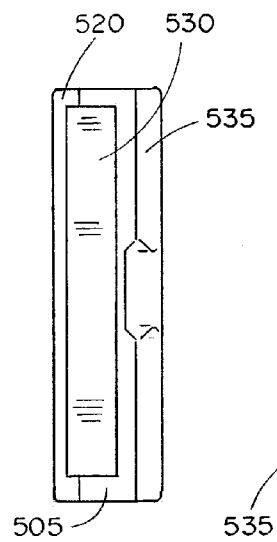


FIG. 32

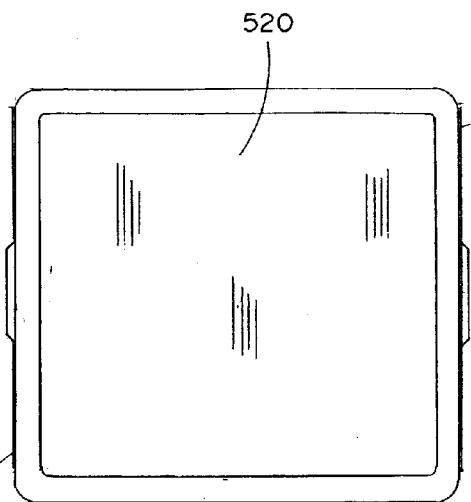


FIG. 34

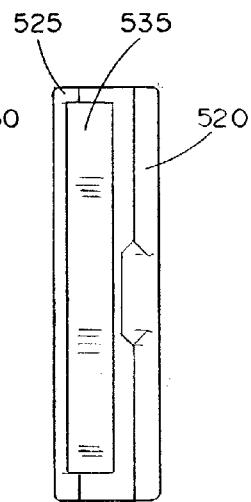


FIG. 33

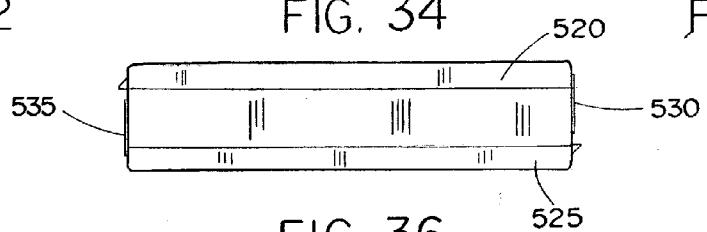


FIG. 36

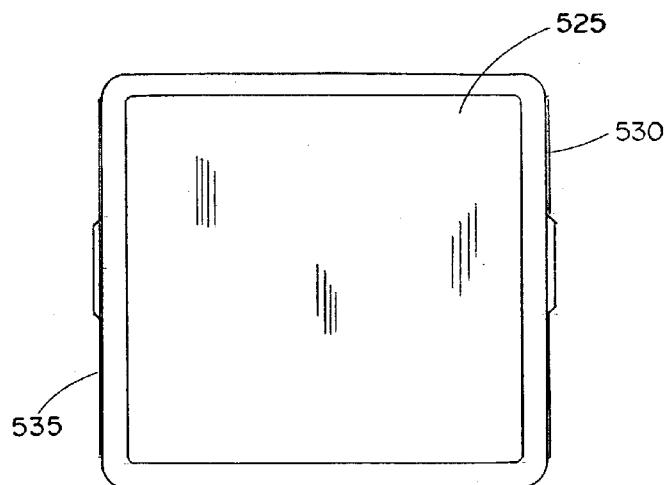


FIG. 35

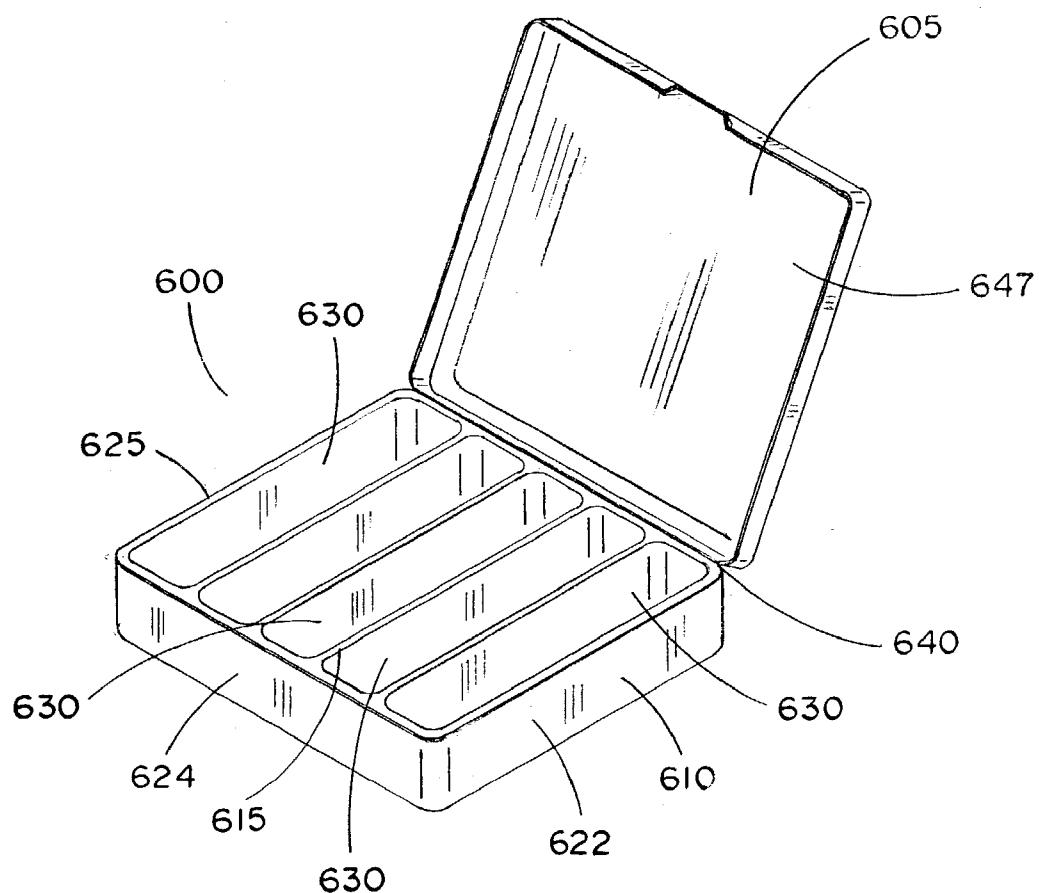


FIG. 37

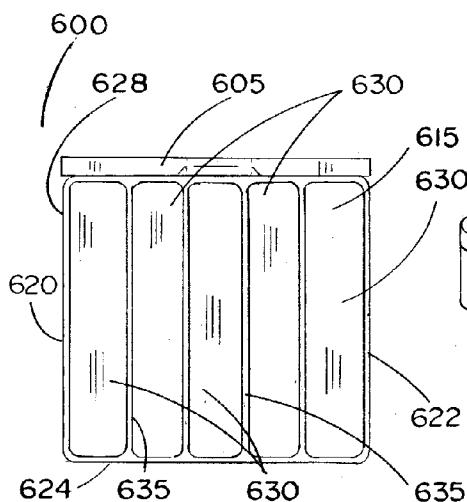


FIG. 38

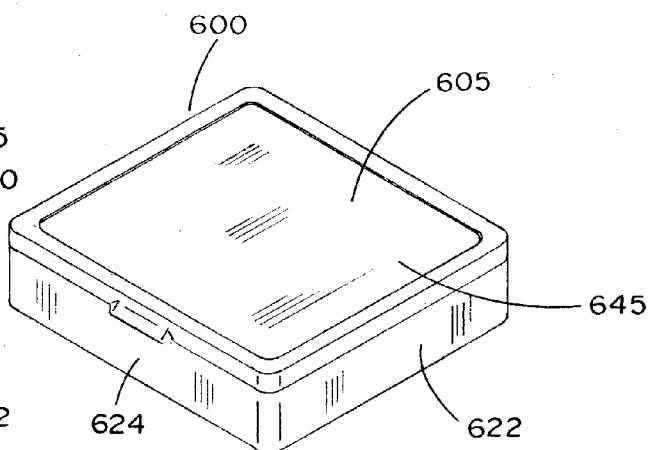


FIG. 41

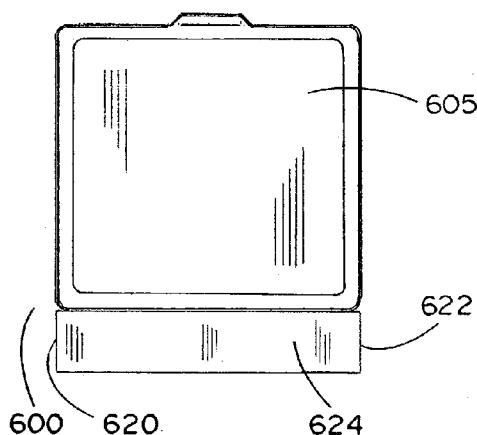


FIG. 40

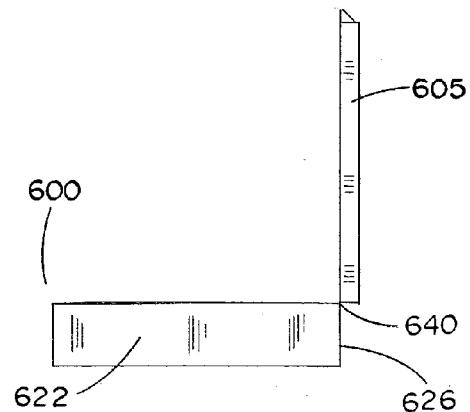


FIG. 39

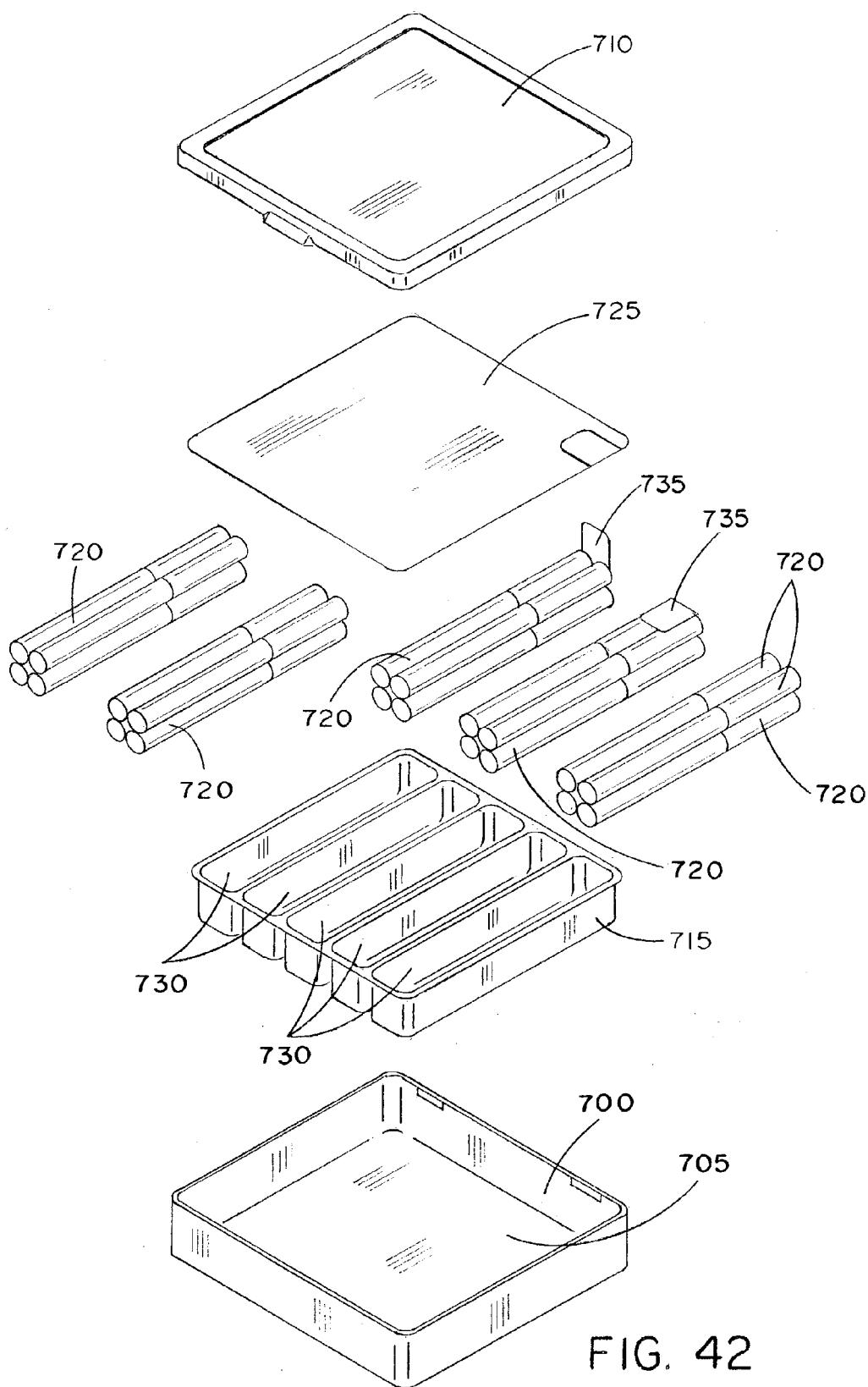
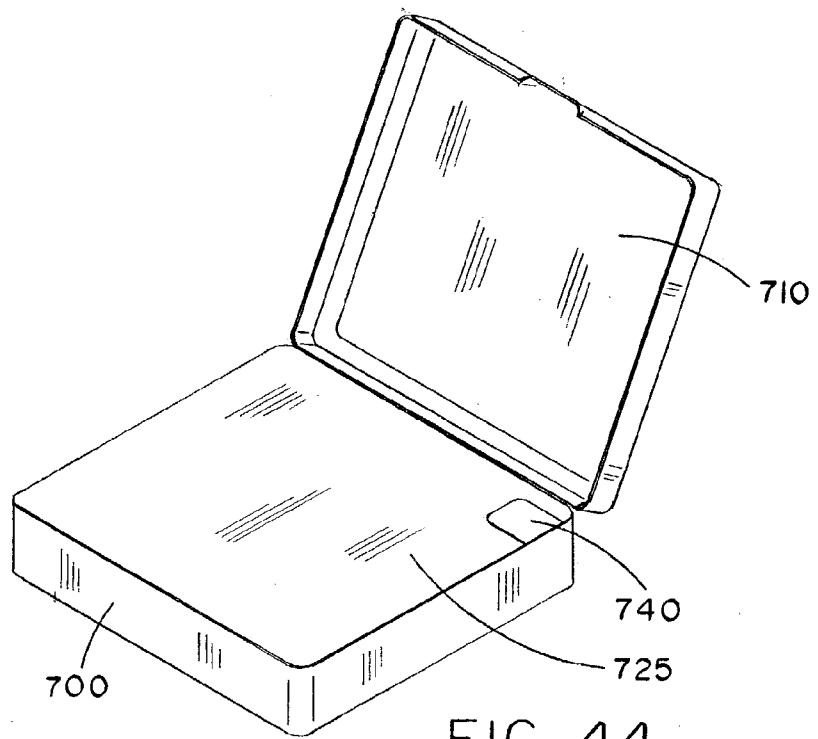
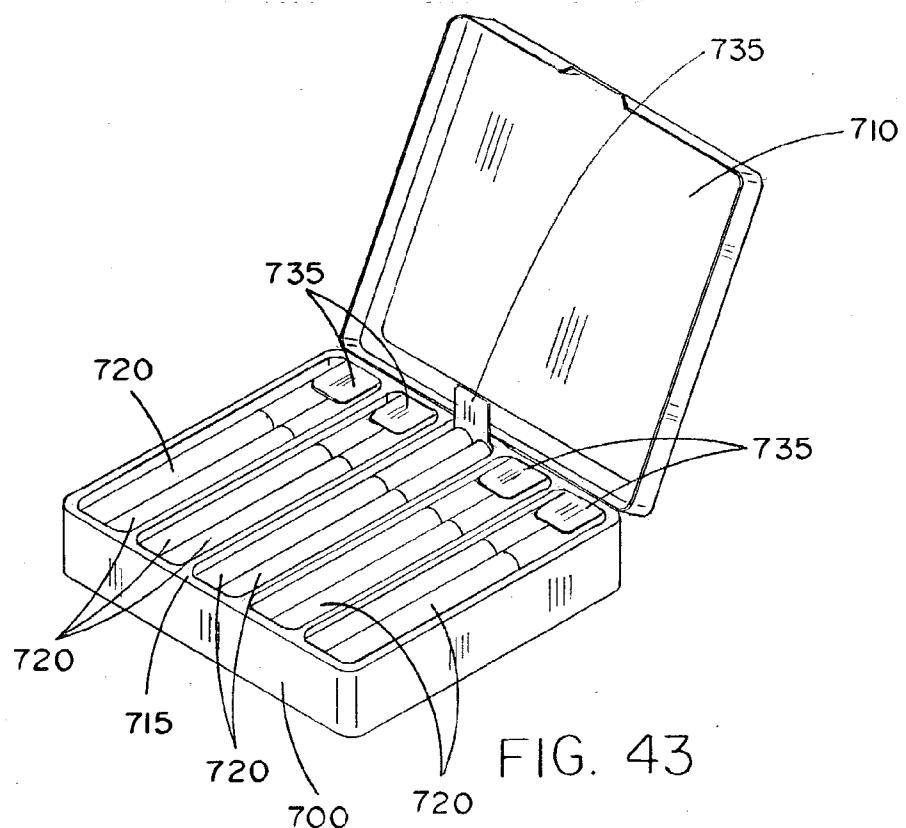


FIG. 42



CIGARETTE PACKAGE HAVING AT LEAST ONE RECLOSABLE LID**FIELD OF THE INVENTION**

[0001] The present invention relates to the packaging of smoking articles, such as cigarettes, and in particular, to a cigarette package having at least one reclosable lid.

BACKGROUND OF THE INVENTION

[0002] Smoking articles, such as cigarettes, conventionally have been sold in packages. Typically, each package contains about twenty or about twenty-five cigarettes.

[0003] One type of popular cigarette package is the so-called "hard pack," "crush proof box" or "hinged lid package." Such a package has a generally cuboid-type shape, is manufactured from resilient paperboard, and includes an outer wrap of transparent polypropylene film. Hinged lid cigarette packages conventionally are made from two paperboard blanks. One blank forms the body and lid of the package. The second blank forms an insert or inner frame which is assembled to the inside of the front and side walls of the package. The inner frame projects above the front and side walls of the package body, and provides a seal between the lid and body when the package is closed. See, for example, U.S. Pat. No. 4,852,734 to Allen et al. Other types of designs of blanks for hinged lid cigarette packages can be of the type described in U.S. Pat. No. 3,874,581 to Fox et al., U.S. Pat. No. 3,944,066 to Niepmann, and U.S. Pat. No. 5,139,140 to Burrows et al.

[0004] Cigarettes also can be packaged in a container having the form of a so-called "soft pack." See, for example, U.S. Pat. No. 3,695,422 to Tripodi and U.S. Pat. No. 4,717,017 to Sprinke, Jr., et al. Cigarettes are removed from a soft package by tearing away a portion of the top of the package, in order that cigarettes can be easily accessed from the top of the package.

[0005] The majority of cigarettes sold in the United States are packaged in either "soft pack" or "hard pack" configurations. As product differentiation becomes more important, it would be desirable to have new cigarette packages that improve the physical structure, provide visual differentiation, and provide tactile differentiation from conventional cigarette packages.

SUMMARY OF THE INVENTION

[0006] The present invention provides cigarette packages that are distinct from conventional cigarette packages and provide improved physical characteristics. Cigarette packages of the present invention may generally be parallelepipeds with rectangular or square faces. Cigarette packages of the present invention are generally rigid and "crush proof."

[0007] An embodiment of a cigarette package of the present invention comprises a main body comprising a front recessed portion and a rear recessed portion opposite the front recessed portion, a first reclosable lid, and a second reclosable lid. The front and rear recessed portions act as cavities for storing cigarettes. In some embodiments, the front and rear recessed portions may each be divided into multiple cavities for holding cigarettes. The first reclosable lid covers the front recessed portion when in a closed position to form a first enclosure, and the second reclosable

lid covers the rear recessed portion when in a closed position to form a second enclosure. The main body may comprise a top wall, a bottom wall, and two side walls. In one embodiment, the first reclosable lid and the second reclosable lid are secured to the same wall. For example, the reclosable lids may be secured to a first side wall. In another embodiment, the first reclosable lid and the second reclosable lid may be secured to different walls. For example, the first reclosable lid may be secured to a first side wall and the second reclosable lid may be secured to a second side wall.

[0008] The reclosable lids, in one embodiment, are hingedly secured to the main body. In other embodiments, the reclosable lids may be secured to the main body using at least one strip of adhesive (e.g., tape). In a further embodiment, the main body may be constructed from plastic and the lids may be constructed from metal. In one embodiment, the lids are secured to the same wall by a single strip of tape. In another embodiment, the lids are secured to different walls by two strips of tape, wherein separate strips of tape secure each lid to each side wall.

[0009] In another embodiment, the main body and the lids are constructed from plastic. In this embodiment, the main body and the lids may be made from a mold, such that the lids are secured to the main body by plastic "living" hinges ("living" hinge meaning that the hinge is molded with the main body and the lid. In one embodiment, the plastic lids are hinged on the same wall. In another embodiment, the plastic lids are hinged on different walls.

[0010] The cigarette package, in one embodiment, may comprise a plurality of cigarettes. In a further embodiment, ten cigarettes may be positioned in the first enclosure and ten cigarettes may be positioned in the second enclosure.

[0011] In some embodiments, the cigarette package may also comprise lidding materials positioned over the recessed portions, the lidding materials being used to seal the recessed portions. For example, a first lidding material may be positioned over the first recessed portion and a second lidding material may be positioned over the second recessed portion. Each lidding material may comprise a plurality of layers of materials laminated together. For example, each lidding material may comprise at least one metallic layer. The lidding materials may be sealed to an upper landing of the recessed portions. The lidding materials may be sealed to the upper landing of a main body perimeter wall on a cigarette package using convection heating, induction sealing, adhesives, and other techniques.

[0012] The recessed portions may comprise a plurality of ridges. Each recessed portion may comprise two side walls parallel to the plurality of ridges, and the plurality of ridges may be spaced equidistantly between the side walls. When the cigarette package includes cigarettes, the ridges assist in positioning the cigarettes. In this embodiment, the distances between each pair of ridges may be at least equal to the diameter of a cigarette. Further, the distance between a side wall of the recessed portion and a first ridge may likewise be at least equal to the diameter of a cigarette. In an embodiment where the cigarette packages comprise a plurality of cigarettes, the plurality of cigarettes may be positioned between the ridges and the side walls, each cigarette being positioned between a side wall and a ridge or between two of the plurality of ridges.

[0013] Each of the reclosable lids may comprise a top face and a bottom face. In one embodiment, a variety of infor-

mation related to the product may be provided on either or both of the faces. Examples of information that may be provided on the lids include product name, brand name, manufacturer name, manufacturer address, trademarks, logos, designs, product description, etc. In one embodiment, such information may be printed or embossed on labels, which may be attached to either face of the lids. In one embodiment, the labels may be adhesively secured to the lids. In other embodiments, the information may be printed or embossed on other materials, such as metal plates, metallized plastic, etc. These materials may also be adhesively or otherwise secured to the lids. Such information or designs may be printed or embossed directly on the lids themselves rather than utilizing labels or other materials.

[0014] Another embodiment of the present invention relates to a cigarette package comprising a main body comprising a cavity, a tray positioned in the cavity, and a reclosable lid. The reclosable lid covers the cavity, when in a closed position, to form an enclosure surrounding the tray. The reclosable lid may be secured to a wall of the main body. The reclosable lid may be hingedly secured to the wall or may be secured to the wall by a strip of tape. The main body and the reclosable lid may be constructed from plastic or metal. In some embodiments, the main body and the reclosable lid are constructed from the same material, while in other embodiments; the main body and the reclosable lid are constructed from different materials.

[0015] The tray may comprise a plurality of tray sections, each tray section being adapted to receive a plurality of cigarettes. In one embodiment, the cigarette package may comprise at least four tray sections. A larger or smaller number of tray sections may be used depending on the intended use for the package. In one embodiment, the tray comprises five tray sections, each tray section being adapted to receive four cigarettes. In some embodiments, the tray sections may hold different types of cigarettes, which may include different flavors of cigarettes.

[0016] In a further embodiment, a cigarette package of the present invention comprises a plurality of cigarettes. In one embodiment, the cigarette package comprises twenty cigarettes arranged in the tray sections of the tray.

[0017] In another embodiment, a lidding material may be sealed to the tray. The lidding material may comprise at least one metallic layer. In another embodiment, the lidding material may be sealed to an upper landing of the main body.

[0018] Product information may be provided on the surfaces of the cigarette package. For example, the reclosable lid, in one embodiment, includes a top face and a bottom face upon which product information may be provided by printing, applying labels, embossing, stamping, and other techniques.

[0019] It is a feature and advantage of embodiments of the present invention to provide cigarette packages that are distinct from conventional "soft packs" or "hard packs."

[0020] It is another feature and advantage of embodiments of the present invention to provide cigarette packages that are recognizable.

[0021] It is a further feature and advantage of embodiments of the present invention to provide cigarette packages that have improved physical properties over conventional cigarette packages.

[0022] A still further feature and advantage of embodiments of the present invention is the provision of cigarette packages that provide at least two separate compartments for storing cigarettes.

[0023] Another feature and advantage of embodiments of the present invention is to provide cigarette packages that are rigid and protect the cigarettes.

[0024] A further feature and advantage of embodiments of the present invention is to provide a cigarette package that allows differently flavored cigarettes to be sold in the same package.

[0025] It is a still further feature and advantage of embodiments of the present invention to provide cigarette packages that may be opened from at least two different sides.

[0026] Another feature and advantage of embodiments of cigarette packages of the present invention is that the cigarette packages provide more area than conventional cigarette packages for product information to be displayed.

[0027] A further feature and advantage of embodiments of the present invention is to provide cigarette packages that protect cigarettes from flavor loss and from moisture loss.

[0028] Another feature and advantage of the embodiments of the present invention is to provide cigarette packages that seal and protect the cigarettes.

[0029] Cigarette packages of the present invention are described in greater detail in the accompanying drawings and in the detailed description of the invention which follows.

BRIEF DESCRIPTION OF THE DRAWINGS

[0030] FIG. 1 is a perspective view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0031] FIG. 2 is another perspective view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0032] FIG. 3 is a top elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0033] FIG. 4 is an end elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0034] FIG. 5 is a first side elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0035] FIG. 6 is a second side elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0036] FIG. 7 is a top elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0037] FIG. 8 is a bottom elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0038] **FIG. 9** is a first end elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0039] **FIG. 10** is a second end elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0040] **FIG. 11** is a perspective view of an embodiment of a cigarette package of the present invention.

[0041] **FIG. 12** is a perspective view of an embodiment of a cigarette package of the present invention.

[0042] **FIG. 13** is an enlarged cross-sectional view of an embodiment of a lidding material useful in the present invention.

[0043] **FIG. 14** is a perspective view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0044] **FIG. 15** is a perspective view of an embodiment of a cigarette package of the present invention.

[0045] **FIG. 16** is another perspective view of an embodiment of a cigarette package of the present invention.

[0046] **FIG. 17** is a top elevational view of an embodiment of a cigarette package of the present invention.

[0047] **FIG. 18** is a perspective view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0048] **FIG. 19** is another perspective view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0049] **FIG. 20** is a top elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0050] **FIG. 21** is an end elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0051] **FIG. 22** is a side elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0052] **FIG. 23** is an end elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0053] **FIG. 24** is another end elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0054] **FIG. 25** is a top elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0055] **FIG. 26** is a bottom elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0056] **FIG. 27** is a side elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0057] **FIG. 28** is a perspective view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0058] **FIG. 29** is a perspective view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0059] **FIG. 30** is a top elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0060] **FIG. 31** is a side elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids open.

[0061] **FIG. 32** is an end elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0062] **FIG. 33** is another end elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0063] **FIG. 34** is a top elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0064] **FIG. 35** is a bottom elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0065] **FIG. 36** is a side elevational view of an embodiment of a cigarette package of the present invention with the reclosable lids closed.

[0066] **FIG. 37** is a perspective view of an embodiment of a cigarette package of the present invention having one reclosable lid with the reclosable lid being open.

[0067] **FIG. 38** is a top elevational view of an embodiment of a cigarette package of the present invention with the reclosable lid open.

[0068] **FIG. 39** is a side elevational view of an embodiment of a cigarette package of the present invention with the reclosable lid open.

[0069] **FIG. 40** is a front elevational view of an embodiment of a cigarette package of the present invention with the reclosable lid open.

[0070] **FIG. 41** is a perspective view of an embodiment of a cigarette package of the present invention having one reclosable lid with the reclosable lid being closed.

[0071] **FIG. 42** is a perspective view illustrating the various components of one embodiment of a cigarette package of the present invention.

[0072] **FIG. 43** is a perspective view of an embodiment of a cigarette package of the present invention.

[0073] **FIG. 44** is a perspective view of an embodiment of a cigarette package of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0074] The present invention relates to packages for smoking articles, such as cigarettes. The present invention advantageously provides cigarette packages that have a stronger physical structure, provide visual differentiation, and provide tactile differentiation from conventional cigarette packages. Cigarette packages of the present invention are generally rigid and "crush proof."

[0075] As illustrated in the Figures, embodiments of cigarette packages of the present invention advantageously provide at least two compartments for cigarettes. Although two compartments are shown, other embodiments may include only one compartment or more than two compartments. The use of multiple compartments can be used to advantageously provide a cigarette package containing different types of cigarettes. For example, a two compartment cigarette package of the present invention may be used to provide two different "flavored" cigarettes (e.g., menthol and citrus), such that the flavored cigarettes are kept in separate compartments.

[0076] Referring now to the Figures, **FIGS. 1-10** illustrate one embodiment of a cigarette package of the present invention having two lids. **FIG. 1** and **FIG. 2** are perspective views of the cigarette package with each of the reclosable lids open. **FIG. 3** is a top elevational view, **FIG. 4** is an end elevational view, and **FIGS. 5 and 6** are side elevational views of this embodiment with reclosable lids open. **FIG. 7** is a top elevational view, **FIG. 8** is a bottom elevational view, and **FIGS. 9 and 10** are end elevational views of this embodiment of a cigarette package with the reclosable lids closed. Many of the elements and features of the cigarette package shown in **FIGS. 1-10** and discussed below are also shown in the other embodiments illustrated in other Figures. These elements and features are not always labeled and discussed separately with the other Figures, although the below discussion related to **FIGS. 1-10** is equally applicable to the unlabeled elements and features shown in the other Figures.

[0077] The embodiment of a cigarette package **5** shown in **FIGS. 1-10** comprises a main body **10** and two reclosable lids **15,20**. The main body **10** comprises a top wall **25**, a bottom wall **30** opposite the top wall **25**, a first side wall **35**, and a second side wall **40** opposite the first side wall **35**. An interior wall **45** is positioned between the top wall **25**, the bottom wall **30**, and the side walls **35,40**. The top wall **25**, bottom wall **30**, side walls **35,40**, and interior wall **45** define a front recessed portion **50** and a rear recessed portion **55**. The recessed portions act as cavities for storing cigarettes and may be of a predetermined size and shape, depending on the number and size of the cigarettes to be stored therein.

[0078] The reclosable lids **15,20** are secured to the main body **10**. In the embodiment shown in **FIGS. 1-10**, a first reclosable lid **15** is secured to the first side wall **35** by a first hinge **60**. The second reclosable lid **20** is secured to the second side wall **40** by a second hinge **65**. The hinges **60,65** allow the reclosable lids **15,20** to move between a closed position and an open position. In **FIGS. 1-6**, the reclosable lids **15,20** are shown in an open position. In **FIGS. 7-10**, the reclosable lids **15,20** are shown in a closed position. When the reclosable lids **15,20** are in a closed position, the first lid **15** and the front recessed portion **50** form a first compartment, and the second lid **20** and the rear recessed portion **55** form a second compartment. As will be discussed below, smoking articles, such as cigarettes, may be positioned in the compartments.

[0079] While the reclosable lids **15,20** are hingedly secured to the main body **10** in the embodiment shown in **FIGS. 1-10**, the reclosable lids may be secured to the main body using other techniques. The selection of an appropriate mechanism for securing a lid to a main body may depend on

a number of factors including cost, the material(s) from which the lid and main body are constructed, durability, and other factors. For example, if the main body and the reclosable lid(s) are to be molded from plastic, the hinge(s) may be part of the mold, such that the lid(s), main body, and hinge may be formed as a single piece. The lid may also be hingedly secured to the main body in a number of other ways, such as by hooks, pins, rods, "piano" hinges, spring loaded hinges, crimping, molding, and others. In other embodiments, the reclosable lids may be secured to the main body using at least one strip of adhesive (e.g., tape).

[0080] The lids **15,20** may be held in place by any number of closure means known to those of ordinary skill in the art. In the embodiment shown in **FIGS. 1-6**, each lid **15,20** has a top face **70,75**, a bottom face **80,85**, and a perimeter wall **90,95**. The perimeter walls **90,95** extend around the perimeters of the lids **15,20** and are generally perpendicular to the top and bottom faces.

[0081] The top wall **25**, bottom wall **30**, and side walls **35,40** of the main body **10** are adapted to receive the perimeter walls **90,95** of the lids **15,20**. In the embodiment shown, these walls are notched to receive the perimeter walls **90,95**. The notches are each defined by a ledge **100,105** and a main body perimeter wall **110,115**. The widths of the ledges **100,105** correspond generally to the thicknesses of the perimeter walls **90,95** on the lids **15,20**. The heights of the main body perimeter walls **110,115** correspond generally to the heights of the perimeter walls **90,95** on the lids **15,20**. The main body perimeter walls each have upper landings **112,117** to which lidding materials may be sealed.

[0082] When the lids **15,20** are closed, the main body perimeter walls **110,115** fit inside the lid perimeter walls **90,95**. **FIGS. 7-10** illustrate the appearance of this embodiment of the cigarette package **5** when the lids **15,20** are in the closed position.

[0083] In the embodiment shown, the lids **15,20** are held in the closed position by a plurality of protrusions **120** on the exterior surfaces of the main body perimeter walls **90,95** and by corresponding indentations **125** on the interior surfaces of the lid perimeter walls **90,95**. When a lid is closed, the protrusions **120** slide into the indentations **125** and hold the lid in the closed position. In other embodiments, other mechanisms known to those of ordinary skill in the art may be used to hold the lids in a closed position.

[0084] Gripping means may be provided to assist with opening the lids **15,20**. In the embodiment shown, the gripping means are illustrated as finger catches **130,135** on the lids **15,20**. For example, on the first lid perimeter wall **90**, the perimeter wall **90** bends outwardly for a short distance (best illustrated in the top view of **FIG. 3**) to form the first lid finger catch **130**. The finger catches **130,135** are designed such that a user can place a finger or thumb under a finger catch and pull one of the lids open. In pulling a lid away from the main body, the protrusions on the exterior surface of a main body perimeter wall slide out of the indentations on the lid to allow the lid to open. To further assist in opening the lids, finger indentations **140,145** are provided on the side walls **35,40** of the main body **10** to assist a user in gripping the finger catches **130,135** to open the lids **15,20**.

[0085] In other embodiments, a plurality of finger catches and finger indentations may be provided to assist in opening

the lids. For example, finger catches may be provided on opposing sides of a lid perimeter wall. A user could open the lid by placing a thumb on one finger catch and a finger on the other finger catch and pulling the lid away from the main body.

[0086] As noted earlier, packages of the present invention are designed to contain cigarettes. Embodiments of the present invention may further comprise means for positioning the cigarettes in the recessed portions. In the embodiment shown in FIGS. 1-10, a plurality of ridges 150 is provided in the recessed portions to hold cigarettes in position. Referring to the ridges 150 in the front recessed portion 50 as shown in FIG. 1, the ridges 150 are parallel to two opposing side walls 155,160 in the recessed portion 50. The opposing side walls 155,160 of the recessed portion 50 as shown are the interior surfaces of the main body's side walls 35,40. The ridges 150 as shown are vertical protrusions generally perpendicular to the surface of the interior wall 45.

[0087] Each of the ridges 150 is separated by a distance D, as shown in FIG. 3. Further, the first and last ridges in the recessed portion are the same distance (D) from the opposing side walls 155,160 of the recessed portion. As shown, the distances between each adjacent pair of ridges and the distances between the first and last ridges and the side walls are equal. In one embodiment, this distance (D) is at least equal to the diameter of a cigarette. In other embodiments, the distances between the ridges may not be equal.

[0088] In other embodiments, an insert or tray may be designed to fit inside the recessed portion and hold cigarettes. For example, an insert may include a plurality of concave ridges designed to conform to the circular cross-sections of cigarettes. The insert may be glued inside the recessed portion or, alternatively, may be removable.

[0089] Cigarette packages of the present invention may further comprise a plurality of cigarettes. While cigarettes may have any number of dimensions, typical cigarettes are filtered cigarettes having a total length between about eighty and about one hundred five millimeters (80-105 mm). In one embodiment, cigarettes used in the present invention have lengths between about eighty-three and about eighty-five millimeters (83-85 mm). In a further embodiment, cigarettes used in a cigarette package of the present invention may have a length of about eighty-four millimeters (84 mm), with a tobacco rod length of about fifty-seven millimeters (57 mm) and a filter element length of about twenty-seven millimeters (27 mm). In other embodiments, cigarettes used in embodiments of the present invention have lengths between about ninety-eight (98 mm) and about one hundred one millimeters (101 mm). Typical circumferences of cigarettes are between about twenty-one millimeters (21 mm) to about twenty-seven millimeters (27 mm). The dimensions of cigarette packages of the present invention may be selected based on the number of cigarettes and the dimensions of the cigarettes that they are to carry. Thus, cigarette packages of the present invention may be designed to hold any number of different cigarette sizes.

[0090] FIG. 11 illustrates a perspective view of the embodiment of a cigarette package shown in FIGS. 1-10 further comprising a plurality of cigarettes 165. In the embodiment shown, the front recessed portion 50 is designed to hold ten cigarettes and is shown holding ten

cigarettes 165. Although not visible in FIG. 11, the rear recessed portion 55 is also designed to hold ten cigarettes and, thus, may also contain ten cigarettes. In other embodiments, the recessed portions may be designed to hold larger or smaller portions.

[0091] Cigarette packages, in further embodiments, may also comprise at least one partition in the recessed portions to further group the cigarettes within the recessed portion. For example, one embodiment may comprise a partition dividing the recessed portion into two equally sized sections. For example, each recessed portion may comprise two sections with five cigarettes positioned in each section. The cigarettes in the different sections may be the same type of cigarette or, in other embodiments, may be different types of cigarettes (e.g., the sections may contain different flavor cigarettes; one section may contain regular cigarettes and the other section may contain light cigarettes; etc.).

[0092] FIG. 12 is a perspective view of another embodiment of a cigarette package 200 of the present invention. The cigarette package 200 shown in FIG. 12 comprises the same features as the cigarette package 5 described in FIGS. 1-10. The cigarette package 200 comprises a main body 205 and two reclosable lids 210,215. The cigarette package 200 also comprises a front recessed portion and a rear recessed portion (not visible in FIG. 12). The cigarette package further comprises a first lidding material 220 positioned over the front recessed portion. A second lidding material may be similarly positioned over the rear recessed portion. Further, any of the embodiments of cigarette packages shown in the other Figures may similarly be provided with a lidding material to protect any cigarettes contained therein.

[0093] Among other functions, the lidding material 220 protects the contents of the cigarette package from moisture loss and from flavor loss, and may extend the shelf life of the contents of the cigarette package. For example, the cigarette package 200 may comprise a plurality of cigarettes in the recessed portions. Prior to purchase by a consumer, the two lidding materials are sealed over the recessed portions to protect the cigarettes from moisture. As shown in FIG. 12, the first lidding material 220 is sealed to the upper landing 222 of the first main body perimeter wall 225. The second lidding material may similarly be sealed to the upper landing of the second main body perimeter wall. In further embodiments, the lidding materials may be convection sealed or induction sealed to the upper landings of the perimeter walls.

[0094] When purchased, a consumer may open one of the reclosable lids, remove the lidding material, and retrieve a cigarette. Some consumers may completely remove the lidding material upon initial opening of the cigarette package. Other consumers may peel back the lidding material to remove a cigarette and then return the lidding material to its original position although it will not be fully sealed again. Whether a consumer completely removes the lidding material is a matter of personal preference.

[0095] The lidding material 220 shown in FIG. 12 further comprises a pull tab 230. The pull tab 230 assists a consumer in peeling back and/or removing the lidding material 220. Other mechanisms known to those of ordinary skill in the art may also be used to assist in peeling lidding material.

[0096] Lidding materials useful in the present invention may advantageously maintain desired flavor and moisture

levels of cigarettes within the recessed portions and may be removed as a single piece (i.e., without tearing, ripping, or shredding). Lidding materials useful in embodiments of the present invention may be laminates that comprise several layers.

[0097] A lamination process generally involves the bonding together of two or more materials to form a multi-ply structure. Most laminations used in the flexible packaging industry require applications of a bonding agent to join various materials together. These agents may be glues, adhesives, hot melts, thermoplastic waxes, or extruded plastics. The five basic types of laminates are wet, dry, thermoplastic, pressure, and extrusion. Lidding materials useful in embodiments of the present invention typically have an overall thickness prior to heat sealing between about four mils (0.004 inches) and about twenty mils (0.020 mils). In further embodiments, lidding materials useful in embodiments of the present invention have thicknesses prior to heat sealing between about four and about eight mils (between about 0.004 and about 0.008 inches). A number of laminates could be provided for use in embodiments of the present invention using materials and manufacturing techniques similar to those described below.

[0098] In selecting materials useful in forming a laminate, a number of factors can be considered, including the desired integrity and lack of tearability of the lidding material (e.g., ability to be removed from a cigarette package of the present invention without tearing), desired tactility, embossing needed, printability, desired protection from moisture loss, and flavor loss.

[0099] In one embodiment, a lidding material useful in the present invention may comprise a metallic foil layer, a paper layer, a metallized polyester layer, and a sealant film layer. The layers may be adhered together using a variety of bonding agents. An exemplary lidding material may comprise, from top to bottom (the top layer referring to the layer that faces the lid of the cigarette package and the bottom layer referring to the layer that faces the recessed portion), an overcoat material, a metallic foil layer, a bonding agent, a paper layer, a bonding agent, a metallized polyester layer, a bonding agent, and a sealant film layer. See, for example, U.S. Pat. No. 5,342,684 to Carespodi, which is incorporated herein by reference, for a description of film components, bonding agents, adhesive components and formulations, and other materials useful in forming lidding materials useful in the present invention; see also U.S. Pat. No. 4,784,885 to Carespodi, which is incorporated herein by reference.

[0100] Among other functions, the metallic foil layer provides a substrate that is embossable and that can give a desired look and feel. In addition to improving the aesthetics of the lidding material, the foil can also provide stiffness and rigidity. One example of a metallic foil layer useful in a lidding material is aluminum foil. In embodiments using aluminum foil as a metallic film layer, the thickness of the aluminum foil may be between about 0.7 mils and about 2 mils (i.e., 0.0007 inches and about 0.002 inches). In a further embodiment using aluminum foil, the thickness of the aluminum foil may be one mil (0.001 inch). In other embodiments, a metallized polyester film may be used instead of a metallic foil for this layer.

[0101] The lidding material may comprise an overcoat layer. Overcoat layers of laminated lidding materials of the

present invention can be optional in certain circumstances, but it is preferred that those overcoat layers are employed when constructing laminates of the present invention. The overcoat material can vary. Various overcoat materials have been used commercially for coating materials of the type that are the subject of the present invention. Thus, virtually any overcoat material or formulation can be employed in virtually the same manner that is traditional, and as such, the selection, formulation, use and specifications will be apparent to one skilled in the art of designing and manufacturing laminates for use as lidding materials for sealing containers. An overcoat is a covering or finish applied to a substrate to protect or enhance the properties of that substrate. In an embodiment of the present invention utilizing a metallic foil layer, the overcoat layer is applied to the metallic foil layer to protect the metallic foil layer from oxidation. In embodiments of lidding materials comprising aluminum foil layers, an overcoat layer may be a water-based lacquer. One example of a water-based lacquer useful in coating an aluminum foil layer is formulation 1243 FDA, commercially available from Coatings and Adhesives Company. Various other overcoat lacquers or primers could be used.

[0102] Among other functions, paper layers useful in the present invention provide a desirable feel or "hand" to the lidding material and aid in keeping the lidding material flat. For example, the paper may provide a desirable stiffness or rigidity to the lidding material. Various types and weights of paper could be used to provide these properties. One example of a paper layer useful in the present invention is 25 pound bleached Kraft paper commercially available from Stora Enso.

[0103] The paper layer may be laminated to the metallic foil layer using a bonding agent, such as an adhesive polymer. One example of an adhesive polymer useful in the present invention is ethylene acrylic acid, although a variety of other bonding agents could be used. An example of a suitable ethylene acrylic acid is NUCREL® ARX3748, available from E. I. du Pont de Nemours and Company.

[0104] Lidding materials useful in the present invention may also comprise a metallized film layer. One example of a suitable metallized film layer is a metallized polyester. See, for example, U.S. Pat. No. 5,427,235 to Powell et al., which is incorporated herein by reference, for a description of a suitable thermoplastic films, film components, and metallized oriented films. Metallized polyesters are conventionally formed by vacuum depositing metal on one side of a polyester film. Among other functions, the metallized polyester layer provides a barrier of protection in the way of moisture and flavor loss prevention and also helps ensure full panel removal of the lidding material. One example of a suitable metallized polyester is a 48 gauge polyester metallized with aluminum. Suitable polyesters can be obtained from Mitsubishi Polyester Film and can be vacuum metallized by Vacumet Corporation. Various other gauges and suppliers of polyester as well as metallizers can provide metallized polyesters with similar characteristics.

[0105] In embodiments of lidding material using a paper layer and a metallized polyester layer, another bonding agent may be used to laminate the layers together. In one embodiment, the bonding agent is a wet-bond adhesive. An example of a useful wet-bond adhesive is formulation BR-4736, commercially available from Basic Adhesives Company.

Various other bonding agents known to those of ordinary skill in the art could also be used.

[0106] The lidding material may also comprise a heat sealant film. Among other functions, the sealant film, when heat is applied, seals the lidding material to the main body of the cigarette package (e.g., to the upper landing of the main body perimeter wall). One example of a heat sealant film useful in the present invention is a 1.5 mil heat seal film from New England Extrusion, Inc. Various other heat seal films or sealing methods could also be used to obtain the desired sealing characteristics.

[0107] Another bonding agent may be used to laminate the metallized polyester layer and the sealant film layer. Examples of suitable bonding agents include urethane adhesives. One particularly useful urethane adhesive is a two-part urethane dry-bond adhesive. An example of such an adhesive is commercially available from Henkel Adhesives as Tycel 7970/7297. Various other bonding agents known to those of ordinary skill in the art could also be used to bond these two layers together.

[0108] The lidding material may be assembled using techniques known to those of ordinary skill in the art. Methods, materials and equipment suitable for manufacturing lidding materials are set forth by Weiss in *Coating and Laminating Machines*, Converting Technology Company (1977); Miller in *Converting for Flexible Packaging*, (1994); and Rolando in *Flexible Packaging—Adhesives, Coatings and Processes* (Rapra Review Report 122) (2000). Lamination methods, materials, equipment also are possessed by the RJR Packaging Division of R. J. Reynolds Tobacco Company, Alcan Flexible Packaging, Pechiney, and Alcoa Flexible Packaging.

[0109] Lidding materials useful in the present invention, including the embodiments described above, may be assembled using known techniques. In one embodiment, a metallized polyester layer may be laminated to a sealant film layer using a urethane adhesive, and the metallized polyester layer may be laminated to a paper layer using a wet-bond adhesive. The laminated paper layer/metallized polyester layer/sealant film layer may then be collected on a roll. This roll may be supplied to another apparatus where a metallic foil layer is laminated to the paper layer using a polymer adhesive and the metallic foil layer may be coated with a water-based lacquer. The lidding material may then be collected on a roll.

[0110] Depending on the width of the roll of lidding material, the lidding material may be slit into more narrow rolls for further processing. For example, the rolls of lidding material may be cut into smaller, narrower rolls having a length between about three inches (3 inches) to about twelve inches (12 inches). The rolls are then shipped to a die cutter. The die cutter will emboss and cut the lidding materials into sections of desirable shape and size. The lidding material may be embossed with logos or designs using techniques known to those of ordinary skill in the art. The embossed rolls of lidding material are then cut into sections of desirable size using techniques known to those of ordinary skill in the art. For example, the die cutting machine may cut the lidding material to a size that could be sealed over a recessed portion of a cigarette package of the present invention. The die cutting machine may also cut the lidding material to provide a pull tab to assist in removing the lidding material

from a cigarette package of the present invention. A lidding material may be placed on an upper landing of a main body perimeter wall and heat sealed to cover the recessed portion. The lidding material may be heat sealed by applying heat (e.g., 400-420° F. for 0.5-1 second) to the lidding material, which seals lidding material to the upper landing of the perimeter wall of the main body of a cigarette package.

[0111] FIG. 13 is an enlarged cross-sectional view of an embodiment of a lidding material 250 useful in the present invention. The lidding material 250 comprises a plurality of layers. In the embodiment shown, the lidding material comprises from top to bottom (the top layer referring to the layer that would face the lid of the cigarette package and the bottom layer referring to the layer that would face the recessed portion containing cigarettes), an overcoat material 255, a metallic foil layer 260, a bonding agent 265, a paper layer 270, a bonding agent 275, a metallized polyester 280, a bonding agent 285, and a sealant film 290.

[0112] The following components may be used to form the lidding material shown in FIG. 13. In one non-limiting example, overcoat material 255 is lacquer. The metallic foil layer 260 is one mil (0.001 inches) thick layer of aluminum foil. The bonding agent 265 is ethylene acrylic acid and is five mils (0.005 inches) thick. The paper layer 270 is 25 pound bleached Kraft paper. The bonding agent 275 is a wet-bond adhesive, and is 0.15 mils (0.00015 inches) thick. The metallized polyester 280 is 48 gauge polyester metallized with aluminum. The adhesive 285 is urethane adhesive, such as a two-part urethane dry-bond adhesive. The sealant film 290 is a heat seal film and is 1.5 mils (0.0015 inches) thick. In the above example, the total thickness of the lidding material is between about four mils (0.004 inches) and about eight mils (0.008 inches).

[0113] After the lidding material, such as the one described with regard to FIG. 13, is cut to a desired size, it may be positioned over a recessed portion of a cigarette package and sealed to the cigarette package using techniques known to those of ordinary skill in the art. In general and with reference to FIG. 12, a lidding material 220 of desirable size is placed on the upper landing 222 of the first main body perimeter wall 225 of a cigarette package 200. Heat may then be applied to the lidding material 220 to heat seal it to the upper landing 222. In one embodiment, the lidding material 220 is heated at 410-420° Fahrenheit for 0.5 to 1.0 seconds. The source of heat, in one embodiment, only contacts the lidding material 220 at the locations where the lidding material is in contact with the upper landing 222. The lidding material 220 cools quickly and is sealed to the upper landing 222 of the perimeter wall 225. The pull tab 230 is then folded back to a position similar to the one illustrated in FIG. 12.

[0114] In other embodiment, the lidding material may be induction sealed to the upper landing of the cigarette package. The manner of producing sealed cigarette packages of the present invention will be readily apparent to one skilled in the art of induction sealed container production. See, for example, U.S. patent application Ser. No. 10/228,773, filed Aug. 27, 2002, which is incorporated herein by reference, for additional information related to induction sealing and to lidding materials.

[0115] As illustrated in FIG. 14, cigarette packages of the present invention advantageously provide a number of sur-

faces for product information. The cigarette package **300** shown in **FIG. 14** comprises the same general features as the cigarette package shown in **FIGS. 1-12**. In the embodiment shown in **FIG. 14**, the cigarette package **300**, which includes two reclosable lids **305,310** secured to a main body **315**, further comprises a plurality of labels **320,325** affixed to the reclosable lids **305,310**. Each reclosable lid includes a top face and a bottom face. Only the top face **330** of the first lid **305** and the bottom face **335** of the second lid **310** are visible in **FIG. 14**. The corresponding bottom face and top face of each lid are opposite the faces **330,335** shown.

[0116] A first label **320** is affixed to the top face **330** of the first lid **305**, and a second label **325** is affixed to the bottom face **335** of the second lid **310**. Although not shown, a third label may be affixed to the bottom face of the first lid **305**, and a fourth label may be affixed to the top face of the second lid **310**. In some embodiments, labels are only affixed to the top faces of the reclosable lids and no labels are affixed to the bottom faces of the lids.

[0117] A wide variety of product information can be printed on the labels including, for example, product name, brand name, manufacturer name, manufacturer address, trademarks, logos, product description, etc. This information can be printed on the labels, and the labels can be affixed to the faces of the lids using techniques known to those of ordinary skill in the art.

[0118] In some embodiments, each label has a different appearance and contains different product information. In other embodiments, the labels on the top faces of the reclosable lids are different from the labels on the bottom faces.

[0119] As will be discussed in more detail below, reclosable lids can be constructed from plastic or from metal. In embodiments utilizing plastic lids, the product information is preferably printed on labels and the labels are affixed to the lids. However, in other embodiments, the product information may be preprinted directly on the plastic lids. In embodiments utilizing metal lids, the product information can be preprinted on the metal lids prior to assembly into a cigarette package. Product information can be printed directly on the metal lids using techniques known to those of ordinary skill in the art. Labels can also be affixed to the metal lids. Product information can also be embossed on metal lids using techniques known to those of ordinary skill in the art. The metal lids can be embossed to also provide texture to the lids.

[0120] In addition to the top and bottom faces of the cigarette package, additional information can be provided on other surfaces of the cigarette package. This information may be preprinted on the surface itself or may be printed on a label which is affixed to the surface. For example, the Surgeon General's Warning may be printed on a side wall of the main body (e.g., side wall **40** in **FIG. 9**).

[0121] In other embodiments, cigarette packages of the present invention may be overwrapped with an outer wrapping material using techniques known to those of ordinary skill in the art. The outer wrapping material may be cellophane, polypropylene film, the metallized material described in European application Publication No. 454,003, the overwrapping materials described in U.S. Pat. No. 4,807,745 to Langley, et al. and U.S. Pat. No. 4,947,994 to Newsome, or

other known materials. The overwrapping material for each cigarette package preferably includes a tear tape, which is provided using known techniques. The tear tape can be positioned so as to circumscribe the package in a number of locations on the cigarette package in order to facilitate removal of the overwrapping material by a consumer.

[0122] In other embodiments of the present invention, cigarette packages may also comprise a loose sheet of printed information, which is sometimes referred to as a "chit." Chits may be placed in the recessed portions of the main body. For example, if a lidding material is sealed to the main body, a chit may be placed between the lidding material and the reclosable lid, such that a consumer sees the chit upon opening the reclosable lid. Because the chit is typically loose within the cigarette package (i.e., not affixed to the lidding material, the main body, or the reclosable lid), a consumer may easily discard the chit. Examples of information that may be printed on chits include product name, brand name, manufacturer name, manufacturer address, trademarks, logos, product description, etc.

[0123] **FIGS. 15-17** illustrate another embodiment of a cigarette package **350** of the present invention. In these figures, the cigarette package **350** comprises a main body **355**, a first reclosable lid **360** secured to a first side wall **365** of the main body **355**, a second reclosable lid **370** secured to a second side wall **375** of the main body **355**, a front recessed portion **380**, and a rear recessed portion **385**. The cigarette package **350** further comprises a plurality of ridges **390** for positioning the cigarettes in the recessed portion. The plurality of ridges **390** shown in **FIGS. 15-17** are similar to the plurality of ridges **150** shown in **FIGS. 1-10**, except that the plurality of ridges **390** shown in **FIGS. 15-17** are perpendicular to two opposing side walls **395,400** in the front recessed portion **380**.

[0124] Cigarette packages of the present invention may be constructed from a number of materials. Examples of suitable materials for constructing cigarette packages include metal (e.g., tin, steel, aluminum, etc.) and plastic (e.g., high density polypropylene, polyethylene, and other molded plastic materials). The use of such materials may result in a cigarette package that is generally rigid and "crush proof." In some embodiments, the cigarette package may be constructed from a single material. For example, in embodiments where the cigarette package is constructed from plastic, the cigarette package may be molded as a single piece using techniques known to those of ordinary skill in the art. The embodiments of cigarette packages shown in **FIGS. 1-12** and **15-17** may be constructed from plastic. In embodiments where the cigarette package is constructed from metal, metal sheets may be stamped and formed to provide a main body and lids. The lids may be secured to the main body using hinges.

[0125] In other embodiments, cigarette packages of the present invention are constructed from both metal (e.g., tin, steel, aluminum, etc.) and plastic (e.g., high density polypropylene, polyethylene, and other molded plastic materials). For example, in one embodiment, the reclosable lids may be constructed from metal and the main body may be constructed from plastic.

[0126] **FIGS. 18-28** illustrate another embodiment of a cigarette package **400** of the present invention. The cigarette package comprises a main body **405**, a first reclosable lid

410, and a second reclosable lid 415. The first reclosable lid 410 covers a front recessed portion 420 when in a closed position (see FIG. 25) to form a first enclosure, and the second reclosable lid 415 covers the rear recessed portion 425 when in a closed position (see FIG. 26) to form a second enclosure. The reclosable lids 410,415 in the embodiment shown are connected to the same side wall 430 of the main body 405.

[0127] In this embodiment, the main body 405 is constructed from plastic and the removable lids 410,415 are constructed from metal. In embodiments where a lidding material is positioned over a recessed portion to protect a plurality of cigarettes, the main body is preferably constructed from plastic as the lidding material generally forms a better seal with a plastic main body than with a metal body. This is not to say that lidding materials can not be used to protect the contents of main bodies that are constructed from metal.

[0128] One issue that may arise when the lids and the main body are constructed from different materials is that the materials may expand or shrink at different levels due to differing coefficients of thermal expansion. For example, metal generally expands and shrinks more due to temperature variations than plastic. Thus, in high temperature situations, the metal may expand such that the lid does not fasten securely to the main body when a user tries to close the package. Similarly, in temperatures below freezing, the metal may contract such that the lid may not fit around the perimeter wall of the main body in order for a consumer to close the lid.

[0129] To account for these differences in thermal expansion, cigarette packages of the present invention may comprise spring tabs 435 on the interior of the perimeter walls of the lids. The main body perimeter walls may similarly comprise recesses 437 for receiving the spring tabs 435. When a lid is closed, its spring tabs slide into the corresponding recesses and the lid is secured to the main body. When the lid is expanded due to temperature, the spring tabs 435 are advantageously still able to slide into the recesses 437 and secure the lid to the main body. The spring tabs advantageously allow the lids to be secured to the main body in a variety of temperatures and other weather conditions. The spring tabs may be constructed from the same material as the lids.

[0130] Cigarette packages of the present invention may further comprise other mechanical devices designed to assist in latching the lids to the main body when temperatures vary, particularly when the lids are constructed from metal and the main body is constructed from plastic or vice versa.

[0131] Because the reclosable lids 410,415 are constructed from metal and the main body 405 is constructed from plastic in FIGS. 18-28, the cigarette package may not be constructed as a single structure (i.e., can not be molded as a single piece of plastic). Thus, the lids 410,415 must be attached or secured to the main body 405. A number of exogenous connection means, such as tape-like materials, may be used to connect a lid to the main body. Such connection means are preferably adherent to the materials used to construct the main body and the lids, are resilient to the movement associated with the opening and closing of the lids, and are durable (e.g., can withstand the repeated opening and closing of the lids).

[0132] In the embodiment shown in FIGS. 18-28, the reclosable lids 410,415 are secured to the main body 405 by a strip of tape 440. As discussed above with regard to FIGS. 1-6, each lid 410,415 may comprise a perimeter wall 445, 450. The main body 405 also comprises a perimeter wall 455,460 on each side, such that when the lids 410,415 are closed, the main body perimeter walls 455,460 fit inside the lid perimeter walls 445,450. As shown in FIG. 23, the strip of tape 440 is affixed to at least a portion of the perimeter walls 445,450 of both lids 410,415 and to the side wall 430 of the main body 405. The strip of tape 440 secures the lids 410,415 to the main body 405 and acts as a hinge when the lids 410,415 are opened or closed by a user. Suitable tapes for use in embodiments of the present invention are commercially available and may be selected as a matter of design choice. The selection of tape for use in an embodiment of the present invention is dependent upon factors such as the ability to adhere to the main body and the lid, resilience to repeated movement, durability, and other factors, and the selection of a suitable tape will be readily apparent to one of skill in the art.

[0133] FIGS. 29-36 illustrate another embodiment of a cigarette package 500 of the present invention in which the reclosable lids are secured to the main body by tape. In the embodiment shown, the main body 505 comprises two side walls 510,515, and the reclosable lids 520,525 are secured to different side walls 510,515 by separate strips of tape 530,535. The strips of tape 530,535 are affixed to the perimeter walls 540,545 of the lids 520,525 and to the side walls 510,515 as illustrated in FIGS. 32 and 33. The strips of tape 530,535 secure the lids 410,415 to the main body 405 and act as a hinge when the lids 410,415 are opened or closed by a user.

[0134] While previous embodiments of the present invention illustrate a cigarette package having two reclosable lids, other embodiments of the present invention relate to a cigarette package having one lid. FIGS. 37 to 44 illustrate such embodiments. FIG. 37 is a perspective view of an embodiment of a cigarette package 600 of the present invention having one reclosable lid 605 with the reclosable lid 605 being open. FIGS. 38-40 are top, side, and elevational views, respectively of the cigarette package 600 with the reclosable lid 605 being open. FIG. 41 is a perspective view of the cigarette package 600 with the reclosable lid 605 being closed.

[0135] The cigarette package 600 also comprises a main body 610 comprising a cavity (a cavity 705 is illustrated in FIG. 42) and a tray 615 positioned in the cavity. When in a closed position, the reclosable lid 605 covers the cavity to form an enclosure surrounding the tray 615. The main body 610 comprises a top wall 620, a bottom wall 622, and two side walls 624,626. The interior surfaces of the top wall 620, bottom wall 622, and two side walls 624,626 form the cavity. The cavity may be of a predetermined size and shape depending on the size of the tray to be held, the number and size of the cigarettes to be stored therein, and other factors.

[0136] The reclosable lid 605 may be secured to one of the walls in the same manner as discussed above in connection with FIGS. 1-10. In the embodiments shown in FIGS. 37-41, the reclosable lid 605 is secured to the second side wall 626 by a hinge 640. The hinge 640 allows the reclosable lid 605 to move between a closed position and an open position.

[0137] While the reclosable lid 605 is hingedly secured to the main body 610 in the embodiment shown in FIGS. 37-41, the reclosable lid may be secured to the main body using other techniques. The selection of an appropriate mechanism for securing a lid to a main body may depend on a number of factors including cost, the material(s) from which the lid and main body are constructed, durability, and other factors. For example, if the main body and the reclosable lid are to be molded from plastic, the hinge may be part of the mold, such that the lid(s), main body, and hinge may be formed from as a single piece of plastic. The lid may also be hingedly secured to the main body in a number of other ways, such as by hooks, pins, rods, "piano" hinges, spring loaded hinges, crimping, molding, and others. In other embodiments, the reclosable lid may be secured to the main body using at least one strip of adhesive (e.g., tape) as illustrated in FIGS. 18-28.

[0138] This embodiment of a cigarette package of the present invention may be constructed from a number of materials like the other embodiments described above. Examples of suitable materials for constructing cigarette packages include metal (e.g., tin, steel, aluminum, etc.) and plastic (e.g., high density polypropylene, polyethylene, and other molded plastic materials). In some embodiments, the cigarette package may be constructed from a single material. For example, in embodiments where the cigarette package is constructed from plastic, the cigarette package may be molded as a single piece using techniques known to those of ordinary skill in the art. In embodiments where the cigarette package is constructed from metal, metal sheets may be stamped and formed to provide a main body and a lid. The lid may be secured to the main body using a hinge.

[0139] In other embodiments, cigarette packages of the present invention are constructed from both metal (e.g., tin, steel, aluminum, etc.) and plastic (e.g., high density polypropylene, polyethylene, etc.). For example, in one embodiment, the reclosable lid may be constructed from metal and the main body may be constructed from plastic. In such an embodiment, the reclosable lid may be secured to the main body using at least one strip of adhesive (e.g., a strip of tape).

[0140] When closed, the lid 605 may be held in place by any number of closure means known to those of ordinary skill in the art, including the closure means described above in connection with other embodiments of the present invention.

[0141] The reclosable lid 605 in the embodiment shown comprises a top face 645 and a bottom face 647. As discussed above, a label or plurality of labels may be affixed to these faces 645,647 to provide product information. In embodiments utilizing a plastic lid, the product information may be printed on labels and the labels may be affixed to the lid. However, in other embodiments, the product information may be preprinted directly on the plastic lid. In embodiments utilizing a metal lid, the product information can be preprinted on the metal lid prior to assembly into a cigarette package. Product information can be printed directly on the metal lid using techniques known to those of ordinary skill in the art. Labels can also be affixed to the metal lid. Product information can also be embossed on a metal lid using techniques known to those of ordinary skill in the art. The metal lid can also be embossed to provide texture to the lids.

[0142] In some embodiments, each label has a different appearance and contains different product information. In

other embodiments, the labels on the top face of the reclosable lid is different from the label on the bottom face.

[0143] The walls 620,622,624,626 of the main body include an upper landing 628. The tray 615, in some embodiments, rests upon the upper landing 628. In further embodiments, the tray 615 may be adhesively secured to the upper landing 628 and/or to the walls forming the cavity. The tray may also be adhesively secured to the bottom of the cavity. In other embodiments, the tray may slide into the cavity without resting on the upper landing. In such embodiments, the tray may be adhesively secured to any of the walls forming the cavity. The tray may also slide and "snap" into the cavity. For example, rather than utilizing an upper landing, the tops of the walls of the main body may be rolled down using known techniques, such that the tray can slide past them and snap into place.

[0144] The tray 615 may be constructed from plastic or other suitable materials, including molded plastics and thermoformable plastics. The tray is preferably constructed from a material that can withstand temperatures associated with heat sealing. As discussed below, a lidding material may be heat sealed to the tray. The tray should be able to withstand the heat sealing without deforming or suffering other structural damage.

[0145] The tray 615 may be divided into a plurality of tray sections. The tray sections may be adapted to receive a single cigarette or a plurality of cigarettes. In the embodiment shown, the tray 615 comprises five tray sections 630, with each tray section 630 being adapted to receive four cigarettes. In another embodiment, a tray may comprise four tray sections, with each tray section being adapted to receive five cigarettes. Trays useful in the present invention may comprise a number of tray sections, with each tray section adapted to receive a predetermined number of cigarettes.

[0146] The tray sections 630 are separated by tray section walls 635, which prevent cigarettes in different tray sections 630 from contacting each other. The use of multiple tray sections can be used to advantageously provide a cigarette package containing different types of cigarettes. For example, a cigarette package of the present invention utilizing a tray having a plurality of tray sections may be used to provide a plurality of different "flavored" cigarettes (e.g., menthol and citrus), such that the flavored cigarettes are kept in separate tray sections.

[0147] A cigarette package of the present invention may further comprise a plurality of cigarettes positioned in the plurality of tray sections. In one embodiment, a cigarette package of the present invention having a reclosable lid may comprise twenty cigarettes.

[0148] FIGS. 42-44 illustrate various embodiments of a cigarette package comprising a single lid and comprising cigarettes. FIG. 42 is a perspective view illustrating the various components of one embodiment of a cigarette package of the present invention. FIG. 42 shows a main body 700 comprising a cavity 705, a reclosable lid 710, a tray 715 adapted to be positioned in the cavity 705, a plurality of cigarettes 720, and a lidding material 725. The tray 715 is divided into five tray sections 730, each tray section 730 being adapted to receive four cigarettes 720. The lidding material 725 may be sealed to the tray 715 prior to positioning the tray 715 in the cavity 705.

[0149] The cigarettes 720 are grouped into five sets of four cigarettes 720 to be placed in the five tray sections 730. Each set of cigarettes may be provided with a cigarette removal assistance device. In the embodiment shown in FIG. 42, the cigarette removal assistance devices are removal tabs 735. When four cigarettes 720 are in a tray section 730, the cigarettes 720 may be difficult to remove, and the removal tabs 735 assist a consumer in removing a cigarette 720 from a tray section 730. A consumer may grasp a removal tab 735 and lift up. When lifting the removal tab 735, one end of the set of cigarettes 720 is lifted (the filter end in the embodiment shown), and the consumer is able to grab a cigarette 720. The removable tabs 735 may be constructed from paperboard using known techniques. Other cigarette removal assistance devices may be used instead of removal tabs.

[0150] FIG. 43 illustrates the embodiment of a cigarette package shown in FIG. 42 with the tray 715 positioned in the cavity 705 of the main body 700. The sets of cigarettes 720 with removal tabs 735 are positioned in the tray sections 730. One of the removal tabs 735 is raised to illustrate how a consumer might grasp the removal tab 735 in order to remove a cigarette 720.

[0151] FIG. 44 illustrates the same embodiment shown in FIGS. 42 and 43 with the lidding material 725 positioned over the cavity 705 and sealed to the tray 715. The lidding material may be sealed to the tray prior to positioning the tray in the cavity of the main body. In one embodiment, the lidding material may be sealed to an upper landing of a perimeter wall of the tray 715 and to upper landings of the tray section walls. The lidding material 725 is provided with a pull tab 740 to facilitate removal of the lidding material. Lidding materials such as the ones described above may be used in this embodiment. The lidding material 725 may alternately be sealed to the main body or to an upper landing of the main body's walls as described above.

[0152] In embodiments where a lidding material is sealed to a tray having multiple tray sections and multiple tray section walls (e.g., as shown in the FIGS.), the lidding material may be perforated or scored on the portion that overlaps the tray section walls to allow a consumer to open the lidding material over a single tray section and to maintain the seal over the other tray sections. Each section of lidding material corresponding to a tray section, in one embodiment, may be provided with a pull tab.

[0153] Cigarette packages of the present invention, in one embodiment, may have a variety of dimensions. In one non-limiting example, the cigarette packages may have a length of three and three-quarters inches (3.75"), a width of three and one-half inches (3.5") and a depth of seven-eighths of an inch (7/8"). The preceding dimensions provide one example of dimensions for a cigarette packages. The dimensions of cigarette packages of the present invention may be selected based on the number of cigarettes and the dimensions of the cigarettes that they are to carry. The dimensions of the cigarette package may also be selected based on aesthetic reasons.

[0154] While the cigarette packages described and illustrated above are generally parallelepipeds, other embodiments of cigarette packages of the present invention may have different shapes. For example, other embodiments may be round, elliptical, triangular, pyramidal, hexagonal, octagonal, etc.

[0155] In further embodiments, cigarette packages of the present invention may be inserted in a paperboard sleeve and wrapped in a polypropylene film to be sold to consumers. In some embodiments, the paperboard may be provided with a window to allow a consumer to view the contents.

[0156] With respect to the descriptions set forth above, optimum dimensional relationships for the parts of the invention (to include variations in size, materials, shape, form, function and manner of operation, assembly and use) are deemed readily apparent and obvious to those skilled in the art, and all equivalent relationships to those illustrated in the drawings and described in the specification are intended to be encompassed herein.

[0157] The foregoing is considered as illustrative only of the principles of the invention. Since numerous modifications and changes will readily occur to those skilled in the art, the foregoing is not intended to limit the invention to the exact construction and operation shown and described, and all suitable modifications and equivalents falling within the scope of the appended claims are deemed within the present inventive concept.

[0158] The features of the present invention, together with the other objects of the invention, and along with the various features of novelty which characterize the invention, are pointed out with particularity in the claims annexed to and forming a part of this disclosure.

I claim:

1. A cigarette package, comprising:
 - a main body comprising a front recessed portion and a rear recessed portion opposite the front recessed portion;
 - a first reclosable lid; and
 - a second reclosable lid,
 wherein the first reclosable lid covers the front recessed portion, when in a closed position, to form a first enclosure and wherein the second reclosable lid covers the rear recessed portion, when in a closed position, to form a second enclosure.
2. The cigarette package of claim 1, wherein the main body comprises a first side wall and the first reclosable lid is secured to the first side wall.
3. The cigarette package of claim 2, wherein the first reclosable lid is hingedly secured to the first side wall.
4. The cigarette package of claim 2, wherein the first reclosable lid is secured to the first side wall by a strip of tape.
5. The cigarette package of claim 2, wherein the second reclosable lid is secured to the first side wall.
6. The cigarette package of claim 5, wherein the first reclosable lid is hingedly secured to the first side wall and wherein the second reclosable lid is hingedly secured to the first side wall.
7. The cigarette package of claim 6, wherein the first reclosable lid and the second reclosable lid are secured to the first side wall by a strip of tape.
8. The cigarette package of claim 2, wherein the main body further comprises a second side wall opposite the first side wall and the second reclosable lid is secured to the second side wall.

9. The cigarette package of claim 8, wherein the first reclosable lid is hingedly secured to the first side wall and wherein the second reclosable lid is hingedly secured to the second side wall.

10. The cigarette package of claim 9, wherein the first reclosable lid is secured to the first side wall by a first strip of tape and the second reclosable lid is secured to the second side wall by a second strip of tape

11. The cigarette package of claim 1, wherein the main body is constructed from plastic

12. The cigarette package of claim 11, wherein the main body is constructed from polypropylene.

13. The cigarette package of claim 11, wherein the reclosable lids are constructed from metal.

14. The cigarette package of claim 13, wherein the main body comprises a first side wall and wherein the first reclosable lid and the second reclosable lid are secured to the first side wall.

15. The cigarette package of claim 14, wherein the first reclosable lid and the second reclosable lid are secured to the first side wall by a strip of tape.

16. The cigarette package of claim 13, wherein the main body comprises a first side wall and a second side wall opposite the first side wall, wherein the first reclosable lid is secured to the first side wall by a first strip of tape, and wherein and the second reclosable lid is secured to the second side wall by a second strip of tape.

17. The cigarette package of claim 1, wherein the main body is constructed from metal.

18. The cigarette package of claim 17, wherein the reclosable lids are constructed from plastic.

19. The cigarette package of claim 18, wherein the reclosable lids are constructed from polypropylene.

20. The cigarette package of claim 1, wherein the cigarette package is constructed from metal.

21. The cigarette package of claim 20, wherein the main body comprises a first side wall and wherein the first reclosable lid and the second reclosable lid are hingedly secured to the first side wall.

22. The cigarette package of claim 20, wherein the main body comprises a first side wall and a second side wall opposite the first side wall, wherein the first reclosable lid is hingedly secured to the first side wall, and wherein and the second reclosable lid is secured to the second side wall.

23. The cigarette package of claim 1, wherein the cigarette package is constructed from plastic.

24. The cigarette package of claim 23, wherein the cigarette package is constructed from polypropylene.

25. The cigarette package of claim 23, wherein the main body comprises a first side wall and wherein the first reclosable lid and the second reclosable lid are hingedly secured to the first side wall.

26. The cigarette package of claim 23, wherein the main body comprises a first side wall and a second side wall opposite the first side wall, wherein the first reclosable lid is hingedly secured to the first side wall, and wherein and the second reclosable lid is secured to the second side wall.

27. The cigarette package of claim 1, further comprising a plurality of parallel ridges positioned on the front and rear recessed portions.

28. The cigarette package of claim 27, wherein each recessed portion further comprises two side walls parallel to the plurality of ridges and wherein the plurality of ridges are spaced equidistantly between the side walls.

29. The cigarette package of claim 28, wherein the distances between the plurality of ridges are at least equal to the diameter of a cigarette.

30. The cigarette package of claim 28, further comprising a plurality of cigarettes.

31. The cigarette package of claim 30, wherein the plurality of cigarettes are positioned between the ridges and the side walls, each cigarette being positioned between a side wall and a ridge or between two of the plurality of ridges.

32. The cigarette package of claim 31, wherein ten cigarettes are positioned in the first enclosure and ten cigarettes are positioned in the second enclosure.

33. The cigarette package of claim 1, further comprising a plurality of cigarettes.

34. The cigarette package of claim 33, wherein ten cigarettes are positioned in the first recessed portion and ten cigarettes are positioned in the second recessed portion.

35. The cigarette package of claim 34, further comprising a first lidding material positioned over the first recessed portion and a second lidding material positioned over the second recessed portion.

36. The cigarette package of claim 35, wherein each of the lidding materials comprises at least one metallic layer.

37. The cigarette package of claim 1, further comprising a first lidding material positioned over the first recessed portion and a second lidding material positioned over the second recessed portion.

38. The cigarette package of claim 37, wherein each of the lidding materials comprises at least one metallic layer.

39. The cigarette package of claim 37, wherein each lidding material is sealed to an upper landing of the main body.

40. The cigarette package of claim 1, wherein each of the reclosable lids comprises a top face and a bottom face.

41. The cigarette package of claim 40, further comprising a first label positioned on the top face of the first reclosable lid.

42. The cigarette package of claim 41, further comprising a second label positioned on the top face of the second reclosable lid.

43. The cigarette package of claim 41, further comprising a second label positioned on the bottom face of the first reclosable lid.

44. The cigarette package of claim 43, further comprising a third label position on the top face of the second reclosable lid and a fourth label positioned on the bottom face of the second reclosable lid.

45. A cigarette package, comprising:

a main body comprising a front recessed portion and a rear recessed portion opposite the front recessed portion;

a first reclosable lid;

a second reclosable lid;

a first lidding material positioned over the front recessed portion;

a second lidding material positioned over the rear recessed portion; and

a plurality of cigarettes in the front recessed portion and the rear recessed portion,

wherein the first reclosable lid covers the front recessed portion and the first lidding material when in a closed position, and wherein the second reclosable lid covers the rear recessed portion and the second lidding material, when in a closed position.

46. A cigarette package, comprising:

a main body comprising a cavity;
a tray positioned in the cavity; and
a reclosable lid;

wherein the reclosable lid covers the cavity, when in a closed position, to form an enclosure surrounding the tray.

47. The cigarette package of claim 46, wherein the main body comprises at least one wall and the reclosable lid is secured to the at least one wall.

48. The cigarette package of claim 47, wherein the reclosable lid is hingedly secured to the at least one wall.

49. The cigarette package of claim 47, wherein the first reclosable lid is secured to the at least one wall by a strip of tape.

50. The cigarette package of claim 46, wherein the main body is constructed from plastic.

51. The cigarette package of claim 50, wherein the main body is constructed from polypropylene.

52. The cigarette package of claim 50, wherein the reclosable lid is constructed from metal.

53. The cigarette package of claim 46, wherein the main body is constructed from metal.

54. The cigarette package of claim 53, wherein the reclosable lid is constructed from metal.

55. The cigarette package of claim 46, wherein the tray comprises a plurality of tray sections.

59. The cigarette package of claim 55, wherein each tray section is able to receive a plurality of cigarettes.

60. The cigarette package of claim 55, wherein the tray comprises at least four tray sections.

61. The cigarette package of claim 60, wherein each tray section is able to receive at least four cigarettes.

62. The cigarette package of claim 55, further comprising a plurality of cigarettes positioned in the plurality of tray sections.

63. The cigarette package of claim 62, wherein the cigarette package comprises twenty cigarettes.

64. The cigarette package of claim 63, wherein the cigarettes comprise at least two different types of cigarettes.

65. The cigarette package of claim 64, wherein the at least two different types of cigarettes comprise at least two different cigarettes having different flavors.

66. The cigarette package of claim 63, wherein the tray comprises five tray sections with four cigarettes positioned in each tray section.

67. The cigarette package of claim 63, wherein the tray comprises four tray sections with five cigarettes positioned in each tray section.

68. The cigarette package of claim 46, further comprising a lidding material sealed to the tray.

69. The cigarette package of claim 68, wherein the lidding material comprises at least one metallic layer.

70. The cigarette package of claim 46, wherein the lidding material is sealed to an upper landing of the main body.

71. The cigarette package of claim 46, wherein the reclosable lid comprises a top face and a bottom face.

72. The cigarette package of claim 71, further comprising a first label positioned on the top face of the reclosable lid.

73. The cigarette package of claim 72, further comprising a second label positioned on the bottom face of the reclosable lid.

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