

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 October 2008 (16.10.2008)

PCT

(10) International Publication Number
WO 2008/124622 A2

(51) International Patent Classification:

G11B 33/04 (2006.01)

(21) International Application Number:

PCT/US2008/059452

(22) International Filing Date: 4 April 2008 (04.04.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/922,123	6 April 2007 (06.04.2007)	US
60/926,644	27 April 2007 (27.04.2007)	US
60/983,404	29 October 2007 (29.10.2007)	US
61/021,978	18 January 2008 (18.01.2008)	US
61/027,593	11 February 2008 (11.02.2008)	US

(71) Applicant (for all designated States except US): **MEAD-WESTVACO CORPORATION** [US/US]; 11013 West Broad Street, Glen Allen, VA 23060 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WALLING, Bradford, J.** [US/US]; 4969 Royal Adelaide Way, Raleigh, NC 27604 (US). **GELARDI, John, A.** [US/US]; 7517 Tynewind Drive, Wake Forest, NC 27587 (US). **RIGBY,**

William, R. [US/US]; 6831 Crescent Moon Court, Apt. 102, Raleigh, NC 27606 (US). **BATES, Aaron** [US/US]; 10814 Greater Hills Street, Raleigh, NC 27614 (US). **RODRIGUEZ, Felipe** [US/US]; 246 Denoe Street, Apt. 1L, Brooklyn, NY 11211 (US). **EXNER, Dana** [US/US]; AGI Media, 1950 North Ruby Street, Melrose Park, IL 60160 (US).

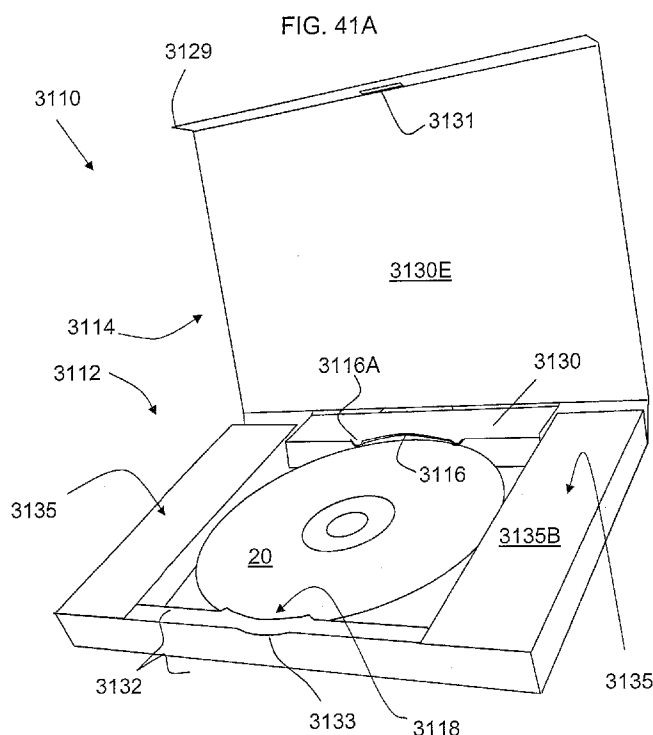
(74) Agent: **CAPELLI, Christopher, J.**; Meadwestvaco Corporation, 1021 Main Campus Drive - 3rd Floor, Centennial Campus, Raleigh, NC 27606 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: PAPER BOARD PACKAGE FOR MEDIA DISCS



(57) Abstract: A package for housing an item is provided, including a spine panel with first and second opposing panels extending therefrom such that the opposing panels selectively rotate between open and closed positions, wherein the first opposing panel has a depending edge, and the second opposing panel has an area to receive the item. The second opposing panel has a planar surface, a first step on an edge of the planar surface and proximate to the spine panel, the first step having a ledge lock for receiving an edge of an item, and a second step on an edge of the planar surface and opposing the first step, the second step having a ledge lock or slit lock for receiving an edge of the item. The first step may have a rectangular shape and the second step may have a rectangular or triangular shape. In the closed position, the depending edge urges the locks together and, in turn, the item is supported above the planar surface and between the locks. In the open position, the rectangular step can be deflected into a parallelogram to allow removal and insertion of the item. In certain embodiments side walls or channels are provided on the tray, either in fixed position or being able to hingedly rotate to cover or uncover the item.



GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— *without international search report and to be republished upon receipt of that report*

PAPER BOARD PACKAGE FOR MEDIA DISCS

REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of priority under 35 U.S.C. §119(e) of
5 provisional applications serial number 60/922123 filed on April 6, 2007; serial number
60/926644 filed on April 27, 2007; serial number 60/983404 filed on October 29, 2007;
serial number 61/021978 filed on January 18, 2008; and serial number 61/027593 filed on
February 11, 2008, all of which are hereby incorporated by reference in their respective
entireties.

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0002] The present invention relates generally to a closable storage package for a
recording medium and, more particularly, to a package comprising a paper board tray and
cover assembly for storing one or more discs.

2. Description of the Prior Art

[0003] Various types of planar discs are in use at the present time to record and store
information which is to be retrieved by various means, such as by optical or magnetic
means. Typical of such discs are compact discs in which information is digitally
recorded by use of a laser beam and then read optically by a laser beam. Such discs are
20 used to record audio information, such as musical renditions, video information such as
visual images and digital information for use as read only and other memories for use in
various applications, such as computer applications. In most instances, at the present
time, such discs are sold with information already recorded thereon. In other
applications, such discs are sold in blank form and are used by the customer to record
25 information thereon. In the latter case, for example, optical discs are sold for use as
computer storage media and are used in hard disc storage systems. As used herein, the
terms media disc, compact disc, CD or disc are intended to encompass all such discs,
whatever their size, for all known or proposed uses.

[0004] Compact discs containing laser recorded information are typically packaged in injection molded plastic enclosures designed to hold one or more CDs for protecting the discs during storage and shipment. Enclosures commonly used at the present time, such as the well known "jewel box," comprise a three piece assembly consisting of a base or bottom element, an insert or tray in the base/bottom element for positioning and supporting the disc in the base/bottom element, e.g., by a center projection (commonly referred to as a "rosette") which engages the periphery of the aperture in the center of the disc, and a lid or cover which is hinged to the base/bottom element and is closed thereon after the disc is mounted therein on the tray. Other enclosures utilize only two pieces, omit the tray, and position and support the disc via the center projection directly on the base/bottom element. The enclosure is, typically, at least partially transparent and graphics relating to the disc and containing trademark and sales promotional information are usually inserted in such a manner as to be visible through the enclosure.

[0005] Except for the printed matter inserted therein, the "jewel box" is entirely plastic. For this reason, as well as because the typical jewel box requires three separately injection molded elements which must be manually assembled, the use of this type of enclosure is relatively expensive. Moreover, the use of such an enclosure is believed to be ecologically unacceptable by many because the plastic is non-biodegradable and, in view of the huge volume of such enclosures in use today, the disposal of these enclosures poses either a real or potential environmental problem. One solution to both of these problems has been the development of hybrid packages comprising both paperboard and plastic components. These hybrid packages provide a CD package which is suitable and attractive for display, sale and storage of compact discs, yet which is both simple and inexpensive to manufacture.

[0006] For example, U.S. Patent No. 4,709,812 to Kosterka, which is incorporated herein by reference, discloses a compact disc package formed from a pre-scored, preprinted unitary blank and at least one injection molded plastic compact disc holder or tray adhesively adhered to one segment of the blank, the blank being adapted to fold along fold lines to position a blank segment over the top of the disc holder to sandwich it, in book style, between the segment to which it is adhered and the overlying segment. The problem with this type of arrangement is that the book frequently opens and provides little protection for the disc there within.

[0007] It should be apparent, therefore, that efforts to date directed at hybrid packaging containing multiple discs suffer from one or more shortcomings which make the resulting CD packaging unsatisfactory. Among these shortcomings are that prior art hybrid packaging is typically either uneconomical to manufacture and may be expensive to transport, store and display in retail stores. Further, the plastic materials are not ecologically friendly. Accordingly, there remains a need for a simple, environmentally friendly, inexpensive to manufacture CD package that adequately protects the disc yet provides easy access thereto.

SUMMARY

[0008] It is an object of the subject disclosure to provide a package for holding discs that is easy to manufacture from paper board or similar suitable environmentally friendly and/or recyclable material and adhesive such that promotional graphics and other necessary information like UPC codes can be printed directly on the package blank.

[0009] The present disclosure is directed to a package for housing a disc including a cover forming an elongated spine panel with first and second opposing panels extending therefrom such that the opposing panels selectively rotate between open and closed positions, wherein the first opposing panel has a depending edge and a tray attached to the second opposing panel. In an illustrative embodiment, the tray has a planar surface, a rectangular step on an edge of the planar surface and attached to the spine panel, the rectangular step having a ledge lock for receiving an edge of the disc, and a second step on an edge of the planar surface and opposing the rectangular step, the second step having a ledge or slit lock for receiving an edge of the disc. In the closed position, the depending edge urges the locks together and, in turn, the disc is supported above the planar surface and between the locks. In the open position, the rectangular step can be deflected into a parallelogram to allow removal and insertion of the disc. In a further embodiment, the package further includes two additional triangular steps extending between the rectangular step and triangular step, each additional triangular step forming a slit lock for supporting the disc. Variations of the illustrative embodiment, including variations in the shape of the step on any edge of the planar surface of the tray and variations in the shape, size and location of any ledge lock and/or slit lock for receiving an edge of the disc, are also within the contemplation of the present invention and are further described below. In certain embodiments the tray may be made from a separate blank of material. In certain embodiments the tray may be made from the same blank of

material. In certain embodiments items other than discs may be housed within the package.

[0010] It should be appreciated that the present invention can be implemented and utilized in numerous ways, including without limitation as a process, an apparatus, a system, a device, and a method for applications and from other suitable materials now known and later developed. These and other unique features of the system disclosed herein will become more readily apparent from the following description and the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] So that those having ordinary skill in the art to which the disclosed system appertains will more readily understand how to make and use the same, reference may be had to the following drawings.

[0012] FIGURE 1 is a series of views of a package in accordance with the subject disclosure, wherein the package is in the open and closed positions.

[0013] FIGURE 2 shows a blank for the tray of the package of FIGURE 1.

[0014] FIGURE 3 shows a blank for the cover of the package of FIGURE 1.

[0015] FIGURE 4 is a series of views of a package in accordance with the subject disclosure, wherein the tray of the package is formed and a disc is loaded thereon.

[0016] FIGURE 5 shows a blank for the tray of the package of FIGURE 4.

[0017] FIGURE 6 is multiple views of the tray blank and cover blank for the package of FIGURE 4.

[0018] FIGURE 7 is a series of views illustrating assembling the tray to the cover of package of FIGURE 5.

[0019] FIGURE 8 is a perspective view of an alternative embodiment of the package made in accordance with the present invention.

[0020] FIGURE 9 is a perspective view of the package of FIGURE 8 shown having a disc loaded within the tray.

[0021] FIGURE 10 is a perspective view of the package of FIGURE 8 illustrating the

ledge lock provided in the rectangular step.

[0022] FIGURE 11A is yet another perspective view of the package of FIGURE 8.

5 [0023] FIGURE 11B is a perspective view of a package with some differences from the package of FIGURE 11A.

[0024] FIGURE 12 shows a blank for the tray of the package of FIGURE 8.

[0025] FIGURE 13 shows a blank for the cover of the package of FIGURE 8.

[0026] FIGURE 14 shows a one-piece blank for a package.

10 [0027] FIGURE 15 is a perspective view of the assembled package formed from the blank of FIGURE 14.

[0028] FIGURE 16 is a perspective view of the partially closed package of FIGURE 15.

[0029] FIGURE 17 shows a one-piece blank for another package.

[0030] FIGURE 18 is a perspective view of the assembled package formed from the blank of FIGURE 17.

15 [0031] FIGURE 19 is a perspective view of another assembled package, holding items of a different shape.

[0032] FIGURE 20 shows a blank for forming the package shown in FIGURES 22 to 26.

[0033] FIGURE 21 shows a blank for forming another package.

20 [0034] FIGURE 22 shows an isometric view of a step in forming the blank of FIGURE 20 into a package.

[0035] FIGURE 23 shows an isometric view of a additional step in forming the blank of FIGURE 20 into a package.

[0036] FIGURE 24 shows an isometric view of a yet another step in forming the blank of FIGURE 20 into a package.

[0037] FIGURE 25 shows an isometric view of a further step in forming the blank of FIGURE 20 into a package.

[0038] FIGURE 26 shows an isometric view of a detail of a ledge lock for the package made from the blank of FIGURE 20.

5 [0039] FIGURES 27 to 29 show blanks for forming alternative packages.

[0040] FIGURE 30 shows media packages with examples of various types of pockets for holding materials such as brochures.

[0041] FIGURE 31 shows a blank for forming the package shown in FIGURES 32 to 35.

10 [0042] FIGURE 32 shows an isometric view of a step in forming the blank of FIGURE 31 into a package.

[0043] FIGURE 33 shows an isometric view of an additional step in forming the blank of FIGURE 31 into a package.

15 [0044] FIGURE 34 shows an isometric view of a yet another step in forming the blank of FIGURE 31 into a package.

[0045] FIGURE 35 shows an isometric view of a package formed from the blank of FIGURE 31.

[0046] FIGURE 36 shows a blank for forming the package shown in FIGURES 37 to 38.

20 [0047] FIGURE 37 shows an isometric view of a step in forming the blank of FIGURE 36.

[0048] FIGURE 38 shows an isometric view of a package formed from the blank of FIGURE 36.

[0049] FIGURE 39 shows a variation of a blank somewhat modified from the blank of FIGURE 36.

25 [0050] FIGURE 40 shows another blank for forming a package.

[0051] FIGURE 41A shows a perspective view of a partially closed package made from the blank of FIGURE 40.

[0052] FIGURE 41B shows a cross section view of one part of the package of FIGURE 41A.

DESCRIPTION OF EXEMPLARY EMBODIMENTS

5 [0053] The present invention overcomes many of the prior art problems associated with CD packages. The advantages, and other features of the packages disclosed herein, will become more readily apparent to those having ordinary skill in the art from the following detailed description of certain preferred embodiments taken in conjunction with the drawings which set forth representative embodiments of the present invention and wherein
10 like reference numerals identify similar structural elements whenever possible.

[0054] All relative descriptions herein such as left, right, up, down, topside, underside and the like are with reference to the Figures, and not meant in a limiting sense. The illustrated embodiments can be understood as providing exemplary features of varying detail of certain
15 embodiments, and therefore, unless otherwise specified, features, components, modules, elements, and/or aspects of the illustrations can be otherwise combined, interconnected, sequenced, separated, interchanged, positioned, and/or rearranged without materially departing from the disclosed systems or methods. Additionally, the shapes and sizes of components are also exemplary and unless otherwise specified, can be altered without materially affecting or limiting the disclosed technology to holding discs exclusively.

20 [0055] An exemplary embodiment of the present invention is illustrated in FIGURES 1-3, in which there is shown an improved CD package 10 made from paper and adhesive. In brief overview, the package 10 includes a tray or tray blank 12 (see Fig. 2) and a cover or cover blank 14 (see Fig. 3) that are folded and glued together in such a manner that the tray blank 12 forms a ledge lock 16 and opposing edge slit lock 18 to support a disc 20 about the outer
25 edge of the disc 20. The ledge lock 16 flexes such that when the package 10 is in the open position, a user can easily remove and replace the disc 20, and in the closed position, the ledge lock 16 more securely engages the disc 20.

[0056] The cover 14 includes a spine 24 that hingeably interconnects a top 26 and a bottom 28. When assembled, the top 26 has a depending edge 29 to help maintain the package 10 in

the closed position. In order to create friction to retain the package 10 closed, the depending edge 29 is angled inward. This compressive force generated by closing the package 10 may also result in improved retention of the disc 20 as well. The depending edge 29 may also have a feature that interacts with a complimentary feature of the tray 12. Such features could include detents, slots, protrusions, hollows, lips, ridges and the like.

[0057] When assembled, the tray 12 is sized and shaped to fit on the inside of the bottom 28 of the cover 14. The tray 12 includes a substantially square flat member 22 with a raised rectangular shaped step or rectangular step 30 positioned adjacent to the spine 24. A ledge lock 16 is centrally located at the upper, inner corner of the rectangular step 30. The ledge lock 16 shown is a slit formed in the blank such that upon folding the tray blank 12, a lip 23 extends inward, parallel to the member 22. A void or undercut 25 is created underneath the lip 23.

[0058] The side opposing the rectangular step 30 of the tray 12 also forms a ledge or slit lock 18. The opposing slit lock 18 is formed in a triangular step 32. Upon folding, the slit lock 18 also forms a lip 40 with a void or undercut 41. An outer edge 31 of the triangular step 32 interacts with the depending edge 29 of the cover 14 and may include one or more features to improve upon the retentive force there between as noted above. The tray 12 also includes intermediate walls 34, 35 at the edge of the flat member 22 and extending between the rectangular step 30 and triangular step 32. A simple raised boss or rosette (not shown) could also be centrally located on the flat member 22 to help retain and/or position the disc 20.

[0059] To assemble the package 10, the tray 12 and cover 14 are separately formed by, for example, cutting a board substrate with a die to form the blanks 12, 14 shown in Figures 2 and 3, respectively. Various board thicknesses and materials are acceptable. The stock board may be paper, plastic and/or the like. The stock board may be single ply although, in some instances, it may be desirable for one or both of the blanks 12, 14 to be two or multiple ply. Once the blanks 12, 14 are formed, the tray blank 12 and cover blank 14 are folded and glued into the structure described above.

[0060] The blanks 12, 14 are provided with a plurality of fold lines to allow the blanks 12, 14 to be effectively formed into the desired shape. The position of the ledge lock 16 and slit

lock 18 with respect to the fold lines 44, 46, respectively, sets a height at which the disc mounts above the planar surface 22 when the package 10 is closed.

[0061] Once the tray 12 and cover 14 are formed, the tray 12 is glued or otherwise affixed to the bottom 28 of the cover 14. Additionally, the outer side 36 of the rectangular step 30 is glued to the spine 24 to make the package 10 ready to accept a disc 20. An additional sleeve, shrink wrap and/or the like (not shown) may be applied to prepare the package for retail. Because the tray 12 and cover 14 are fabricated from paperboard, graphics and identifying indicia such as, without limitation, a UPC code, can be efficiently and directly applied thereto and the package 10 has a low cost and minimal environmental impact.

Additionally, the disc 20 is not visibly exposed.

[0062] To remove a disc 20 from the package 10, the top 26 of the package 10 is opened. To increase a distance between the ledge lock 16 and opposing edge slit lock 18, pressure is applied to the rectangular step 30. The pressure may be pulling the top 26 outward, pushing down on the rectangular step 30 and/or a combination of same. This pressure causes the rectangular step 30 to deform into a parallelogram, i.e., the spine 24 and fold 37 containing the ledge lock 16 slant or flatten outward and, thereby, the ledge lock 16 moves away from the opposing edge slit lock 18. With the increased separation, the disc 20 can be easily moved past the lips 23, 40 for removal. In one embodiment, the weight of the top 26 urges the ledge lock and slit lock 18 apart and the disc 20 is simply urged past the lips 23, 40.

[0063] To insert the disc 20, the package 10 is similarly opened and pressure applied so that the rectangular step 30 becomes a parallelogram. Preferably, the disc 20 snaps past the lips 23, 40 to come to rest in the voids 25, 41 underneath, respectively. The paperboard at the bottom of the voids 25, 41 supports the disc 20 above the flat member 22 so that scratching, scuffing and degradation are prevented during transportation and use. If a raised boss or rosette is present, such feature also may engage a central aperture in the disc 20 and provide additional protection against damage to the disc.

[0064] Here, for exemplary purposes only, the rectangular step 30 and the triangular step 32 are depicted in one exemplary embodiment. Those skilled in the art will readily appreciate however, that the subject disclosure is not limited to steps 30, 32 having such configurations.

Indeed, it is envisioned and well within the scope of the subject disclosure that the steps 30,

32 could take form in any geometric shape or other decorative shape. Without limitation, such shapes could include an arc, semi-circle, square, oval, heart and the like.

[0065] Now referring to FIGURES 4-7, another version of a package 110 in accordance with the subject disclosure is shown. As will be appreciated by those of ordinary skill in the pertinent art, the package 110 utilizes similar principles to the package 10 described above. Accordingly, like reference numerals preceded by the numeral "1" are used to indicate like elements whenever possible. For example, package 110 may include among other features a top 126, a spine 124, and a bottom 128. Package 110 may also include a raised rectangular shaped step or rectangular step 130 positioned adjacent to the spine 124, with a void or undercut 125 created underneath a lip 123. Package 110 may also include a step 132 that may be triangle-shaped, as shown, with a lip 140 having underneath it a void or undercut 141. The primary difference of the package 110 in comparison to the package 10 is that the disc 20 is supported in four locations as opposed to two and the following description is directed largely to the differences.

[0066] The sides extending between the rectangular step 130 and the triangular step 132 of the tray 112 also are triangular steps 150 defining slit locks 152. Upon folding, the slit locks 152 also form respective lips 154 with undercuts 156. To assemble the package 110, the tray 112 and cover 114 are separately formed, folded and glued together. Removal and insertion of a disc 20 is similar to that above except that the additional slit locks 152 also capture the disc 20. Thus, the disc 20 is supported more robustly about four locations (12, 3, 6 and 9 o'clock). As the disc 20 is inserted and removed from the package 110, a relatively significant audible clicking sound occurs.

[0067] Now referring to FIGURES 8-13, there is illustrated a further package embodiment, which has been constructed in accordance with the subject disclosure and designated by reference numeral 210. As will be appreciated by those of ordinary skill in the pertinent art, the package 210 utilizes similar principles to the package 10 described above. Accordingly, like reference numerals preceded by the numeral "2" are used to indicate like elements whenever possible.

[0068] Like package 10, package 210 is preferably made from a paper substrate and adhesive. Moreover, package 210 includes a tray or tray blank 212 (see Fig. 12) and a cover

or cover blank 214 (see Fig. 13) that are folded and glued together to form completed package 210.

[0069] Tray blank 212 defines both a ledge lock 216 and opposing edge slit lock 218 to support a disc 220 about the outer edge of the disc 220. The ledge lock 216 flexes such that when the package 210 is in the open position, a user can easily remove and replace the disc 220, and in the closed position, the ledge lock 216 and opposing slit lock 218 more securely engage the disc 20.

[0070] As shown in Figure 13, the cover 214 includes a spine 224 that hingeably interconnects a top 226 (i.e., front cover) and a bottom 228 (i.e., back cover). When assembled, the top 226 has a depending edge 229 to help maintain the package 210 in the closed position. In order to retain the package 210 closed, the depending edge 229 is angled inward and has a slit 231 (see Fig. 13) formed along its upper edge of the inside surface thereof that is adapted and configured for receiving a tab 233 formed on triangular step 232. This compressive force generated by closing the package 210 results in improved retention of the disc 220. Moreover, an audible click can be heard when the package 210 is closed and the tab 233 is received within slit 231.

[0071] The blanks 212, 214 are provided with a plurality of fold lines to allow the blanks 212, 214 to be effectively formed into the desired shape. Once the tray 212 and cover 214 are formed, the tray 212 is glued or otherwise affixed to the bottom 228 of the cover 214. Additionally, the outer side 236 of the rectangular step 230 is glued to the spine 224 to make the package 210 ready to accept a disc 220. An additional sleeve, shrink wrap and/or the like (not shown) may applied to prepare the package for retail. Moreover, rather than include a cover 14, the tray can be simply inserted into a sleeve.

[0072] The primary difference between package 210 and package 10 is that rather than having triangular intermediate walls 34, 35, package 210 includes laterally opposed rectangular walls 234, 235. Constructing the lateral walls 234, 235 of the tray 212 in this manner provides a package 210 which is more rigid and able to withstand compressive loads caused, for example, by the shrink wrapping process or during shipment. Moreover, the increased width of lateral walls 234, 235, causes the overall length of the package 210 to increase, thereby resulting in a package having an external profile that is

more consistent with conventional DVD packages/jewel cases.

[0073] The package design may be varied from the exemplary embodiments shown here. For example, FIGURE 11A shows a perspective view of a package 210 formed using the blank of FIGURE 12, while FIGURE 11B shows a perspective view of a package 210B with some differing features. For package 210, the front corners (e.g., front corner 235A) of the lateral walls (e.g., lateral wall 235) have a particular shape that differs from the corresponding front corner 235B of package 210B. Also, ledge lock 216 may have a larger void or undercut area 217 as is shown in FIGURE 11B. The void or undercut area may be shaped so that it contacts the disk only at two points on the outside edges of the disk.

[0074] FIGURE 14 is a one-piece blank 313 for forming a package 310. Bottom panel 328 is connected to cover panel group 330, front/floor panel group 332, and side flap groups 334 and 335. The cover panel group includes back vertical panel 330A (attached to bottom panel 328), outer cover 330B, cover depending edge panels 330C, 330D, and cover inside panel 330E. In this example, portions of the cover panel group 330 are folded back upon themselves creating a double-thickness cover.

[0075] The front/floor panel group 332 includes front outside wall 332A, front step 332B, front inside wall 332C, and floor 332D, which is folded back into contact with bottom 328. Front step 332B may be provided with a tab 333A to engage a closure panel lock or aperture 333B inside the depending edge of 329 of the cover, so as to hold the closed package shut. This closure may make an audible snap as the tab 333A and aperture 333B engage one another.

[0076] Floor 332D may have an aperture 340 therein to receive a locating feature 342. In an exemplary embodiment, aperture 340 may be a 1-5/8" circular opening, and locating feature 342 may be a pressed paperboard hub or rosette which may be placed in aperture 340, and optionally secured there by adhesive or other means. The aperture 340 may provide a target for placement of the locating feature 342. The locating feature may cause a disc placed within package 310 to hover above the floor of the package and be centrally located within the package. The aperture 340 or the locating feature 342 may also provide a target for autoloading a disc into the package.

[0077] Side flap groups 334 and 335 are designed to be folded into a rectangular door-like shape that will hingedly fold over the top of the disc after it is loaded. For example, referring to side flap group 334, side flap panel 334F may be folded upward and inward relative on the score line (not labeled) connecting it with side flap panel 334E. Working toward the center of the blank, successive side flap panels 334D, 334C, 334B, and 334A may be folded upward and inward, thus forming from side flap group 334 a rectangular tube which in this example has a double-walled outer surface (comprising side flap panels 334B and 334F), and which is shaped approximately like a “door” with its hinge proximate to bottom 328. The “doors” formed from the side flap groups 334 and 335 may be held down by the cover when it is closed. In one embodiment, the parts of package 310 are sized so that as the side flap “doors” fold over the disc, and are held closed by the cover, the disc is unable to move in a vertical direction (being held between the floor 332D and the side flap “doors”) and is unable to move in a horizontal direction (being closely bounded by package vertical walls 330A, 332A, 334A, and 335A). The doors formed from the side flap groups may thus provide structural rigidity to the package. To remove the disc, the cover closure is first lifted and the doors opened outward. When the doors are “shut” (folded inward) and the cover is closed over them, the disk is prevented from moving or rattling inside of the package.

[0078] FIGURE 15 shows package 310 in a partly closed configuration and containing a disc 20 centered upon retaining feature 342. As the package is closed, substantially vertical walls are formed around disc 20 by side flap panels 334A, 335A, back wall 330A, and front inner wall 332C. The cover being partly closed, cover inside panel 330E is shown, as is cover depending edge panel 330D with its aperture 333B which will engage tab 333A on front step 332B. The side flap panels or “doors” (denoted by panels 334D, 335D) are not yet closed.

[0079] Even if only one side of blank 313 is coated and/or printed, the design of the blank is such that (refer to FIGURE 15), all the exposed surfaces of the major panels of package 310, including the outward facing panels (not shown) and also inward facing panels including top inside cover panel 330E, and floor 332D, as well as the exposed surfaces of the side flap panels, may be coated and/or printed surfaces. Such surfaces are useful for conveying information and providing an attractive appearance to the package. Furthermore, coated and/or printed surfaces (such as floor 332D) that may contact data surfaces of disc 20, may be less likely to scratch the disc.

[0080] FIGURE 16 shows package 310 in a further stage of being closed. The side flap panels or “doors” (denoted by panels 334B, 335B) have been hingedly folded over the contents of the package. The doors may have cutout areas 336, which may be useful in helping to grip the doors and open them. The cover, designated by cover outside panel 330B and its depending edge 329 (outward facing panel 330C being shown) is being closed. Depending edge 329 will then pass closely outward of front out panel 332A, and its aperture 333B (not shown) will engage tab 333A to hold the package shut.

[0081] FIGURE 17 is a one-piece blank 413 for forming another package 410. Many of the features of blank 413 and package 410 are similar to features already described in relation to blank 313 and package 310. Similar features are numbered as before, but in the 400's range of numbers. The front panel group 432 includes front outside wall 432A, front step 432B, front inside wall 432C, and front bottom panel 432D, which may be folded back into contact with bottom 428. Finally attached to the outward edge of front bottom panel 432D may be hypotenuse panel 438. The package 410 may be partially glued (for example, attaching front bottom panel 432D onto bottom 428) while leaving the front portion still flattened. Upon forming the front panel group 432 into a rectangular tube, the hypotenuse panel 438 extends across an internal diagonal of the rectangular tube and helps provide rigidity. Front step 432B may be provided with a tab 433A to engage a closure panel lock or aperture 433B inside the depending edge of the cover, so as to hold the closed package shut. This closure may make an audible snap as the tab 433A and aperture 433B engage one another. Aperture 433B may have a different shape than aperture 333B.

[0082] FIGURE 18 shows package 410 in a partly closed configuration and containing a disc 20. As the package is closed, substantially vertical walls are formed around disc 20 by side flap panels 434A, 435A, back wall 430A, and front inner wall 432C. The cover being partly closed, cover inside panel 430E is shown, as is cover depending edge panel 430D with its aperture 433B which will engage tab 433A on front step 432B. The side flap panels or “doors” (denoted by panels 434D, 435D) are not yet closed.

[0083] The package 310 described earlier has a coated and/or printed surface on floor panel 332D. A coated and/or printed surface may be less likely to scratch disc 20. If package 410 is produced from coated-one-side board (the blank 413 therefore possibly printed one side only), bottom panel 428 is likely uncoated and unprinted. It may be desirable therefore to

provide some protective measure to help prevent the lower surface of disc 20 from being scratched by the uncoated surface of bottom panel 428. As shown in FIGURE 18, a sheet 445 of a protective material such as nonwoven fabric (sometimes used in disc wallets or sleeves), or any material such as a soft material that is not likely to scratch a disc, may be placed inside or adhered inside package 410. As an alternative measure, a printed leaflet or information booklet may be placed under disc 20 in the package 410.

[0084] The packages disclosed herein may contain items other than media discs. Although in some embodiments the packages may be made from paperboard having a thickness of about 0.018", other types and thicknesses of materials may be utilized as are known in the packaging arts. The lateral walls 234, 235, and side flaps 334, 335, or 434, 435, in addition to or besides providing structural strength, may contain or support items. For example, FIGURE 19 shows a package 510 in some respects similar to package 310 shown in FIGURE 16. However, instead of containing a disc, package 510 contains syringes 520. The package may be modified in many ways as needed to hold different items; for example as shown in: FIGURE 19 the package 510 may be made somewhat thicker if necessary, and cutout areas may be provided in the "door" structures (for example in the side flaps panels 534C, 535C. Depending on the items housed in the package, portions of one or both side flap "doors" may be cut out to receive the items.

[0085] An exemplary embodiment of the present invention is illustrated in FIGURES 20-29, in which there is shown an improved CD package 1010 made from paper and adhesive. In brief overview, the package 1010 is made from a blank 1013 that is folded and glued together in such a manner that the blank 1013 forms a ledge lock 1016 and opposing edge ledge lock 1018 to support a disc 1020 about the outer edge of the disc 1020. The ledge lock 1016 flexes such that when the package 1010 is in the open position, a user can easily remove and replace the disc 1020, and in the closed position, the ledge lock 1016 more securely engages the disc 1020.

[0086] FIGURE 20 shows a blank 1013 for forming an exemplary package 1010. The various parts of blank 1013 will now be described. The major panels include tray outer panel 1028, cover outer panel 1030B, cover longitudinal foldover panel 1030E, tray longitudinal foldover panel 1030F, cover lateral foldover panel 1035C and tray lateral foldover panel 1035F. When folded these major panels of blank 1013 form essentially a

package 1010 including a tray (major panels 1028, 1030F, 1035F) and a cover (major panels 1030B, 1030E, and 1035C).

[0087] Between tray outer panel 1028 and cover outer panel 1030B is spine panel 1030A, which forms the spine of package 1010, which hingedly connects the tray and cover of the package. Between cover outer panel 1030B and cover longitudinal foldover panel 1030E are panels 1030C, 1030D that form a depending edge 1029 to help maintain the package 1010 in the closed position. In order to create friction to retain the package 1010 closed, the depending edge 1029 may be angled inward. This may generate compressive force in closing the package 1010 to result in improved retention of the disc 1020 as well. The depending edge 1029 may also have a latching feature 1033B that interacts with a complementary latching feature 1033A to help hold the package shut. Such latching features could include detents, slots, protrusions, hollows, lips, ridges and the like.

[0088] At certain areas on periphery of package 1010 are laterals walls generally perpendicular to the major panels. Blank 1013 forms a package 1010 with double lateral walls. Tray outer panel 1028 has attached thereto tray left lateral wall 1034D, 1034E and tray right lateral wall 1035D, 1035E. Cover outer panel 1030B has attached thereto cover left lateral wall 1034A, 1034B and cover right lateral wall 1035A, 1035B. Within tray left lateral wall panel 1034E is shown a slit lock 1054 useful for helping retain disc 1020. When closed, the cover laterals walls may closely encompass the tray lateral walls. For good fit, the cover lateral walls 1034A, 1034B, 1035A, 1035B may be slightly taller and further apart than the tray lateral walls 1034D, 1034E, 1035D, 1035E.

[0089] The package 1010 includes a rectangular step 1030 formed between cover longitudinal foldover panel 1030E and tray longitudinal foldover panel 1030F, and positioned adjacent to the spine. A ledge lock 1016 is centrally located at the upper, inner corner of the rectangular step 1030. The ledge lock 1016 is an opening formed in the blank such that upon folding blank 1013, a lip 1023 extends inward, parallel to the tray longitudinal foldover panel 1030F. An undercut or open area 1025 is created underneath the lip 1023.

[0090] The side opposing the rectangular step 1030 also forms a ledge lock 1018 in a rectangular step 1032. Upon folding, ledge lock 1018 also forms a lip 1040 with an undercut

or open area 1041. On an outer edge of the rectangular step 1032 is a latching feature 1033A that interacts with the latching feature 1033B on depending edge 1029 of the cover and may include one or more features to improve upon the retentive force there between as noted above.

5 [0091] Blank 1013 may typically be produced with printing on at least one side. Portions of the blank are overlapped, and portions may be adhered together, for example by glue. Certain portions therefore may not be printed. If blank 1013 is printed on only one side, the folding operations result in a package 1010 with most exterior surfaces printed. However, when assembled, certain cutout areas such as cutout area 1025 may reveal an uncoated
10 surface of another panel. An appropriately-positioned tab such as the tab 1036A (or an alternative tab 1036B) may be used to hide the otherwise uncoated surface that would show through cutout area 1025.

[0092] FIGURE 21 shows an alternative blank 1113 that is wider than, but otherwise has a shape similar to, blank 1013. Major panels of blank 1113 include tray outer panel 1128,
15 cover outer panel 1130B, cover longitudinal foldover panel 1130E, tray longitudinal foldover panel 1130F, cover lateral foldover panel 1135C and tray lateral foldover panel 1135F. When folded these major panels form a package (not shown) of a size and shape similar to a "DVD case" typically having at least one dimension greater than the package 1010 which has a size a shape similar to a "jewel case."

20 [0093] Blank 1013 may be formed by, for example, cutting a board substrate with a die. Various board thicknesses and materials are acceptable. The stock board may be paper, plastic and/or the like. The stock board may be single ply although, in some instances, it may be desirable for blank 1013 to be two or multiple ply. Once blank 1013 is formed, it is folded and glued into the package 1010 as described below.

25 [0094] Steps in the assembly of blank 1013 into package 1010 are shown in FIGURES 22 to 26. It will be understood that additional steps may be involved and that the steps may be performed in a different sequence than described herein. Blank 1013 is provided with a plurality of fold lines to allow the blank to be effectively formed into the desired shape. The position of the ledge locks 1016 and 1018 with respect to the fold lines 1044, 1046,
30 respectively, sets a height at which the disc mounts above the tray surface when the

package 1010 is closed.

[0095] FIGURE 22 shows a step in which tray longitudinal foldover panel 1030F, and cover longitudinal foldover panel 1030E are folded upward and forward to overlap tray outer panel 1028 and cover outer panel 1030B respectively. Also shown is depending edge 1029 formed by folding panels 1030C, 1030D. An attachment such as adhesive may be used to bond at least portions of the panels together. However, other portions such as those later forming rectangular steps may be left unbonded. During the folding of tray longitudinal foldover panel 1030F, ramp tab 1042 may be bent upward to assist in later steps of loading disc 1020.

[0096] FIGURE 23 shows a step in which tray left lateral wall 1034D and 34E (not shown) are folded upward and inward to form a vertical wall. Glue flap 1034F is affixed to the inner surface of tray outer panel 1028. To provide space for glue flap 1034F, tray longitudinal foldover panel 1030F may be narrower than tray outer panel 1028. In like manner, cover left lateral wall 1034A and 34B (not shown) are folded upward and inward to form a vertical wall.

[0097] FIGURE 24 shows a step in which tray right lateral wall 1035E and 1035D (not shown) are folded upward and inward to form a vertical wall. Tray lateral foldover panel 1035F is affixed to the inner surface of the tray, for example, being glued to tray longitudinal foldover panel 1030F. In like manner, cover right lateral wall 1035B and 1035A (not shown) are folded upward and inward to form a vertical wall. Cover lateral foldover panel 1035C is affixed to the inner surface of the cover, for example, being glued to cover longitudinal foldover panel 1030E. Note that lateral foldover panel 1035C may include a recess clearance 1036C for ramp tab 1042. As explained earlier, ramp tab 1042 may be bent upward to assist in later steps of loading disc 1020.

[0098] When closed, the cover lateral walls may closely encompass the tray lateral walls. For good fit, the cover lateral walls 1034A, 1034B, 1035A, 1035B may be slightly taller and further apart than the tray lateral walls.

[0099] FIGURE 25 shows front rectangular step 1032 having been formed by folding panels 1032A, 1032B, 1032C, 1032D into a tube enclosing hypotenuse panel 1038A.

Hypotenuse panel 1038A may have a clearance area 1038B to keep the hypotenuse from

contacting disc 1020. A ledge lock 1018 is formed on the inner wall of rectangular step 1032. The ledge lock 1018 comprises lip 1040 with an underlying undercut or open area 1041 to receive an edge of disc 1020. The resiliency of the paperboard or other material used in package 1010 may cause the rectangular step 1032 to deflect outward slightly away from the disc, making it easier to insert the disc. Such outward deflection of rectangular step 1032 also provides an outward force on latching feature 1033A to help it better engage corresponding latching feature 1033B on the depending edge 1029.

[00100] Also shown in FIGURE 25 is the placement of disc 1020 onto ledge lock 1016, which will be further detailed in FIGURE 26. Furthermore, on the inside of tray left lateral wall panel 1034E is shown a slit lock 1054 useful for helping retain disc 1020. Such a slit lock 1054 may be provided on either, both, or neither of the lateral walls. In an exemplary embodiment, a single slit lock is used, and this provides some support and retention for one edge of disc 1020, while leaving the opposite edge more free for picking up from the package.

[00101] FIGURE 26 shows a detail of the action of ledge lock 1016 in retaining disc 1020. When the package 1010 is closed, rectangular step 1030 is in the form of a generally rectangular tube as denoted by rectangular shape A. Disc 1020 has non-data edge areas resting on the paperboard walls of undercut or open area 1025 that is below lip 1023. Lip 1023 may have retaining cusps 1023A to assist in retaining disc 1020. The undercut or open area 1025 may have a shape with a lower perimeter that is "concave upward" so as to engage the non-data edge areas of disc 1020 without contacting the data areas inward on the disc surface. The undercut or open area 1025 may be cut deeper at the center, and less deeply toward the sides, so as to provide an upward sloping edge to contact the non-data edge surface rather than the data-carrying inner region of disc 1020.

[00102] Upon opening package 1010, as the cover (generally denoted by cover lateral foldover panel 1035C) is opened, rectangular step 1030 flattens somewhat and takes the form of a parallelogram-shaped tube as denoted by parallelogram shape B. This moves the upper inward corner of rectangular step 1030, so that lip 1023 and retaining cusps 1023A retract away from disc 1020 by a distance approximately represented by distance C. Disc 1020 may then be lifted out of the package. Filling and closing the package occur in the reverse order. As the cover is closed, rectangular step 1030 moves from parallelogram

shape B to rectangular shape A, bringing ledge lock 1016 into closer contact with disc 1020. This may tend to push disc 1020 toward opposing ledge lock 1018. As the disc moves slightly toward opposing ledge lock 1018, the opposite edge of disc 1020 may ride up the ramp tab 1042 as it comes toward ledge lock 1018.

5 **[00103]** Once package 1010 has been filled and closed, an additional sleeve, shrink wrap and/or the like (not shown) may applied to prepare the package for retail. Because the package 1010 is fabricated from paperboard, graphics and identifying indicia such as, without limitation, a UPC code, can be efficiently and directly applied thereto and the package 1010 has a low cost and minimal environmental impact. Additionally, the disc
10 1020 is not visibly exposed.

[00104] To remove a disc 1020 from the package 1010, the cover of the package is opened. This closed rectangular configuration of rectangular step 1030 thereby shifts to an open, parallelogram configuration as described in FIGURE 26, which increases the distance between the ledge lock 1016 and opposing ledge lock 1018. Also, opening of the package
15 allows rectangular step 1032 to relax outward slightly. With the increased separation, the disc 1020 can be easily moved past the lips 1023, 1040 for removal. In one embodiment, the weight of the cover panels 1030B, 1030E, 1035C urges the ledge lock 1016 apart from ledge lock 1018 and the disc 1020 is simply urged past the lips 1023, 1040.

[00105] To insert the disc 1020, the package 1010 is similarly opened and pressure
20 applied so that the rectangular step 1030 becomes a parallelogram. Preferably, the disc 1020 snaps past the lips 1023, 1040 to come to rest in the open areas 1025, 1041 underneath, respectively. The paperboard at the bottom of the open areas 1025, 1041 supports the disc 1020 above the tray (e.g. tray longitudinal foldover panel 1035F) so that scratching, scuffing and degradation are prevented during transportation and use. If a raised boss or rosette is
25 present, such feature also may engage a central aperture in the disc 1020 and provide additional protection against damage to the disc.

[00106] Here, for exemplary purposes only, the rectangular step 1030 and the rectangular step 1032 are depicted in one exemplary embodiment. Those skilled in the art will readily appreciate however, that the subject disclosure is not limited to steps 1030, 1032
30 having such configurations. Indeed, it is envisioned and well within the scope of the subject

disclosure that the steps 1030, 1032 could take form in any geometric shape or other decorative shape. Without limitation, such shapes could include an arc, semi-circle, square, oval, heart and the like.

[00107] Now referring to FIGURES 27 to 29, other blanks 1213, 1313, and 1413 are shown in accordance with the subject disclosure, which will provide variations in the resulting package. As will be appreciated by those of ordinary skill in the pertinent art, the resulting packages utilize similar principles to the package 1010 described above.

Accordingly, related reference numerals are used to indicate like elements whenever possible. For example, as shown in FIGURE 27, blank 1213 may include as major panels a tray outer panel 1228, cover outer panel 1230B, cover longitudinal foldover panel 1230E, and tray longitudinal foldover panel 1230F. A difference of blank 1213 in comparison to blank 1013 is that blank 1213 does not have lateral foldover panels corresponding to , cover lateral foldover panel 1035C and tray lateral foldover panel 1035F. Thus blank 1213 forms a package where the cover and tray each are made up generally of two thicknesses of the blank material, instead of three thicknesses as occurs with blank 1013.

[00108] As shown in FIGURE 28, blank 1313 may include as major panels a tray outer panel 1328, cover outer panel 1330B, cover longitudinal foldover panel 1330E, and tray longitudinal foldover panel 1330F. A difference of blank 1313 in comparison to blank 1013 is that blank 1313 does not have lateral foldover panels corresponding to cover lateral foldover panel 1035C and tray lateral foldover panel 1035F. Thus blank 1313 forms a package where the cover and tray each are made up generally of two thicknesses of the blank material, instead of three thicknesses as occurs with blank 1013. Furthermore, while longitudinal foldover panels 1030E, 1030F are at the same end of blank 1013, longitudinal foldover panels 1330E, 1330F are at opposite ends of blank 1313.

[00109] As shown in FIGURE 29, blank 1413 may include as major panels a tray outer panel 1428, cover outer panel 1430B, cover longitudinal foldover panel 1430E, and tray longitudinal foldover panel 1430F. A difference of blank 1413 in comparison to blank 1013 is that blank 1413 does not have lateral foldover panels corresponding to cover lateral foldover panel 1035C and tray lateral foldover panel 1035F. Thus blank 1413 forms a package where the cover and tray each are made up generally of two thicknesses of the blank material, instead of three thicknesses as occurs with blank 1013. Furthermore, blank

1413 lacks any cover lateral walls to correspond with panels 1034A, 1034B, 1035A, 1035B. Thus blank 1413 is formed into a package (not shown) having tray lateral walls but not having cover lateral walls.

[00110] Various types of pockets have been used in packages for CDs and DVDs.

5 Examples are shown in FIG. 30 where packages 2100, 2102, and 2104 have a tube pocket 2110, corporate pocket 2112, and slit pocket 2114 respectively for receiving a brochure 2130, 2131. Depending on the design of the package, certain of the pockets may be limited in the size of brochure that will fit in the pocket or in the package.

[00111] The present disclosure is for a package that incorporates a slit pocket which
10 provides a space for a brochure or other item. The advantages, and other features of the package disclosed herein, will become more readily apparent to those having ordinary skill in the art from the following detailed description of certain exemplary embodiments taken in conjunction with the drawings which set forth representative embodiments of the present invention and wherein like reference numerals identify similar structural elements
15 whenever possible.

[00112] All relative descriptions herein such as left, right, up, down, topside, underside and the like are with reference to the Figures, and not meant in a limiting sense. The illustrated embodiments can be understood as providing exemplary features of varying detail of certain embodiments, and therefore, unless otherwise specified, features, components,
20 modules, elements, and/or aspects of the illustrations can be otherwise combined, interconnected, sequenced, separated, interchanged, positioned, and/or rearranged without materially departing from the disclosed systems or methods. Additionally, the shapes and sizes of components are also exemplary and unless otherwise specified, can be altered without materially affecting or limiting the disclosed technology to holding discs exclusively.

25 [00113] An exemplary embodiment of the present invention is illustrated in FIGURES 31-38, in which there is shown an improved CD package 2010 made from paper and adhesive. In brief overview, the package 2010 is made from a blank 2013 that is folded and glued together in such a manner that the blank 2013 forms a ledge lock 2016 and opposing edge ledge lock 2018 to support a disc 2020 about the outer edge of the disc 2020. The ledge
30 lock 2016 flexes such that when the package 2010 is in the open position, a user can easily

remove and replace the disc 2020, and in the closed position, the ledge lock 2016 more securely engages the disc 2020.

[00114] FIGURE 31 shows a blank 2013 for forming an exemplary package 2010. The various parts of blank 2013 will now be described. The major panels include tray outer
5 panel 2028, cover outer panel 2030B, cover longitudinal foldover panel 2030E, tray longitudinal foldover panel 2030F, cover lateral foldover panel 2035C and tray lateral foldover panel 2035F. When folded these major panels of blank 2013 form essentially a package 2010 including a tray (major panels 2028, 2030F, and 2035F) and a cover (major panels 2030B, 2030E, and 2035C).

10 [00115] Between tray outer panel 2028 and cover outer panel 2030B is spine panel 2030A, which forms the spine of package 2010, which hingedly connects the tray and cover of the package. Between cover outer panel 2030B and cover longitudinal foldover panel 2030E are panels 2030C, 2030D that form a depending edge 2029 to help maintain the package 2010 in the closed position. In order to create friction to retain the package 2010
15 closed, the depending edge 2029 may be angled inward. This may generate compressive force in closing the package 2010 to result in improved retention of the disc 2020 as well. The depending edge 2029 may also have a latching feature 33B that interacts with a complementary latching feature 2033A to help hold the package shut. Such latching features could include detents, slots, protrusions, hollows, lips, ridges and the like.

20 [00116] At certain areas on periphery of package 2010 are laterals walls generally perpendicular to the major panels. Blank 2013 forms a package 2010 with double lateral walls. Tray outer panel 2028 has attached thereto tray left lateral wall 2034D, 2034E and tray right lateral wall 2035D, 2035E. Cover outer panel 2030B has attached thereto cover left lateral wall 2034A, 2034B and cover right lateral wall 2035A, 2035B. Within tray left
25 lateral wall panel 2034E is shown a slit lock 2054 useful for helping retain disc 2020. When closed, the cover laterals walls may closely encompass the tray lateral walls. For good fit, the cover lateral walls 2034A, 2034B, 2035A, 2035B may be slightly taller and further apart than the tray lateral walls 2034D, 2034E, 2035D, 2035E.

[00117] The package 2010 includes a rectangular step 2030 formed between cover
30 longitudinal foldover panel 2030E and tray longitudinal foldover panel 2030F, and

positioned adjacent to the spine. A ledge lock 2016 is centrally located at the upper, inner corner of the rectangular step 2030. The ledge lock 2016 is an opening formed in the blank such that upon folding blank 2013, a lip 2023 extends inward, parallel to the tray longitudinal foldover panel 2030F. An undercut or open area 2025 is created underneath the lip 2023.

[00118] The side opposing the rectangular step 2030 also forms a ledge lock 2018 in a rectangular step 2032. Upon folding, ledge lock 2018 also forms a lip 2040 with an undercut or open area 2041. On an outer edge of the rectangular step 2032 is a latching feature 2033A that interacts with the latching feature 2033B on depending edge 2029 of the cover and may include one or more features to improve upon the retentive force there between as noted above.

[00119] Blank 2013 may typically be produced with printing on at least one side. Portions of the blank are overlapped, and portions may be adhered together, for example by glue. Certain portions therefore may not be printed. If blank 2013 is printed on only one side, the folding operations result in a package 2010 with most exterior surfaces printed. However, when assembled, certain cutout areas such as cutout area 2025 may reveal an uncoated surface of another panel. An appropriately-positioned tab such as the tab 2036A (or an alternative tab 2036B) may be used to hide the otherwise uncoated surface that would show through cutout area 2025.

[00120] As will be seen in the following description, blank 2013 is suitable for forming a package sized as is common for a "CD package," that is, a package whose major faces are approximately square. It will be understood that other blanks may be produced according to the principles of blank 2013, but with appropriate dimensions to form packages of other sizes, for example, a package sized as is common for a "DVD package," one of whose major faces may be significantly longer than the other, i.e., not approximately square.

[00121] Blank 2013 may be formed by, for example, cutting a board substrate with a die. Various board thicknesses and materials are acceptable. The stock board may be paper, plastic and/or the like. The stock board may be single ply although, in some instances, it may be desirable for blank 2013 to be two or multiple ply. Once blank 2013 is formed, it is folded

and glued into the package 2010 as described below.

[00122] Steps in the assembly of blank 2013 into package 2010 are shown in FIGURES 32 to 35. It will be understood that additional steps may be involved and that the steps may be performed in a different sequence than described herein. Blank 2013 is provided with a plurality of fold lines to allow the blank to be effectively formed into the desired shape. The position of the ledge locks 2016 and 2018 with respect to the fold lines 2044, 2046, respectively, sets a height at which the disc mounts above the tray surface when the package 2010 is closed.

[00123] FIGURE 32 shows a step in which tray longitudinal foldover panel 2030F, and cover longitudinal foldover panel 20E are folded upward and forward to overlap tray outer panel 2028 and cover outer panel 2030B respectively. Also shown is depending edge 2029 formed by folding panels 2030C, 2030D. An attachment such as adhesive may be used to bond at least portions of the panels together. However, other portions such as those later forming rectangular steps may be left unbonded. During the folding of tray longitudinal foldover panel 2030F, ramp tab 2042 may be bent upward to assist in later steps of loading disc 2020.

[00124] FIGURE 33 shows a step in which tray left lateral wall 2034D and 2034E (not shown) are folded upward and inward to form a vertical wall. Glue flap 20F is affixed to the inner surface of tray outer panel 2028. To provide space for glue flap 2034F, tray longitudinal foldover panel 2030F may be narrower than tray outer panel 2028. In like manner, cover left lateral wall 2034A and 2034B (not shown) are folded upward and inward to form a vertical wall.

[00125] Also shown in FIGURE 33 are exemplary gluing areas X1, X2 on cover lateral foldover panel 2035C, which will be folded inward on the next step. While gluing the panels together helps form and strength the package, the glued areas obstruct the spaces between panels that may be useful as shown later for holding materials such as a brochure.

[00126] FIGURE 34 shows a step in which tray right lateral wall 2035E and 2035D (not shown) are folded upward and inward to form a vertical wall. Tray lateral foldover panel 2035F is affixed to the inner surface of the tray, for example, being glued to tray longitudinal foldover panel 2030F. In like manner, cover right lateral wall 2035B and

2035A (not shown) are folded upward and inward to form a vertical wall. Cover lateral foldover panel 2035C is affixed to the inner surface of the cover, for example, being glued to cover longitudinal foldover panel 2030E. Note that lateral foldover panel 2035C may include a recess clearance 2036C for ramp tab 2042. As explained earlier, ramp tab 2042 may be bent upward to assist in later steps of loading disc 2020.

[00127] When closed, the cover lateral walls may closely encompass the tray lateral walls. For good fit, the cover lateral walls 2034A, 2034B, 2035A, 2035B may be slightly taller and further apart than the tray lateral walls.

[00128] FIGURE 35 shows front rectangular step 2032 having been formed by folding panels 2032A, 2032B, 2032C, 2032D into a tube enclosing hypotenuse panel 2038A. Hypotenuse panel 2038A may have a clearance area 2038B to keep the hypotenuse from contacting disc 2020. A ledge lock 2018 is formed on the inner wall of rectangular step 2032. The ledge lock 2018 comprises lip 2040 with an underlying undercut or open area 2041 to receive an edge of disc 2020. The resiliency of the paperboard or other material used in package 2010 may cause the rectangular step 2032 to deflect outward slightly away from the disc, making it easier to insert the disc. Such outward deflection of rectangular step 2032 also provides an outward force on latching feature 2033A to help it better engage corresponding latching feature 2033B on the depending edge 2029.

[00129] Also shown in FIGURE 35 is the placement of disc 2020 onto ledge lock 2016. Furthermore, on the inside of tray left lateral wall panel 2034E is shown a slit lock 2054 useful for helping retain disc 2020. Such a slit lock 2054 may be provided on either, both, or neither of the lateral walls. In an exemplary embodiment, a single slit lock is used, and this provides some support and retention for one edge of disc 2020, while leaving the opposite edge more free for picking up from the package.

[00130] Now referring to FIGURES 36 to 38, a package design is shown which includes a slit pocket for holding materials such as a brochure. FIGURE 36 shows a blank 2014 for forming an exemplary package 2011. Many of the parts of blank 2014 as shown are similar to the parts of blank 2013 already described. A pocket glue flap 2035G is attached to the edge of cover lateral foldover panel 2035C. The cover lateral foldover panel 2035C comprises a pocket slit 2035H.

[00131] FIGURE 37 is similar to the earlier FIGURE 4, and shows a step in the assembly of blank 2014 into package 2011. As before, cover lateral foldover panel 2035C is provided with one or more gluing areas exemplified by gluing area X1. However, at the outer edge of cover lateral foldover panel 2035C is attached pocket glue flap 2035G that is folded inward upon cover lateral foldover panel 2035C. Gluing area X3 is provided with glue toward its edge outward from pocket slit 2035H. This means there is no glue between the surface of pocket glue flap 2035G and cover lateral foldover panel 2035C, and the space therebetween is available as a pocket, as will be seen in FIGURE 38.

[00132] FIGURE 38 shows a package 2011 formed from blank 2014. An item such as a brochure 2130 is held in the package by placing the brochure 2130 into pocket slit 2035H. Because of the presence of the pocket glue flap 2035G as shown in FIGURES 36 and 37, the area between pocket slit 2035H and package edge "Y" is open (unglued) as a pocket for receiving a portion 2130' (shown in broken line) of brochure 2130. The size and shape of pocket glue flap 2035G, and the size, shape and location of pocket slit 2035H are shown as examples and are not meant to be limiting. For example, the pocket slit 2035H may be substantially parallel to and relatively close to the lower edge of the package, as shown, or the pocket slit 2035H may be closer or more distant from the lower edge of the package, and may be at an angle to the lower edge of the package. The pocket slit may have a shape other than the exemplary line with curved ends as shown. The pocket slit 2035H may be formed by a simple cut as shown, or a small amount of material may be removed in forming the pocket slit.

[00133] Modifications may be made to the designs herein in order to improve runnability on automatic equipment. For example, FIGURE 39 shows a blank 2015 that is similar in many respects to the blank 2014 of FIGURE 36. Portions of lateral foldover panel 2035C' and pocket glue flap 2035G' have been removed from blank 2015, along the area designated X4. The pocket slit 2035H' is also changed slightly. Blank 2015, like other blanks described herein, may be run through automated equipment. The removal of material from area X4 allows panels 2030C, 2030D, cover longitudinal foldover panel 2030E, and tray longitudinal foldover panel 2030F to be folded early in the process. The depending edge formed by panels 2030C, 2030D may then be laid flat against cover panel 2030B. When lateral foldover panel 2035C' with glue flap 2035G' are later folded and glued across

cover panel 2030B, the removal of material from area X4 means that panels 2045C', 2035G' do not interfere with or glue down the depending edge.

[00134] FIGURE 40 shows a blank 3113 for forming an exemplary package 3110. Certain parts of blank 3113 will now be described. Not all parts need be described, as similar parts have been already been described herein. The major panels include tray outer panel 3128, cover outer panel 3130B, cover longitudinal foldover panel 3130E, tray longitudinal foldover panel 3130F, cover lateral foldover panel 3134 and lateral wall panels 3135B, 3135D, and 3135F. When folded these major panels of blank 3113 form essentially a package 3110 including a tray (major panels 3128, 3130F) with lateral walls (panels 3135B, 3135D, 3136F) and a cover (major panels 3130B, 3130E, and 3134).

[00135] By folding lateral wall panels 3135F, 3135D, and 3135B inward onto tray outer panel 3128, lateral walls 3135 may be formed upon tray outer panel 3128. An item such as disc 20 may be contained in the space between the lateral walls.

[00136] The package 3110 includes a rectangular step 3130 formed between cover longitudinal foldover panel 3130E and tray longitudinal foldover panel 3130F, and positioned adjacent to spine 3130A. A ledge lock 3116 is centrally located at the upper, inner corner of the rectangular step 3130.

[00137] The side opposing the rectangular step 3130 also forms a ledge lock 3118 in a rectangular step 3132.

[00138] In order that the assembled package fit together neatly, the various panels may be suitable sized and shaped. For example, in order to accommodate lateral walls 3135, rectangular step 3130 (as readily seen in FIGURE 40) may be made somewhat narrower than tray longitudinal foldover panel 3130F and cover longitudinal foldover panel 3130E. In order to accommodate rectangular step 3132, portions of lateral walls 3135 (such as lateral wall panel 3135D) may be made shorter as shown in FIGURE 40.

[00139] Blank 3113 may typically be produced with printing on at least one side. Portions of the blank are overlapped, and portions may be adhered together, for example by glue. Certain portions therefore may not be printed. If blank 3113 is printed on only one side, the folding operations result in a package 3110 with most exterior surfaces printed.

The use of lateral foldover panel 3134, which may be located at the “top” side of package 3110, permits a printed surface (on lateral foldover panel 3134) to cover what could otherwise be a “raw” edge of cover outer panel 3130B and cover longitudinal foldover panel 3130E.

- 5 **[00140]** Blank 3113 is particularly suitable for forming a package sized as is common for a “DVD package,” that is, a package with a major face having one dimensional substantially larger than the other, or a somewhat elongated rectangle as opposed to a generally square shape.

- 10 **[00141]** An assembled package 3110 made from blank 3113 is shown in FIGURE 41A. The tray 3112 and cover 3114 portions are denoted along with certain other features. Step 3130 and step 3132 are shown. A disc 20 is shown, as is ledge lock 3116 (the ledge lock 3118 being somewhat obscured by this perspective view). Ledge lock 3116 may have one or more retaining cusps 3116A to help retain disc 20. Ledge lock 3118 may be formed as a protrusion of step 3132, for example an arc-shaped protrusion slightly overlapping the
15 edge of disc 20. Certain features of either ledge lock may be interchanged; for example ledge lock 3116 may be formed having an arc shaped, and ledge lock 3118 may be formed with one or more retaining cusps.

- 20 **[00142]** Cover 3114 may have a depending edge 3129 to help maintain package 3110 in the closed position. The depending edge 3129 may be angled inward and may have a slit 3131 formed along its upper edge of the inside surface thereof that is adapted and configured for receiving a tab 3133 formed on step 3132. A compressive force from step 3132, or from depending edge 3129, may therefore be generated by closing the package, resulting in improved retention of the disc 20. Moreover, an audible click may be heard when the package is closed and the tab 3133 is received within slit 3131.

- 25 **[00143]** Lateral walls 3135 are shown, whose dimensions may be designed to provide a suitable interior volume in package 3110 for holding an item such as disc 20. FIGURE 41B shows a cross section view of lateral wall 3135, including the positions of lateral wall panels 3135B, 3135D, and 3135F. The lateral wall 3135 thus forms a channel. This may provide structural strength. The interior of the lateral wall may be used to
30 provide storage for items such as printed information, promotional items, or other

materials. Access to the interior of the lateral wall may be through an end, such as the end near the spine, or through an opening (not shown) that may be provided, for example in lateral wall panel 3135B.

[00144] Various other blank configurations may be designed to form packages
5 having features according to the above disclosure.

[00145] The packages disclosed herein may contain one or more media discs. The packages may contain items other than media discs. In some embodiments, items such as syringes, blister packages (for example, containing pharmaceutical doses), electronic equipment, food, candy, or other items may be contained within the packages. Although in
10 some embodiments the packages may be made from paperboard having a thickness of about 0.018", other types and thicknesses of materials may be utilized as are known in the packaging arts.

[00146] As noted above, the packages can be formed using a variety of materials or substrates. For example, PRINTKOTE EAGLE®, which is composed of at least 10%
15 post consumer recycled material, can be used. Moreover, a polymeric substrate such as calendered POLYLITH® GC-3 can be used. POLYLITH® substrate is manufactured by Nanya Plastics of Taiwan and is distributed in the U.S. by Granwell Products, Inc. POLYLITH® substrate is primarily formed using polypropylene resin and minerals comprising inert calcium carbonate and titanium dioxide and the resulting substrate is
20 strengthened by calendaring.

[00147] As noted above, the previously disclosed packages can be adapted for storing one or more disc shaped items. This can be accomplished for example, by providing vertically spaced apart slits in each of the rectangular step and triangular step.

[00148] While the invention has been described with respect to preferred
25 embodiments, those skilled in the art will readily appreciate that various changes and/or modifications can be made to the invention without departing from the spirit or scope of the invention.

WHAT IS CLAIMED IS:

1. A package for housing an item comprising:

a) a cover forming an spine panel with first and second opposing panels extending therefrom such that the opposing panels selectively rotate between open and closed positions, wherein the first opposing panel has a depending edge; and

b) a tray attached to the second opposing panel, the tray having:

i) a planar surface;

ii) a first step on an edge of the planar surface and proximate to the spine panel, the first step having a first ledge lock or slit lock for receiving an edge of the item; and

iii) a second step on an edge of the planar surface and opposing the first step, the second step having a second ledge lock or slit lock for receiving an edge of the item,

wherein in the closed position, the depending edge urges the first ledge lock or slit lock, and the second ledge lock or slit lock, together such that an item may be supported above the planar surface and between the first ledge lock or slit lock and the second ledge lock or slit lock, and in the open position, the first step can be deflected to allow removal and insertion of an item.

2. A package as recited in Claim 1, wherein the first step has a rectangular shape.

3. A package as recited in Claim 1, wherein the second step has a rectangular shape or a triangular shape.

4. A package as recited in Claim 1, further comprising a raised boss on the planar surface for engaging an aperture of the item.

5. A package as recited in Claim 1, further comprising means located on the depending edge and second step for retaining the package in the closed position.

6. A package as recited in Claim 5, wherein the means is at least one female receptacle formed on the depending edge and at least one male projection formed on the second step to engage the at least one female receptacle.

7. A package as recited in Claim 1, wherein the cover and tray are fabricated
5 from paper board.

8. A package as recited in Claim 1, wherein each of the first ledge lock or slit lock and second ledge lock or slit lock further comprise a lip for enhancing retention of the item.

9. A package as recited in Claim 1, further comprising a third step and a fourth
10 step extending between the first step and second step, each of said third and fourth steps having a slit lock for receiving an edge of said item.

10. A package as recited in Claim 9, wherein said third step and fourth step each have a triangular shape.

11. A paper board package for housing an item comprising:

15 a) a tray portion constructed from paper board for receiving an item, the tray portion having opposed upstanding side walls and opposed upstanding front and rear walls, wherein at least the front and rear walls each have a item retaining slit or opening formed therein for retaining an edge portion of an item; and

b) a cover portion constructed from paper board for covering the tray portion.

20 12. A paper board package as recited in Claim 11, wherein the opposed upstanding side walls of the tray portion each have an item retaining slit formed therein for retaining an edge portion of an item.

13. A paper board package as recited in Claim 11, wherein the cover portion
25 includes a plurality of laterally connected cover panels separated from one another by connective spine portions, and wherein the tray portion is attached to one of the cover panels to form an integral package.

14. A tray for housing an item in a package comprising:

a flat member having opposed upstanding side walls and opposed upstanding front and rear walls, wherein at least one of the front and rear walls has an item retaining slit or opening formed therein for retaining an edge portion of an item.

15. A tray as recited in Claim 14, wherein the flat member is constructed from
5 paper board.

16. A tray as recited in Claim 15, wherein the paper board is selected from the group consisting of .014 PRINTKOTE EAGLE®, .015 PRINTKOTE EAGLE®, .016 PRINTKOTE EAGLE®, .015 Kraft and combinations thereof.

17. A blank for forming a tray for an item package comprising:
10 a base panel;

a rectangular step panel having a spine portion demarcated from the base panel by a first fold line, a top portion separated from the spine portion by a second fold line, an item engaging portion separated from the top portion by a third fold line, the item engaging portion defining a first ledge lock or slit lock, and an anchor portion separated from the item
15 engaging portion by a fourth fold line; and

a triangular step panel opposing the rectangular step panel, the triangular step panel having a closure portion demarcated from the base panel by a first fold line, an item engaging portion separated from the closure portion by a second fold line, the item engaging portion defining a second ledge lock or slit lock, and a cover portion separated from the item
20 engaging portion by a third fold line.

18. A blank as recited in Claim 17, further comprising opposing sidewall panels extending between the rectangular step panel and the triangular step panels.

19. A blank as recited in Claim 18, wherein the opposing sidewall panels define
25 slit locks.

20. A blank for forming a tray for an item package comprising:
a base panel;

a first triangular step panel having a first portion demarcated from the base panel by a first fold line, an item engaging portion separated from the closure portion by a second fold line, the item engaging portion defining a slit lock, and a cover portion separated from the disc engaging portion by a third fold line; and

- 5 a second triangular step panel opposing the first triangular step panel, the triangular step panel having a closure portion demarcated from the base panel by a first fold line, an item engaging portion separated from the closure portion by a second fold line, the item engaging portion defining a slit lock, and a cover portion separated from the item engaging portion by a third fold line.

10 21. A package for housing an item comprising:

- a) a cover forming an spine panel with first and second opposing panels extending therefrom such that the opposing panels selectively rotate between open and closed positions, wherein the first opposing panel has a depending edge; and
- b) front channel attached to the upper surface of second opposing panel, the front channel having a forward outer face, the forward outer face proximate to the
- 15 depending edge when the opposing panels are in closed positions;
- c) a first and second lateral channel, extending between and perpendicular to the spine panel and front channel, on opposite sides of the upper surface of the second opposing panel,

20 whereby the inward facing surfaces of the spine, the front channel, and the first and second lateral channels, define a perimeter of a storage area for an item stored within the package.

22. A package for housing an item comprising:

- a) a cover forming an spine panel with first and second opposing panels extending therefrom such that the opposing panels selectively rotate between open and closed positions, wherein the first opposing panel has a depending edge; and
- 25 b) a front channel attached to the upper surface of second opposing panel, the front channel having a forward outer face, the forward outer face proximate to the

depending edge when the opposing panels are in closed positions;

- 5 c) a first and second lateral channel, each having a thickness approximately equal to the thickness of the package, extending between the spine panel and front channel, and hingedly attached on opposite edges second opposing panel, said opposite edges extending between and perpendicular to the spine panel and front panel;

whereby when the opposing panels are in open positions, the first and second lateral channels may rotate inward to cover an item within the package, and rotate outward to uncover an item within the package.

23. A package for housing an item comprising:

- 10 a) a spine panel with first and second opposing panels extending therefrom such that the opposing panels selectively rotate between open and closed positions, wherein the second opposing panel comprises:

i) a planar surface;

15 ii) a first step on an edge of the planar surface and proximate to the spine panel, the first step having at least one first ledge lock for receiving an edge of the item; and

iii) a second step on an edge of the planar surface and opposing the first step, the second step having at least one second ledge lock for receiving an edge of the item,

20 wherein the rotation from the open to the closed position urges the first ledge lock and the second ledge lock together such that the item may be retained between the first ledge lock and the second ledge lock, and

25 wherein the rotation from the closed position to the open position allows the first ledge lock and the second ledge lock to move apart such that the item may be removed from or inserted into the package.

24. The package of claim 23, wherein in the closed position, the first and second ledge locks support the item above the planar surface such that the item does

not contact the planar surface.

25. The package of claim 23, wherein said item is contacted by said first ledge lock along only an outward edge of the item.

26. The package of claim 23, wherein the item is a disc.

5 27. The package of claim 23, wherein at least one of the first step and the second step has a generally rectangular cross section when the package is in the closed position.

10 28. The package of claim 23, wherein at least one of the first step and the second step forms a generally rectangular cross section when the package is closed and forms a parallelogram cross section when the package is open or partly open.

29. The package of claim 23, further comprising latching structures located on the first opposing panel and on the second opposing panel for retaining the package in the closed position.

15 30. The package of claim 29, wherein the first opposing panel comprises a depending edge opposite from the spine.

31. The package of claim 30, wherein the latching structures comprise at least one female receptacle formed on the depending edge and at least one male projection formed on the second step to engage the at least one female receptacle.

20 32. The package of claim 23, wherein at least one of the first ledge lock and second ledge lock further comprise a lip for enhancing retention of the disc.

33. The package of claim 23, wherein at least one of the first and second ledge locks comprises an opening to receive said item, said opening having a lower periphery that is either concave upward or diverging upward.

25 34. The package of claim 23, wherein said item is contacted by said second ledge lock along only an outward edge of said item.

35. The package as recited in Claim 23, further comprising a ramp tab with one edge attached to the second opposing panel and one edge or portion

proximate to and rising in the direction of at least one of the first ledge lock and second ledge lock.

36. The package of claim 23, further comprising an upstanding side wall extending between the first step and the second step.

5 37. The package of claim 36, wherein the upstanding side wall comprises a slit lock for receiving an edge of the item.

38. The package of claim 36, wherein the upstanding side wall has a planar form comprising one or more plies of material.

10 39. The package of claim 36, wherein the upstanding side wall has the form of a hollow channel having a rectangular or triangular cross section.

40. The package of claim 23, wherein the package is fabricated from paper board.

41. A blank for forming a tray for a package to hold an item, comprising:

a base panel;

15 a cover portion separated from the base panel by a spine panel, the cover portion comprising an outer cover and an inner cover folded upon one another,

a first rectangular step panel having a top portion separated from inner cover by a first fold line, a disc engaging portion separated from the top portion by a second fold line, the disc engaging portion defining a ledge lock, and an anchor portion separated from the disc engaging portion by a third fold line; and

20 a second rectangular step panel opposing the first rectangular step panel, the second rectangular step panel having a closure portion demarcated from the base panel by at least a fourth fold line, a disc engaging portion separated from the closure portion by a fifth fold line, the disc engaging portion defining a ledge lock.

25 42. The blank of claim 41, further comprising opposing sidewall panels extending between the first and second rectangular step panels.

43. The blank of claim 42, wherein at least one of the opposing sidewall

panels defines a slit lock.

44. A package for housing an item comprising:

a) a spine panel with first and second opposing panels extending therefrom such that the opposing panels selectively rotate between open and closed positions,

5 wherein the second opposing panel comprises:

i) a planar surface;

ii) a first step on an edge of the planar surface and proximate to the spine panel, the first step having at least one first ledge lock for receiving an edge of the item; and

10 iii) a second step on an edge of the planar surface and opposing the first step, the second step having at least one second ledge lock for receiving an edge of the item,

15 wherein the rotation from the open to the closed position urges the first ledge lock and the second ledge lock together such that the item may be retained between the first ledge lock and the second ledge lock, and

wherein the rotation from the closed position to the open position allows the first ledge lock and the second ledge lock to move apart such that the item may be removed from or inserted into the package;

wherein the first opposing panel comprises:

20 a first ply of material and a second ply of material, the second ply forming an inner surface of the package, the first and second plies joined together along a first edge, the second ply having a glue flap hingedly joined to a second edge opposite from the first edge, the second ply having a slit closer to the second edge than to the first edge, the glue flap is folded between the first and second plies, wherein the glue flap is adhered to the first ply but not
25 adhered to the second ply.

45. The package of claim 44, wherein in the closed position, the first and second ledge locks support the item above the planar surface such that the item does not contact the

planar surface.

46. The package of claim 44, wherein said item is contacted by said first ledge lock along only an outward edge of the item.

47. The package of claim 44, wherein the item is a disc.

5 48. The package of claim 44, wherein at least one of the first step and the second step has a generally rectangular cross section when the package is in the closed position.

49. The package of claim 44, wherein at least one of the first step and the second step forms a generally rectangular cross section when the package is closed and forms a parallelogram cross section when the package is open or partly open.

10 50. The package of claim 44, wherein the package is fabricated from paper board.

51. A package for housing an item comprising:

a) an spine panel with first and second opposing panels extending therefrom such that the opposing panels selectively rotate between open and closed positions,

wherein the second opposing panel comprises an item-retaining device;

15 wherein the first opposing panel comprises:

b) a first ply of material and a second ply of material, the second ply forming an inner surface of the package, the first and second plies joined together along a first edge, the second ply having a glue flap hingedly joined to a second edge opposite from the first edge, the second ply having a slit closer to the second edge than to the first edge, the glue flap is folded
20 between the first and second plies, wherein the glue flap is adhered to the first ply but not adhered to the second ply.

52. A package for housing an item comprising:

a) a spine panel with first and second opposing panels extending therefrom such that the opposing panels selectively rotate between open and closed positions,

25 wherein the first opposing panel comprises a depending edge;

wherein the second opposing panel comprises:

- i) a planar surface;
- ii) a receptor area or volume for receiving the item;
- iii) at the end opposite from the spine panel, a projection extending in a
5 direction away from the spine panel;

wherein the rotation from the open to the closed position brings the depending edge into contact with the projection, and the projection engages the depending edge to hold the package in the closed position.

10 53. The package of claim 52, wherein the projection is spaced apart from the planar surface and extends in a direction parallel to the planar surface.

54. The package of claim 52, wherein the depending edge comprises an aperture to engage the projection.

FIG. 1

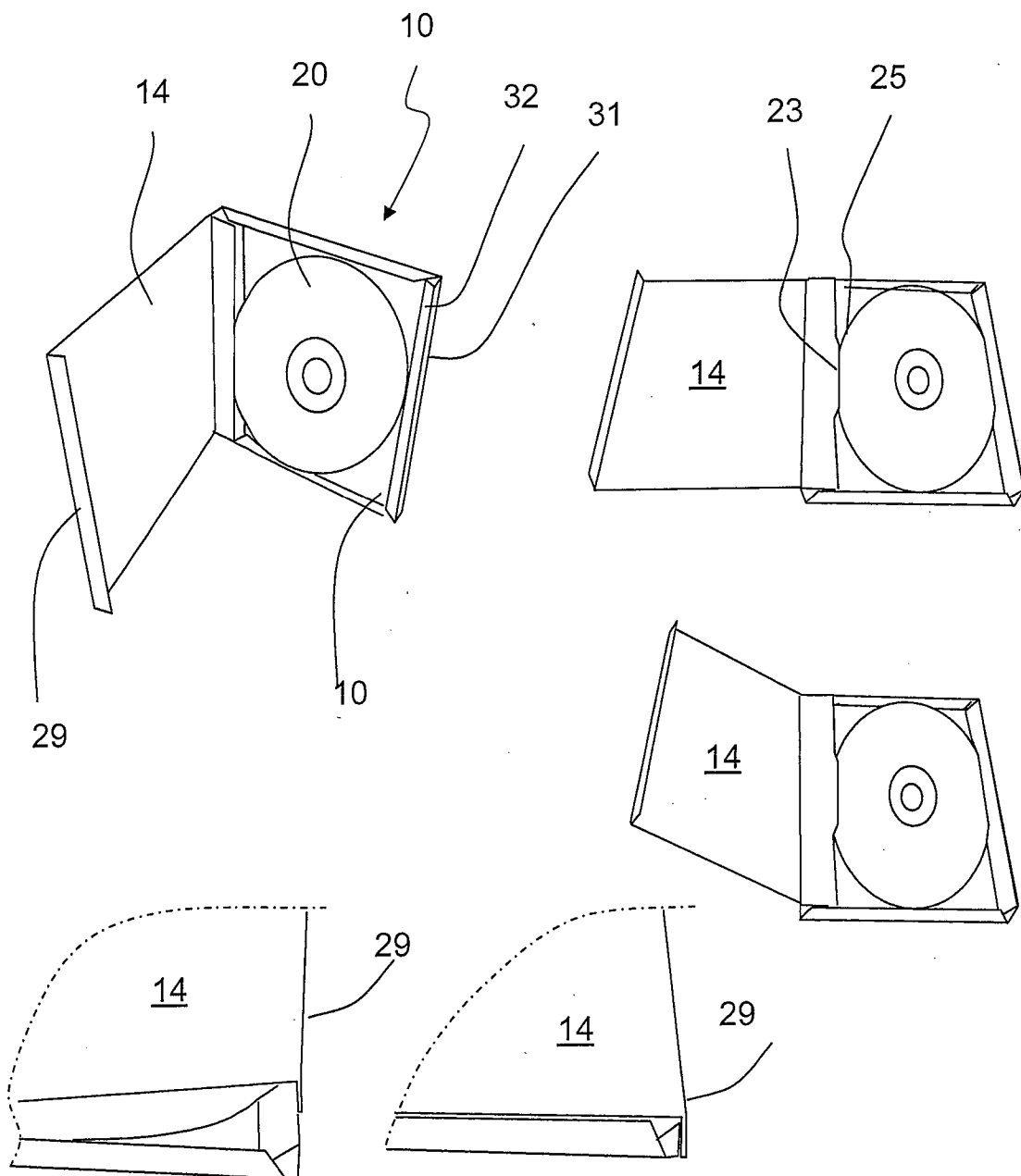


FIG. 2

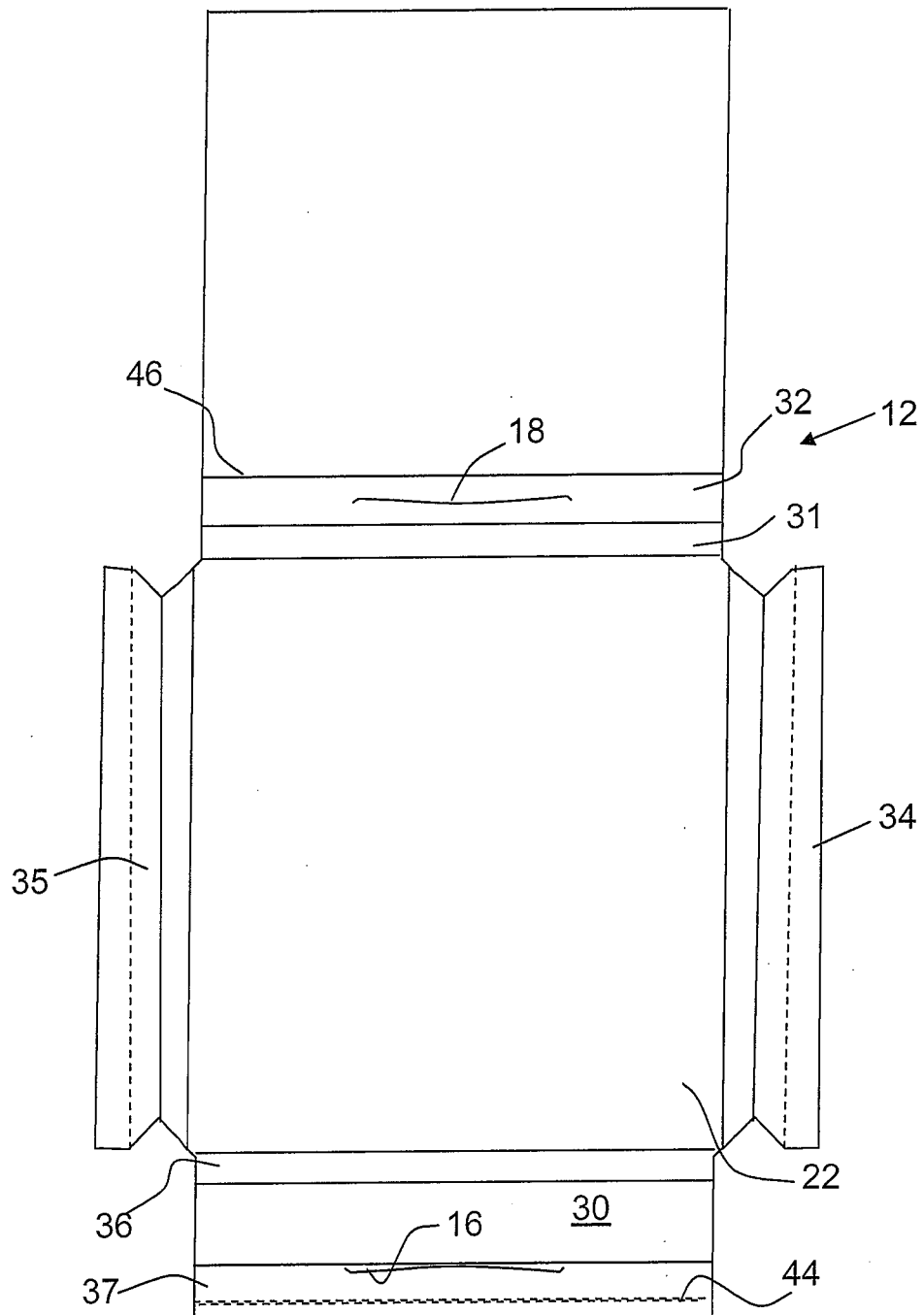


FIG. 3

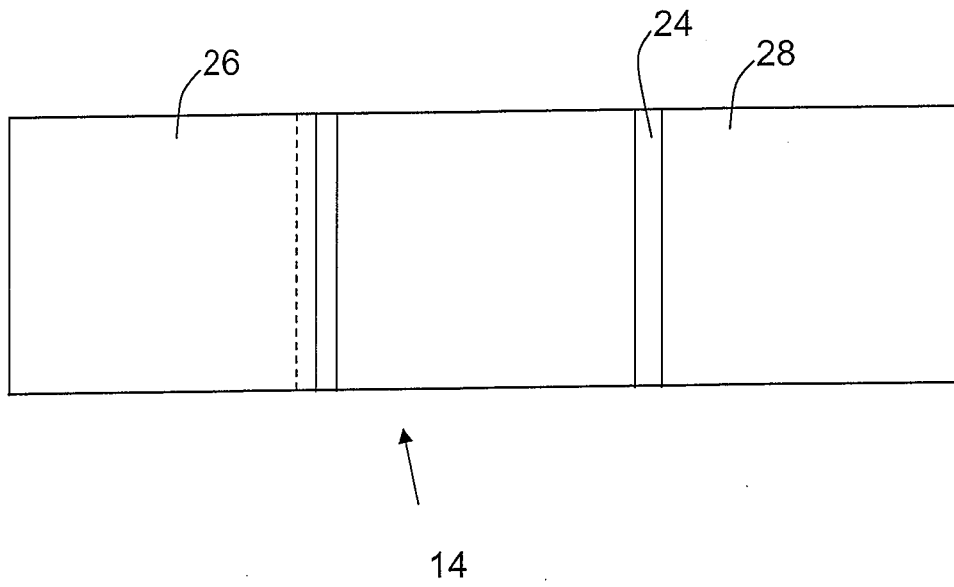


FIG. 4

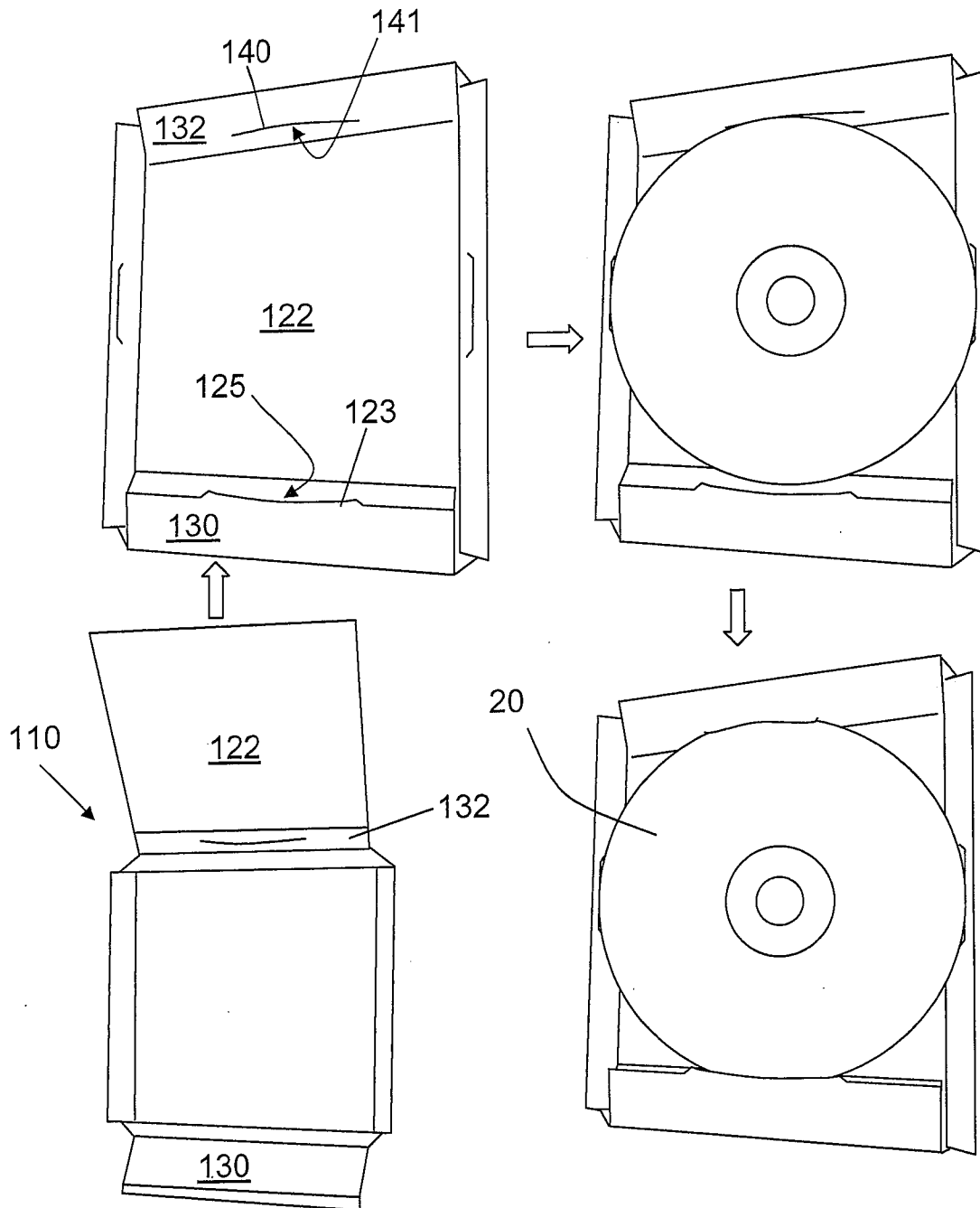


FIG. 5

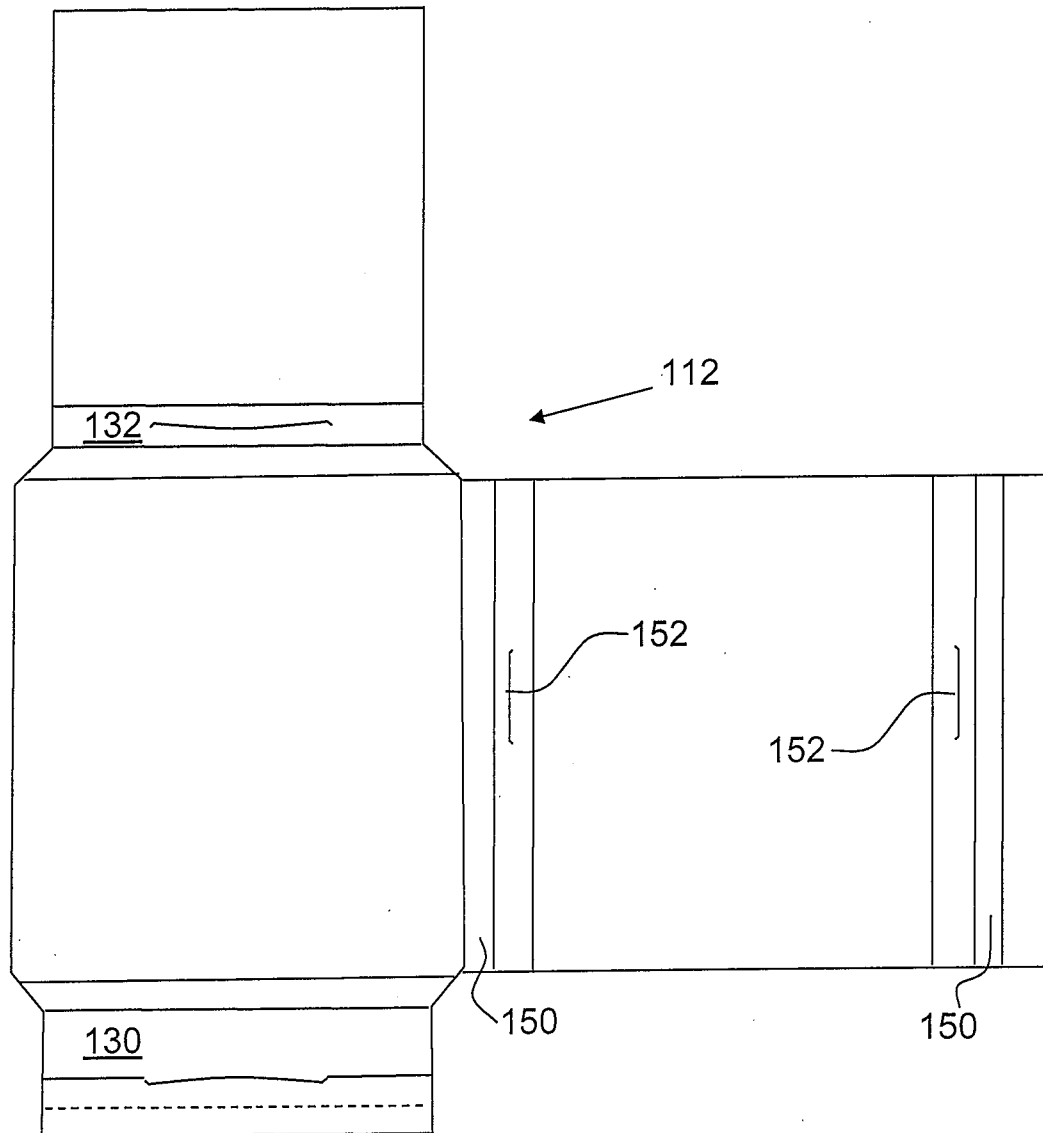


FIG. 6

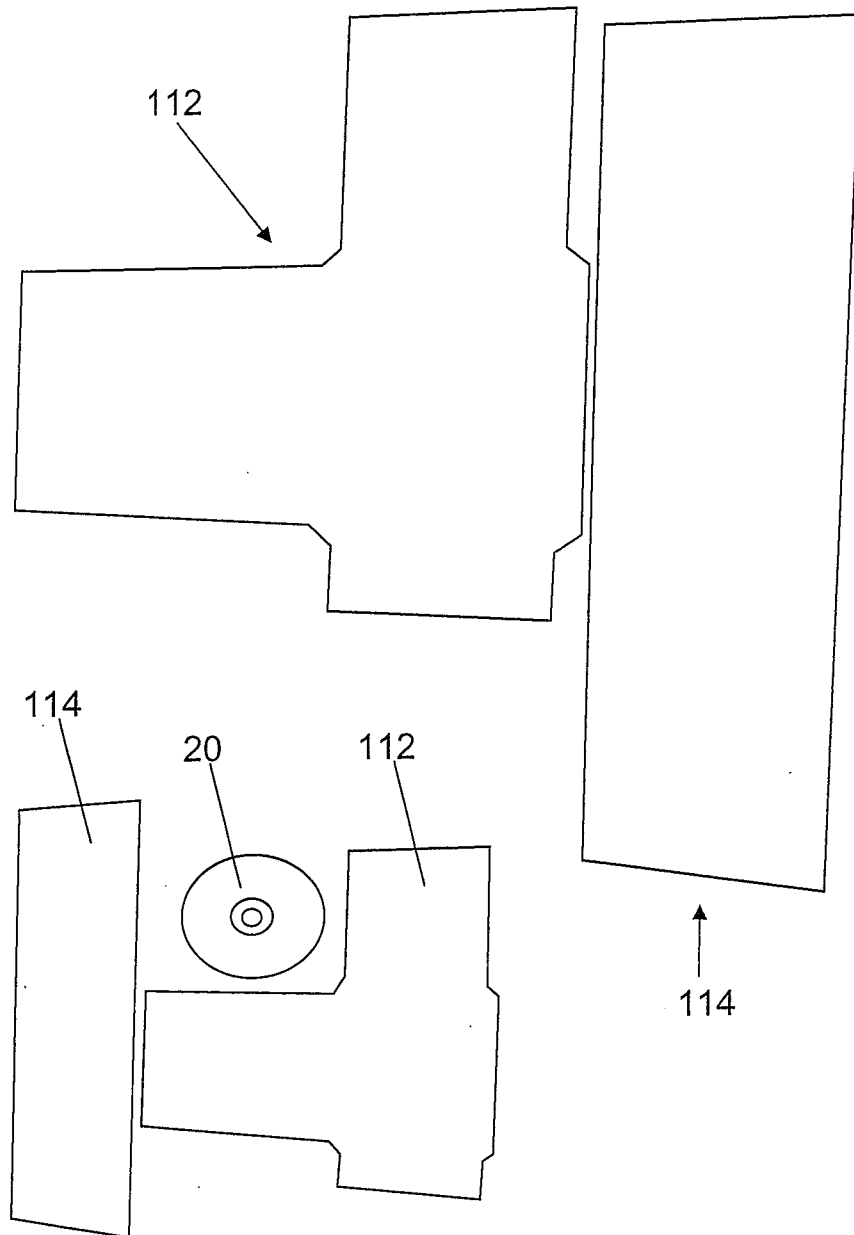


FIG. 7

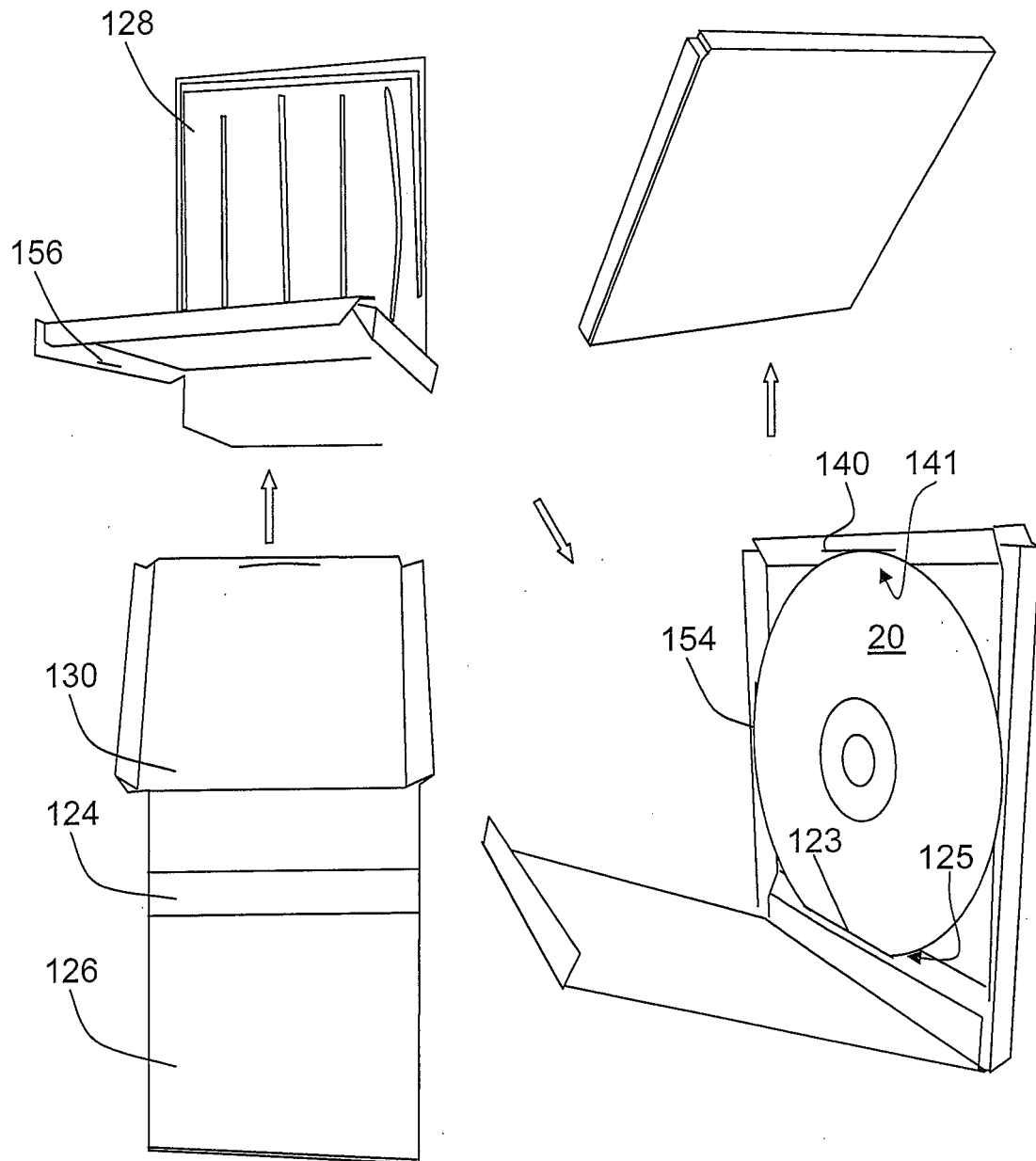


FIG. 8

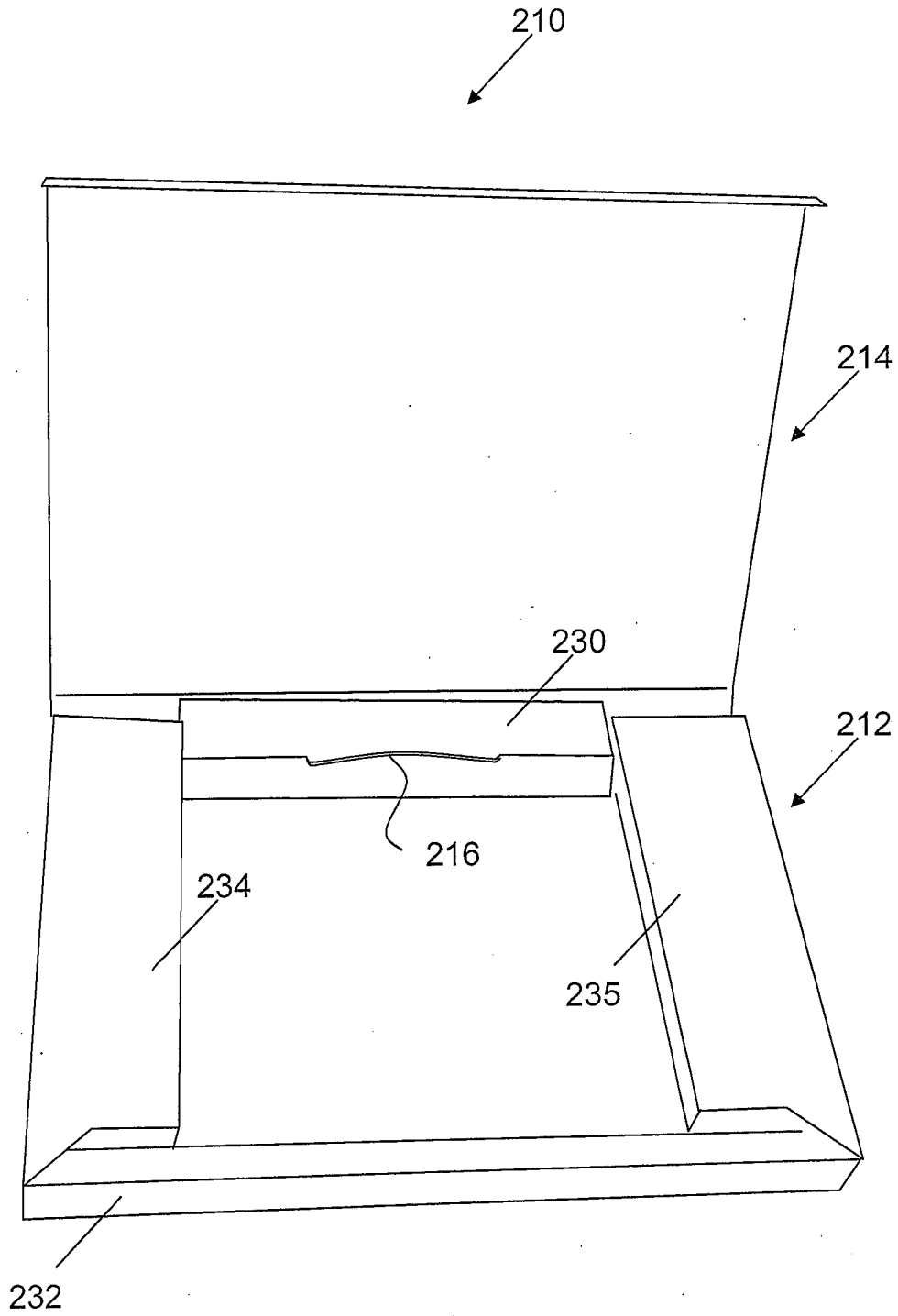


FIG. 9

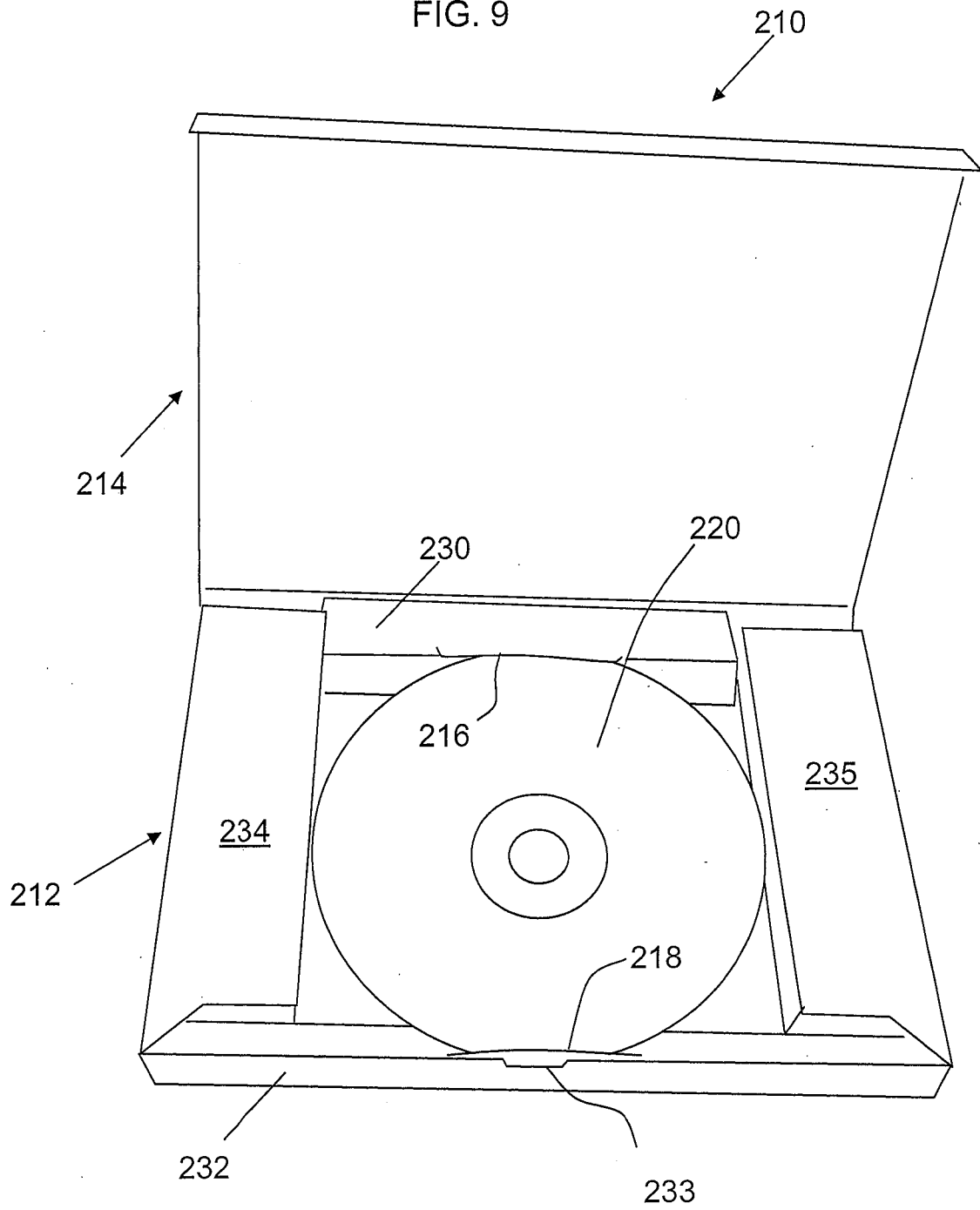


FIG. 10

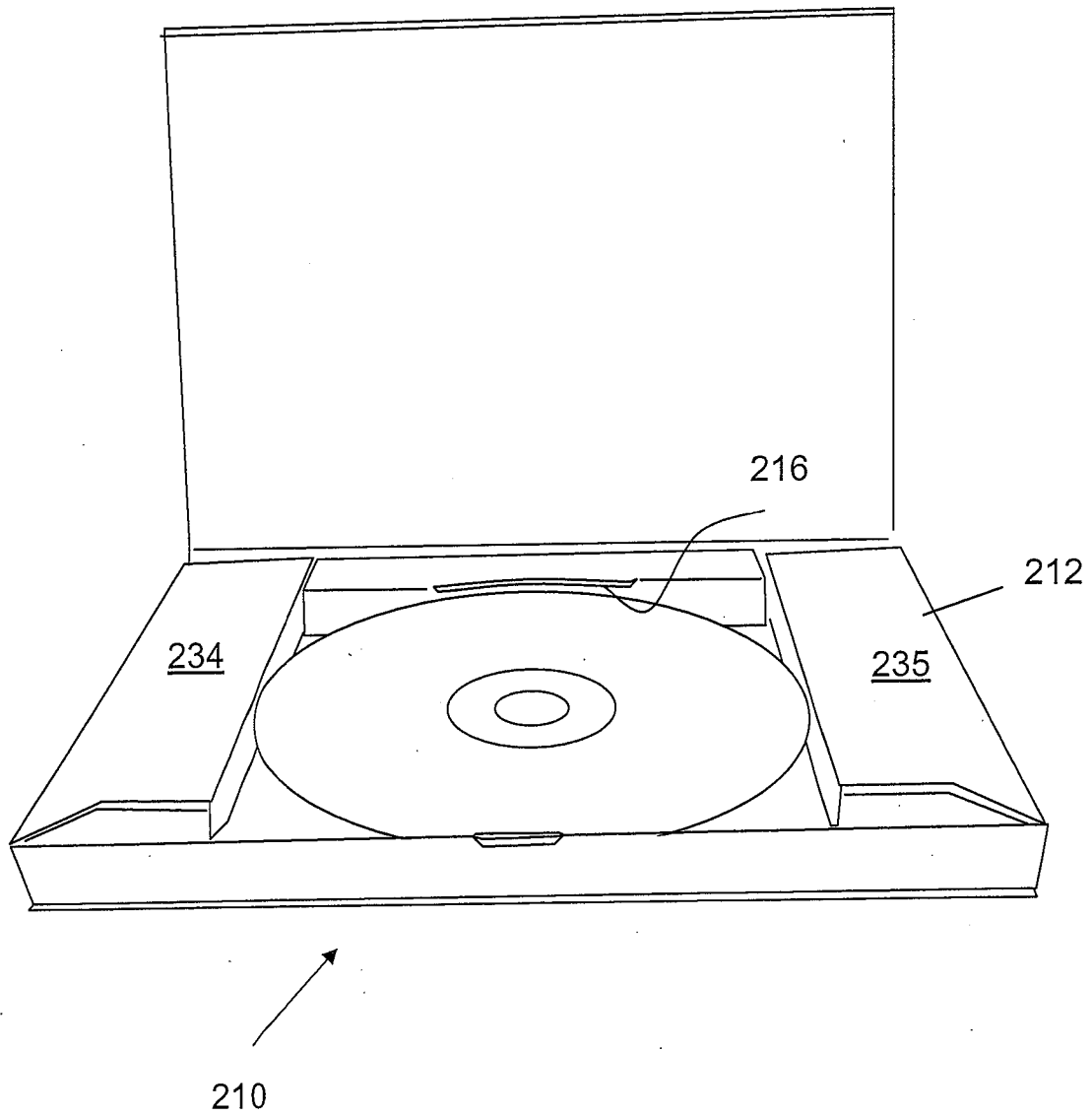


FIG. 11A

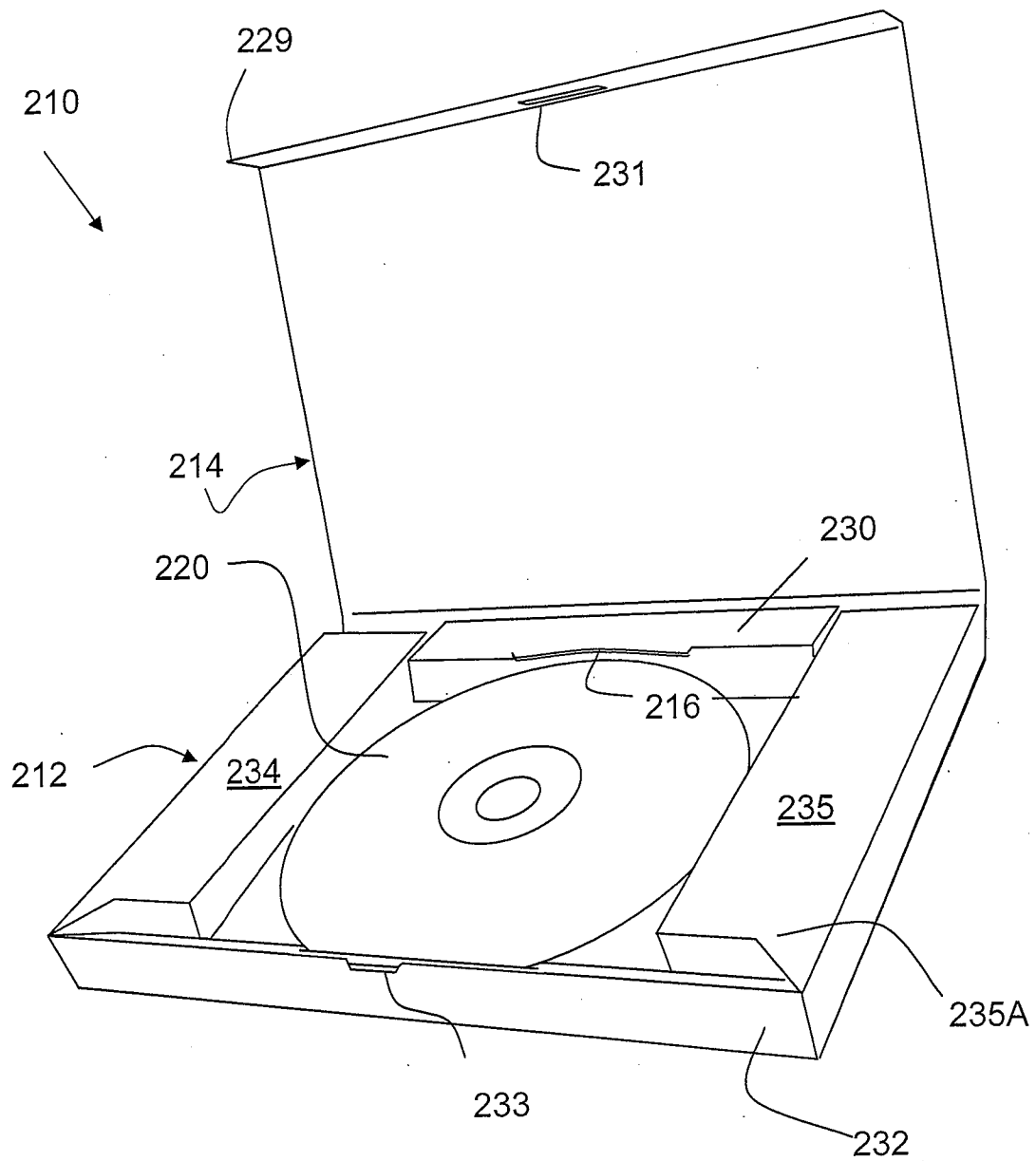


FIG. 11B

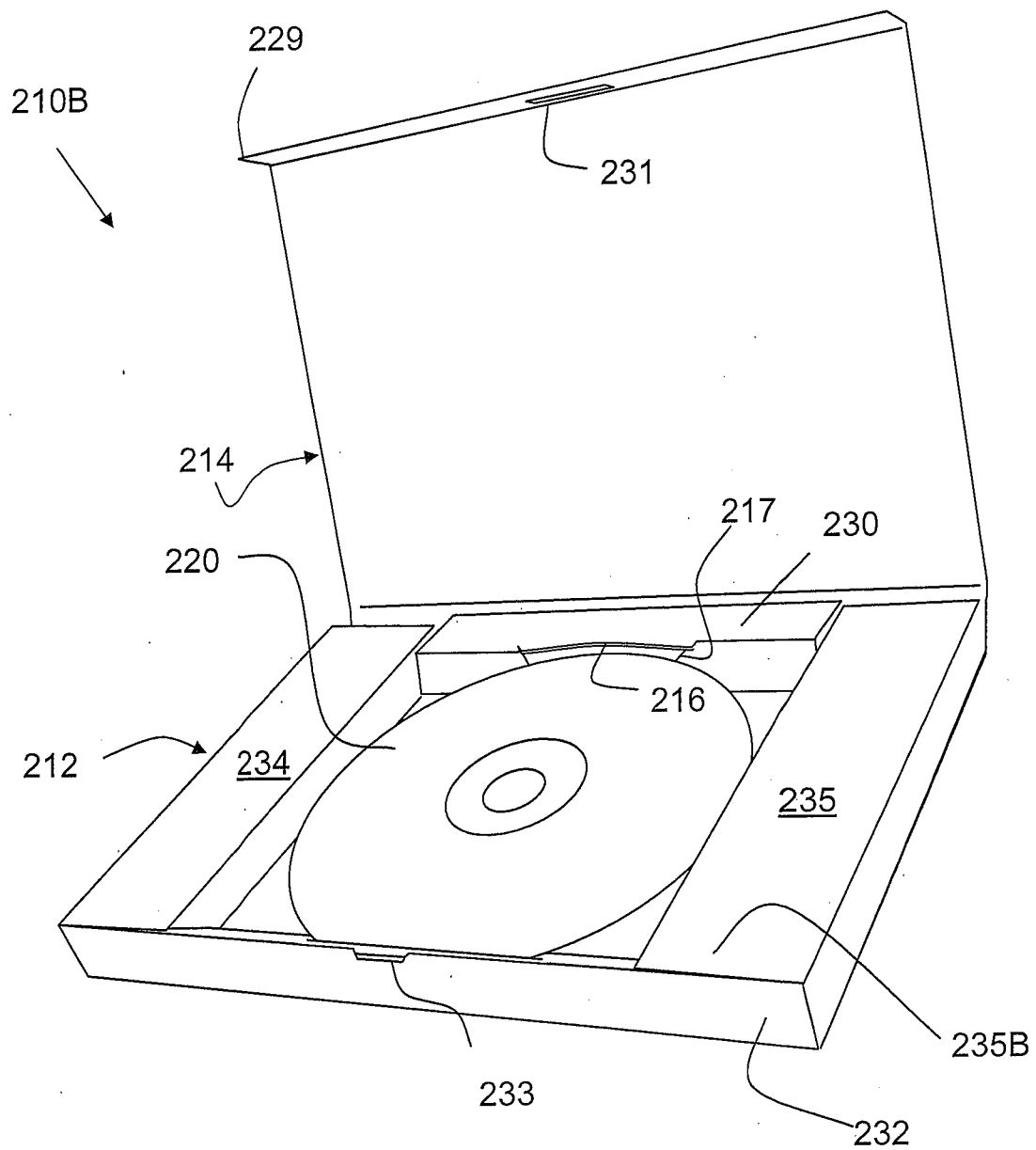


FIG. 12

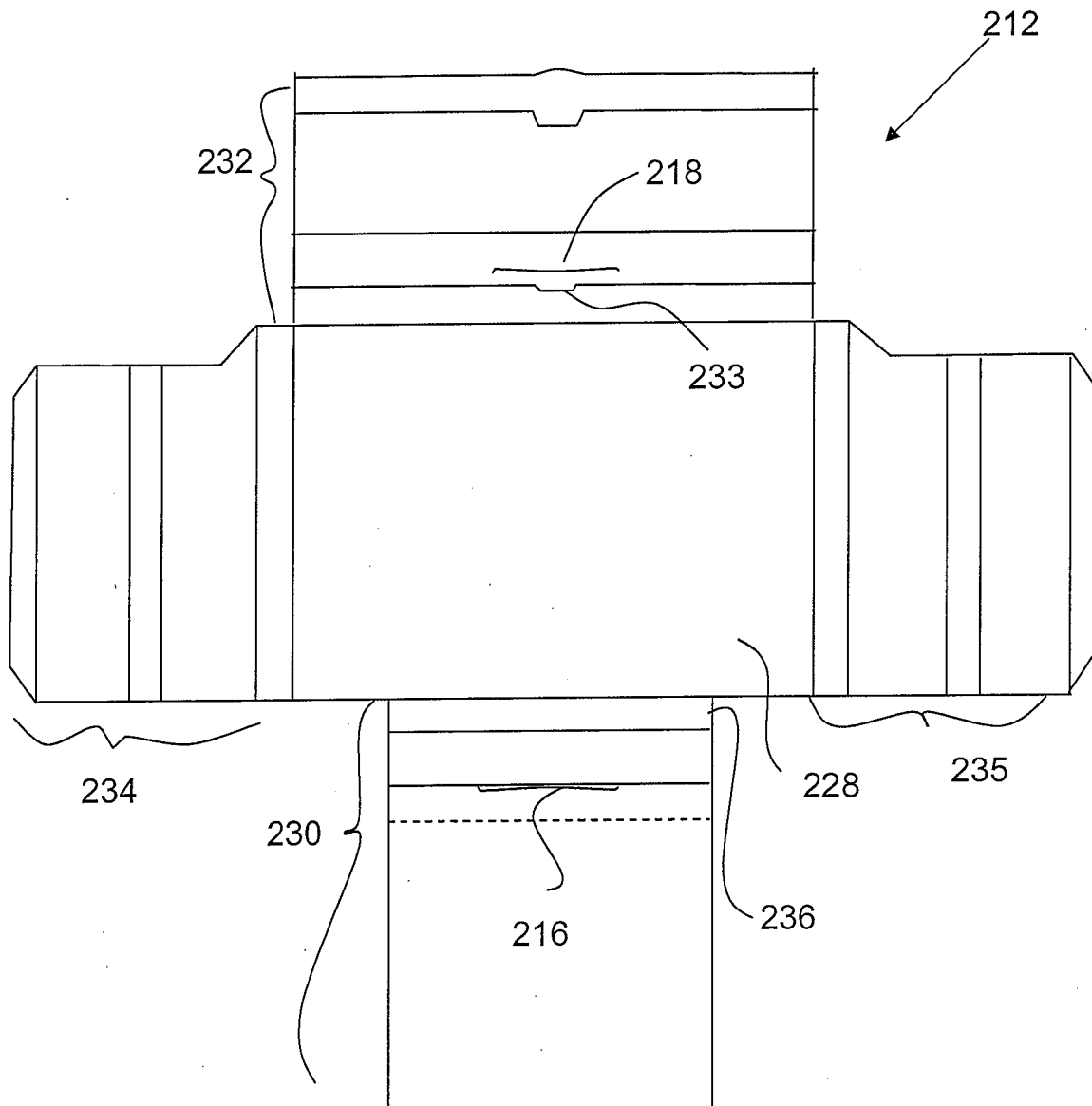


FIG. 13

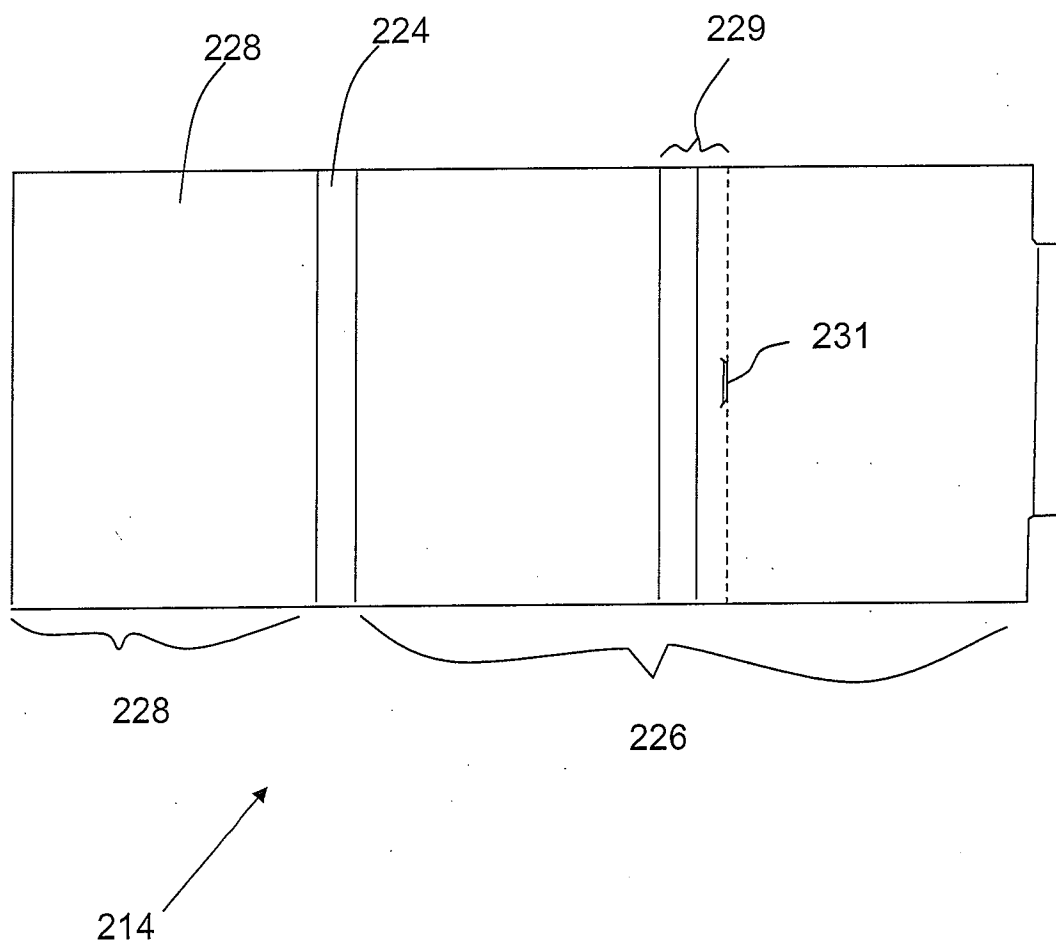


FIG. 15

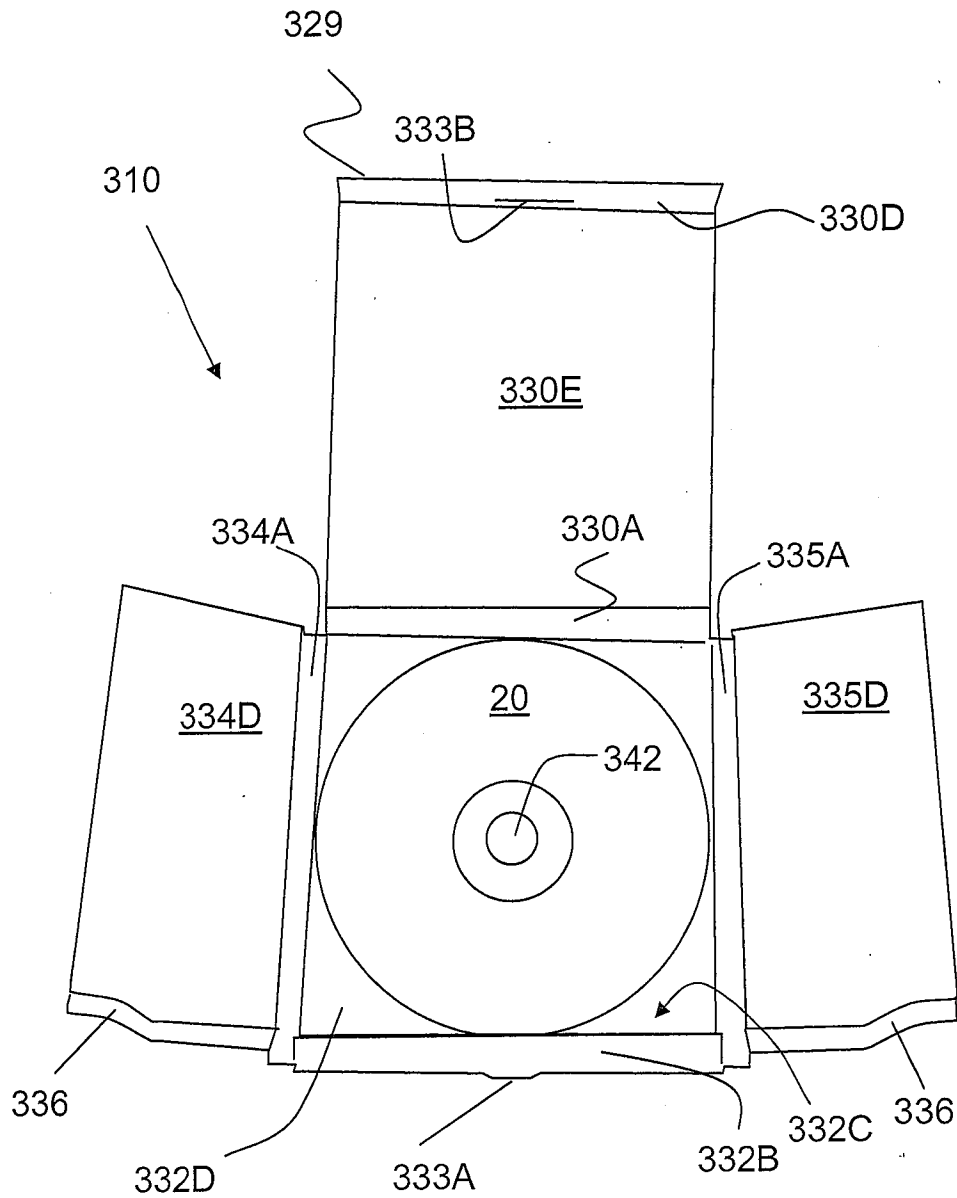


FIG. 16

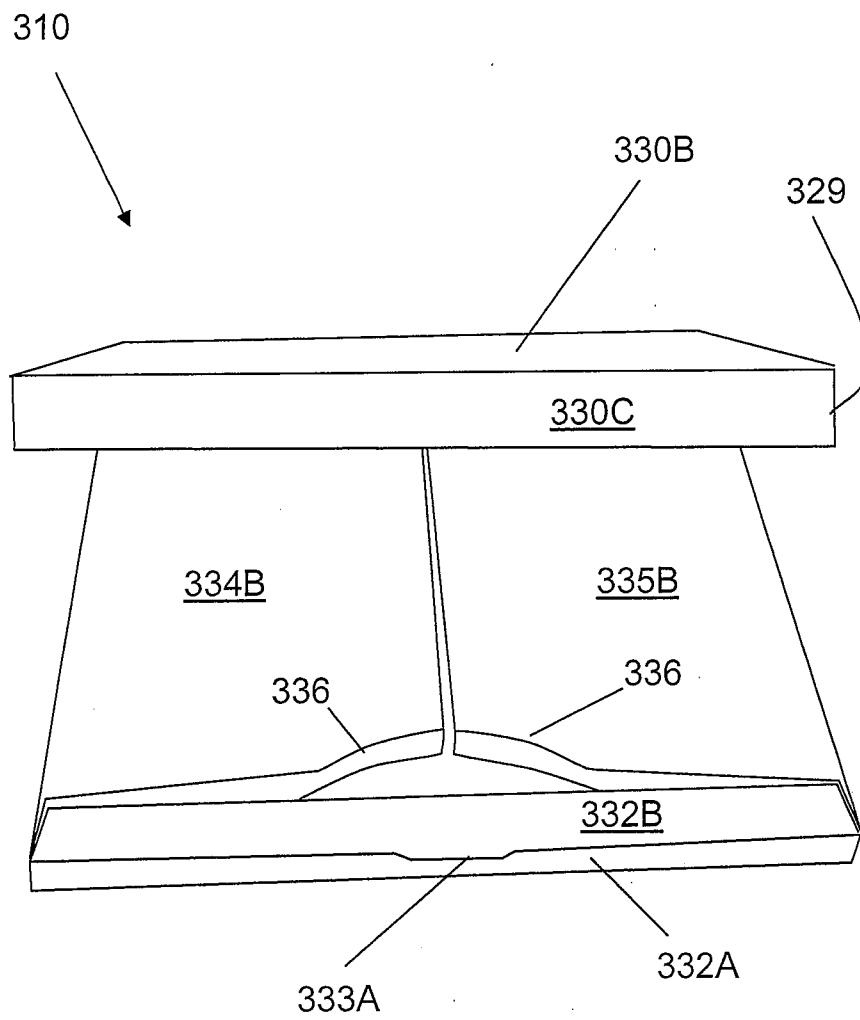


FIG. 17

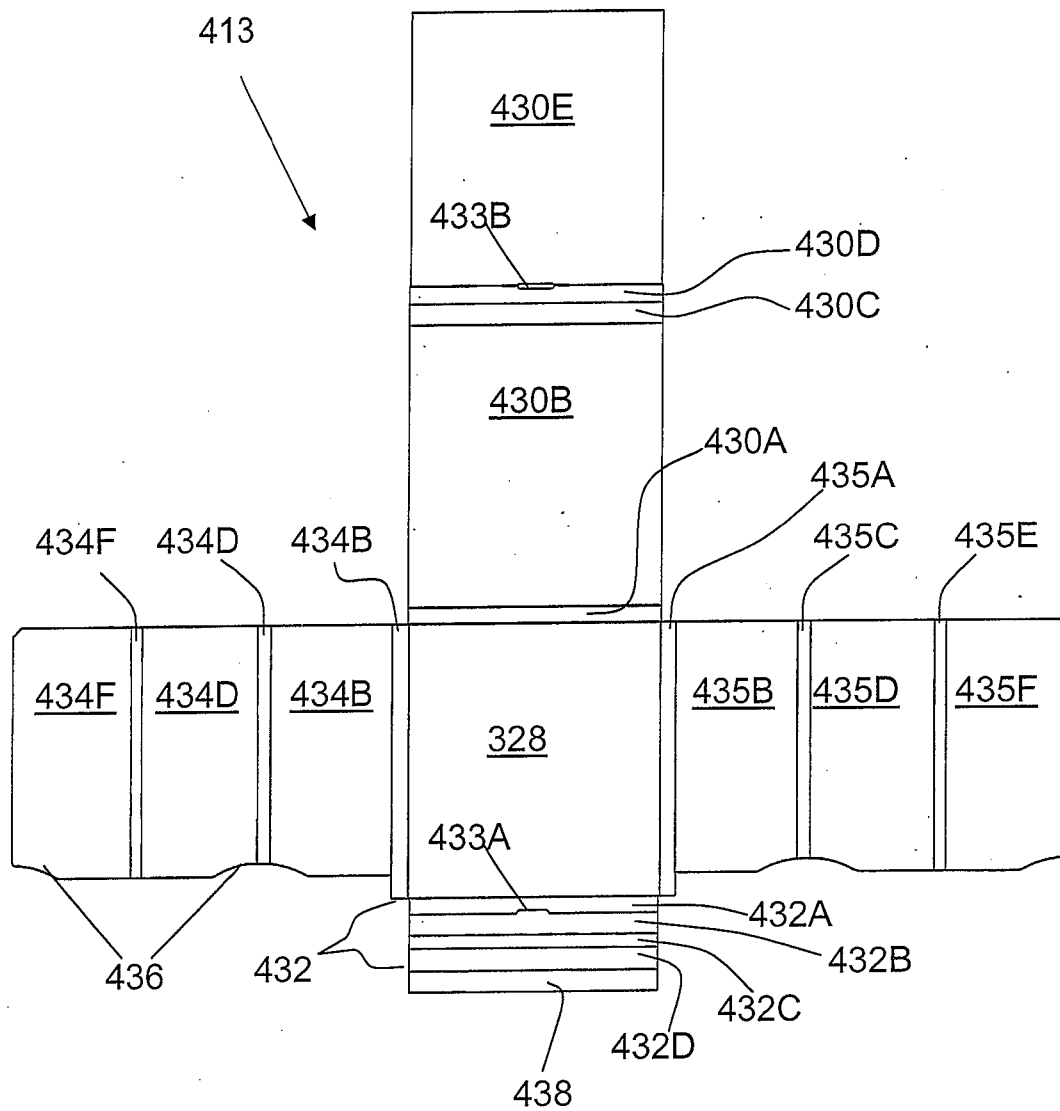


FIG. 18

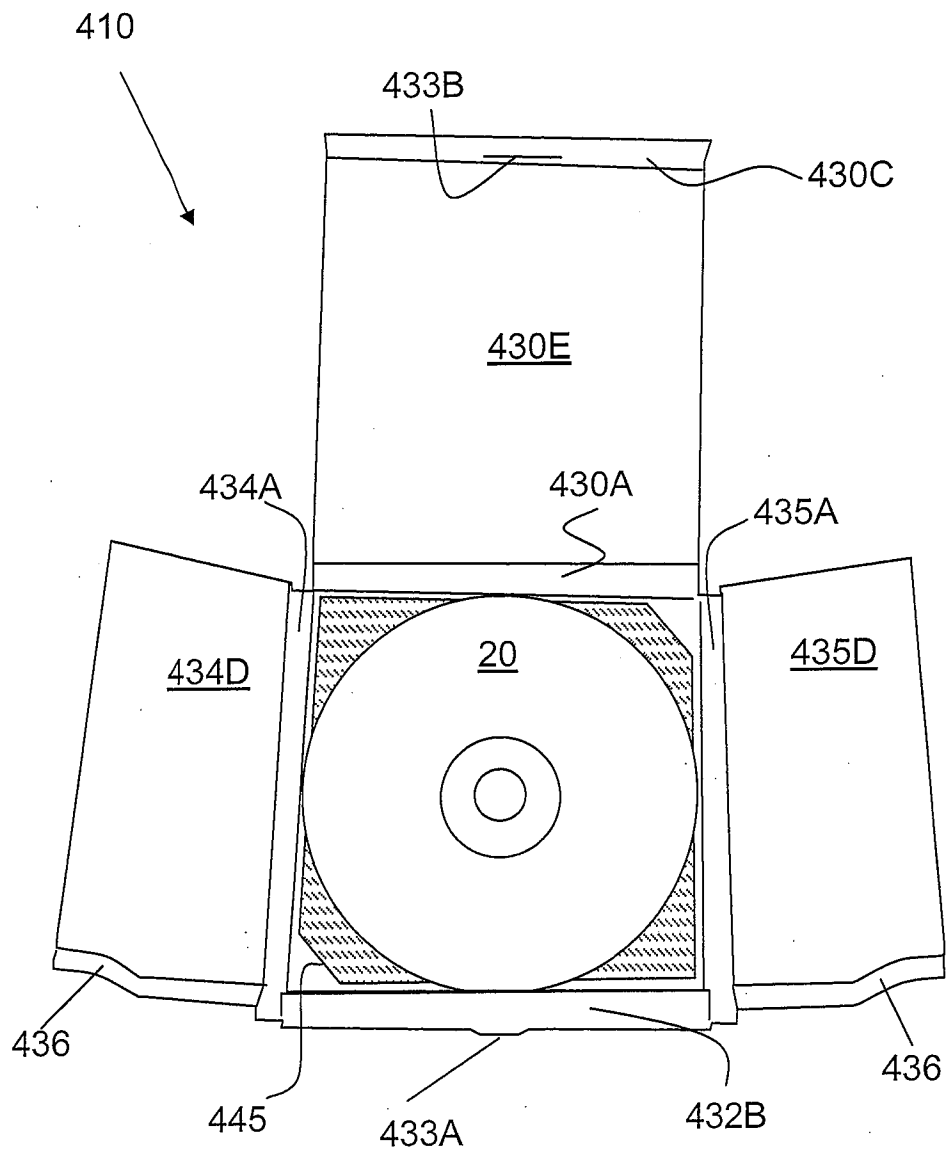


FIG. 19

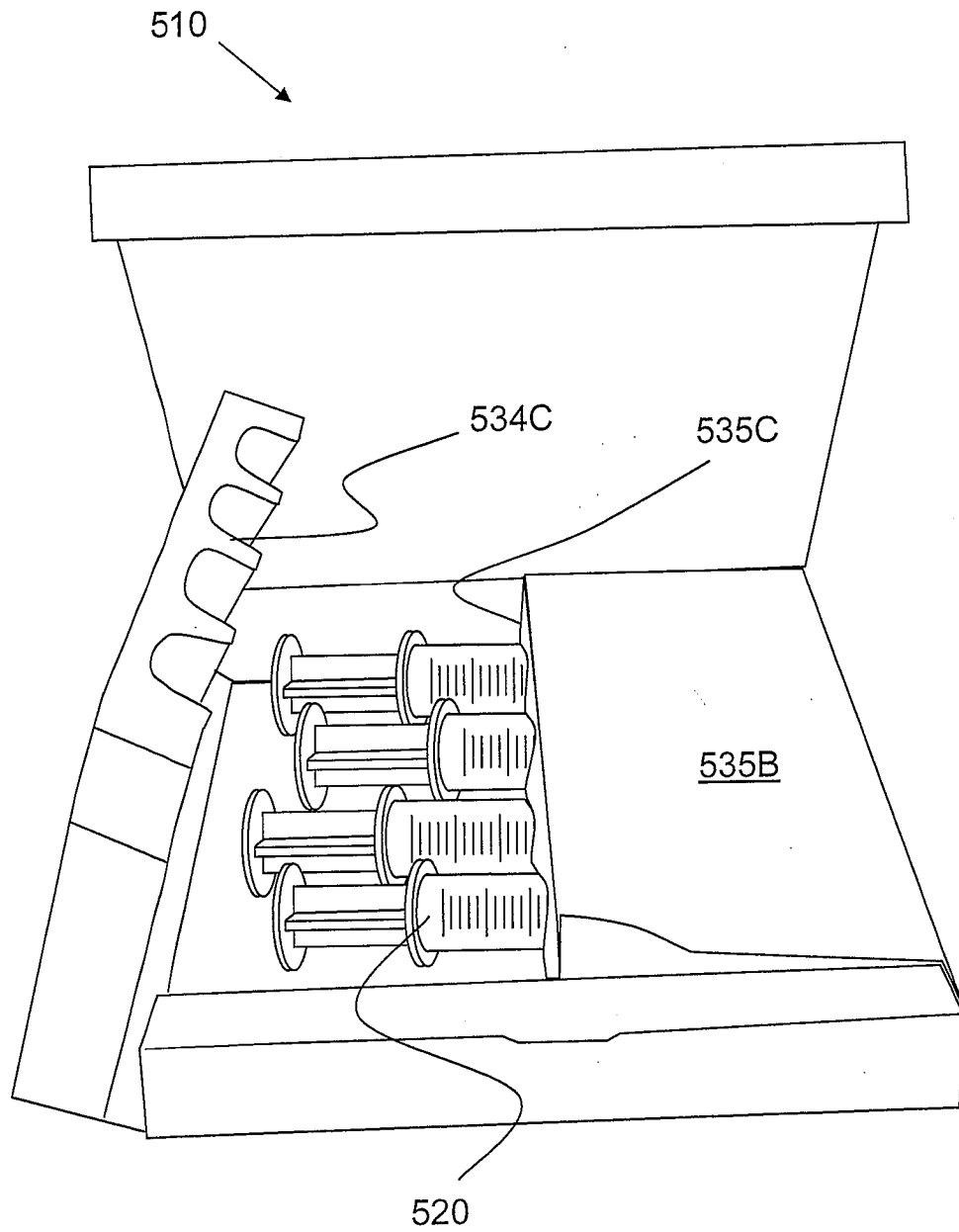


FIG. 20

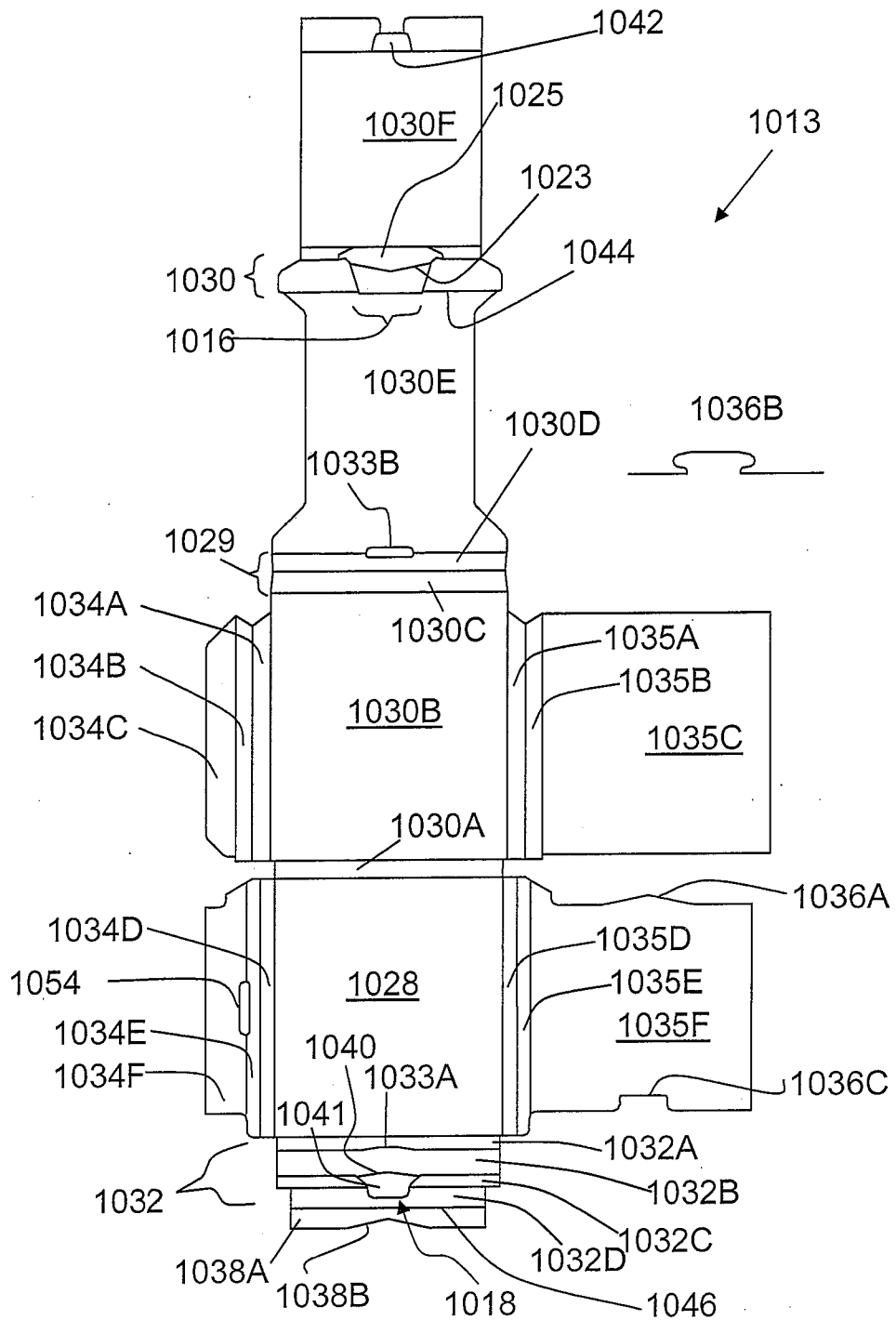


FIG. 21

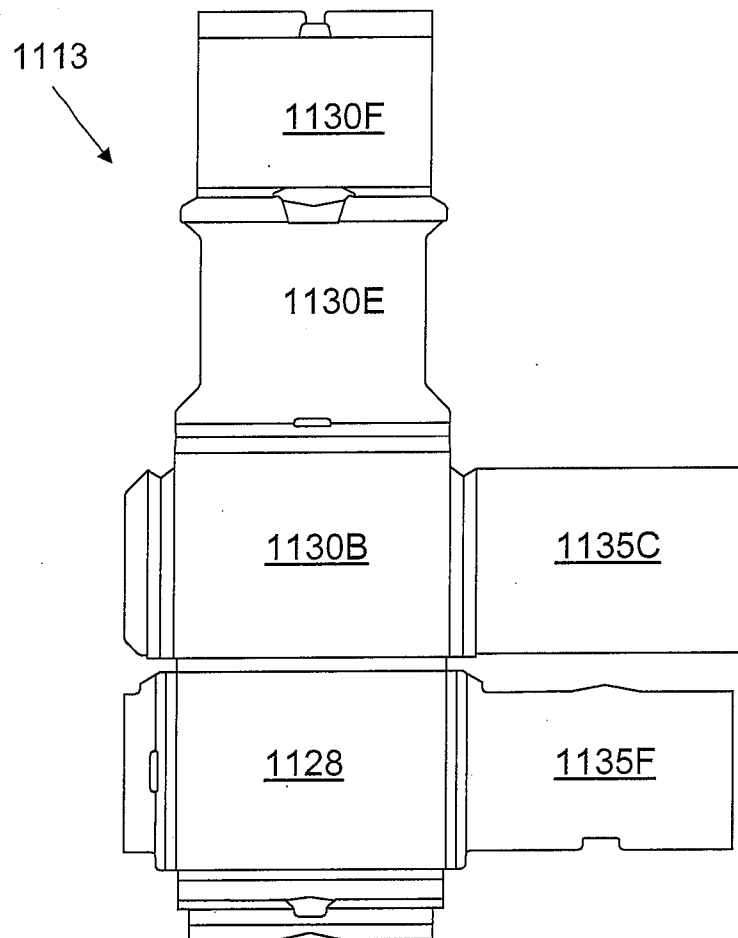


FIG. 22

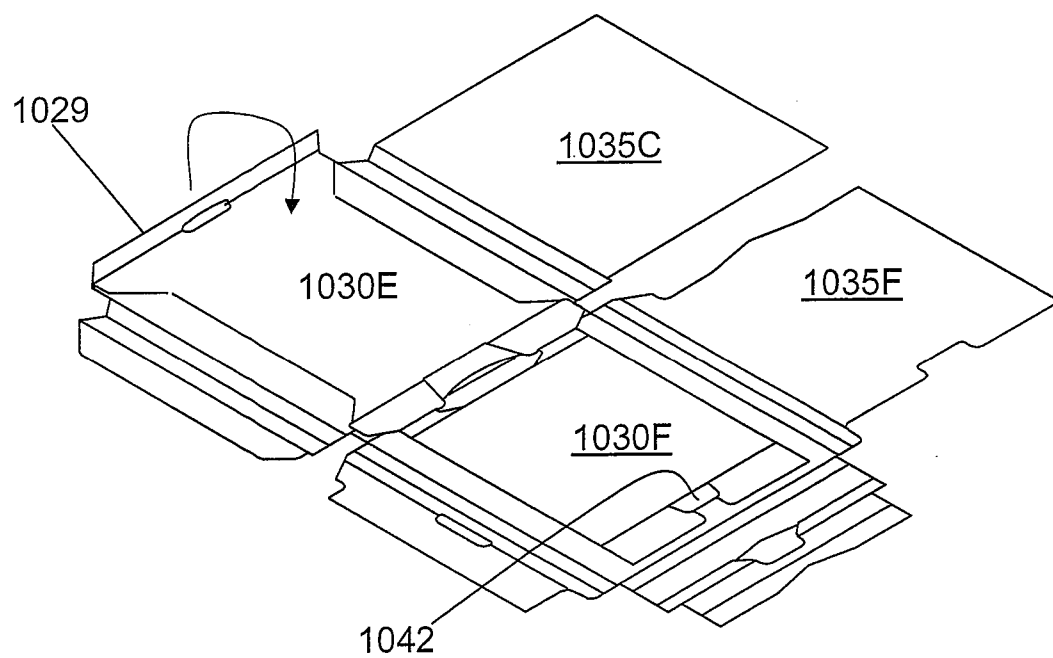


FIG. 23

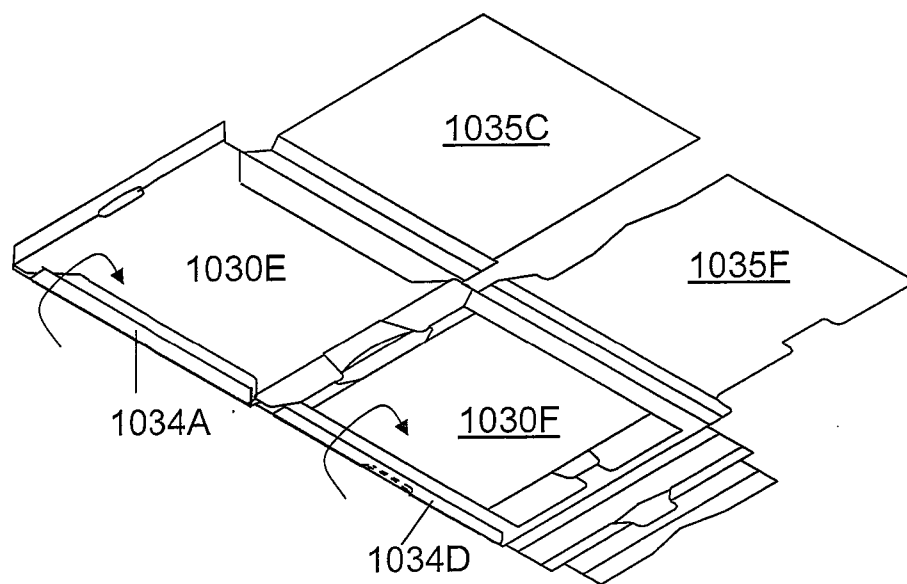


FIG. 24

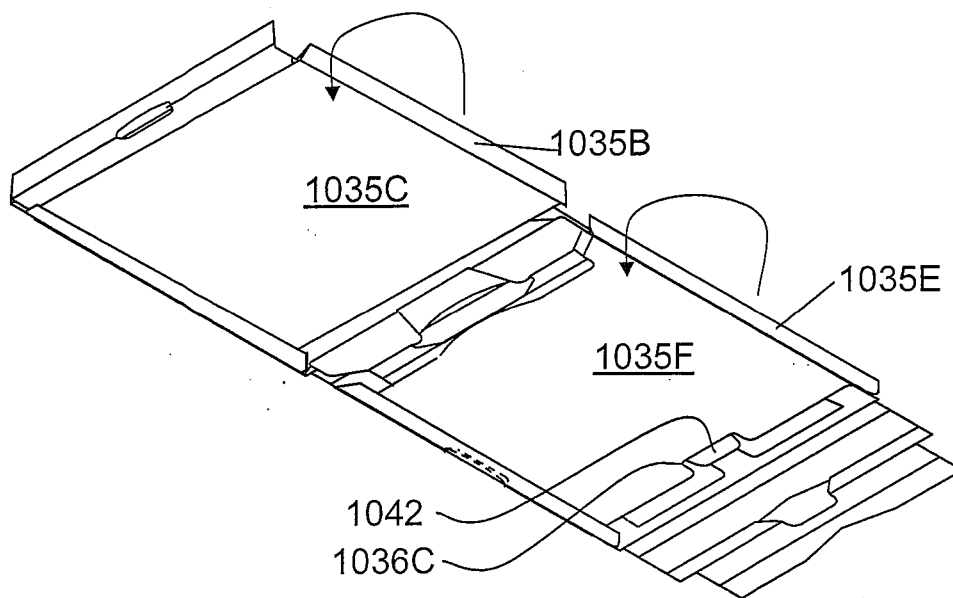


FIG. 25

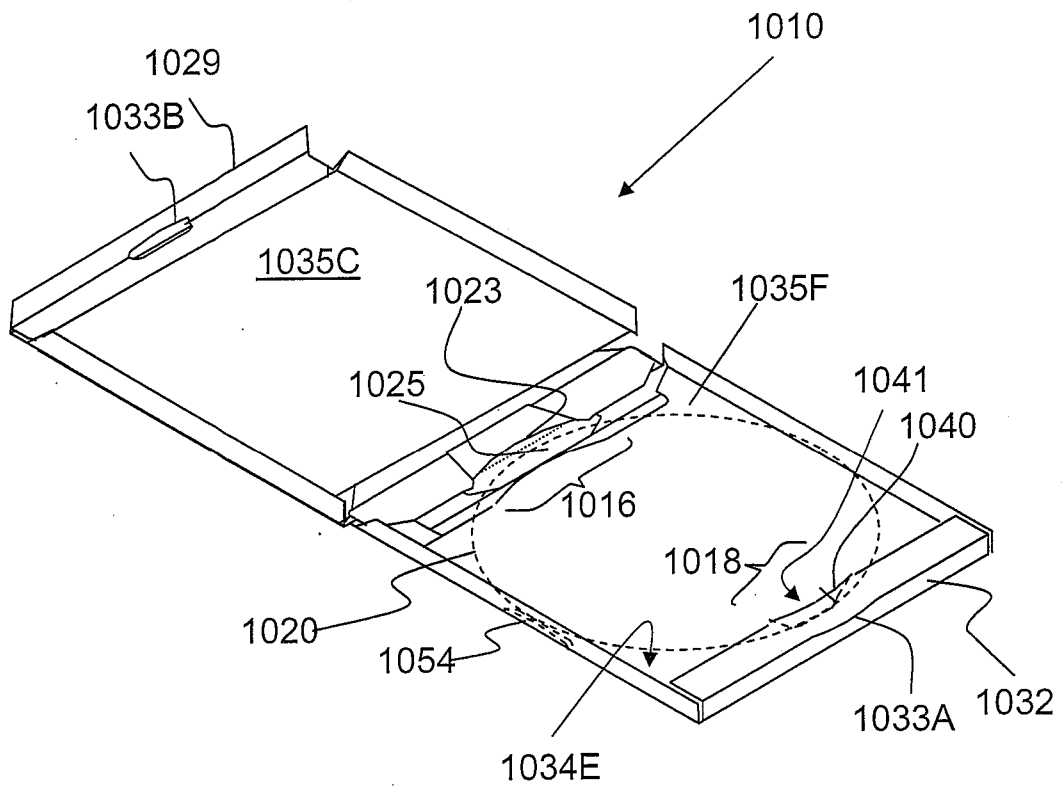


FIG. 26

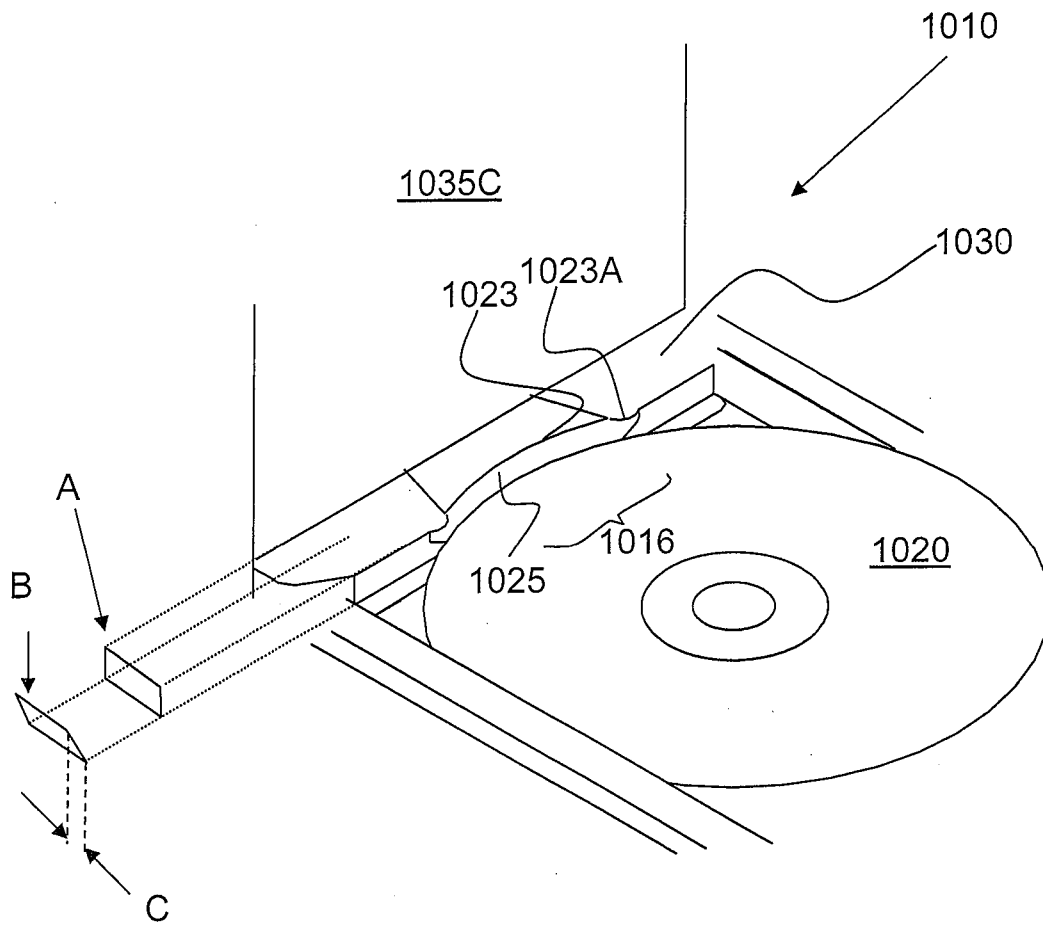


FIG. 27

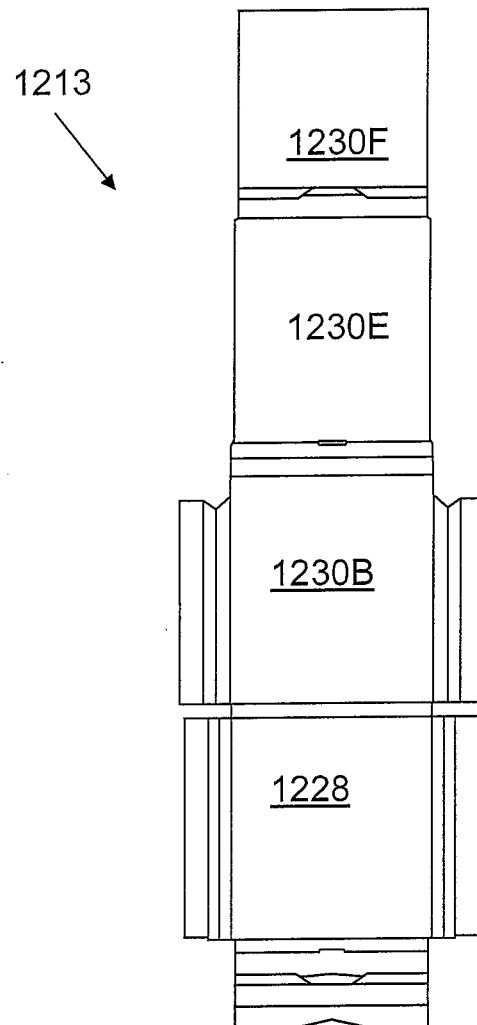


FIG. 28

1313

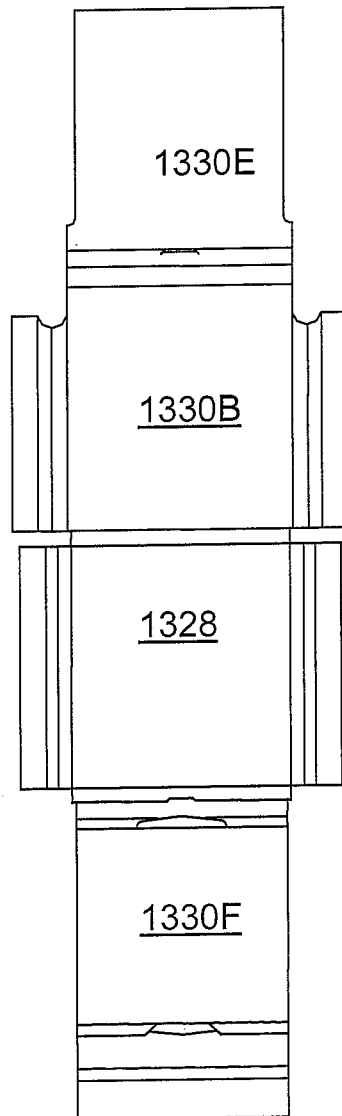


FIG. 29

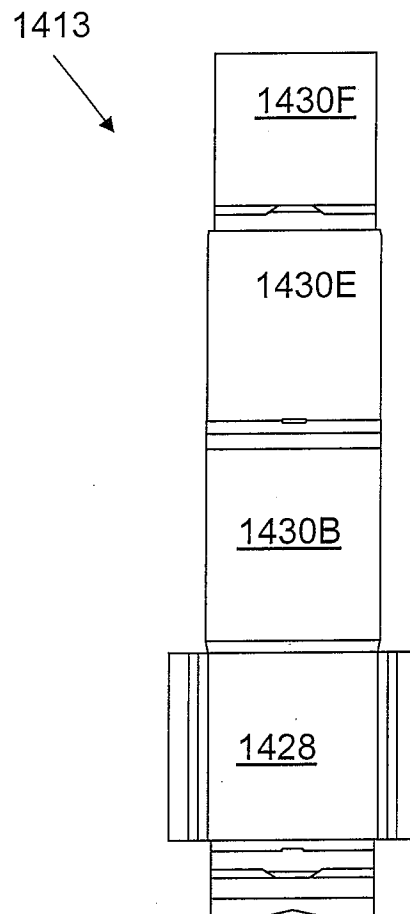


FIG. 30

5

10

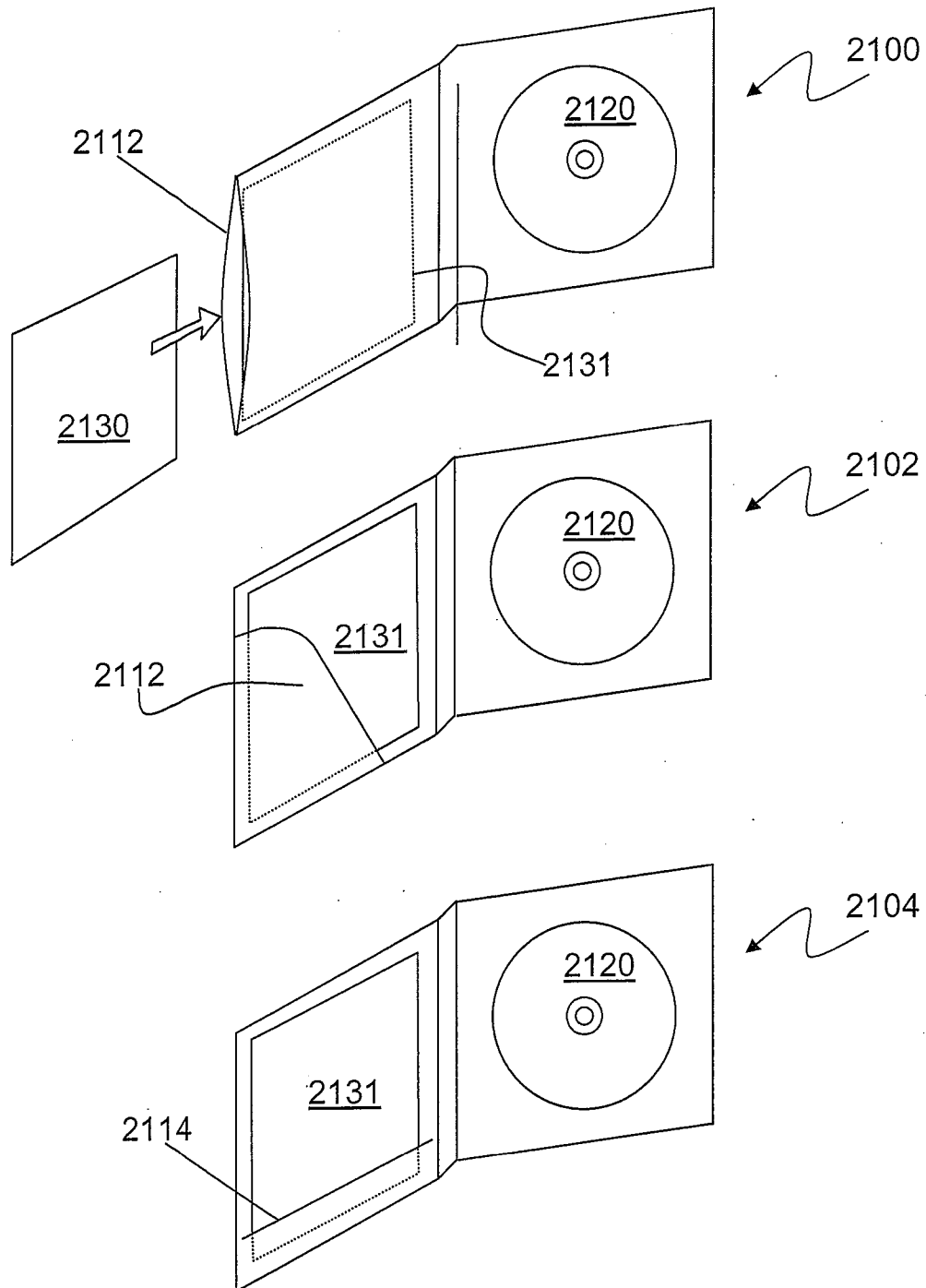


FIG. 31

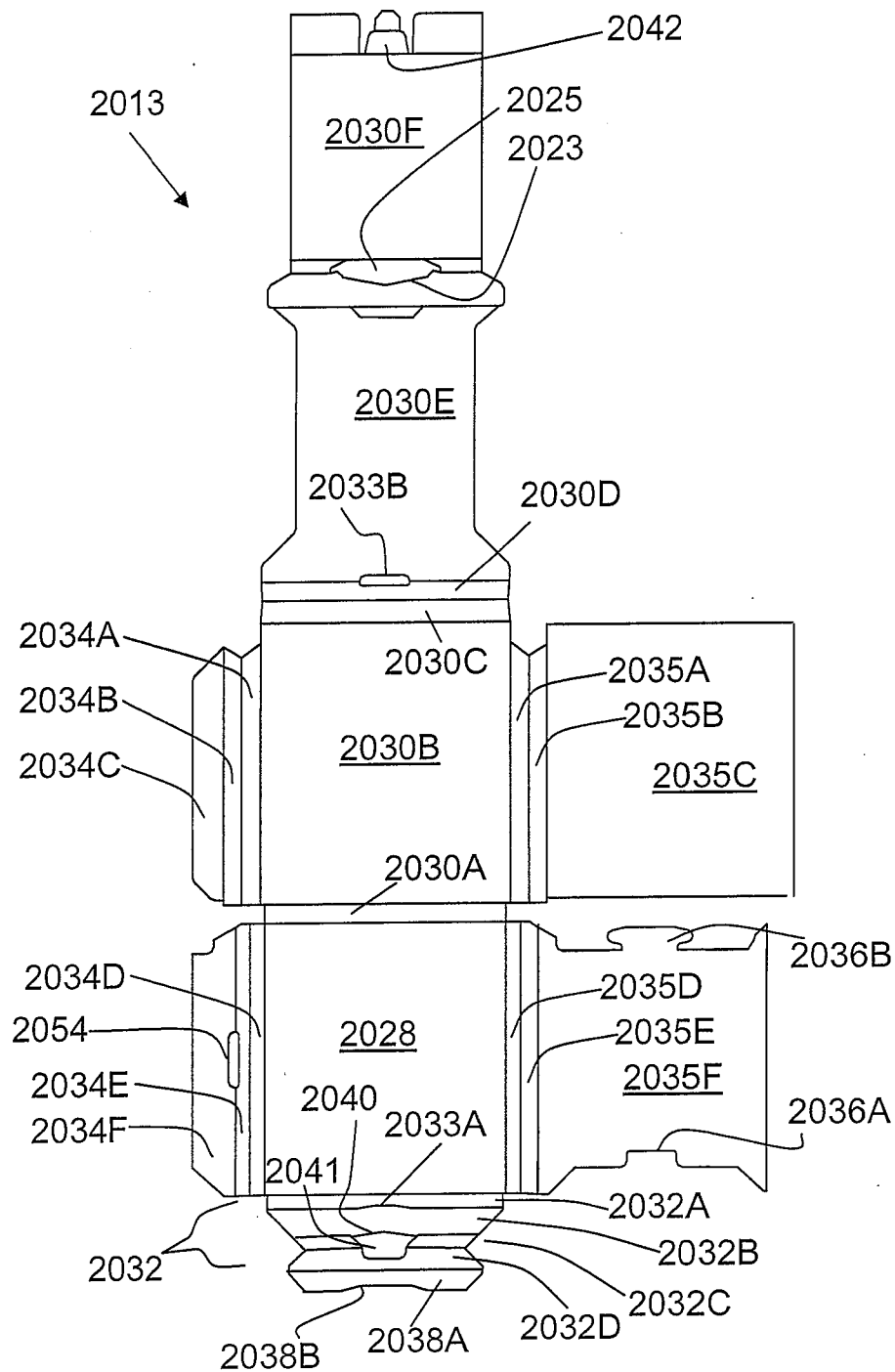


FIG. 32

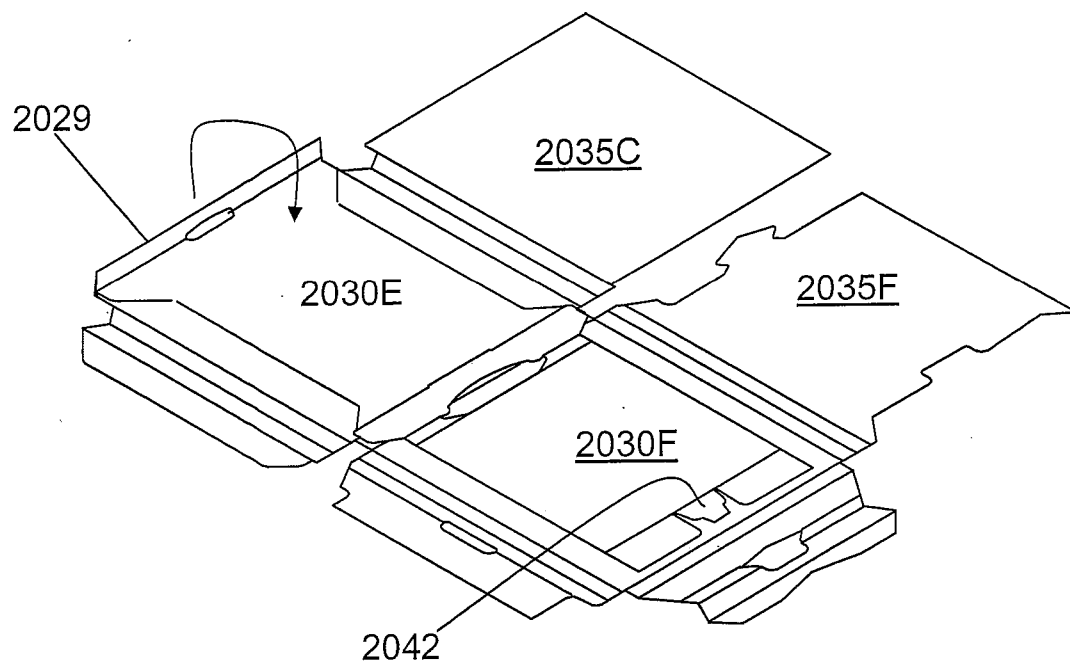


FIG. 33

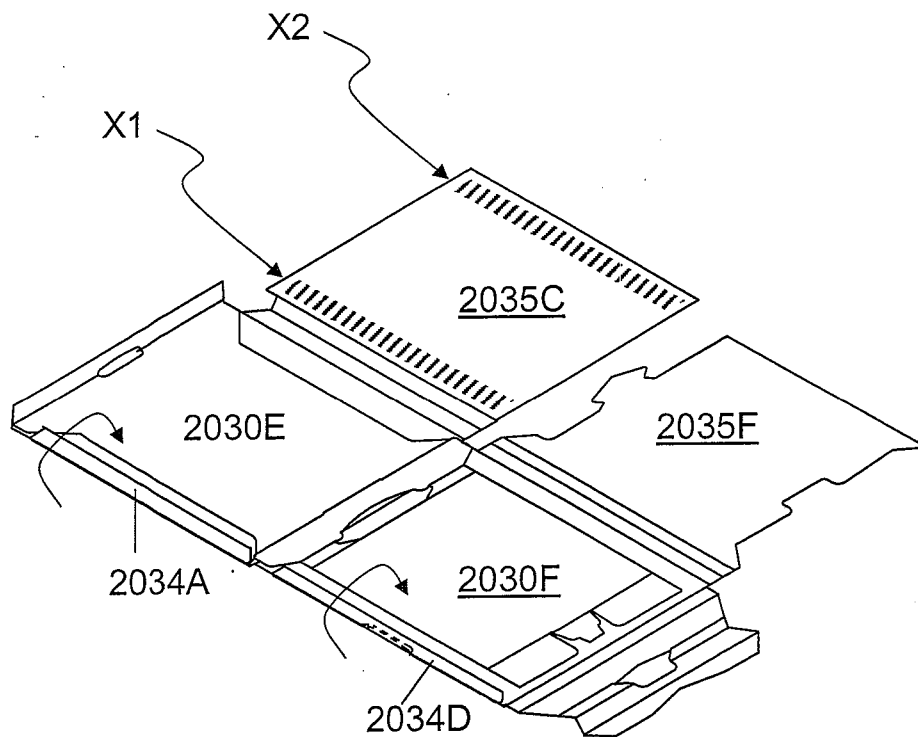


FIG. 34

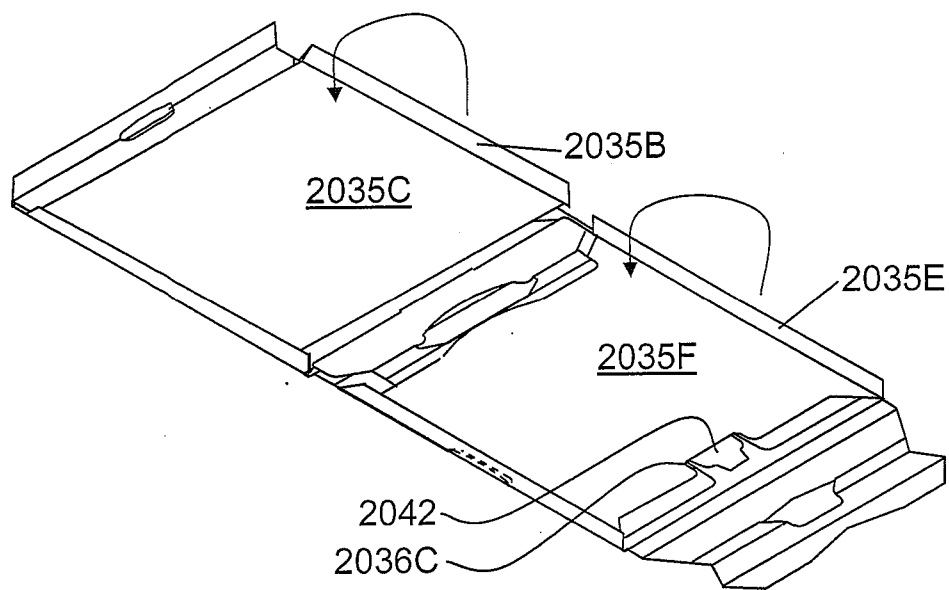


FIG. 35

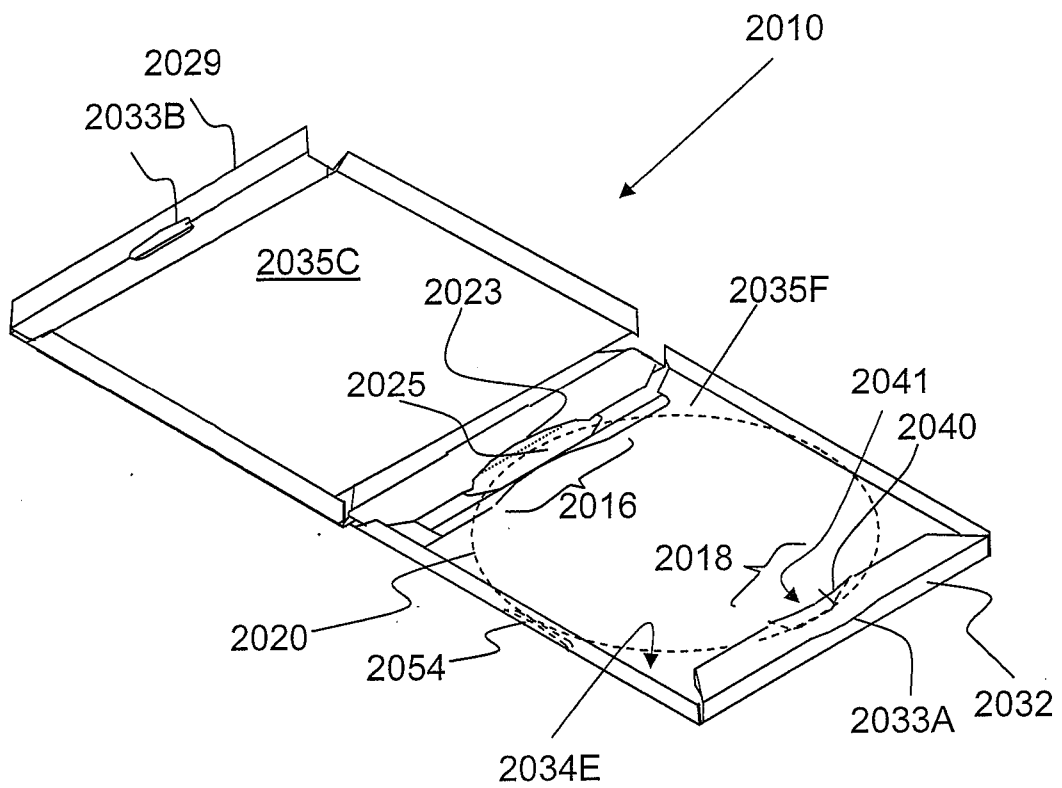


FIG. 36

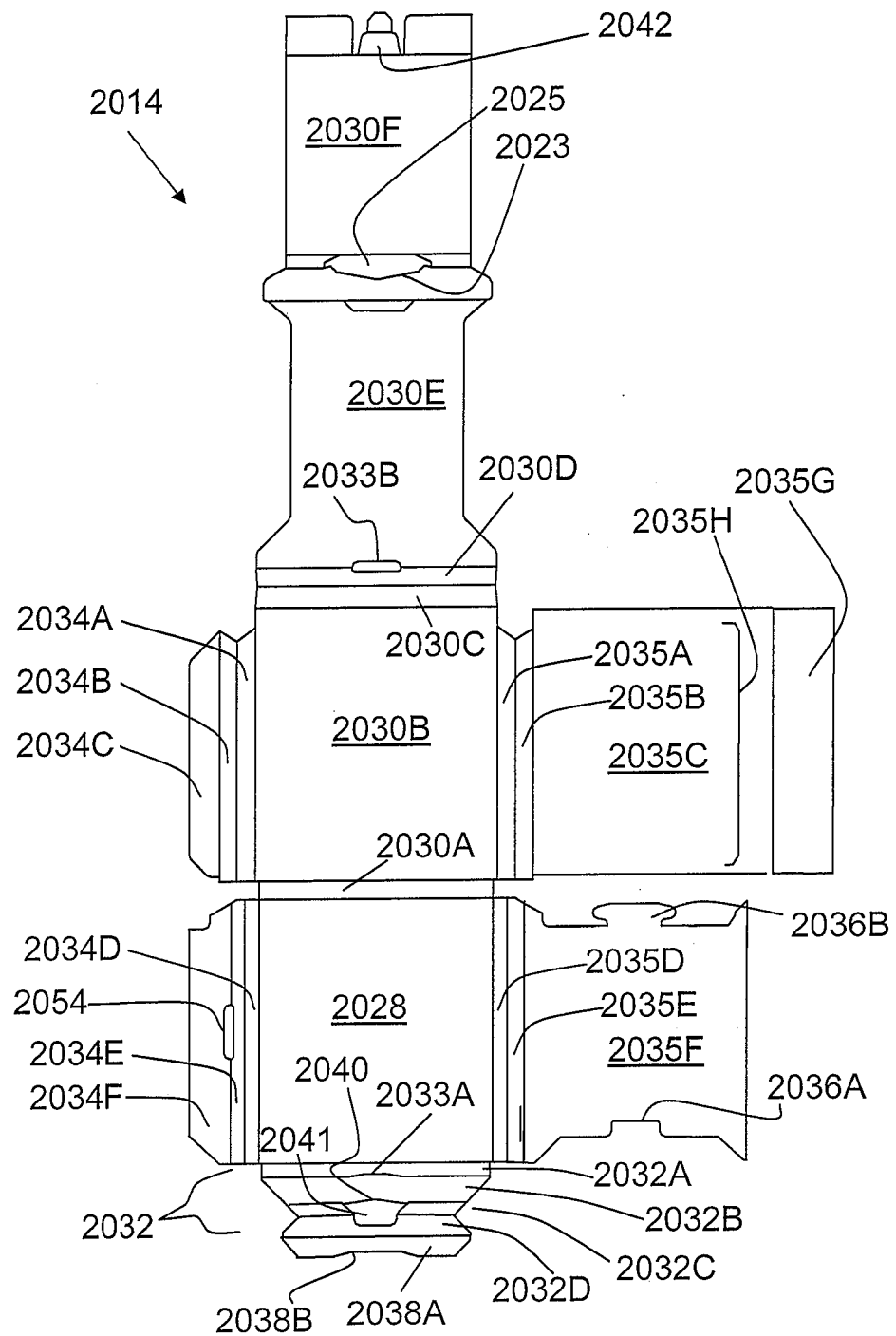


FIG. 37

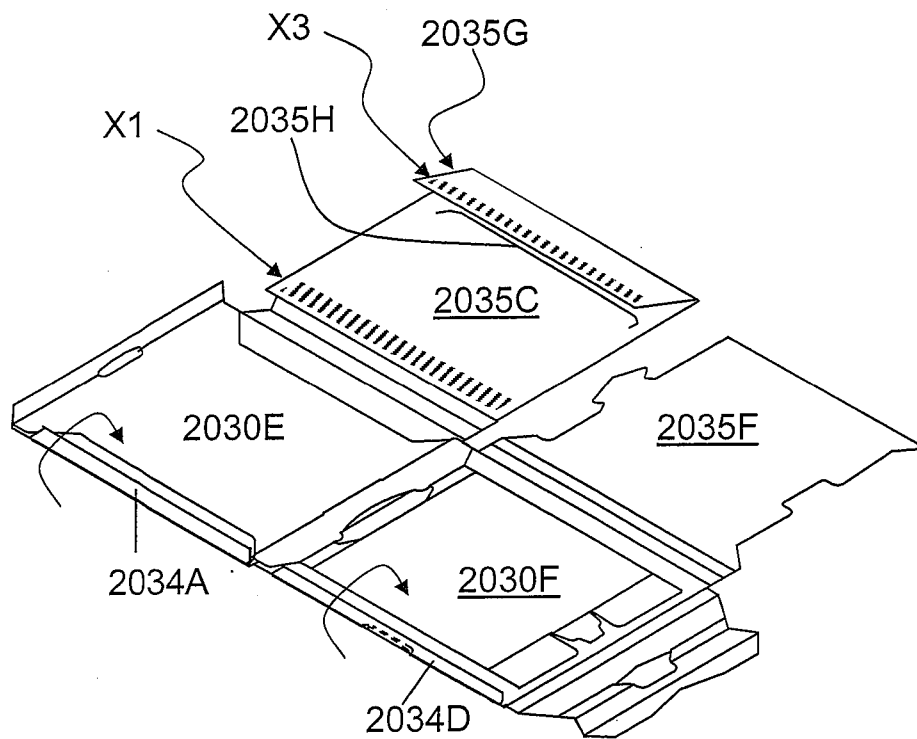


FIG. 38

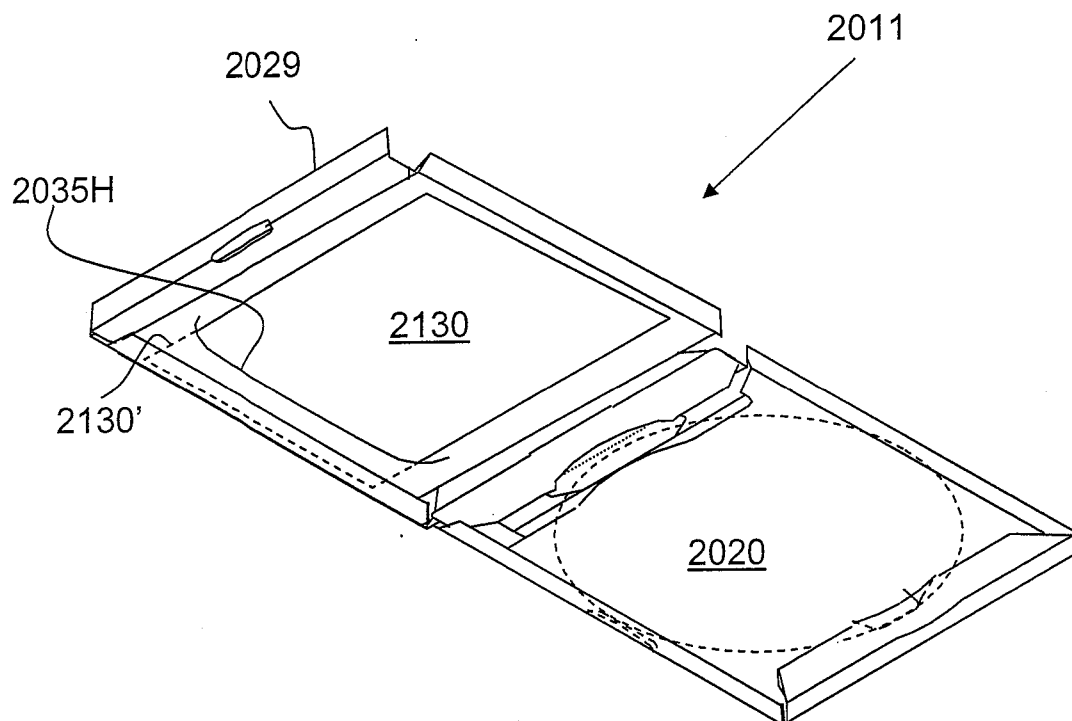


FIG. 39

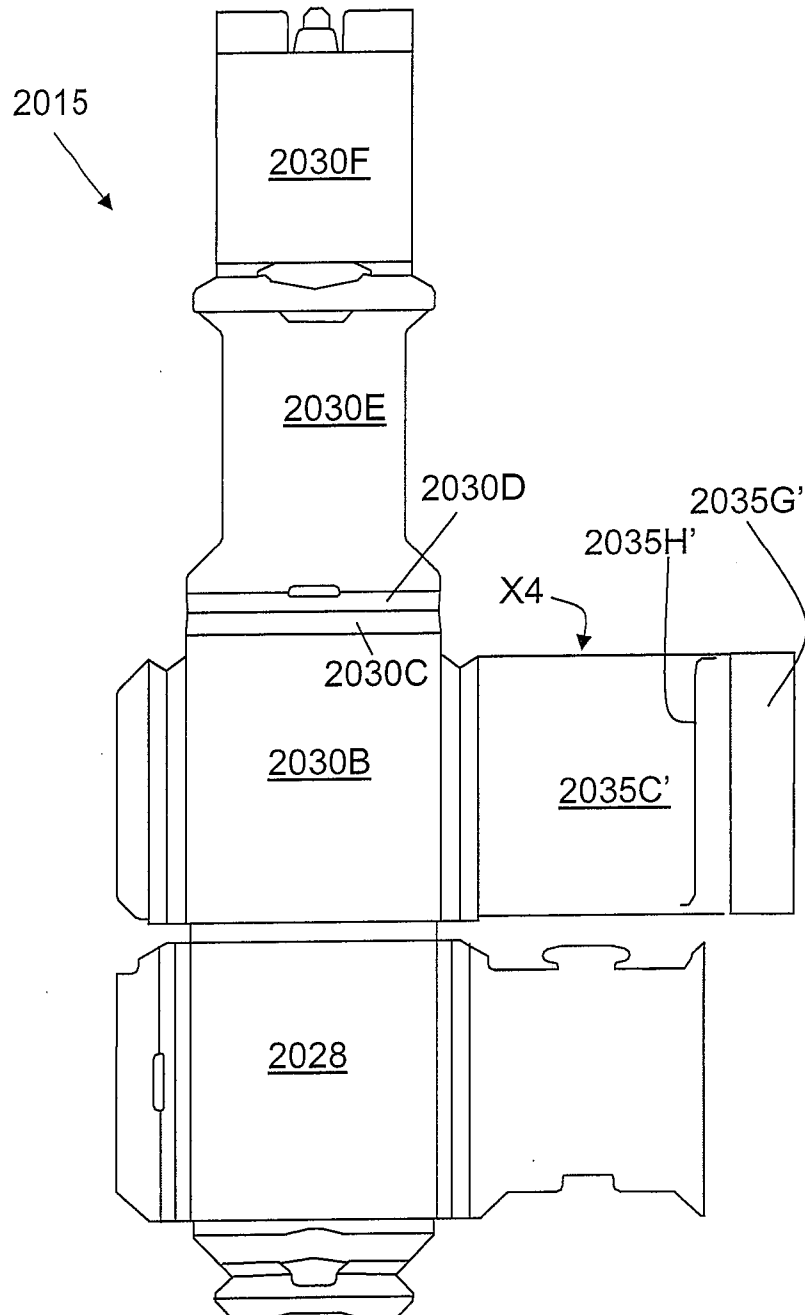


FIG. 40

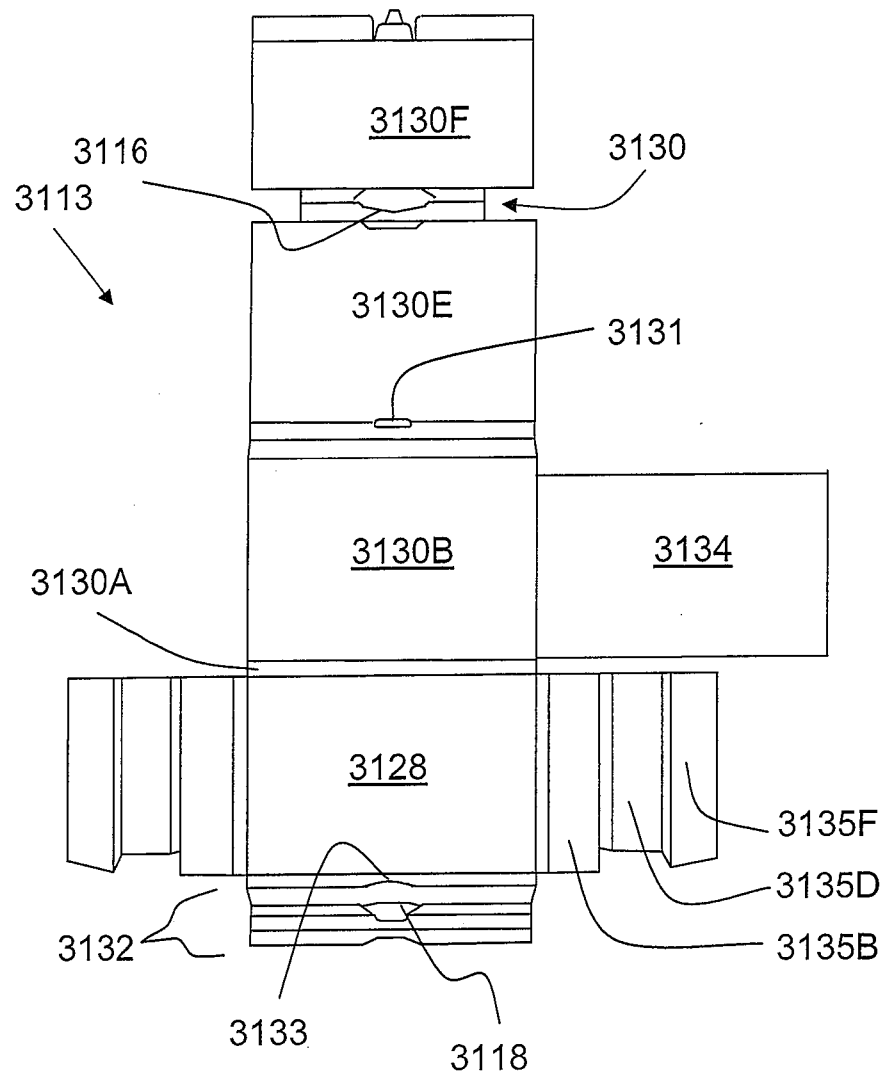


FIG. 41A

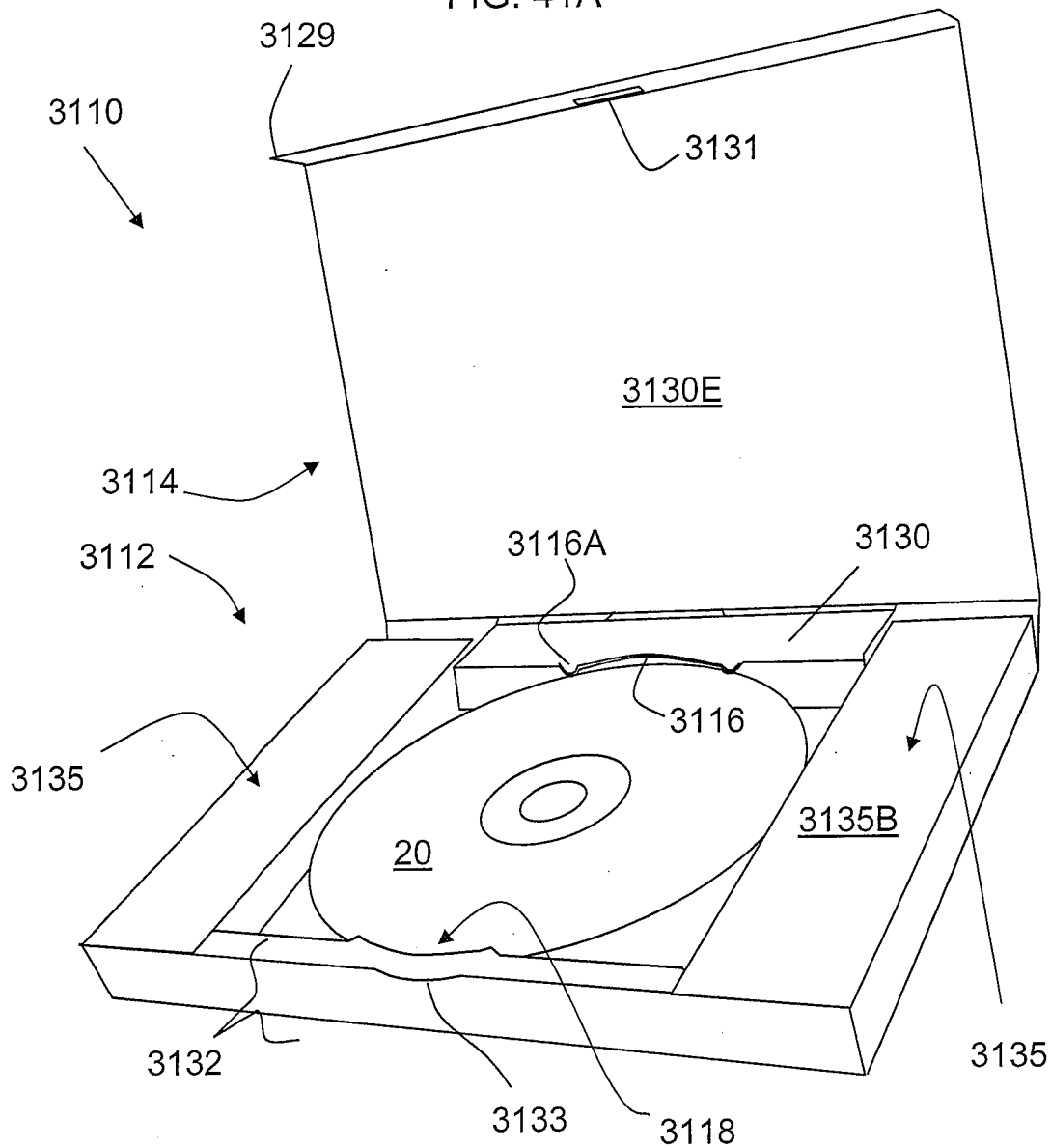


FIG. 41B

