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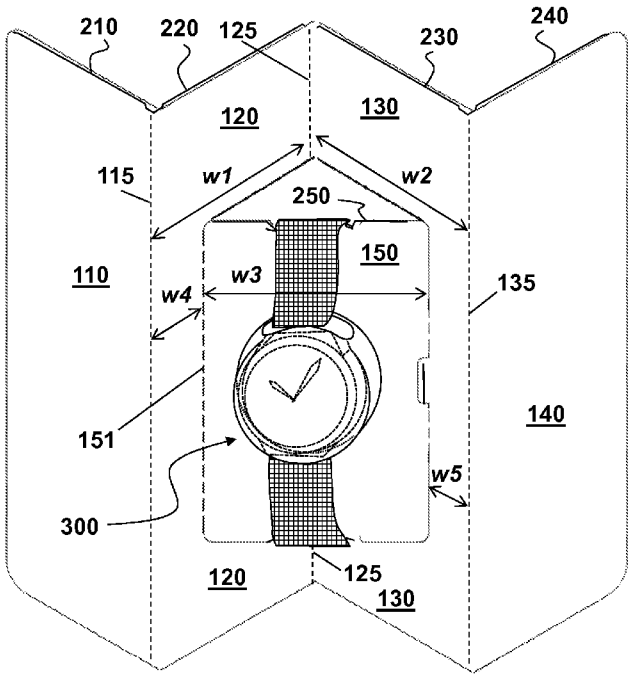
[Continued on next page]

(54) Title: ZIG-ZAG DISPLAY CARD WITH OPTIONAL BLISTER

FIG. 5



(57) Abstract: A package is disclosed which includes first panel (120) and second panel (130) connected together at an angle, with a spanning panel (150) located between the first and second panels. The spanning panel (150) may hold a blister (300) for containing a product item.

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ZIG-ZAG DISPLAY CARD WITH OPTIONAL BLISTER

REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of priority under 35 U.S.C. §119(e) of United States provisional applications serial number 61/749,274 filed on January 5, 2013, and serial number 61/842,518 filed on July 3, 2013, both of which are hereby incorporated by reference in their respective entireties.

BACKGROUND

[0002] This disclosure is directed to blister card packages and, more particularly, to blister packages having main panels arranged at an angle to one another forming an inner corner, and with a subpanel spanning across the corner between the main panels.

[0003] Manufacturers and retailers of consumer goods, such as pharmaceuticals, software, electronics, health and beauty products and the like, typically package their products in various types of display packages. For example, many consumer goods are packaged in blister or clamshell packages formed by positioning a consumer good in a flanged blister made from various polymeric and/or paperboard materials and sealing the flanged blister between two paperboard substrates. Packages may be made based largely on paperboard, for example, NATRALOCK packages made by MeadWestvaco Corporation. Packaging made primarily of paperboard is more sustainable than packaging made from petroleum-based plastics. The paperboard used in such packages may be tear-resistant as described in commonly assigned US Patent No. 7,144,635.

[0004] Often a package may be a planar or flat construction. However, such packages typically cannot stand on edge and therefore must be hung on a hook, or placed in some sort of box or base. A non-planar package on the other hand may be able to stand on it edge, and may provide a more interesting package.

[0005] It would, therefore, be advantageous to have a non-planar package of a novel design.

SUMMARY

[0006] In one aspect a package is disclosed which includes a two or more main panels forming an inner corner, and a spanning panel between the main panels and positioned across the inner corner. A blister enclosure may be attached to the spanning panel.

[0007] Other aspects of the disclosed package will become apparent from the following description and the accompanying drawings. In some embodiments the package might be termed a 'zig zag package' because of the relative orientation of its panels, for example in a W or M shape. More generally however the package may be considered 'non-planar' in the sense that a generally flat blank or blanks may be assembled into a structure where the panels although connected together lie in two or more planes.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] Fig. 1A and Fig. 1B are plan views of blanks to form a package;

[0009] Fig. 2A is a view of a portion of the blank of Fig. 1A, with a blister for use with the package;

[0010] Fig. 2B is a view of a blister positioned on the portion of the blank, and showing a product item to be contained in the package;

[0011] Fig. 2C is a view of the product item held within the blister and positioned on the portion of the blank;

[0012] Fig. 3A is a plan view of the full blank of Fig. 1A, showing the product items held thereon;

[0013] Fig. 3B is a cross section view of the structure shown in Fig. 3A;

[0014] Fig. 4A is a perspective view of the blank of Fig. 1B, in a folded configuration,

[0015] Fig. 4B is a cross section view of the structure shown in Fig. 4A;

[0016] Fig. 5 is a perspective view of the finished package, with the blister and content item positioned upon a subpanel spanning a corner between two of the main panels;

[0017] Fig. 6 is a perspective view of another finished package, similar to that of Fig. 5 but folded in an opposite orientation;

[0018] Fig. 7 is a perspective view of another finished package, similar to that of Fig. 5 but without one of the wing panels;

[0019] Fig. 8 is a perspective view of another finished package, similar to that of Fig. 5 but folded in an opposite direction and without either wing panel;

[0020] Fig. 9 is a perspective view of another finished package, similar to that of Fig. 5 but with a subpanel spanning between the two wing panels;

[0021] Fig.10 is a perspective view of another finished package, with a single main panel and a subpanel spanning between the two wing panels;

[0022] Fig.11 is a perspective view of another finished package, with a single 'main' panel as multiple short segments, and a subpanel spanning between the two wing panels;

[0023] Fig.12 is a perspective view of another finished package, with a single 'main' panel as a curved panel, and a subpanel spanning between the two wing panels;

[0024] Fig. 13 is a perspective view of another finished package, similar to Fig. 10 but with two subpanels spanning between the wing panels;

[0025] Fig. 14 is a perspective view of another finished package, similar to Fig. 13 but with two subpanels at different angles spanning between the wing panels;

[0026] Fig. 15 is a perspective view of another finished package, similar to Figs. 13 and 14 but with two subpanels of different shapes spanning between the wing panels; and

[0027] Fig. 16 is a perspective view of another finished package, similar to Fig. 10 but with a fold in the subpanel spanning between the wing panels.

DETAILED DESCRIPTION

[0028] As various embodiments of the package are described, reference will be made to Figures 1-16. Certain parts of the packages are denoted by reference numerals. Where there is more than one of the same feature, generally only one will be denoted by a reference numeral. Typically in these Figures, where a front plan view is shown for a blank of material, solid lines usually indicate periphery or cuts, and dashed lines usually indicate crease, score, or fold lines. In perspective views, solid lines typically show edges or folds, while dashed lines typically show hidden or partially obscured features. Where assembly steps are described, these steps are exemplary and are not to be limiting as to the sequence of operations used to arrive at the final package. Also, directions such as up, down, top, bottom, front, back, etc. are used for convenience in describing the package and are not meant to be limiting. The packages described here may be made from one blank (that is, the cut sheet parts from which the package components are made by folding and other steps) or from more than one blank. The word "card" or "panel" will often be used to describe a piece of sheet material such as paperboard, particularly with respect to a blank from which the package is made. Since panels are sometimes superimposed, for example, creating a two-layer or multi-layer structure, like features or panels will sometime coincide, in which cases, descriptions may call out the number identifying the feature closer to the viewer, that is, the feature visible in a particular Figure.

[0029] Figs. 1-5 show a package having two main panels and two wing panels, with a short-cut panel spanning part of the distance between the two main panels.

[0030] Fig. 1A shows a front plan view of a blank 100 for forming a front portion of the package. The view as shown may be considered to represent an exterior or forward surface of the package. Instead of a single blank, the front portion may be formed from several blanks. Blank 100 may include a left front wing panel 110, a left front main

panel 120, a right front main panel 130, and a right front wing panel 140. These panels may be hingedly connected together by fold lines 115, 125, and 135.

[0031] A spanning panel 150 may be provided as shown, which is at least partly formed from a portion of left front main panel 120, to which it may be attached by hinge or fold line 151. Spanning panel 150 may also be formed partly from a portion of what would otherwise by right front main panel 130. An open area of width X may be left in right front main panel 130, between the right edge of spanning panel 150 and the adjacent portion of right front main panel 130.

[0032] A display cutout 152 may be provided in spanning panel 150. This display cutout may receive a blister 300 as described below, and may be shaped and sized to receive the blister. Therefore display cutout 152 may have a variety of shapes and sizes. Clearance areas 154 may be provided at one or more points around the spanning panel 150, for use as described below.

[0033] Fig. 1B shows a front plan view of a blank 200 for forming a back portion of the package. The view in Fig. 1B may be considered as showing an interior surface of the package. The blank 200 may be dimensionally similar to blank 100 in many of its parts. Instead of a single blank, the back portion may be formed from several blanks. Blank 200 may include a left back wing panel 210, a left back panel 220, a right back main panel 230, and a right back wing panel 240. These panels may be hingedly connected together by fold lines 215, 225, and 235. During assembly of the package the front portion (blank 100) and back portion (blank 200) may be joined together and folded along the fold lines. To reduce folding stresses along the fold lines, the edge relief cutouts 217, 227, 237 may be provided at either or both of the upper and lower edges of the fold lines, and interior relief cutouts 216, 226, 236 may be provided elsewhere along the fold lines.

[0034] A back spanning panel 250 may be provided as shown, which is at least partly formed from a portion of left back main panel 220, to which it may be attached by hinge line 251. Back spanning panel 250 may also be formed partly from a portion of

what would otherwise be right back main panel 230. An engagement tab 256 may extend from the right edge of the back spanning panel 250, along a fold line 255. An aperture 259 may be provided in the engagement tab 256, for example along a portion of the fold line 255. In proximity to the engagement tab 256, an engagement flap 232 may extend from the left edge of the adjacent portion of right back main panel 230, along fold line 231. A cusp 239 may be provided extending from engagement flap 232, for example along fold line 231. Cusp 239 may extend into a slit or opening 238. Cusp 239 may engage aperture 259 in the finished package as described below. It should be realized that one or both of the engagement tab 256 and engagement flap 232 may be attached instead to front main panels 120, 130.

[0035] If a two-sided blister is used, a display cutout (not shown) may be provided in back spanning panel 250. Clearance areas 254 may be provided at one or more points around the back spanning panel 250, for use as described below.

[0036] Fig. 2A shows a the front spanning panel 150, along with a blister 300 that may be attached to the front spanning panel 150. For example, the blister 300 may have a blister body 310, blister flange 312, and blister wall 320. Blister body 310 may receive a product item P, for example, a wrist watch W. Blister apertures 324 may be provided in blister wall 320 to accommodate portions B of product P, for example, the band B of watch W.

[0037] Fig. 2B shows the blister body 300 inserted through display aperture 152, so that the blister body 310 is forward of the spanning panel 150, while the blister flange 312 remains behind spanning panel 150. Next, the product item P may be placed into blister body 310, for example from behind the blister by first threading the ends of bands B through blister apertures 324, then pulling the bands B completely through blister apertures 324 until watch W is contained within blister body 310, as shown in Fig. 2C. The ends of bands B may then be wrapped backward around spanning panel 150, for example passing through clearance areas 154. The ends of bands B may then be secured by joining together or by other means. Some product items may be simply

enclosed within blister body 310 without a need for blister apertures 324 or clearance areas 154.

[0038] As a further example step in the assembly of the package, Fig. 3A shows the complete front portion as blank 100, including now the product item attached to front spanning panel 150. The front blank 100 may then be placed upon the back blank 200, and their facing surfaces joined together. The layers of the package may be joined together by various means. The inside-facing surfaces of the front and back panels may be coated locally or overall with a sealing material such as a heat sealable material, or adhesive made by otherwise applied before or during assembly of the package. Sealing may be done over the entire surfaces in contact, or may be localized, for example around the perimeter of the panels and openings therein. The layers may be joined together other than by adhesive, for example by stapling or other methods.

[0039] The package in the configuration shown in Fig. 3A may still be a planar structure (although Fig. 3B illustrates the wing panels to be folded slightly backward). While still in a planar configuration, it may be advantageous to seal together certain portions of the package, particularly if this is done using a press, for example to achieve heat sealing. Notably, at this point, blister flange 312 may be sealed between front spanning panel 150 and back spanning panel 250. However, sealing may instead be done at another time, according to manufacturing preference.

[0040] Fig. 3B shows a cross section of the package, for example at approximately half its height or where the product item P, here represented by watch W and its band B are situated. The front portion 100 and back portion 200 are shown and may be substantially superimposed, so that their respective fold lines are aligned.

[0041] Fig. 4A shows a perspective view of the package in a folded "zig zag" configuration. Fig. 4B shows a cross section of the package. For clarity, only the back portion 200 is shown, and the blister 300 and product item P are not illustrated. It will be understood that the front portion 100 may closely follow the contours of back

portion 200. It should be understood that instead of the "W" shape illustrated in Fig. 4A, the folds could be in the opposite direction, forming an "M" shape.

[0042] The left back wing panel 210 and right back wing panel 240 are shown folded back along fold lines 215, 235. The left back main panel 220 and right back main panel 230 are folded forward along fold line 225, creating an 'inside corner' of the package. Instead of the 'inside corner' being formed from two panels (e.g. the left main panel and right main panel), more than two panels may form the 'inside corner.' The back spanning panel 250 is folded forward along hinge line 251 'spanning' across the 'inside corner' from right back main panel 220 to left back main panel 230.

[0043] Engagement tab 256 extending from the right edge of the back spanning panel 250 may be inserted through opening 238. Aperture 259 in engagement tab 256 may engage cusp 239 extending from engagement flap 232. The back spanning panel 250 may thus be secured in position spanning between left back main panel 220 and right back main panel 230. This creates a three-sided tube "T" extending partway up the package. The back spanning panel 250 helps hold the panels 220, 230 in position relative to one another in a non-planar configuration. The non-planar configuration is able to stand on its lower edge or edges. The package may be designed so that with the product item P enclosed, the center of gravity of the package will fall within the footprint of the lower edges.

[0044] The engagement tab 256 and engagement flap 232 are non-limiting examples of how the spanning panel may be secured in place. Tape, glue, heat sealing, staples, stitching, and other methods may be used instead of, or in addition to, the engagement tab/flap already described.

[0045] If desired, the package may be shipped 'flat' (as approximately shown in the configuration of Figs. 3A-3B) to a destination, and then folded into the standing form and joining the engaging features (e.g. engagement tab 256 and engagement flap 232) as shown in Figs. 4A- 4B. Shipping the package in a flat configuration may reduce the volume of a shipment and may decrease the chances of damaging the package.

[0046] Although Fig. 4A and 4B show only the back portion of the package, it will be understood that the package may include the front portion as well. However, any of the packages herein may be a single ply of material.

[0047] Fig. 5 shows the finished package, including blister 300 situated on spanning panels 150, 250. Left main panel 120 may have a width w1 between an outer edge (e.g. defined by fold line 115) and an inner edge (e.g. defined by fold line 125). Right main panel 130 may have a width w2 between an outer edge (e.g. defined by fold line 135) and an inner edge (e.g. defined by fold line 125). Spanning panel 150 may have a width w3 between a first edge (e.g. the left edge or fold line 151) and a second opposing edge (e.g. the right edge). The spanning panel first edge and second edge may both be located apart from fold line 125 between the left main panel 120 and right main panel 130. Spanning panel 150 may be hingedly connected to left main panel 120 a distance w4 from hinge line 115, and may terminate on right main panel 130 a distance w5 from hinge line 135. The size of the tube "T" defining the 'inside corner' of the package may be adjusted according to manufacturing preference by adjusting the various dimensions w1, w2, w3, w4, w5. As shown in the examples of Figs. 1-5, widths w1 and w2 may be equal, although this is not required. Distances w4 and w5 may be approximately equal, although this is not required. Distances w4 and/or w5 may be zero, that is, spanning panel 150 may begin at or near fold line 115 and may terminate at or near fold line 135. Distance w3+w4 may preferably be greater than distance w1, in order to provide tube T within the package structure. The height of spanning panel 150 may be less than the full height of the package.

[0048] Although the blister construction shown here nearly completely encloses a product, it is also contemplated that portions of the blister may be left open, for example to allow a customer to handle the product such as feeling the texture, observing the product directly (without looking through the blister material), testing a fit (e.g. for an electrical connection), and for other purposes.

[0049] The blanks 100, 200 may be formed of a sheet material such as paperboard, which may be made of or coated with materials to increase its strength. An example of

such a sheet material is EASYSEAL paperboard made by MeadWestvaco Corporation. The sheet material may have a heat sealable coating, for example to allow a heat seal to be created between the various panels. Alternately, other forms of adhesive may be used to seal these parts together. It should be noted that the use of tear resistant materials, and/or in more than one layer, help to improve the tamper- and theft-resistance of the package. The panels may be joined together by heat sealing, RF (radio frequency) sealing, ultrasonic sealing, adhesive, or other means. Such sealing may be done on most of the facing surfaces of the front and back panels or sealing may be done to less than the entire facing surfaces, for example only around the outer perimeter of the package, and along or upon part or all of blister flange 312, or spanning panels 150, 250. Also, instead of using both a front and back blank, a single ply of material may be used.

[0050] Blister 300 may be made with common thermoform plastics such as PVC, PET, or APET but may also include a recycled material such as RPET or a biodegradable material such as PLA. However other materials including other plastics (or paperboard, at least for the backing sheet) may also be used. Besides thermoforming, the blister may be formed by injection molding or other manufacturing methods. The blister may be formed in one or more pieces. For example the blister 300 may be formed from 0.015" thick PET plastic.

[0051] It should be understood that blister 300 is not required. For example, a product item may be supported upon the package and particularly upon the spanning panel, without the use of a blister.

[0052] It should be understood that additional panels or fold-over panels may be included in the package for further reinforcing the package, providing additional advertising space, and so on.

[0053] Figures 6 – 16 illustrate certain other packages that utilize some of the concepts already described. These examples are only a few of many. For simplicity the blister and/or product that may be part of the package is not shown in Figures 6-16,

nor are engagement features such as the engagement tab and engagement flap already described. However, it is to be understood that the blister or blisters, product(s), and engagement features may optionally be utilized with all packages described herein.

[0054] Fig. 6 shows another package, similar to the package of Fig. 5, except that instead of the "W" shape (as seen from above in Fig. 5) with the spanning panel 150 forward of the main panels 120, 130, in the package of Fig. 6, the panels are folded into an "M" shape (as seen from above in Fig. 6) with the spanning panel 150 set backward relative to main panels 120, 130.

[0055] Fig. 7 shows another package, similar to the package of Fig. 5, except lacking the left wing panel 110

[0056] Fig. 8 shows another package, similar to Fig. 6 but lacking both wing panels.

[0057] Fig. 9 shows another package, similar to Fig. 5, but with the spanning 150 extending from left wing panel 110 and connected at its opposite end to right wing panel 140.

[0058] Fig.10 shows another package, similar to Fig. 9, but with only one main panel 120 instead of two.

[0059] Fig. 11 shows another package, similar to Fig. 10 but with the main panel divided into any number (here four) subsections 120A, 120B, 120C, 120D.

[0060] Fig. 12 shows another package, similar to Fig. 10 but with a main panel 120E having a curved surface, as denoted by curved surface "C".

[0061] Fig. 13 shows another package, similar to Fig. 10 but with two spanning panels 150A, 150B extending from left wing panel 110 to right wing panel 140. Two or more spanning panels may be used with any of the packages described here. The multiple spanning panels may have the same size and shape, or different sizes and shapes. The multiple spanning panels may connect to left panel 110 along fold or hinge lines 151A, 151B that may be collinear, or may be non-collinear. Likewise the multiple

spanning panels may join or connect to right wing panel 140 along collinear lines or along lines that are non-collinear.

[0062] Fig. 14 shows another package, similar to Fig. 13 but with the spanning panels 150C, 150D connected to left wing panel 110 along non-collinear lines 151C, 151D respectively. Likewise the spanning panels 150C, 150D join or connect to right wing panel 140 along non-collinear lines.

[0063] Fig. 15 shows another package, similar to Fig. 13 but with the spanning panels 150E, 150F having different shapes, for example, trapezoidal instead of rectangular. Other shapes may also be used. The multiple spanning panels may connect to left panel 110 along fold or hinge lines 151E, 151F. The spanning panels may have complementary (e.g. approximately the same shape) edges 153E, 153F, for example parallel linear edges. One of both edges 153E, 153F may also be nonlinear or curved, in which cases the edges may again be complementary, or may have different shapes.

[0064] Fig. 16 shows another package, similar to Fig. 10 but with the spanning panels having one or more subpanels 150G, 150H that may be separated by fold line(s) 151G. At each fold line 151G a fold may be formed whose apex extends forward (as shown in Fig. 16) or backward depending on manufacturing preference.

[0065] The description and Figures here are only examples of a few ways that a spanning panel may be used between two or more panels to create a novel package. The features described herein, including the number, size and shape of panels, wing panels, and subpanels, may be used in combination to create a wide variety of packages. In general the packages may have N panels (including main or wing panels), where N is two or more. One or more spanning panels may be used. Each spanning panel may start from a first panel and connect to a second panel, with M panels in between the first and second panel, M being a number from 0 to N-2. The first and second panel location, and the number of panels between, may differ from one spanning panel to the next.

CLAIMS

1. A package comprising:

a first panel having a first outer edge and a first inner edge;

a second panel having a second outer edge and a second inner edge, the second inner edge being connected directly or indirectly to the first inner edge; and

a spanning panel having a first edge and a second edge opposite from the first edge, the spanning panel extending between the first and second panels.

2. The package of claim 1, wherein the first edge is a hinged edge attaching the spanning panel to the first panel.

3. The package of claim 1, further comprising a blister attached to the spanning panel.

4. The package of claim 1, wherein at least one of the first panel, the second panel, and the spanning panel comprises two layers of paperboard.

5. The package of claim 1, wherein the first panel, second panel, and spanning panel together form a triangular tube.

6. The package of claim 1, wherein the first edge of the spanning panel is located between the first outer edge and the first inner edge.

7. The package of claim 6, wherein the second edge of the spanning panel is located between the second outer edge and the second inner edge.

8. The package of claim 3, wherein the spanning panel comprises two layers of paperboard and the blister comprises a flange, and the flange is positioned between the two

layers of paperboard.

9. The package of claim 1, further comprising at least one additional panel extending outward from the first outer edge or the second outer edge.

10. The package of claim 1, further comprising a second spanning panel extending between the first and second panels.

11. The package of claim 10, wherein the first and second spanning panels lie in the same plane.

12. The package of claim 10, wherein the first and second spanning panels lie in different but parallel planes.

13. The package of claim 10, wherein the first and second spanning panels lie in different, non-parallel planes.

14. The package of claim 1, wherein the second inner edge is connected directly to the first inner edge.

15. The package of claim 1, wherein the second inner edge is connected indirectly to the first inner edge through one or more intermediate panels.

16. The package of claim 15, wherein the one or more intermediate panels is a single flat panel.

17. The package of claim 15, wherein the one or more intermediate panels is a plurality of panels.

18. The package of claim 15, wherein the one or more intermediate panels comprise a curved panel.

19. The package of claim 1, wherein the spanning panel includes at least one fold parallel to at least one of the first and second inner edges.

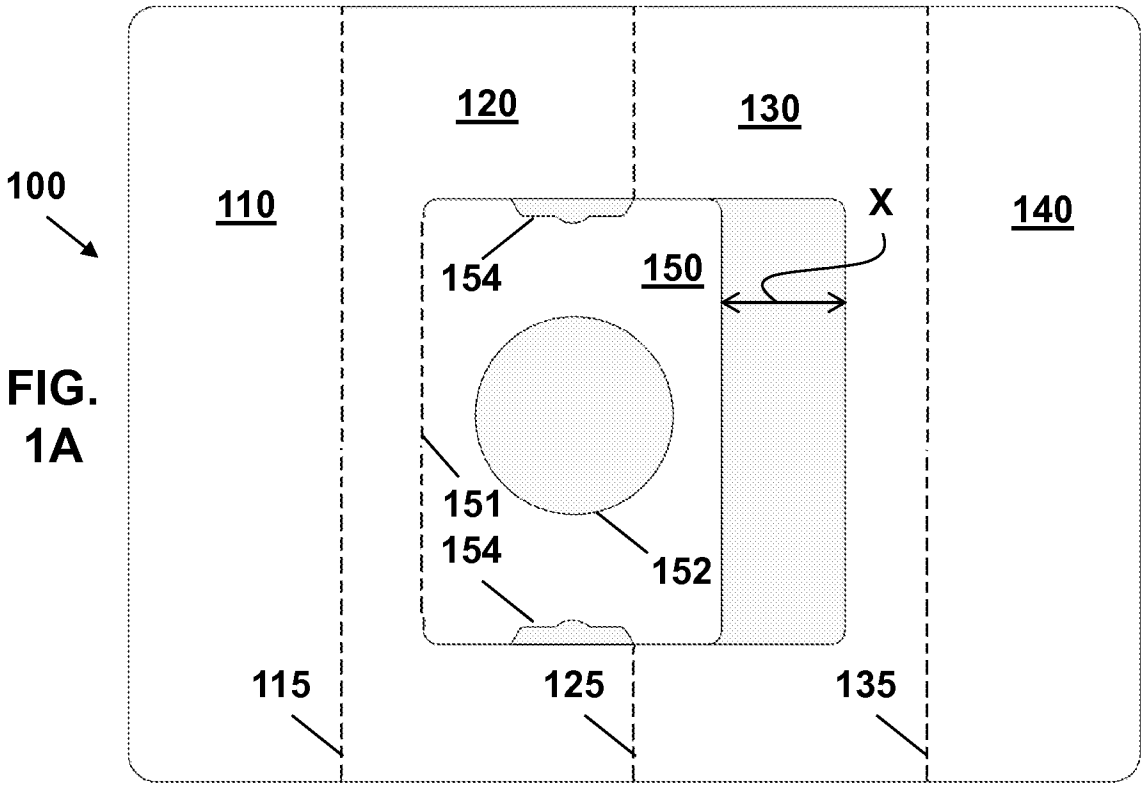
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FIG. 1A

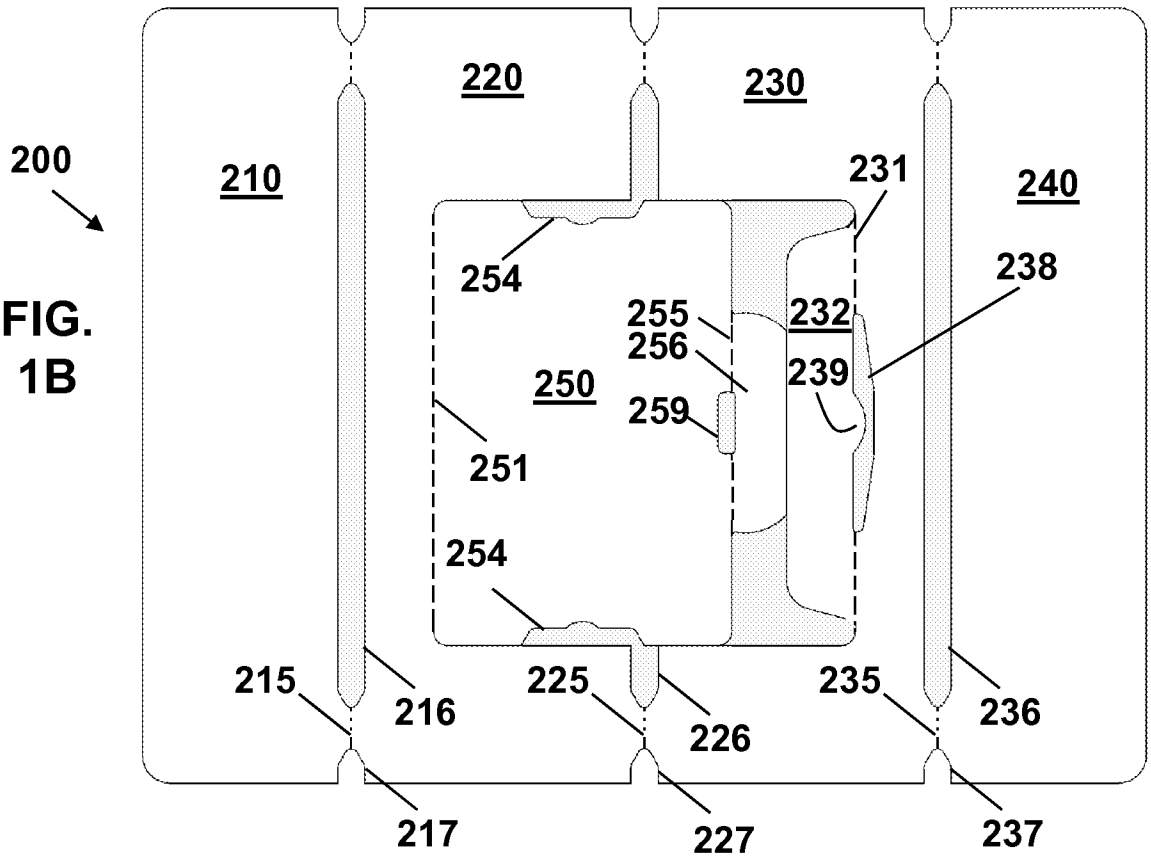
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FIG. 1B

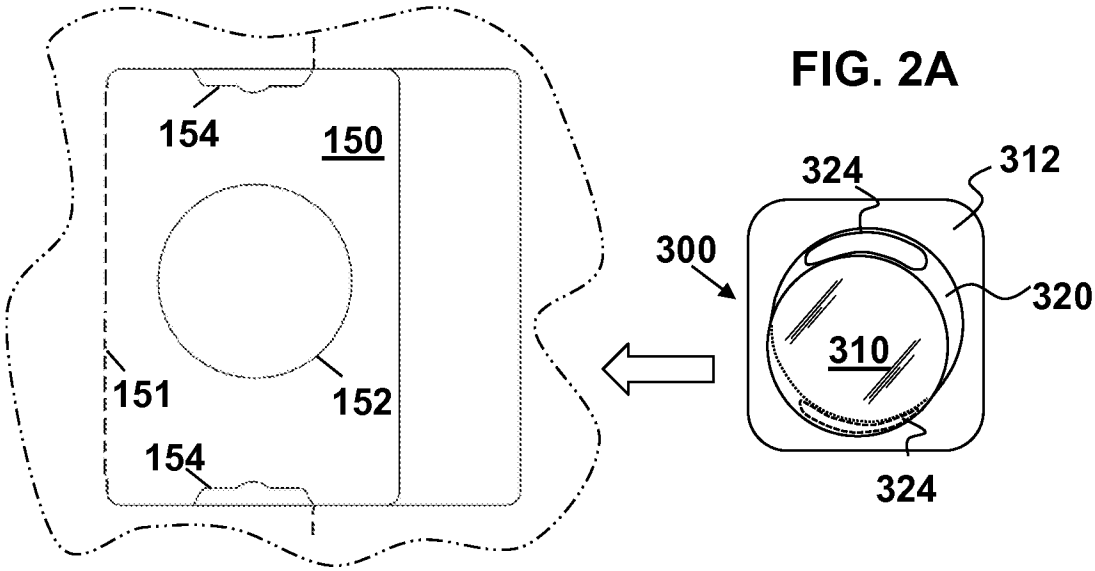


FIG. 2A

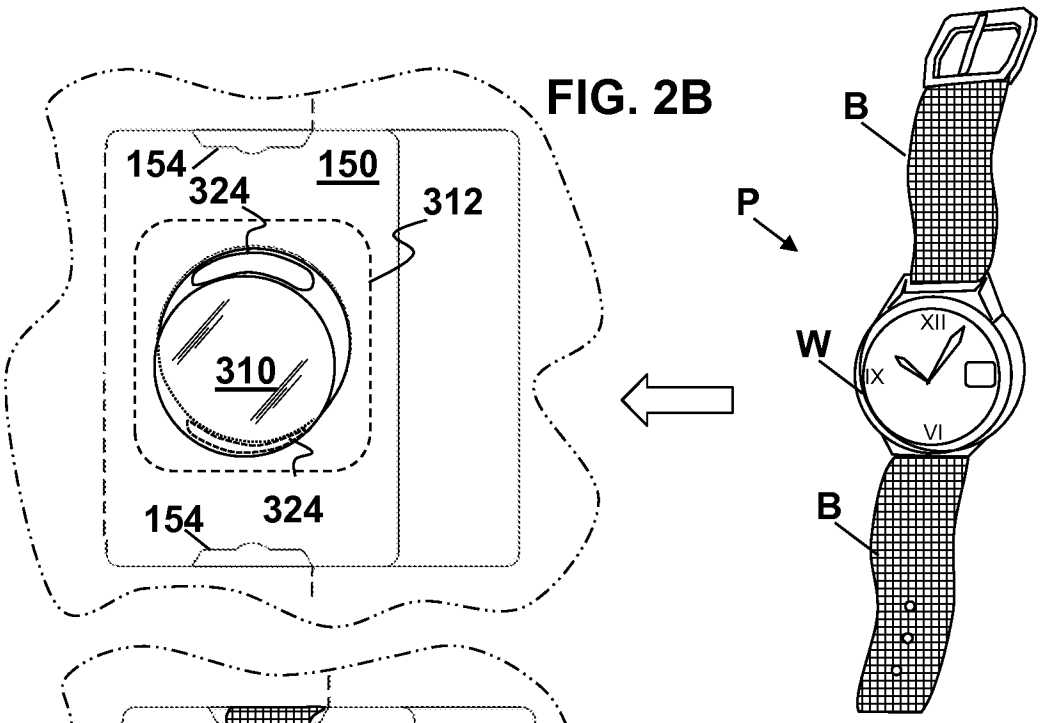


FIG. 2B

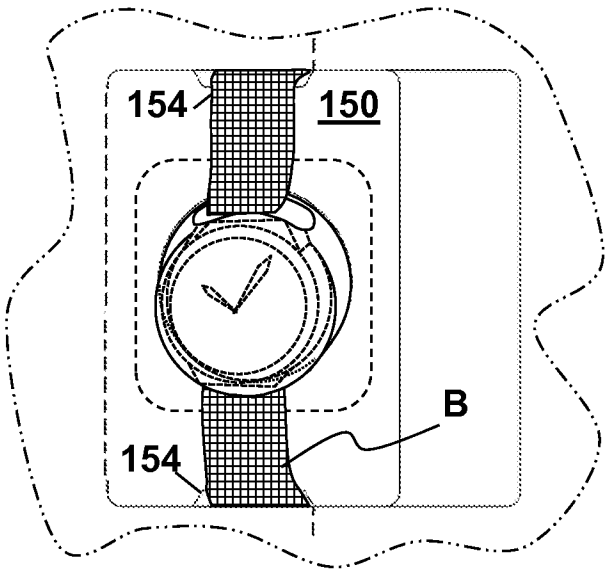
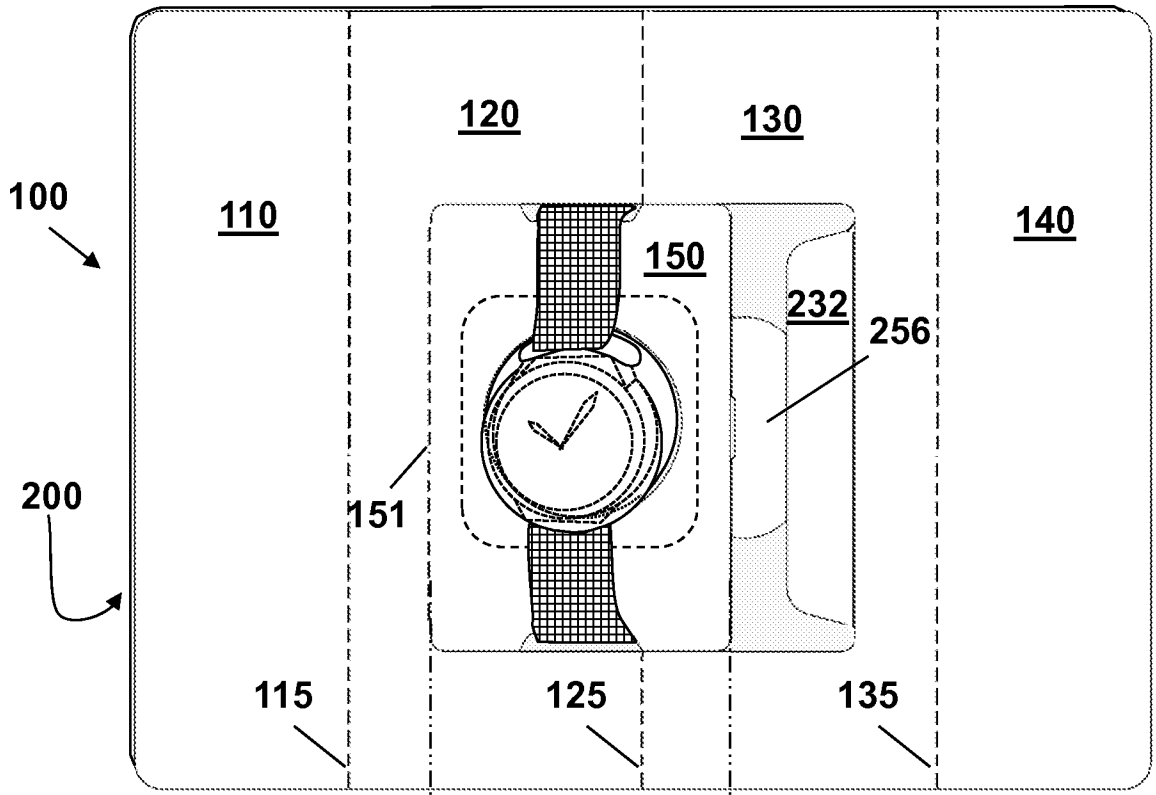


FIG. 2C

FIG. 3A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115
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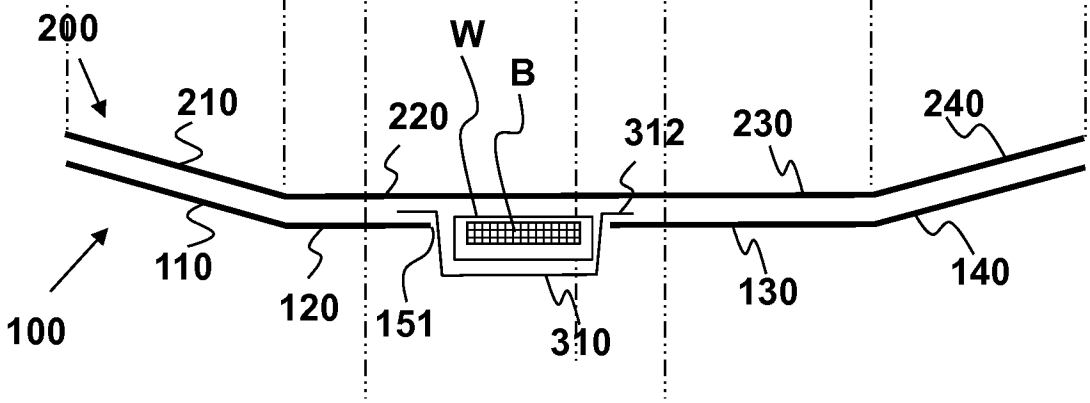
200
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B
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230
240
110
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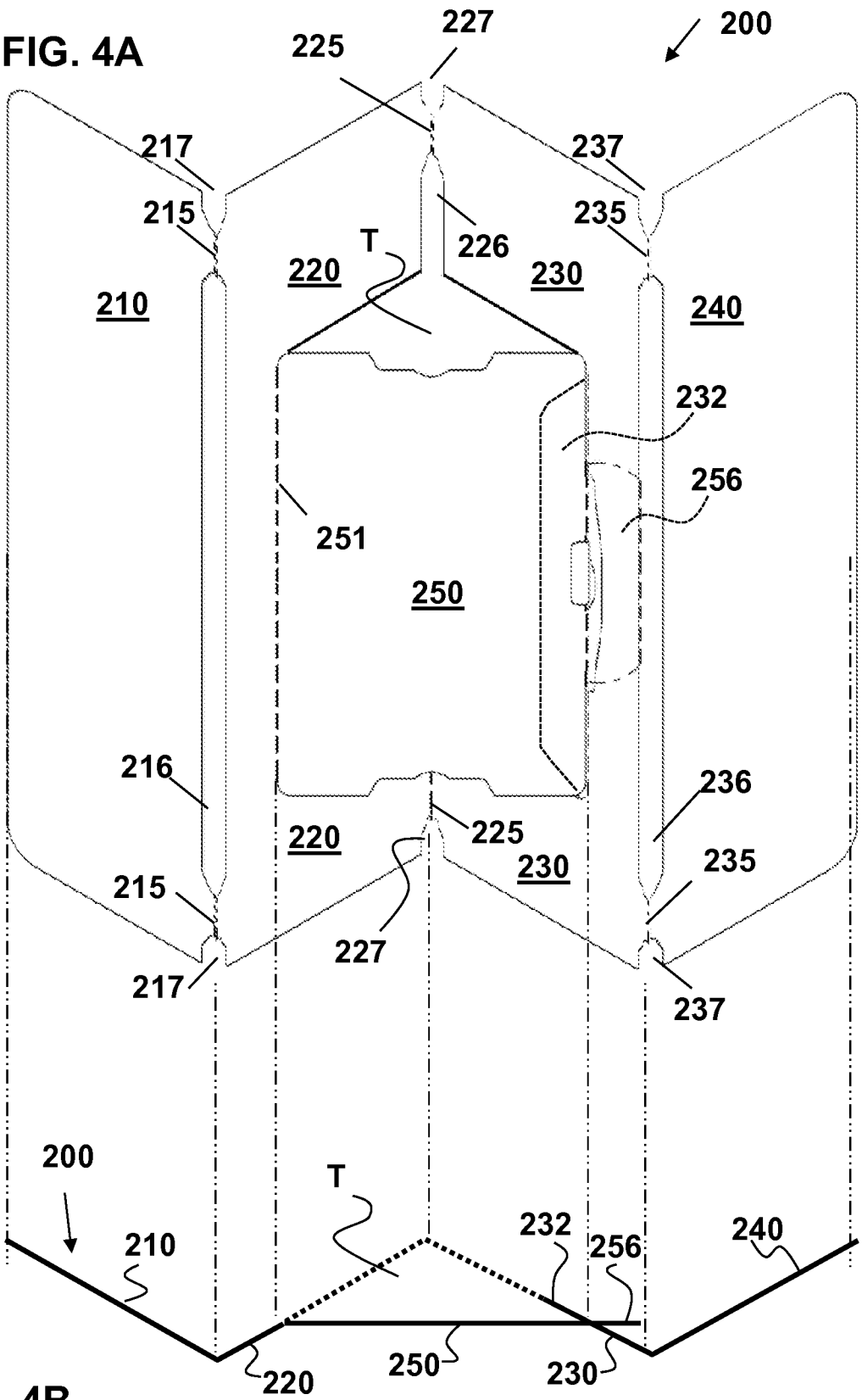
100

FIG. 3B

FIG. 4A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217
237

200
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210
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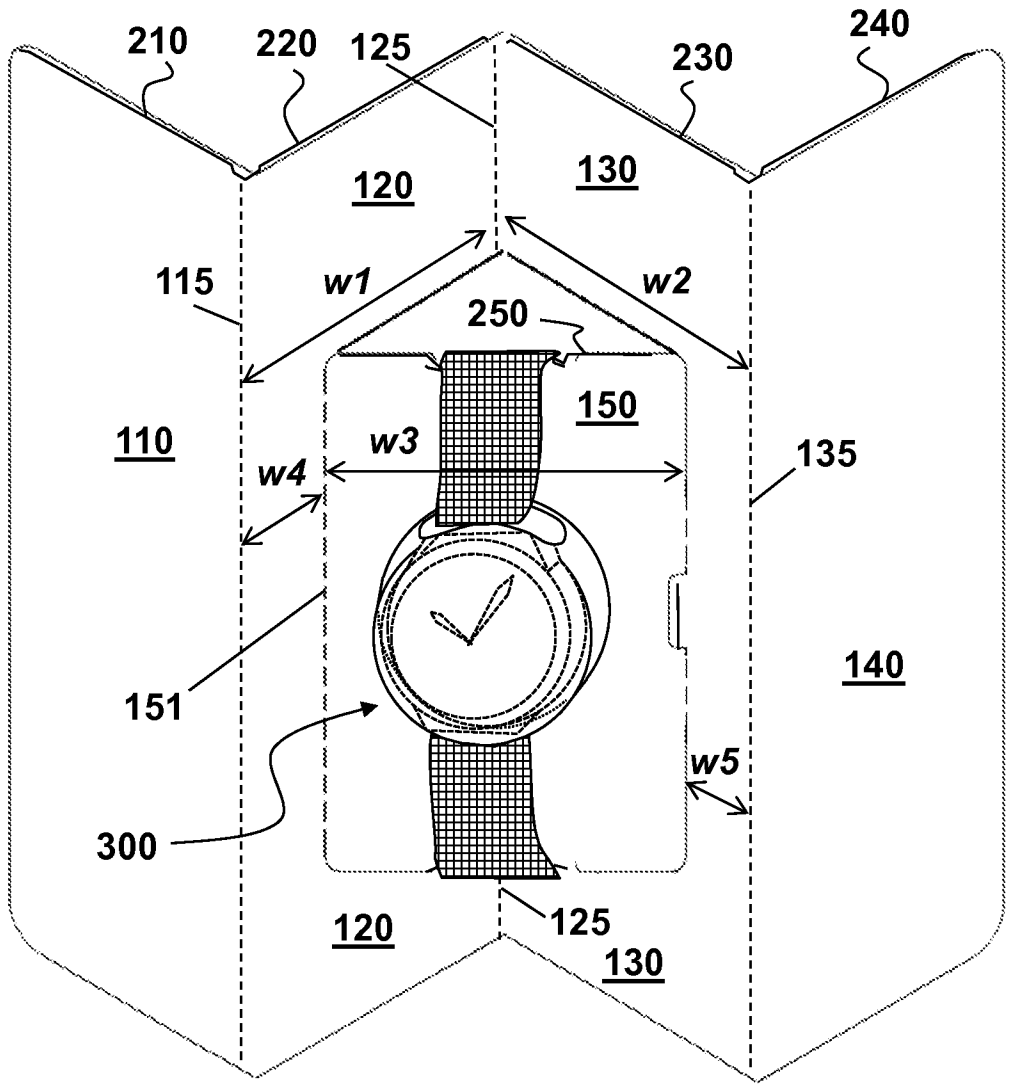
230

FIG. 4B

FIG. 5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w3
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w5
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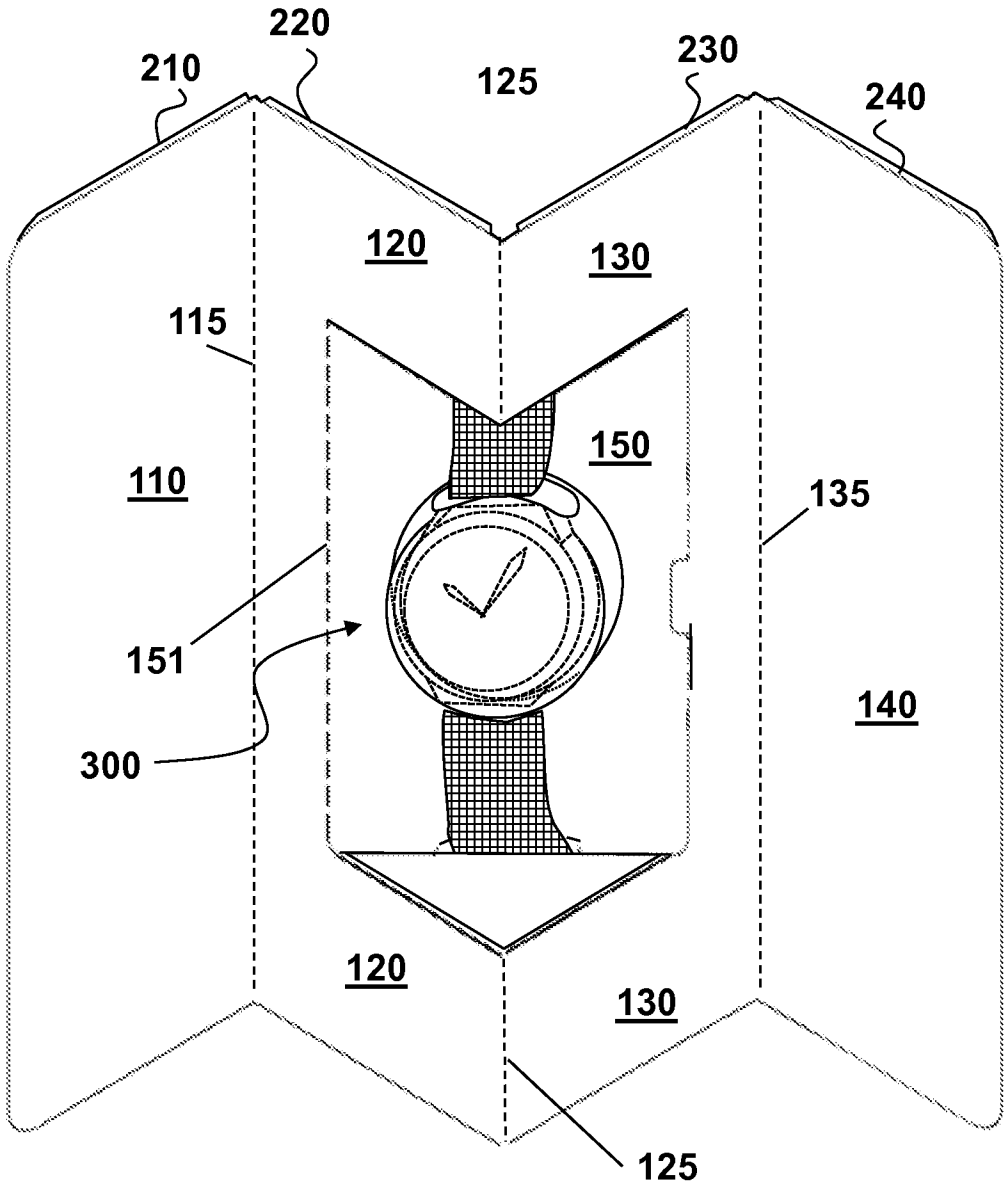
FIG. 6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151
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300
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130
125

FIG. 7

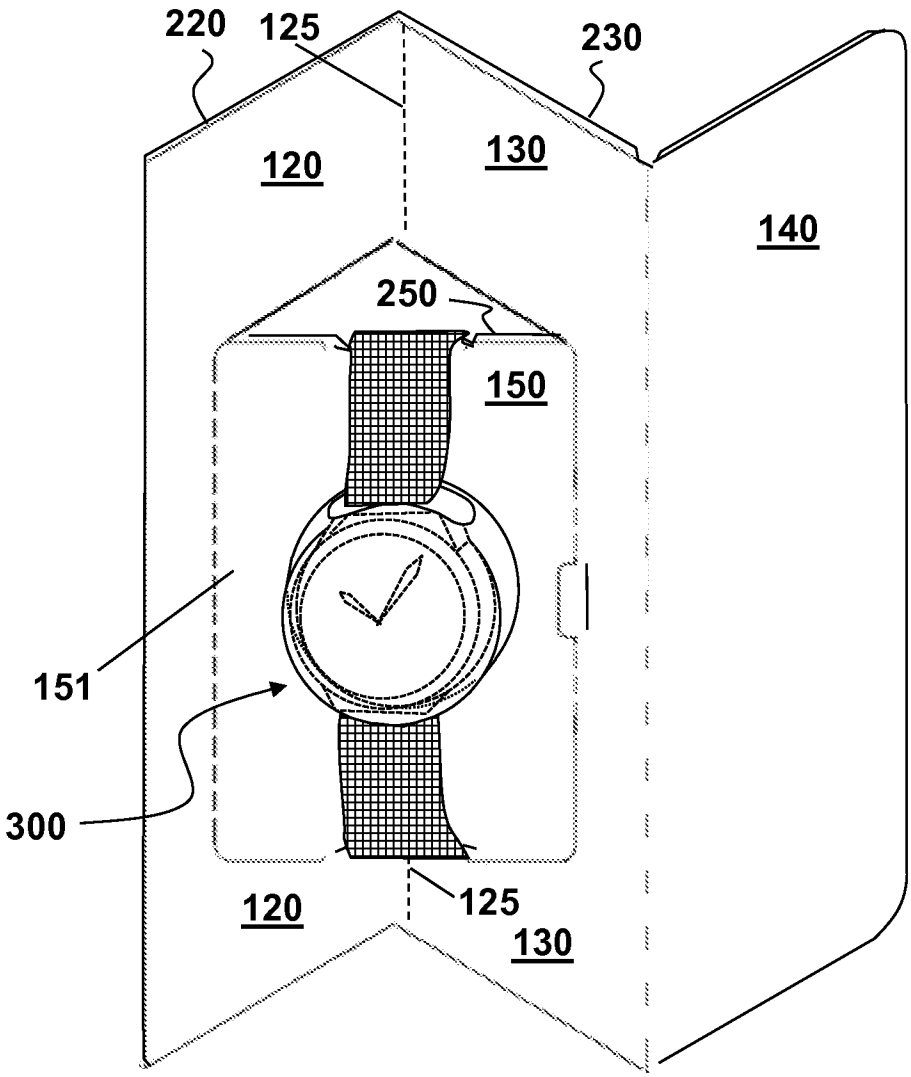

FIG. 8

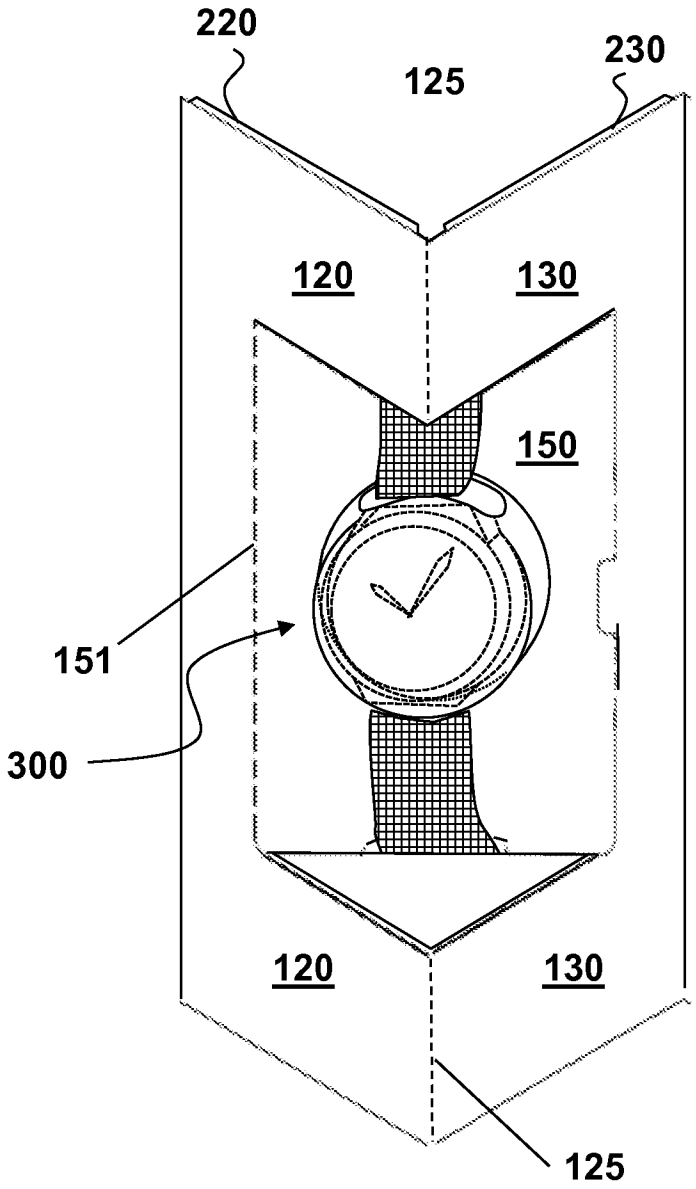

FIG. 9

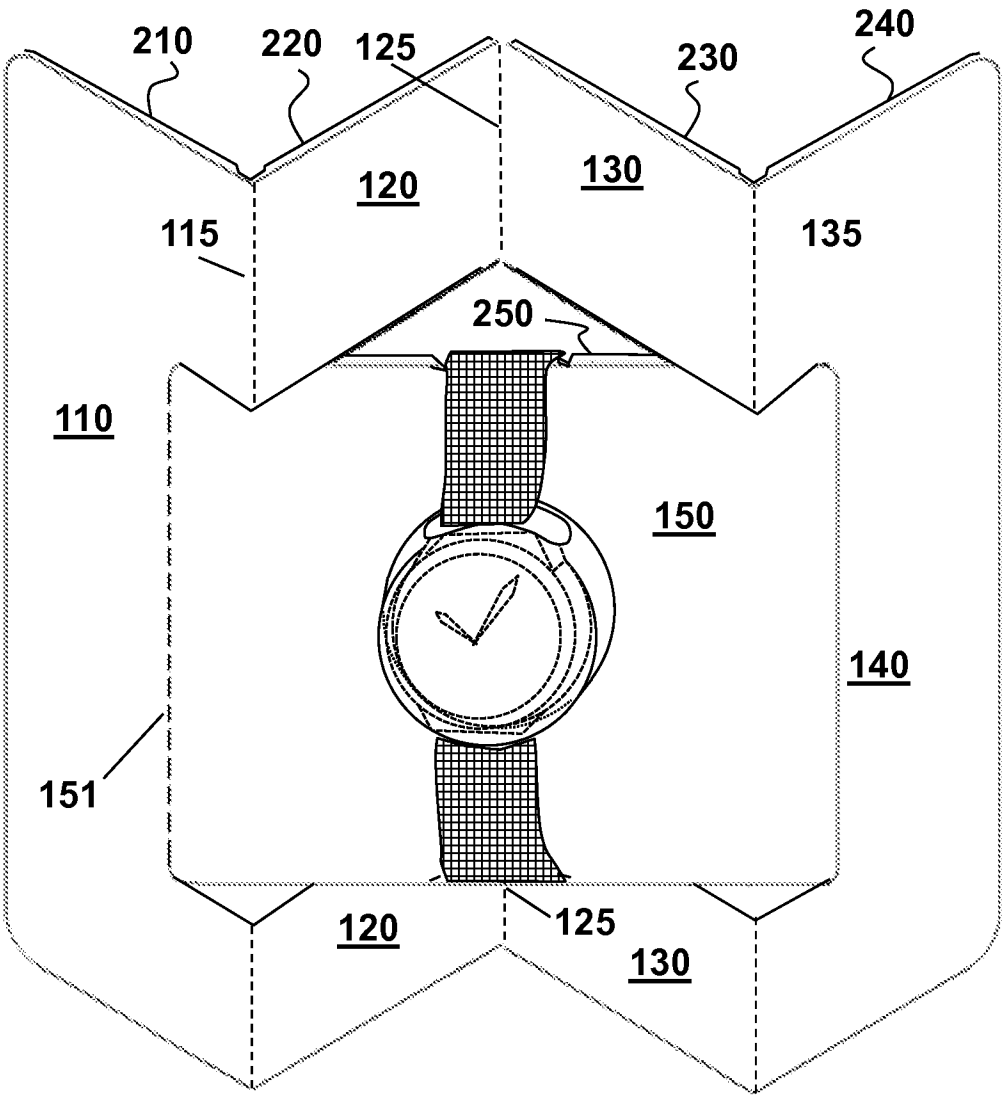
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FIG. 10

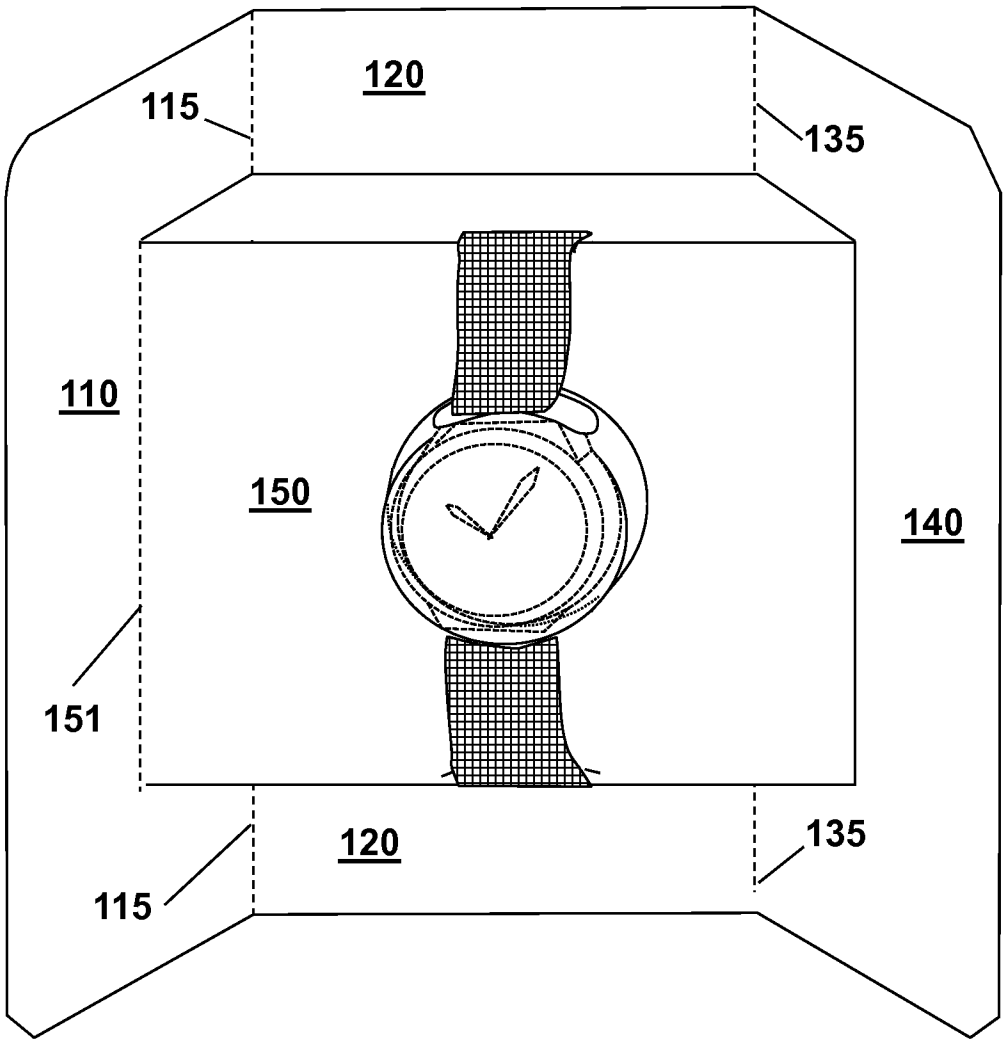
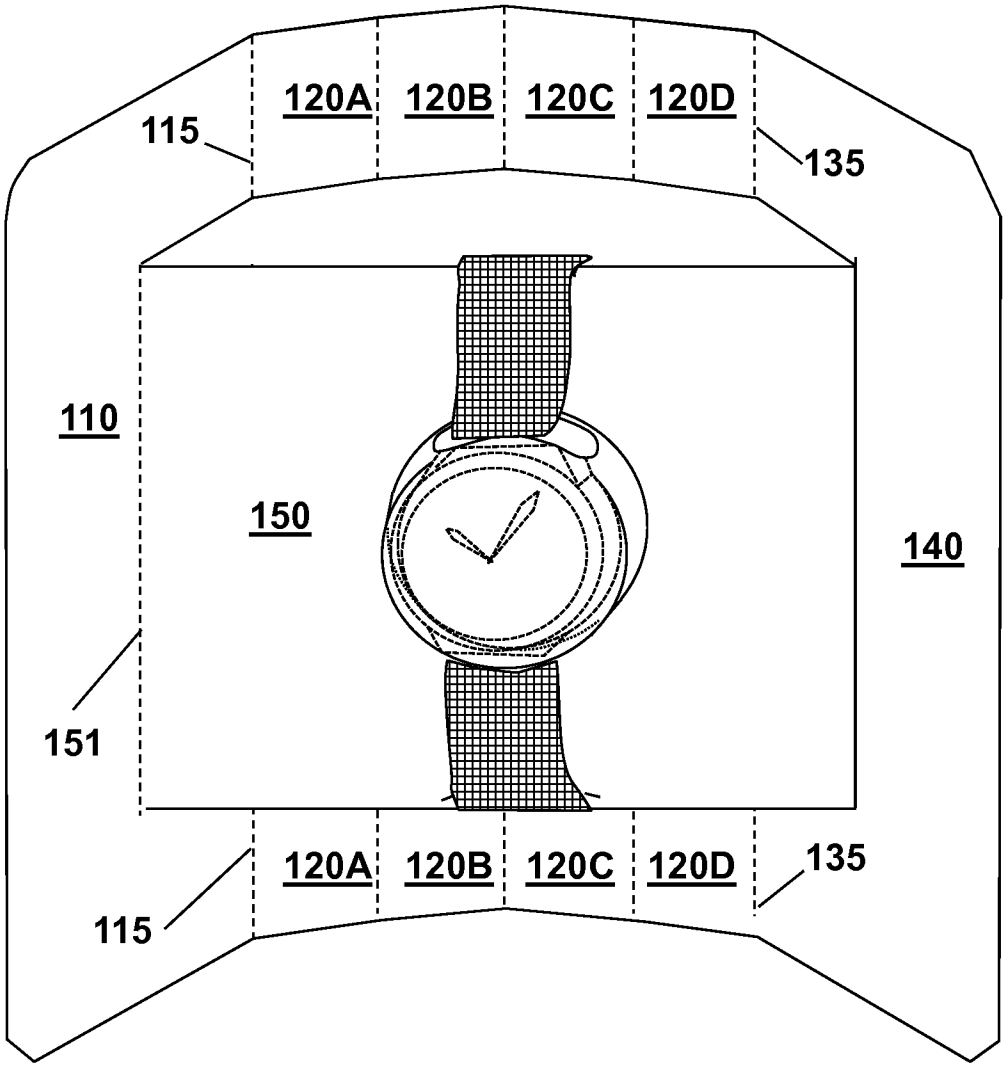


FIG. 11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120A
120B
120C
120D
135
115

FIG. 12

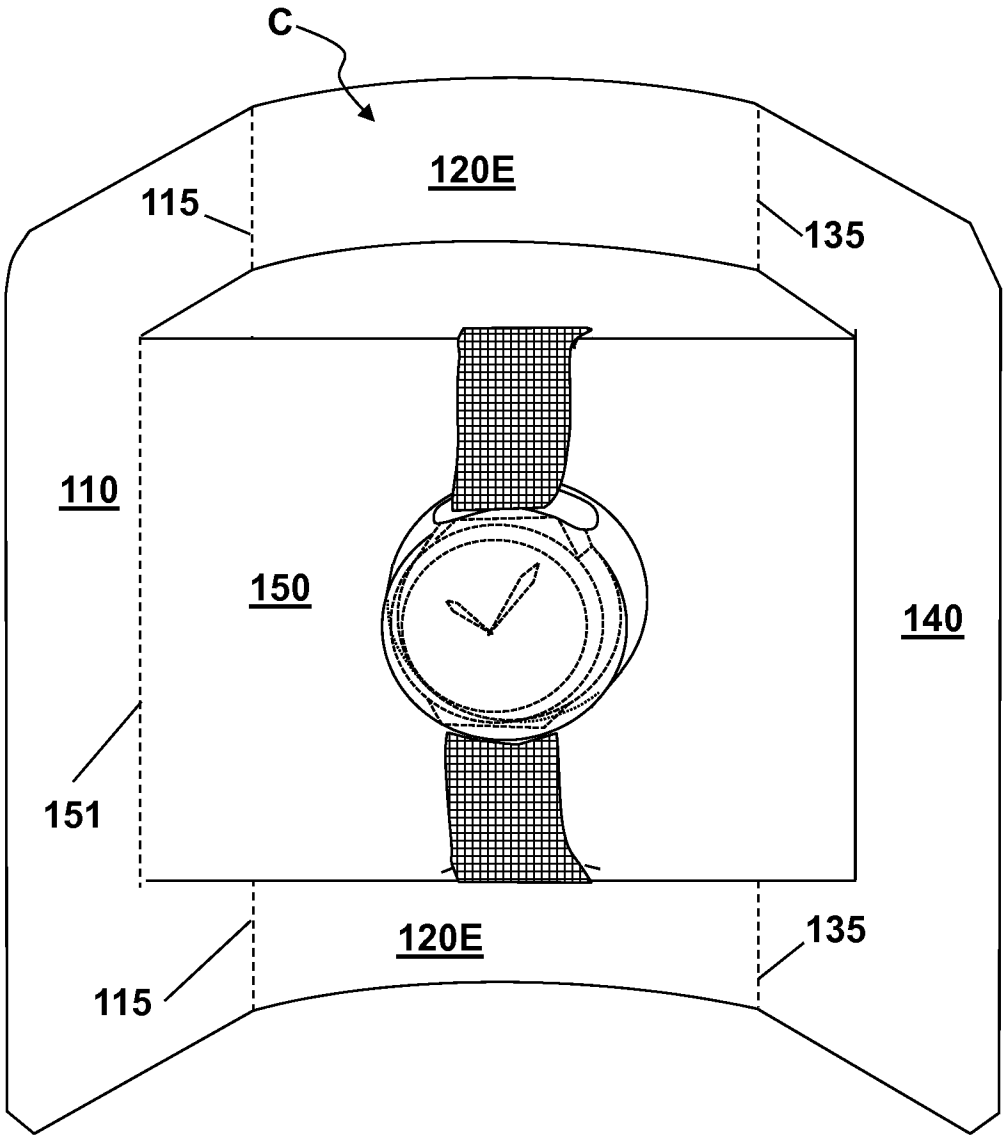


FIG. 13

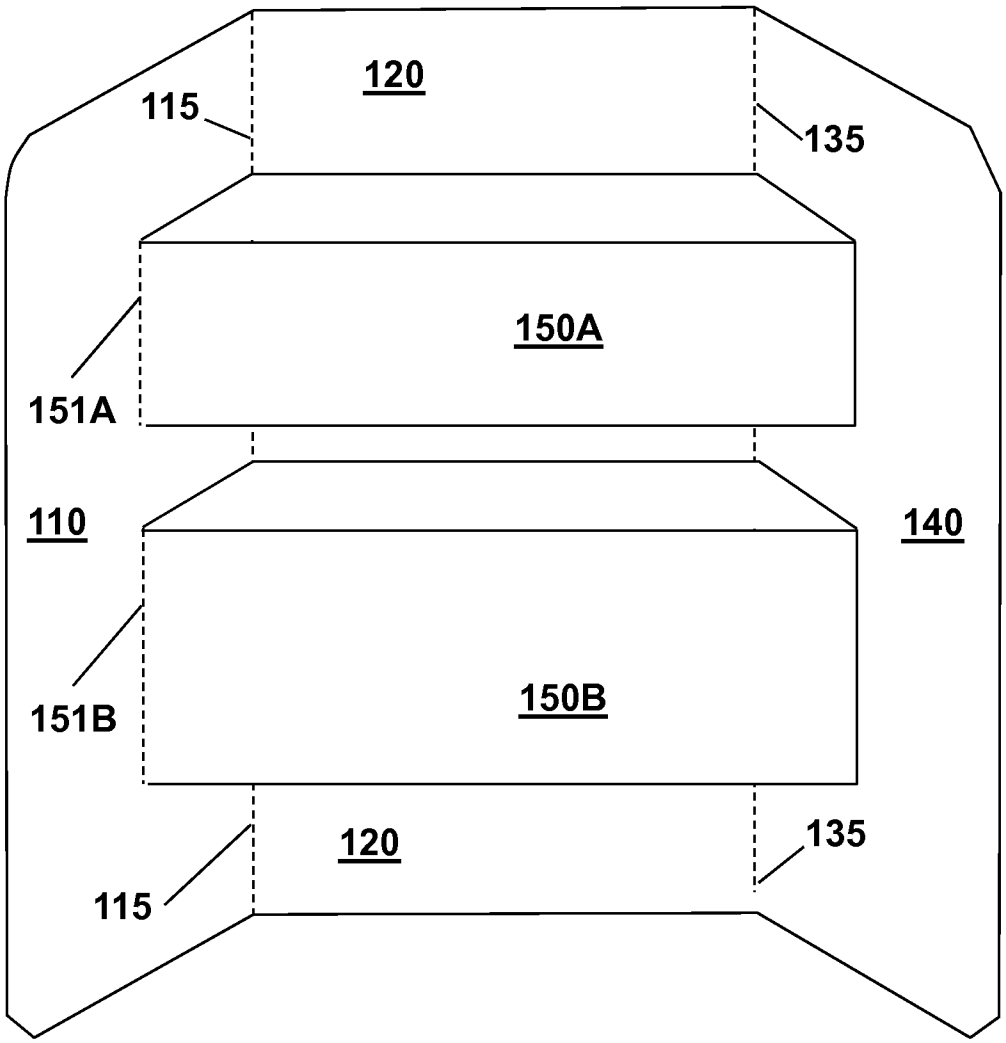


FIG. 14

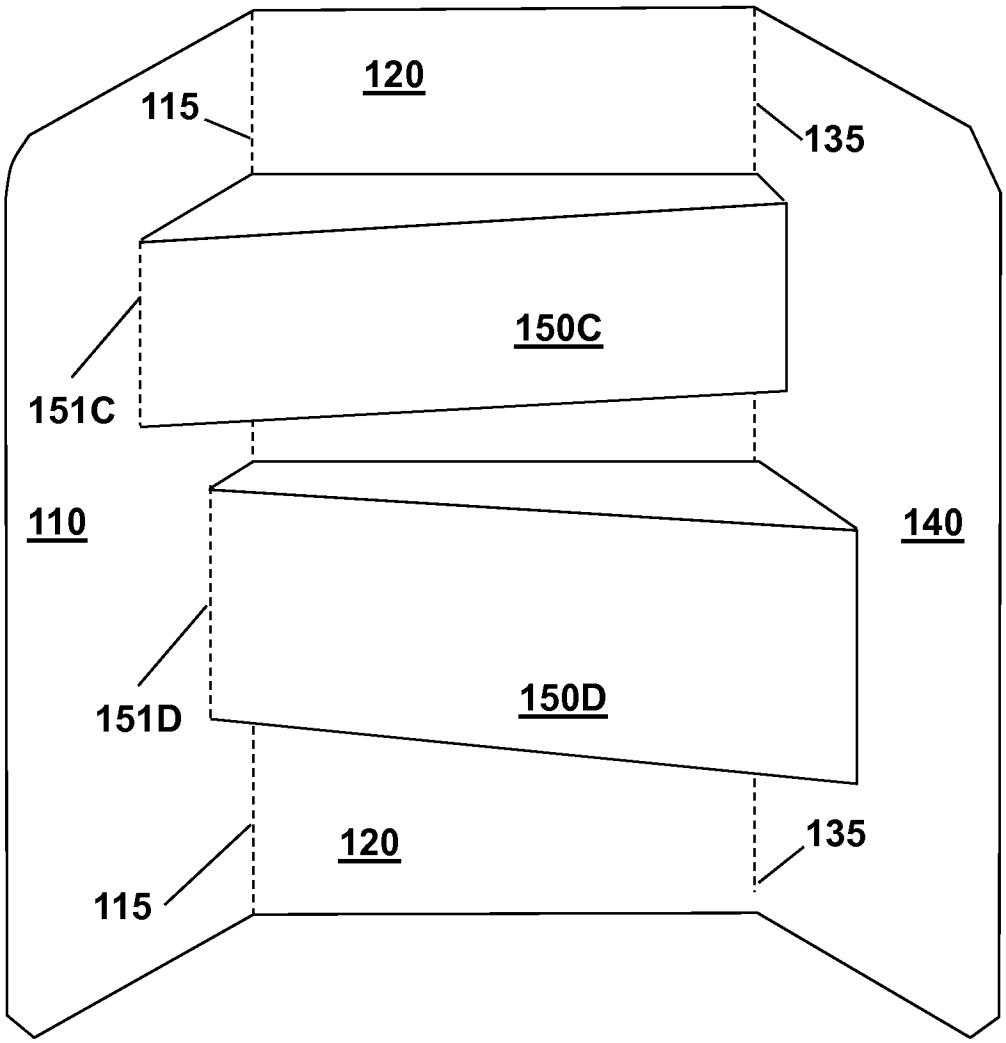


FIG. 15

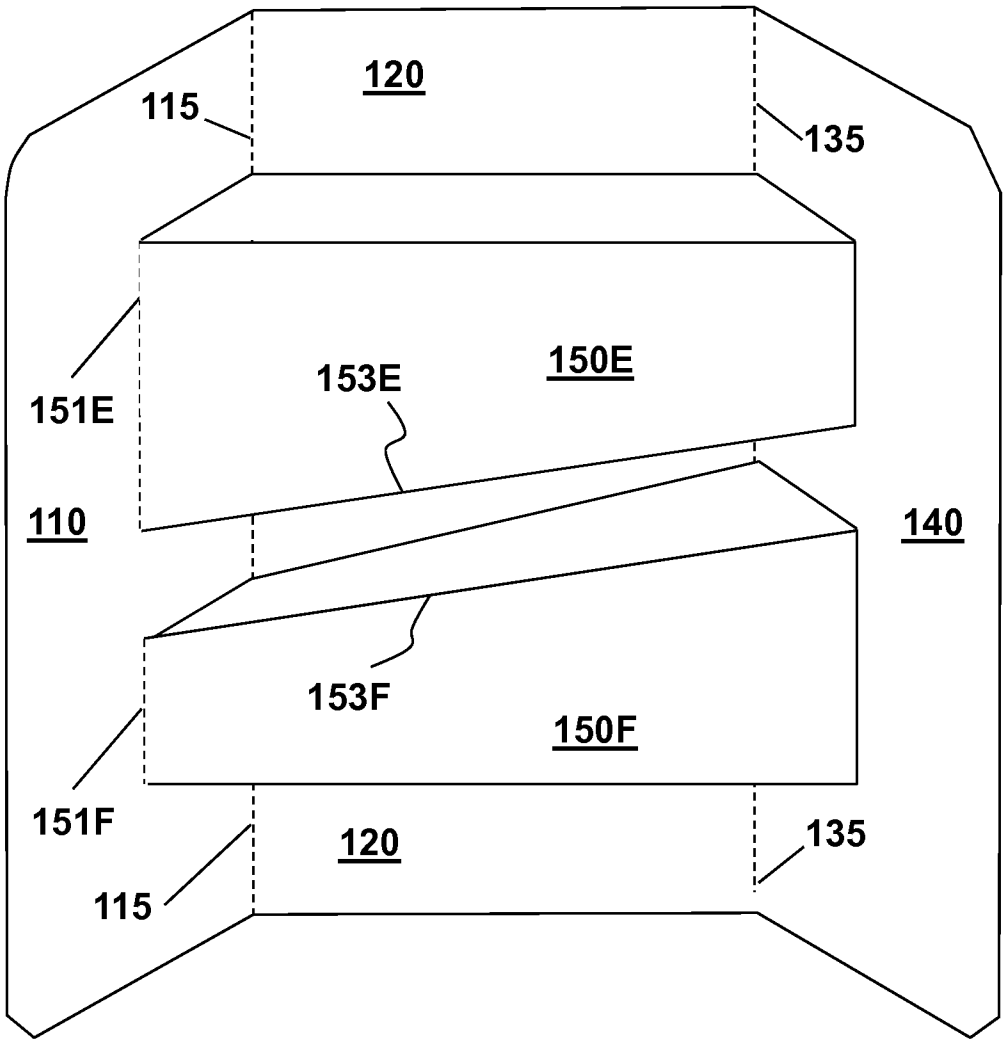
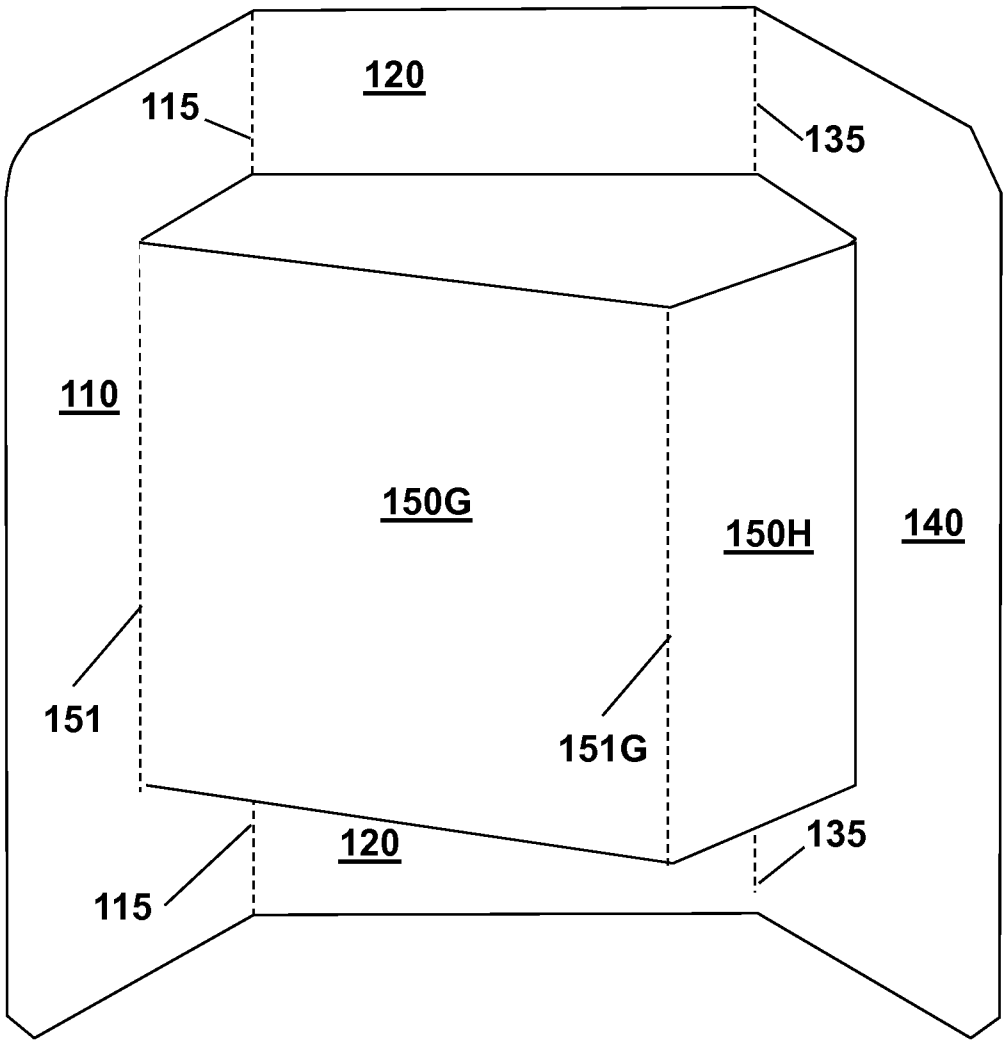


FIG. 16



INTERNATIONAL SEARCH REPORT

International application No
PCT/US2013/075639

A. CLASSIFICATION OF SUBJECT MATTER
INV. B65D73/00
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
B65D G09F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2012/012491 A1 (WADE MICHAEL P [US]) 19 January 2012 (2012-01-19) abstract; figure 4B paragraph [0027] - paragraph [0033]; figures 3A-3C	1-4,8
X	US 2 669 350 A (RAILTON RICHARD S) 16 February 1954 (1954-02-16) column 2, line 21 - column 4, paragraph 2; figures 1-3	1,2,5

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
17 March 2014	05/06/2014

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Segerer, Heiko

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2013/075639

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-5, 8

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-5, 8

"Package having three panels forming a triangular tube"

---

2. claims: 6, 7, 14

"Package panel extending in a non-peripheral manner between two other panels"

---

3. claim: 9

"Package having wing-like outwardly extending, additional panels"

---

4. claims: 10-13

"Package including two spanning panels extending between two other package panels"

---

5. claims: 15-18

"Package comprising a spanning panel and further intermediate panels"

---

6. claim: 19

"Package having a fold-provided spanning panel"

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2013/075639

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2012012491 A1	19-01-2012	CN 102985045 A	20-03-2013
		EP 2595595 A1	29-05-2013
		US 2012012491 A1	19-01-2012
		WO 2012012015 A1	26-01-2012
US 2669350 A	16-02-1954	NONE	