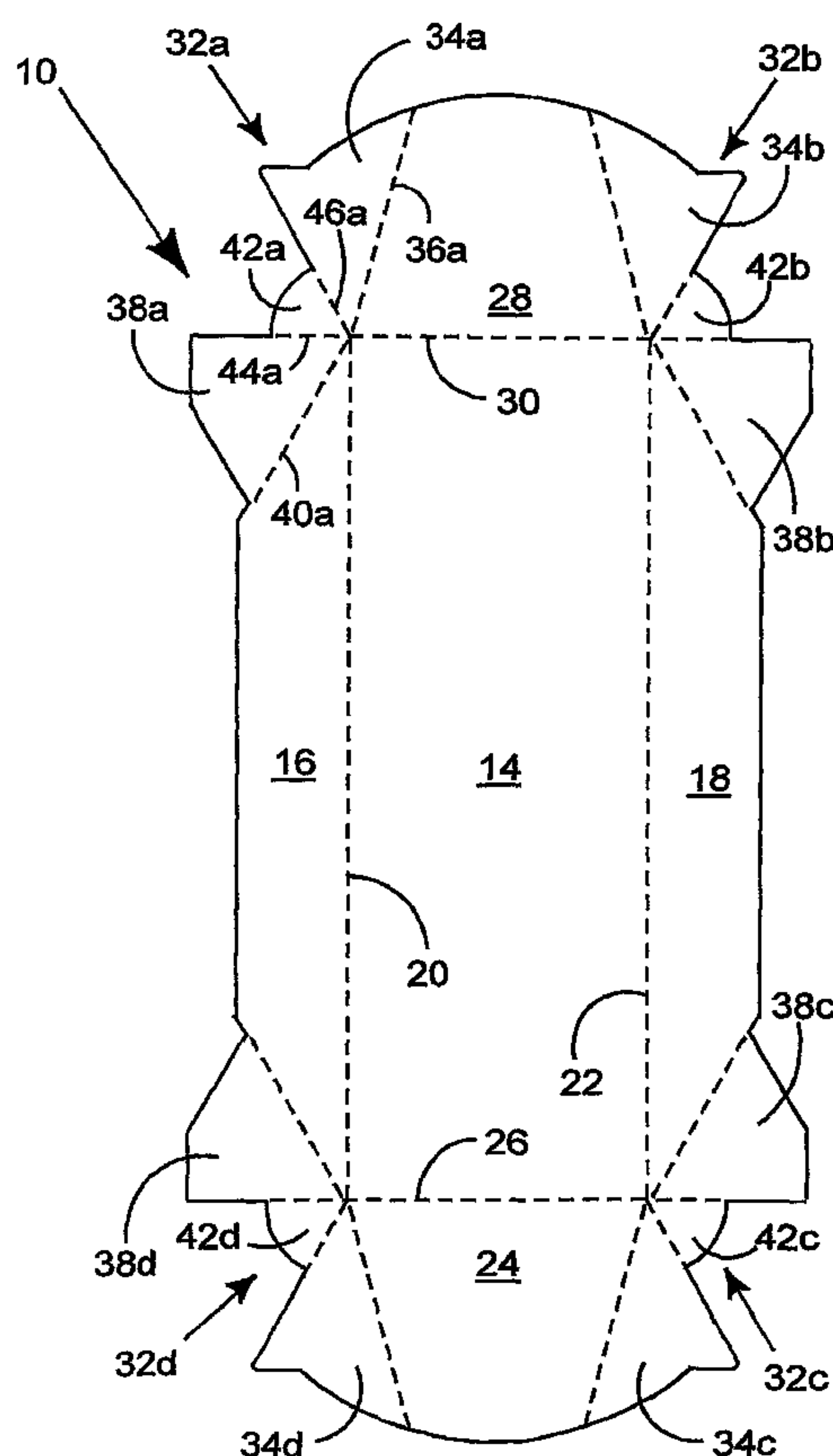




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(54) Title: A TRAY CONTAINER AND BLANK



(57) **Abrégé/Abstract:**

An article carrier and a blank for forming an article carrier, for holding one or more articles, for example foodstuff or the like, comprising a base panel (14, 114, 214), a pair of outwardly sloping side wall panels (16, 18, 116, 118, 216, 218) hingedly connected to the base panel (14, 114, 214) and one or more inwardly sloping end wall panels (24, 28, 124, 128, 224, 228), hingedly connected to the base panel (14, 114, 214).

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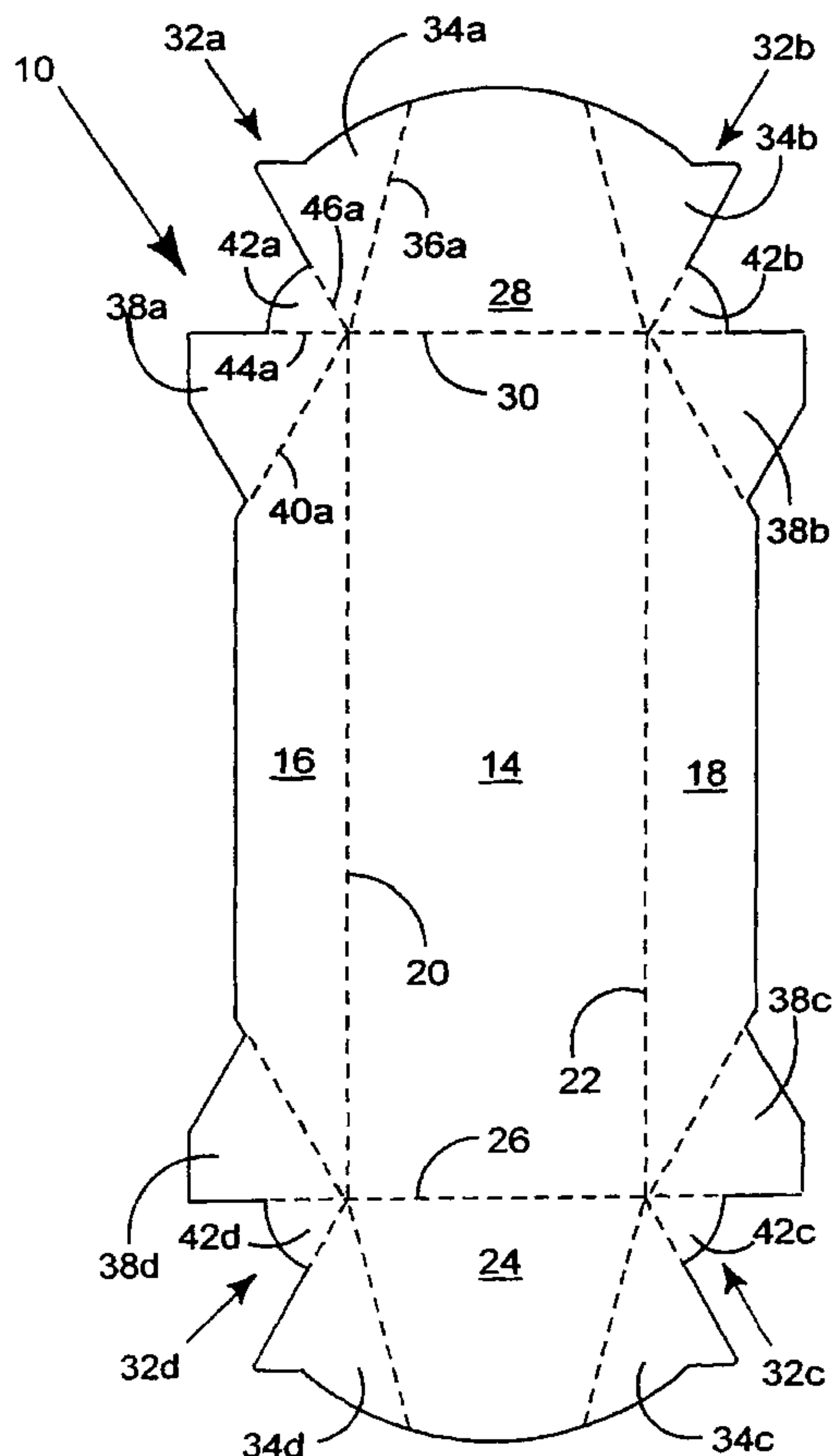
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(54) Title: A TRAY CONTAINER AND BLANK



(57) Abstract: An article carrier and a blank for forming an article carrier, for holding one or more articles, for example foodstuff or the like, comprising a base panel (14, 114, 214), a pair of outwardly sloping side wall panels (16, 18, 116, 118, 216, 218) hingedly connected to the base panel (14, 114, 214) and one or more inwardly sloping end wall panels (24, 28, 124, 128, 224, 228), hingedly connected to the base panel (14, 114, 214).

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A TRAY CONTAINER AND BLANK

The present invention relates to a article carrier or tray for accommodating one or more articles, for example foodstuff or the like, formed from a blank of paperboard or suitable foldable sheet material, and more particularly to a corner arrangement for retaining liquid from the foodstuff.

Tray structures formed from board generally lack strength when compared to trays formed from plastic material so more commonly trays are formed from polystyrene or other plastics material and the foodstuff is protected by a plastic film.

It is known from WO93/15962 to provide a fluid tight packaging tray formed from cardboard comprising a single base panel surrounded by side and end wall structures connected by an enclosure arrangement to maintain a food tight seal and to prevent liquid from rising by capillarity.

Another example is illustrated in GB 1 237 895 which shows a box formed from a blank with a corner gusset arrangement to impart liquid-proofness to the box body. However, such arrangements involve complex folding operations, which limits the carton construction speeds.

US 4 747 487 to Wood discloses an end loaded carton having an end closure structure comprising triangular corner panels hingedly connected with the lower edge of each side wall and a pair of closure panels hingedly connected to each corner panel and to a bottom end panel via a web panel.

US 5 253 802 discloses a tray according to the preamble of claim 1. Other examples of carton are illustrated in GB 920 831, EP 0 178 730 and GB 2 237 796.

Such trays are commonly of a unitary size which can cause the product to move within the tray which is undesirable as it can lead to degradation of the tray and an unsightly

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appearance. Furthermore, trays often have a large "foot print" in relation to the size of article to be packaged. Therefore space is often wasted during storage and delivery of the tray.

5 The present invention and its preferred embodiments seek to overcome or at least mitigate the problems of the prior art.

One aspect of the invention provides an article carrier for holding one or more articles, for example foodstuff or the like, comprising a base panel, a pair of outwardly sloping side wall panels hingedly connected to the base panel and one or more inwardly sloping end wall
10 panels, hingedly connected to the base panel. The or each end wall panel is so constructed and arranged to be automatically erected from the flat collapsed condition into a position of use by inwardly folding the opposed side wall panels. Each of the opposed side wall panels may connect the adjacent end wall panel by a corner arrangement comprising an engagement panel and a gusset wherein the engagement panel and gusset panel are adapted to be secured
15 in overlapping arrangement.

Preferably, the engagement panel may be foldably interconnected to the adjacent end wall panel by a pair of divergent fold lines to define a substantially triangular panel comprising said gusset panel.

20

According to another optional feature of this aspect of the invention the corner arrangement may inhibit the egress of fluid from the base panel at each corner of the carrier.

According to a further optional feature of this aspect of the invention the or each end wall
25 panel may comprise an end panel, opposed gusset panels hingedly connected to the lateral edges of end panel, the gusset panels and the end panels being adapted to be folded upwardly and outwardly with respect to the base wall to form a tray.

According to a still further optional feature of this aspect of the invention the opposed side
30 walls and base panel may be two-ply and wherein a void is provided between the inner and outer side wall panels, which void is adapted to receive liquid from the foodstuff. Preferably,

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the tray may further comprise a plurality of perforations on the base panel and/or the fold lines interconnected the base and the side wall panels to facilitate movement of liquid away from the foodstuff to be absorbed by absorbing means placed between the inner and outer base panel.

5

According to yet another optional feature of this aspect of the invention the base may be raised at its ends.

10 A second aspect of the invention provides a blank for forming an article carrier for holding one or more articles, for example foodstuff or the like, comprising a base panel, a pair of outwardly sloping side wall panels hingedly connected to the base panel and one or more inwardly sloping end wall panels, hingedly connected to the base panel wherein each of the opposed side wall panels connect the adjacent end wall panel by a corner arrangement comprising an engagement and a gusset panel.

15

According to an optional feature of the second aspect of the invention, the engagement panel may hingedly interconnect the gusset panel by a pair of divergent fold lines to define a substantially triangular gusset panel.

20 The or each end wall panel of the blank of the second aspect of the invention, may comprise an end panel, opposed gusset panels hingedly connected to the lateral edges of end panel, the gusset panels and the end panels being adapted to be folded upwardly and outwardly with respect to the base wall to form a tray.

25 According to another optional feature of the second aspect of the invention, the opposed side walls and base panel are two-ply. The blank may further comprise a plurality of perforations on the inner layer of base panel and/or said fold lines interconnected the base and the side wall panels to facilitate movement of liquid away from the foodstuff to be absorbed by absorbing means placed between the inner and outer base panel in a set up carrier.

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A third aspect of the invention provides a carton for holding one or more articles, for example foodstuff or the like, comprising a base panel, side wall panels and an end wall panel hingedly connected to opposing edges of the base panel and a corner arrangement connecting the side wall to the end wall panel comprising the side panel and in overlying relationship with the end panel. A gusset panel inter-connects an engagement panel and the end wall panel. The or each end wall panels are so constructed and arranged to be automatically erected from the flat collapsed condition into a position of use by inwardly folding the opposed side wall panels.

10 According to an optional feature of the third aspect of the invention a first fold line interconnecting the end wall panel and the gusset panel may be aligned with a second fold line interconnecting the side wall panel and web panel when the carton is in blank form the web.

15 Preferably, a third fold line may interconnect the gusset panel and the engagement panel and the angle subtended by the first and third fold lines is substantially the same as the angle subtended by the first fold line and a fourth fold line interconnecting the base wall panel and end wall panel.

20 According to another optional feature of the third aspect of the invention an engagement panel may be provided intermediate the web panel and gusset panel.

A fourth aspect of the invention provides a blank for forming a carton for holding one or more articles, for example foodstuff or the like, comprising a base panel, having first and second end and side wall panels hingedly connected thereto along opposed side and end edges thereof, the blank further comprising a web panel hingedly connected to a side edge of at least one of the side wall panels and a gusset panel hingedly connected to a side edge of an adjacent one of the end wall panels. The gusset panel and web panel are mutually hingedly connected along a common side edge thereof thereby enabling the engagement panel to be placed intermediate the end wall panels and the web panel when the blank is erected to form a carton.

Preferably, a first fold line interconnecting the end wall panel and the engagement panel may be aligned with a second fold line interconnecting the side wall panel and web panel. More preferably, a third fold line interconnects the web panel and the engagement panel and the angle subtended by the first and third fold lines may be substantially the same as the angle subtended by the first fold line and a fourth fold line interconnecting the base wall panel and end wall panel.

Exemplary embodiments of the invention will now be described, by way of example only, with reference to the accompanying drawings in which:

FIGURES 1 and 2 illustrate a two part blank for forming a carton or tray according to a preferred embodiment of the invention;

FIGURES 3, 4, 5 and 6 illustrate the construction of the tray from the blanks shown in Figures 1 and 2;

FIGURE 7 is a side elevation of the tray in a set-up condition formed from the blanks shown in Figure 1 and 2; and

FIGURE 8 is a perspective view of the set-up carton illustrated in Figure 7.

FIGURE 9 illustrates a blank for forming a carton or tray according to a second preferred embodiment of the invention;

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FIGURES 10, 11 and 12 illustrate the construction of the tray from the blanks shown in Figure 9;

FIGURE 13 is a perspective view of the set-up tray formed from the blank of Figure 9.

5

FIGURE 14 illustrates a blank for forming a carton or tray according to a third embodiment of the invention;

FIGURES 15, 16, 17 and 18 illustrate the construction of the tray from the blank shown in Figure 14; and

10

FIGURE 19 is a perspective view of the set up tray formed from the blank of Figure 14.

Detailed Description of the Preferred Embodiments

15

Referring to the drawings and in particular Figures 1 and 2, there is illustrated a blank for forming a collapsible tray (or carton) made from one or more blanks of paperboard or similar foldable sheet material and adapted to hold foodstuff or the like.

20

In this embodiment, the tray is formed from a two part blank although a unitary blank could be used as with the second and third embodiments, without departing from the scope of invention. The blank 10 comprises a plurality of panels for forming the base, opposed sides and ends of the tray T (Figure 8). Thus, there is shown a base panel 14, a first side wall panel 16 hingedly connected to base panel 14 along fold line 20. A second side wall panel 18 is hingedly connected to the opposing edge of base panel 14 along fold line 22. There further comprises opposed end panels 24 and 28 hingedly connected to base panel 14 along opposed fold lines 26 and 30 respectively. A corner arrangement 32 is provided between each end and adjacent side wall panels for retaining the liquids from the foodstuff. Each corner arrangement is adapted to secure together the side wall panel and an end wall panel of the tray.

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Turning in detail to the corner arrangements 32a, 32b, 32c, 32d, each corner arrangement is substantially identical and like reference numerals have been used to illustrate the features of the corner arrangement therefore only corner arrangement 32a shall be described in any greater detail.

5

The corner arrangement 32a of the first embodiment comprises a web structure hingedly interconnecting the side panel 16 and adjacent end panel 28. In this embodiment, the web structure comprises a gusset panel 34a hingedly connected to end wall panel 28 along fold line 36a. It will be seen from Figure 1 that 36a is preferably in an acute angular relationship with lateral fold line 30 so that end wall panel 28 is substantially trapezoidal in shape. Of course, the end wall panel is not limited to this shape. In this embodiment, the web structure further comprises a web panel 38a and, optionally, one or more engagement panels 42a hingedly interconnected along fold line 44a. Preferably, fold line 44a is an extension of fold line 30. The engagement panel and/or web panel are secured to the end wall panel in a set up condition. In this embodiment, engagement panel 42 is hingedly connected to gusset panel 34a along fold line 46a. Web panel 38a is hingedly connected to first side wall panel 16 along fold line 40a. Preferably, fold line 40a is in an acute angular relationship with longitudinal fold line 20 so that in use, web panel 38a is folded inwardly to come into face contacting relationship with first side wall panel 16 and part of base panel 14.

20

In this embodiment, a second blank 12 is provided comprising an inner base panel 52 and opposed inner side wall panels 54 and 56 hingedly connected to base panel 52 along fold lines 58 and 60 respectively. The inner blank may be coated with an impermeable layer to prevent the excess liquid from the foodstuff from being absorbed by the tray. As the coating process is expensive, the coated part of the tray is limited to those surfaces that come into direct contact with the foodstuff. Alternatively, a unitary blank such as the embodiment illustrated in Figure 1 could be used and part (or all) of the inner surface is provided with an impermeable layer.

25

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One advantage with the embodiment illustrated in Figures 1 and 2 is that a suitable void structure could be employed between the inner and outer panels, for example similar to the structure disclosed in WO 00/15520 and owned by the applicant.

5 In the second embodiment illustrated in Figures 9 to 13, there is shown a blank 110 for forming the tray which is similar to the first embodiment so like parts have been designated by the same reference numerals with the prefix "1". Only the differences will be described in any greater detail.

10 A corner arrangement 132 is provided between each end and adjacent side wall panels for retaining the liquids from the foodstuff. Each corner arrangement is adapted to secure together the side wall panel and an end wall panel of the tray. The blank may further comprise "adpanels" 125 and 129 hingedly interconnected to end wall panels 124 and 128 along fold lines 123 and 127 respectively, and which have no structural purpose, but are
15 provided to display advertising indicia and the like.

Turning in detail to the corner arrangements 132a, 132b, 132c, 132d, each corner arrangement is substantially identical and like reference numerals have been used to illustrate the features of the corner arrangement therefore only corner arrangement 132a shall be
20 described in any greater detail.

The corner arrangement 132a of the second embodiment comprises a web structure hingedly interconnecting the side panel 116 and adjacent end panel 128. In this embodiment, the web structure comprises a gusset panel 134a hingedly connected to end panel 128 along fold line
25 136a. It will be seen from Figure 1 that fold line 136a is preferably in an acute angular relationship with lateral fold line 130 so that end wall panel 128 has a substantial trapezoidal portion proximate fold line 130. Of course, the end wall panel is not limited to this shape.

Preferably, gusset panel 134a is struck from end panel 128 and partially separated there from
30 by cut line 137a. This arrangement provides a flatter pack for when the carton is in a flat collapsed condition.

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In this embodiment, the web structure further comprises a web panel 138a and optionally, one or more engagement panels 142a hingedly interconnected along fold line 144a. The web panel 138a is connected to gusset panel 134a. In this embodiment, engagement panel 142a is
5 hingedly connected to gusset panel 134a along fold line 146a.

In other classes of embodiment, the engagement panel(s) may be dispensed with and the web panel 138a is secured directly to the gusset panel 134a and/or end wall panel 228. Preferably, fold line 144a is an extension of fold line 130. Web panel 138a is hingedly connected to first
10 side wall panel 116 along fold line 140a. Fold line 140a is in an acute angular relationship with longitudinal fold line 120 so that in use, web panel 138a is folded inwardly to come into face contacting relationship with first side wall panel 116 and part of base panel 114. Furthermore, fold line 136a is preferably an extension of fold line 140a so that in use, gusset panel 134a overlies end panel 128 and engagement panel overlies base panel 114. In a
15 particularly preferred embodiment, the angle subtended by fold lines 146a and 136a is substantially the same as the angle subtended by fold lines 130 and 136a.

The third embodiment is illustrated in Figures 14 to 19 and corresponds substantially to the first and second embodiments so that like references have been used with the prefix "2" and
20 only the differences will be described in any greater detail.

The corner arrangements 232 are similar to the corner arrangements 132 of the second embodiment, in that there comprises a gusset panel 234 extending into the adjacent end panel 224, 228. The engagement panel 242 is larger in area to provide a greater area for securing to
25 the end wall panel. Accordingly, the fold line 244 connecting web panel 238 to engagement panel 242 is in an acute angle with respect to fold line 240.

There further comprises inner or as the case may be outer side walls 255, 257 hingedly connected to first and second side wall panels 216, 218 along fold lines 259 and 261
30 respectively, to provide a two ply structure.

- 10 -

The hinged connection between end panels 224, 228 is a double fold line 230, 231; 226, 227 to make it a flatter pack.

Base wall is formed in three parts so that there is a central base panel 214 and outer base
5 panels 271 and 275 hingedly connected to central base panel 214 along fold lines 273 and 277 respectively. In use, the outer base panels are inclined with respect to central base panel 214 for improved aesthetic effect and to encourage exudate or other fluid from the articles to move towards the central base panel where it is absorbed or collected by suitable absorbent means known in the art.

10

The construction of the tray T from the blanks 10, 12; 110, 210 illustrated in Figures 1 and 2, Figure 9 or Figure 14 requires a series of sequential of folding and gluing operations which can be performed either manually or in a straight line machine so that the carton is not required to be rotated or inverted to complete its construction. The folding process is not
15 limited to that described below and be altered according to particular manufacturing requirements.

20

The compartments C of the tray T, of the illustrated embodiments may be constructed with or without the use of glue. In the present embodiment, a method using glue is shown. The
20 gluing positions of the blank are highlighted by hatching G although it is envisaged that the other glue positions could be adopted if required.

25

The first stage is for the inner and outer blanks 12, 10 to be secured together, in those embodiments with the two part blank. The inner base panel 52 and inner side wall panels 54 and 56 are brought into alignment with corresponding base panel 14 and outer side wall
25 panels 18 and 16 respectively and are secured thereto by glue or other suitable means known in the art. Figure 3 illustrates the alignment of the inner blank with the outer blank whereby fold lines 58 and 60 are aligned with corresponding fold lines 20 and 22 respectively.

30

It will be seen from Figures 7 and 8 that the tray T is formed with one or more inwardly sloping end wall panels 24, 28 and a pair of outwardly sloping side wall panels 16, 18. The

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end wall structures are formed by constructing each corner arrangement 32 as illustrated in Figures 4 and 5. The first step is for the web panels 38a, 38b, 38c, 38d to be folded inwardly in directions U, V, W and X respectively along fold lines 40a, 40b, 40c and 40d. The web panels 38 are placed in face contacting arrangement with the adjacent side wall panel 16 or 18, as the case may be, and part of inner base panel 52. Glue G is applied to the web panels 38. As the web panels 38 are indirectly connected to end wall panels 24 and 28 by the web structure, the inward folding action of the web panels 38 causes the end wall panels 24 and 28 to be folded inwardly in directions Y and Z so that each engagement panel 42a, 42b, 42c and 42d is folded out of alignment with the adjacent gusset panel and web panel 34 and 38 respectively along fold lines 44 and 46, as shown in Figure 5.

End wall panels 24 and 28 are then folded inwardly so that each gusset panel 34 is placed in overlapping arrangement with the adjacent engagement panel 42 to be placed in face contacting relationship with web panel 38 and is secured therewith. Each end wall panel 24, 28 is inwardly sloping about fold line 26, 30 so that the tray is in a substantially flat collapsed condition as shown in Figure 6. The tray is ready to be supplied to a user to be loaded with the article(s) or foodstuff.

In order to erect the tray from a flat collapsed condition in Figure 6 to load it with articles, the side wall panels 16, 18 are folded inwardly in directions R1 and R2 along fold lines 20 and 22 respectively. This folding action causes the end wall structures to be automatically erected from the flat collapsed condition whereby the end wall panels 28, 24 are folded upwardly and outwardly about fold lines 30 and 26 respectively in direction P1 and P2. The article is inserted into the tray and stretch film can thereafter be applied to the tray to seal the package. An advantage of the tray is that the corner arrangements are leak proof and a simple folding arrangement is provided to reduce "folding process" time. Thus, the carton is in a set up condition with compartments C to receive and retain one or more articles, as shown in Figures 7 and 8.

Turning to the second embodiment, it will be seen from Figure 13 that the tray is formed with one or more compartments C provided by inwardly sloping end wall panels 124, 128 and a

- 12 -

pair of outwardly sloping side wall panels 116, 118. The end wall structures are formed by constructing each corner arrangement 132 as illustrated in Figures 10 and 11. The first step is for the web panels 138a, 138b, 138c, 138d to be folded inwardly in directions U', V', W' and X' respectively along fold lines 140. The web panels 138 are thus placed in face contacting arrangement with the adjacent side wall panel 116. Glue G is applied to the web panels and/or gusset panels 134.

As the web panels 138 are indirectly connected to end wall panels 124 and 128 by the web structure, the inward folding action of the web panels 138 causes engagement panels 142a, 142b, 142c, 142d and gusset panels 134a, 134b, 134c, 134d to be folded so as to overlie base wall panel 114 and end wall panels 128 and 124 respectively as can be seen from Figure 11. This folding action preferably causes fold line 146 to overlie fold line 130. End wall panels 124 and 128 are then folded inwardly in directions Y' and Z' so that each gusset panel 134 is folded out of alignment with the adjacent engagement panel 142 respectively along fold line 146, as shown in Figure 11.

End wall panels 124 and 128 continue to be folded inwardly so that each gusset panel 134 is placed in overlying arrangement with the adjacent engagement panel 142 and portions of the end wall panel are, in this embodiment, secured to web panels 138 and preferably, gusset panels 134 by glue G. This folding action preferably causes fold line 136a to overlie fold line 144. End wall panels 124 and 128 are thus inwardly sloping about fold lines 126, 130 so that the tray is in a substantially flat collapsed condition as shown in Figure 12. The tray is ready to be supplied to a user to be loaded with the article(s) or foodstuffs.

In order to erect the tray from a flat collapsed condition in Figure 12, the side wall panels 16, 18 are folded inwardly and upwardly along fold lines 120 and 122 respectively. This folding action causes the end wall structures to be automatically erected from the flat collapsed condition whereby the end wall panels 128, 124 are folded upwardly and outwardly about fold lines 130 and 126 respectively as shown in Figure 13. The article is inserted into the tray and stretch film can thereafter be applied to the tray to seal the package. An advantage of the

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tray is that the corner arrangements are leak proof and a simple folding arrangement is provided to reduce "folding process" time.

Figure 13 illustrates the tray in an erected condition ready to receive one or more articles.

5 The shape of the end wall structures provides compartments at each end of the tray to receive and retain part of the article contained in it. The tray is prevented from collapsing by the abutment of the end wall panels 124 and 128 against the article. Furthermore, the tray may be adapted so that the end wall panels 124, 128 and base panel 114 provide a "pincer" arrangement to receive and retain the article thereby to reduce article movement within the
10 tray.

The third embodiment is constructed in like manner to the second embodiment by reference to Figures 15 to 17 and therefore only the differences will be described below.

15 The first step, shown in Figure 15 is to construct the two ply side walls, whereby inner side wall panels 255 and 257 are folded inwardly in directions P and Q along fold lines 259 and 261 respectively and preferably are secured thereto by suitable known securing means, for example glue.

20 Thereafter, the corner arrangements 232 are constructed in like manner to the second embodiment and shown in Figures 16 and 17. The end wall panels 224, 228 are substantially rectangular in shape and are therefore secured to the engagement panels 242 only by glue or other suitable securing means so that the tray is ready to be supplied to an end user in a flat collapsed condition.

25 The double fold line between the end panels 224, 228 and outer base panels 271, 275 allow a degree of flexing so that the end panels are juxtaposed the adjacent base panel.

In order to erect the tray the sides and ends are formed in like manner to the second
30 embodiment, and as shown in Figure 19. The corner structures are arranged such that as the

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side walls are erected the outer base panels 271, 275 are inclined with respect to central base panel 214.

5 In one class of embodiments, the side wall panels 255, 257 are not secured to the first and second side walls and form further ad panels, as shown in Figure 19.

10 In the illustrated embodiments the corner arrangements are positioned intermediate the side and end walls, although it is envisaged that the web structures could be formed externally of the end wall structures, without departing from the scope of invention. For example, as with the third embodiment, end walls 224, 228 could be folded inwardly first before construction of the corner arrangement, so that the outer surface of end walls 224, 228 are secured to the inner surface of engagement panels 242. The advantage of this approach is that as the side and end walls are erected the end wall panels will be prevented from folding outwardly and separating from the corner structure as it is held by the engagement panels 242.

15

The tray of any of the embodiments are shown in Figures 7, 8, 13 or 19 in an erected condition ready to receive one or more articles. The shape of the end wall structures provided compartments C at each end of the tray T to receive and retain part of the article contained in it. The tray is prevented from collapsing by the abutment of the end wall panels against the article.

20

Furthermore, the tray T may be adapted so that the end wall panels and base panel provide a "pincer" arrangement to receive and retain the article thereby to reduce article movement within the tray. In those embodiments comprising a void between the inner and outer tray panels, the end wall panels and corner arrangements restrict upward movement of the inner side wall panels.

25

Beneficially, the tray described above provides a structure that is strengthened to retain foodstuff. The use of paperboard material provides an environmentally friendly alternative to trays formed from plastics material and the tray can include printed matter for marketing purposes.

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It will be recognised that as used herein directional reference such as "top", "base", "end", "side", "inner", "outer", "lateral" and "longitudinal" do not limit the respective panels to such orientation, but merely serve to distinguish these panels from one another. Any reference to hinged connection should not be construed as necessarily referring to a single fold line only: indeed it is envisaged that hinged connection can be formed from one or more of the following a score line, a frangible line, or a fold line, without departing from the scope of invention.

The present invention and its preferred embodiment relates to an article carrier which is shaped to provide satisfactory rigidity to hold items such as meat or fish securely but with a degree of flexibility. The shape of the blank(s) minimises the amount of paperboard required for the carton. The items can be applied to the carrier by hand or automatic machinery.

It is anticipated that the invention can be applied to a variety of carton or tray types and not limited to those of a tray like structure. For example, the end closure arrangement can be attached to, say the top or bottom panels, could be applied to cartons in the beverage field without departing from the scope of invention, where it is required to automatically construct end (or side) wall panels of a carton.

The end wall structure could be applied to wraparound or end closure type cartons: the end panels would be foldably connected to a base or top panel and the glue flap secured to the adjacent side panel. Thus, the wraparound carton could be supplied in a flat collapsed form which would not look dissimilar to the end part of the tray shown in Figure 6. To erect the end wall structure, the side walls would be folded inwardly, by known means, to automatically erect the end wall structure. The carton would then be applied to an array of articles, for example bottles by suitable means and the carton base panels secured together to form a wraparound carrier. Of course, this would result in a further reduction in folding time for forming the carton.

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CLAIMS

1. An article carrier for holding one or more articles, for example foodstuff or the like, comprising a base panel, a pair of outwardly sloping side wall panels hingedly connected to the base panel and one or more inwardly sloping end wall panels hingedly connected to the base panel, and a web panel hingedly connected to each side wall panel, characterised in that each of the opposed side wall panels is connected to the adjacent end wall panel by a corner arrangement comprising a gusset panel hingedly connected to the end panel which gusset panel is itself connected to said web panel so that the or each end wall panel is caused to be erected from the flat collapsed condition into a position of use by inwardly folding the opposed side wall panels.
2. An article carrier as claimed in claim 1, wherein each corner arrangement further comprises an engagement panel hingedly connecting said web panel and said gusset panel wherein the engagement panel and gusset panel are adapted to be disposed in overlapping arrangement.
3. An article carrier as claimed in claim 2, wherein the engagement panel is foldably interconnected to the adjacent end wall panel by a pair of divergent fold lines to define a substantially triangular panel comprising said gusset panel.
4. An article carrier as claimed in claim 2 or 3, wherein said each corner arrangement inhibits the egress of fluid from the base panel at each corner of the carrier.
5. An article carrier as claimed in claim 1, wherein the or each end wall panel comprises an end panel and opposed gusset panels hingedly connected to the lateral edges of end panel, the gusset panels and the end panels being adapted to be folded upwardly and outwardly with respect to the base panel to form a tray.

6. An article carrier as claimed in any one of claims 1 to 5, wherein the opposed side wall panels and base panel are two-ply and wherein a void is provided between the inner and outer side wall panels, which void is adapted to receive liquid from the foodstuff.
7. An article carrier as claimed in claim 6, further comprising a plurality of perforations on the base panel and/or fold lines interconnecting the base and the side wall panels to facilitate movement of liquid away from the foodstuff to be absorbed by absorbing means placed between inner and outer layers of the base panel.
8. An article carrier as claimed in any one of claims 1 to 7, wherein the base panel is raised at its ends.
9. An article carrier as claimed in claim 1 wherein each corner arrangement comprises said gusset panel in underlying relationship with the end wall panel, wherein the gusset panel interconnects an engagement panel and the end wall panel.
10. An article carrier as claimed in claim 9, wherein a first fold line interconnecting the end wall panel and the gusset panel is aligned with a second fold line interconnecting the adjacent side wall panel and the web panel when the carton is in blank form.
11. An article carrier as claimed in claim 10, wherein a third fold line interconnects the gusset panel and the engagement panel and the angle subtended by the first and third fold lines is substantially the same as the angle subtended by the first fold line and a fourth fold line interconnecting the base panel and the end wall panel.
12. An article carrier as claimed in any one of claims 9 to 11, wherein the engagement panel is provided intermediate the web panel and gusset panel.
13. A blank for forming an article carrier for holding one or more articles, for example foodstuff or the like, comprising a base panel, a pair of outwardly sloping side

wall panels hingedly connected to the base panel and one or more inwardly sloping end wall panels hingedly connected to the base panel, and a web panel hingedly connected to each side wall panel, characterised in that each of the opposed side wall panels is connected to the adjacent end wall panel by a corner arrangement comprising a gusset panel hingedly connected to the end panel which gusset panel is itself connected to said web panel so that the or each end wall panel is capable of being erected from the flat collapsed condition into a position of use in a set up carrier by inwardly folding the opposed side wall panels.

14. A blank as claimed in claim 13, wherein each corner arrangement further comprises an engagement panel hingedly connecting said web panel and said gusset panel wherein the engagement panel and gusset panel are adapted to be disposed in overlapping arrangement in a set up carton.

15. A blank as claimed in claim 13 or claim 14, wherein the engagement panel is hingedly interconnected to the gusset panel by a pair of divergent fold lines to define a substantially triangular gusset panel.

16. A blank as claimed in claim 15, wherein the or each end wall panel comprises an end panel, opposed gusset panels hingedly connected to the lateral edges of end panel, the gusset panels and the end panels being adapted to be folded upwardly and outwardly with respect to the base panel to form a tray.

17. A blank as claimed in any one of claims 13 to 16, wherein the opposed side wall panels and base panel are two-ply.

18. A blank as claimed in claim 17, further comprising a plurality of perforations on an inner layer of the base panel and/or fold lines interconnecting the base and the side wall panels to facilitate movement of liquid away from the foodstuff to be absorbed by

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absorbing means placed between inner and outer layers of the base panel in a set up carrier.

19. A blank as claimed in claim 13 wherein said web panel is hingedly connected to a side edge of at least one of the side wall panels and the gusset panel is hingedly connected to a side edge of an adjacent one of the end wall panels, the gusset panel and web panel being mutually hingedly interconnected by an engagement panel thereby enabling the gusset panel to be placed intermediate the adjacent end wall panel and the engagement panel when the blank is erected to form a carton.

20. A blank as claimed in claim 19 wherein a first fold line interconnecting each of the end wall panels and the adjacent gusset panel is aligned with a second fold line interconnecting the adjacent side wall panel and the adjacent web panel.

21. A blank as claimed in claim 20 wherein a third fold line interconnects an engagement panel and the gusset panel and the angle subtended by the first and third fold lines is substantially the same as the angle subtended by the first fold line and a fourth fold line interconnecting the base panel and the each end wall panel.

22. A package comprising an article carrier as claimed in any one of claims 1 to 12 and an article contained therein.

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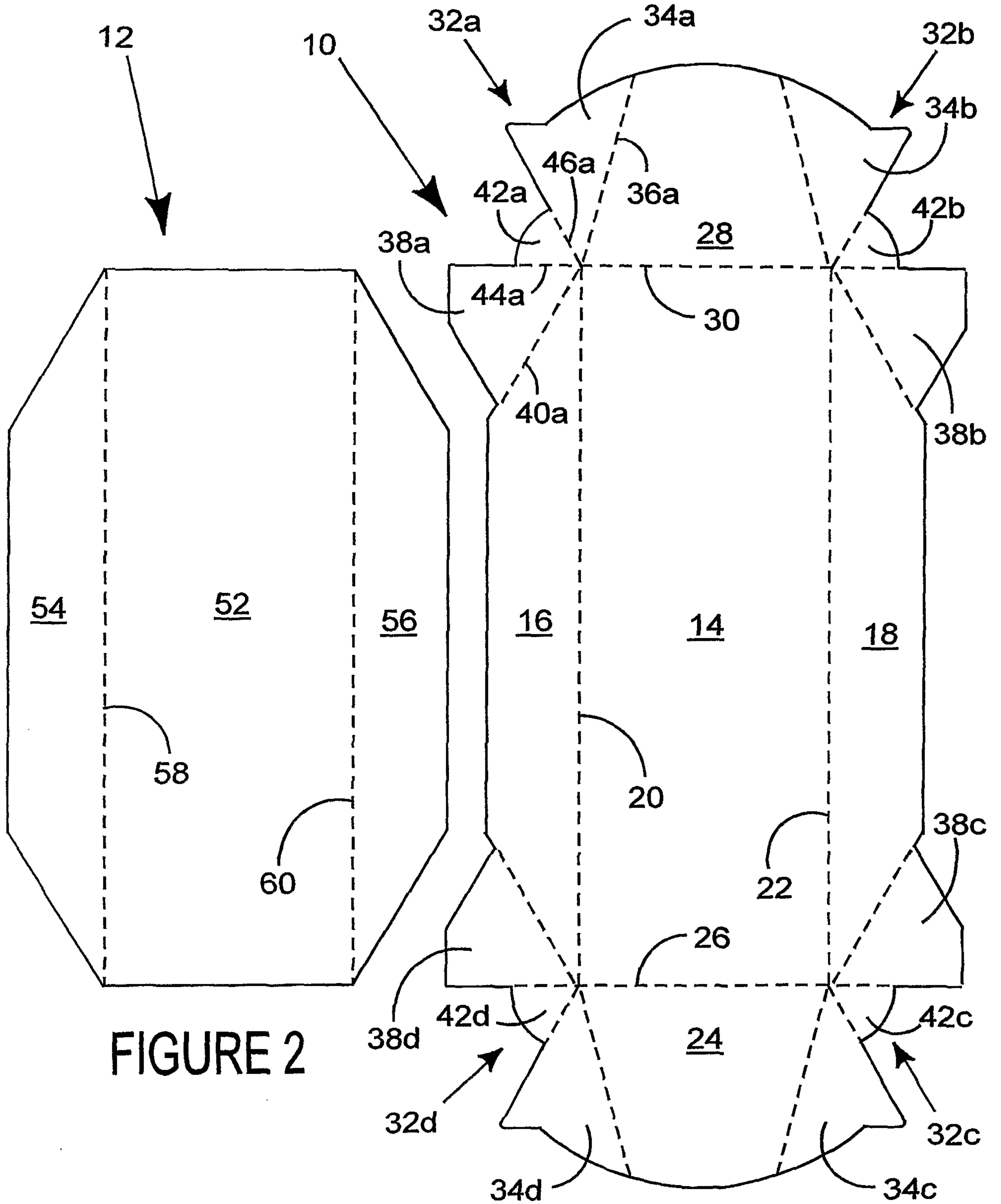


FIGURE 1

FIGURE 2

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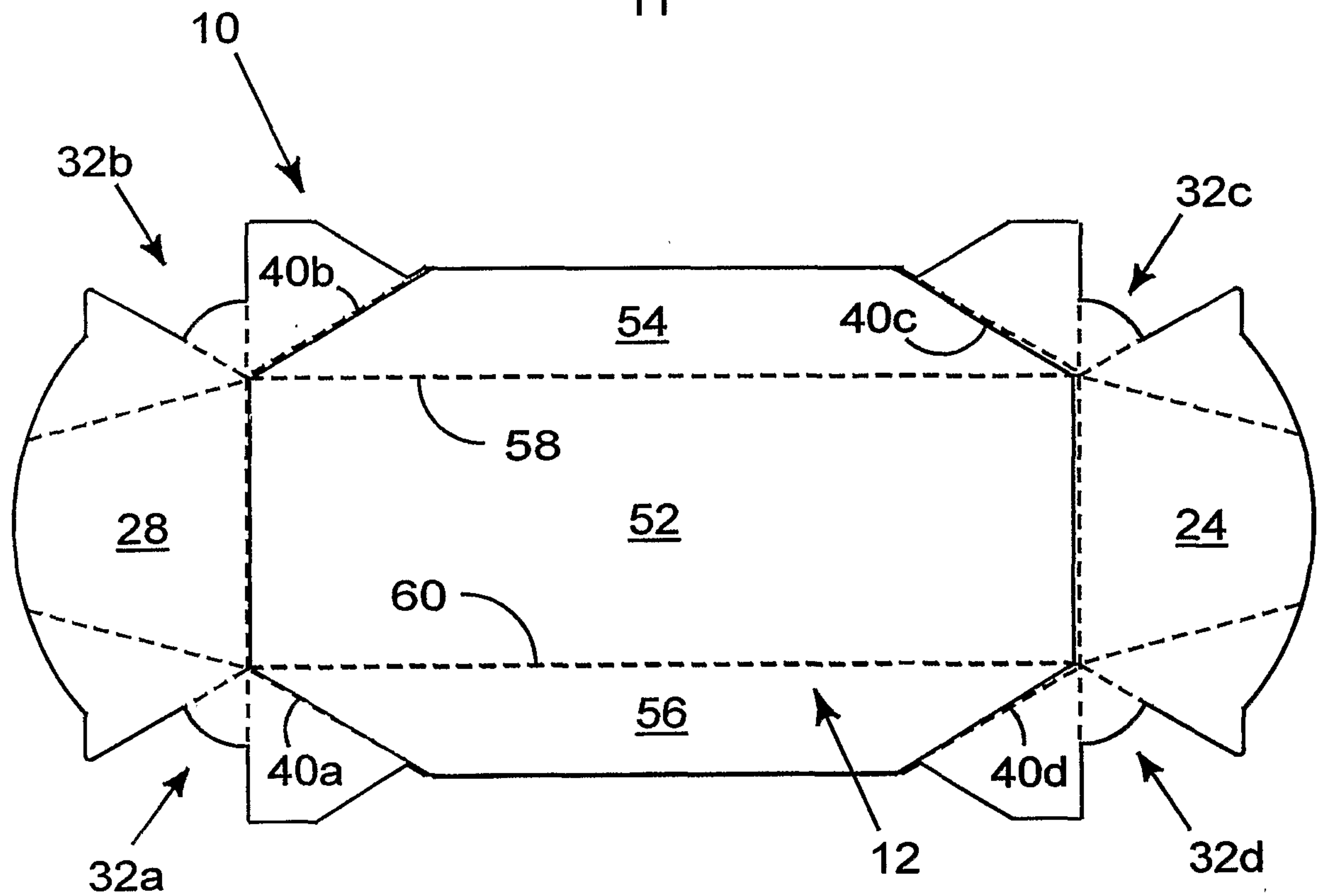


FIGURE 3

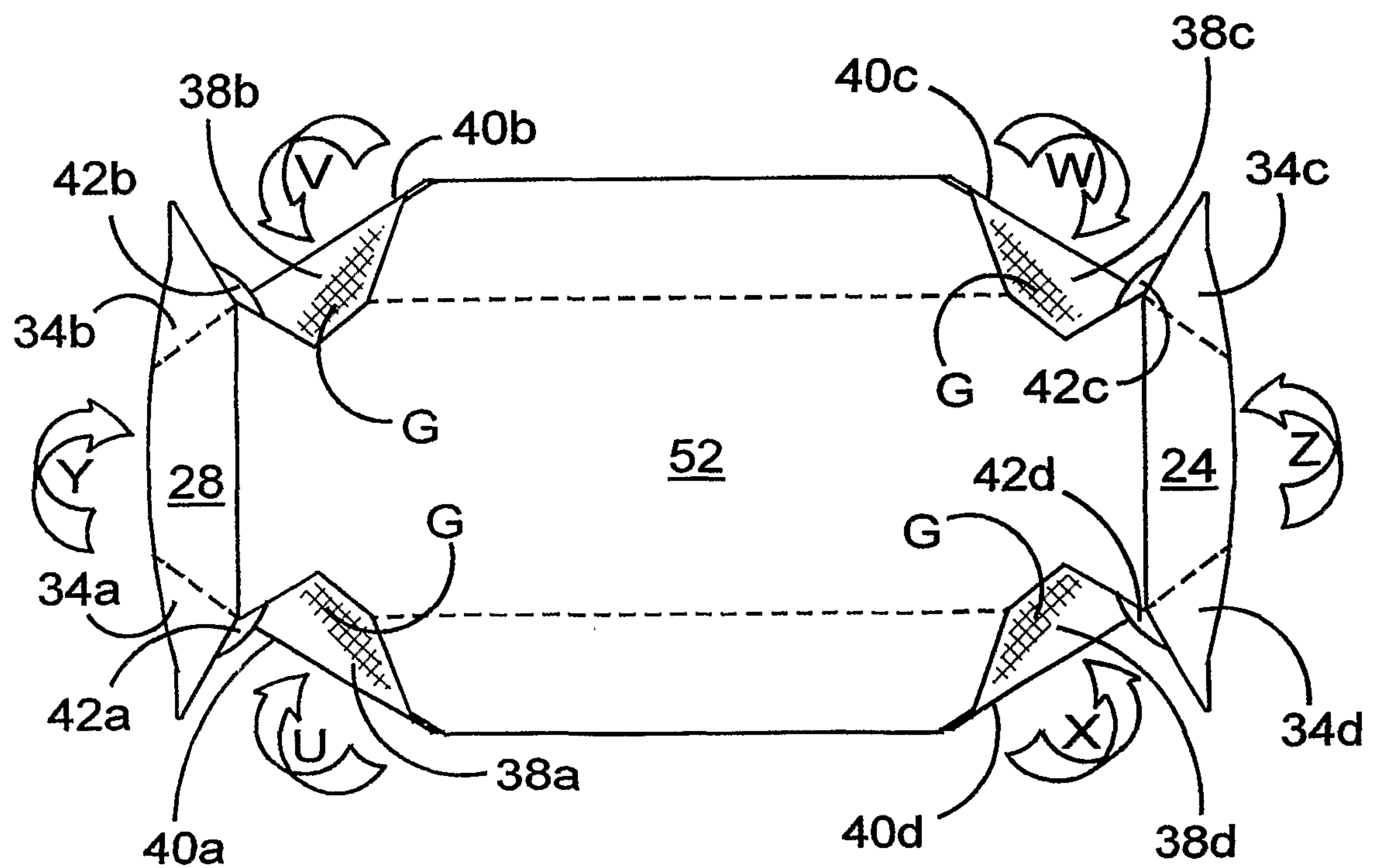


FIGURE 4

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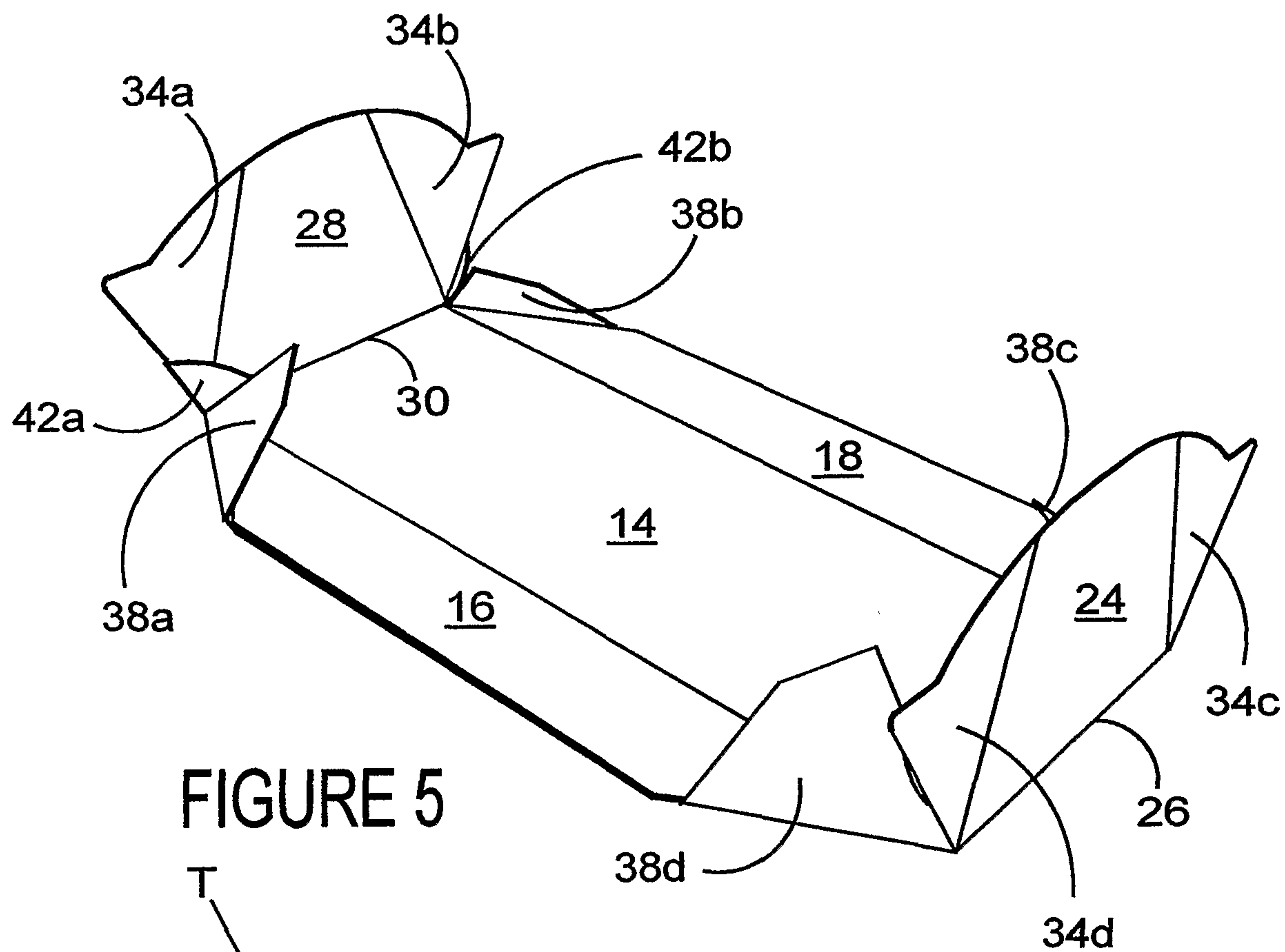


FIGURE 5

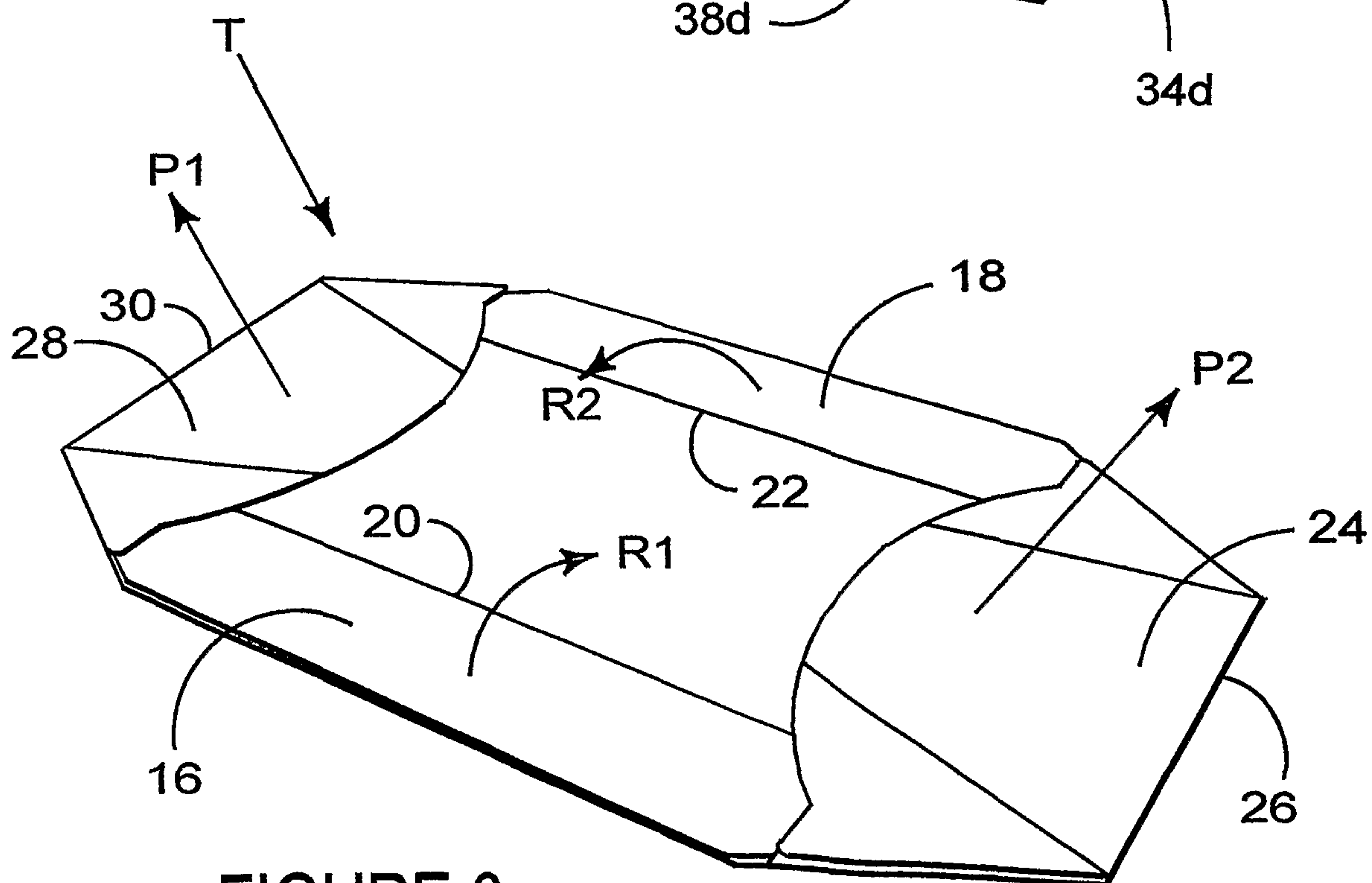


FIGURE 6

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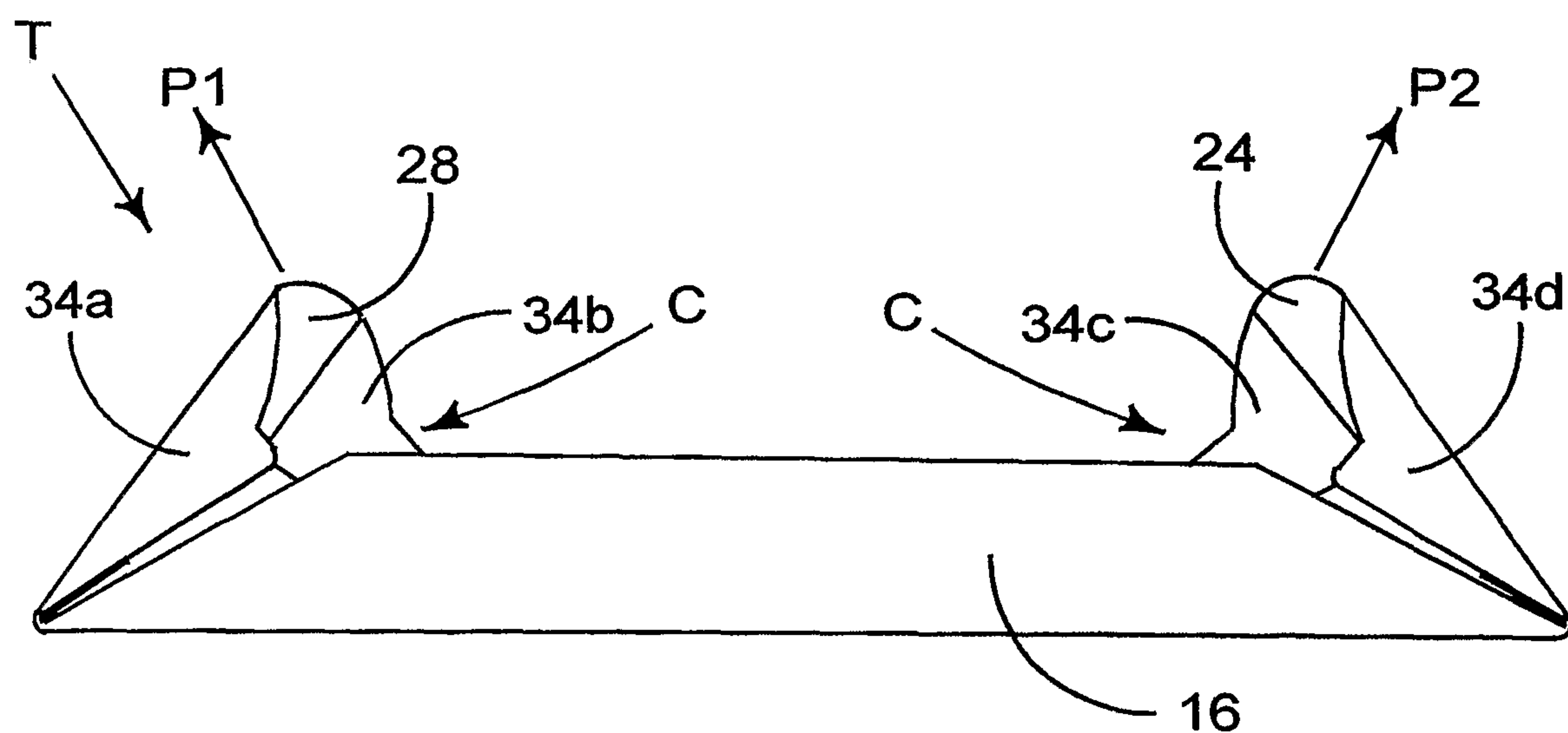


FIGURE 7

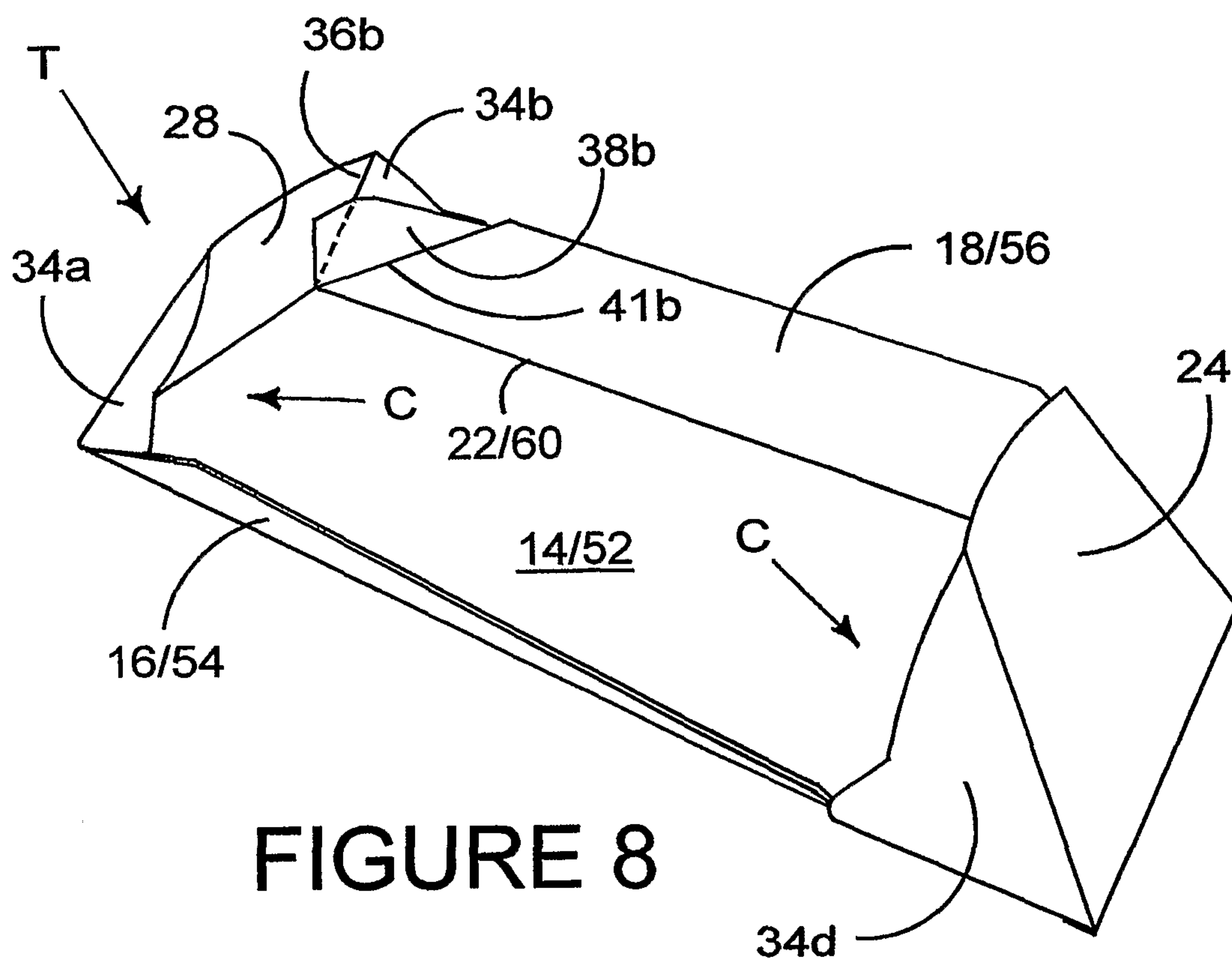


FIGURE 8

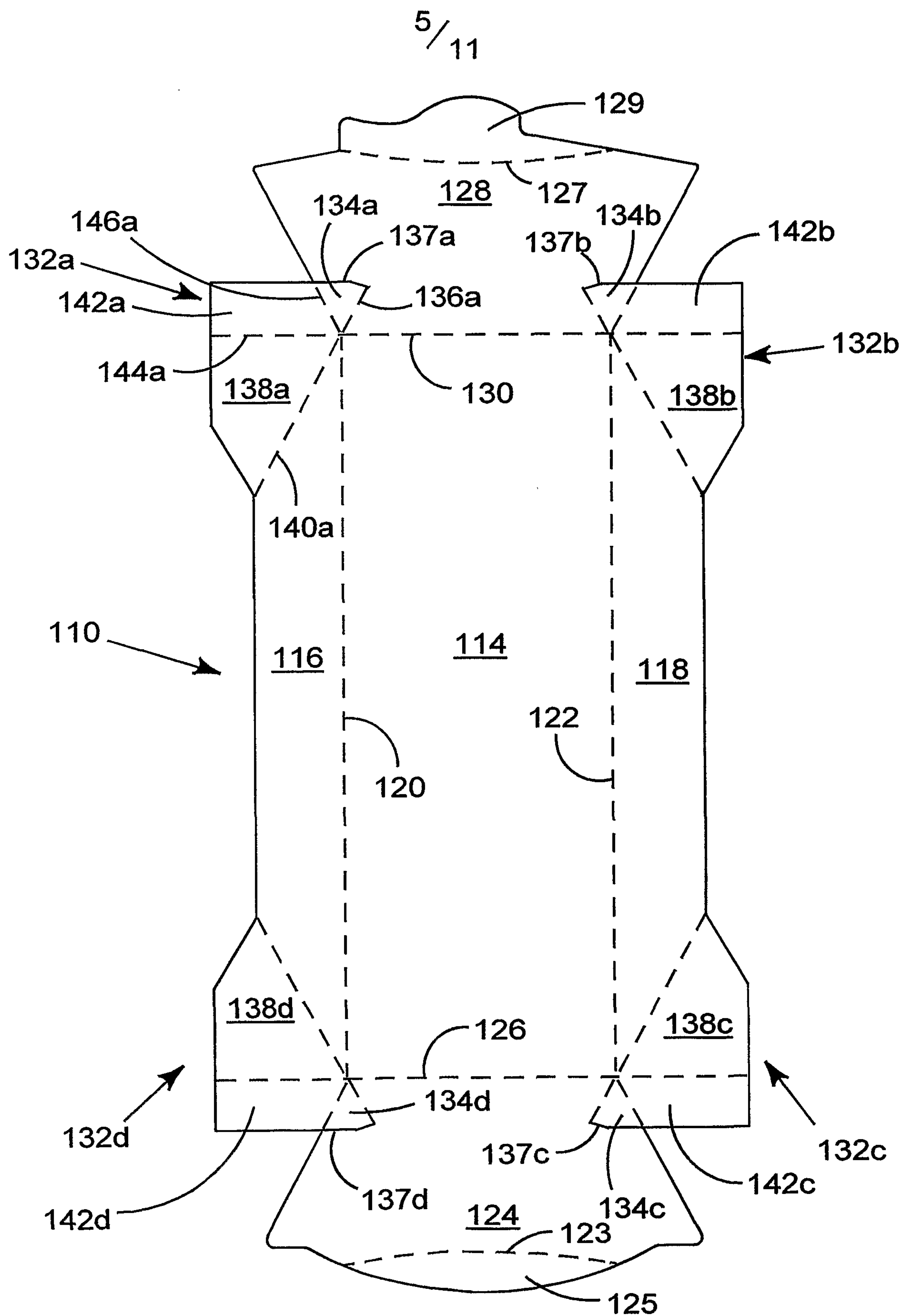


FIGURE 9

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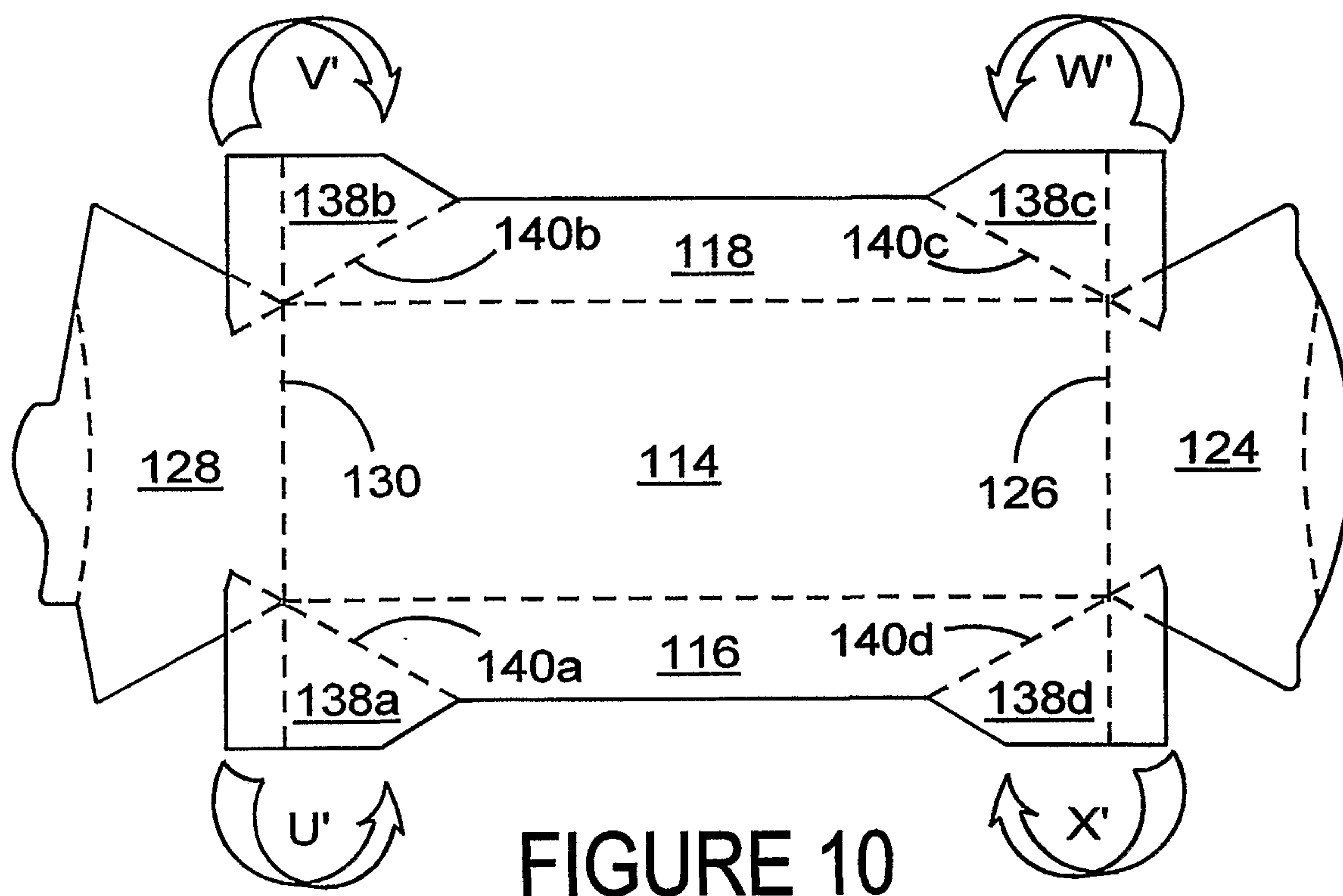


FIGURE 10

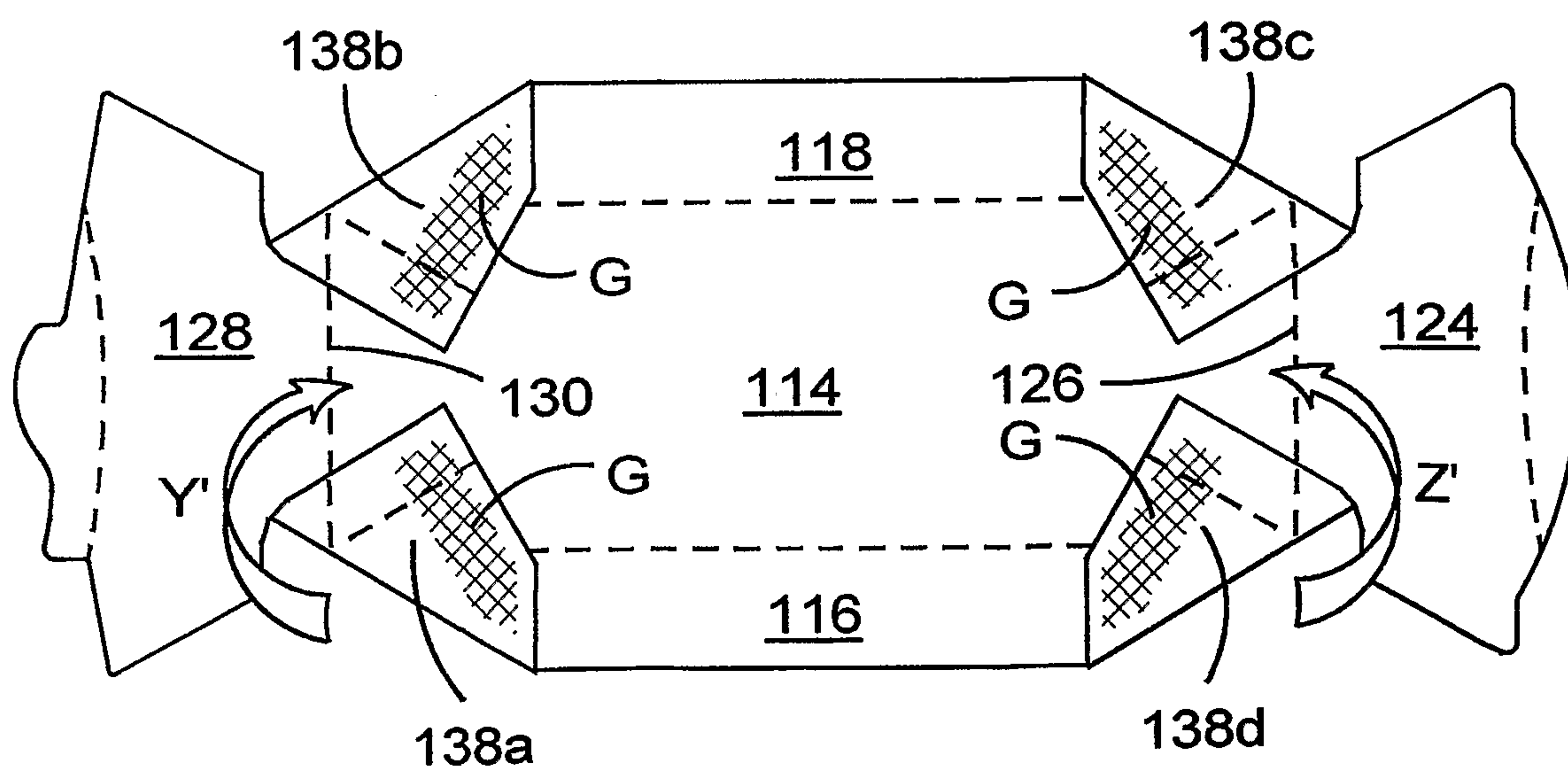


FIGURE 11

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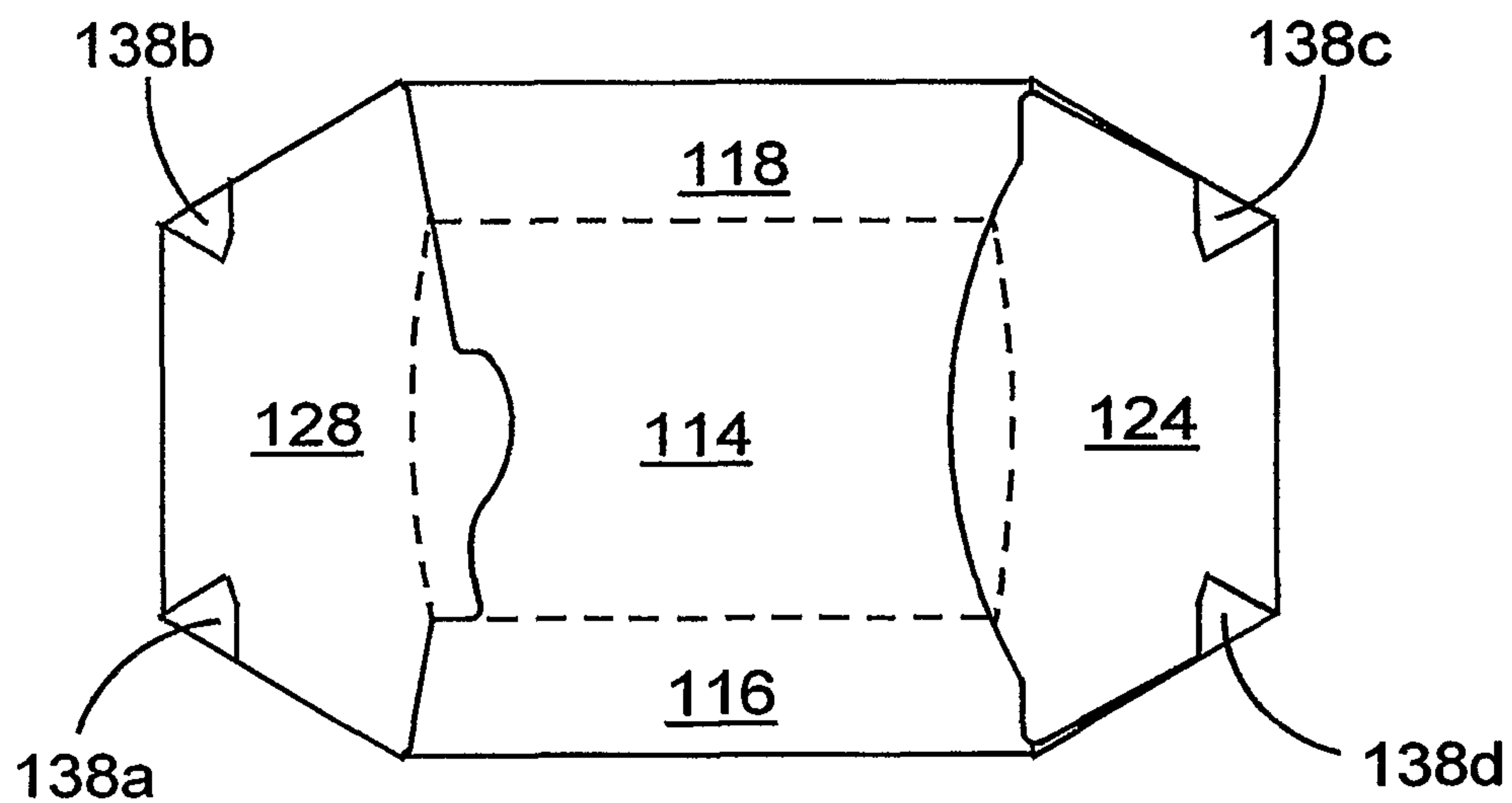


FIGURE 12

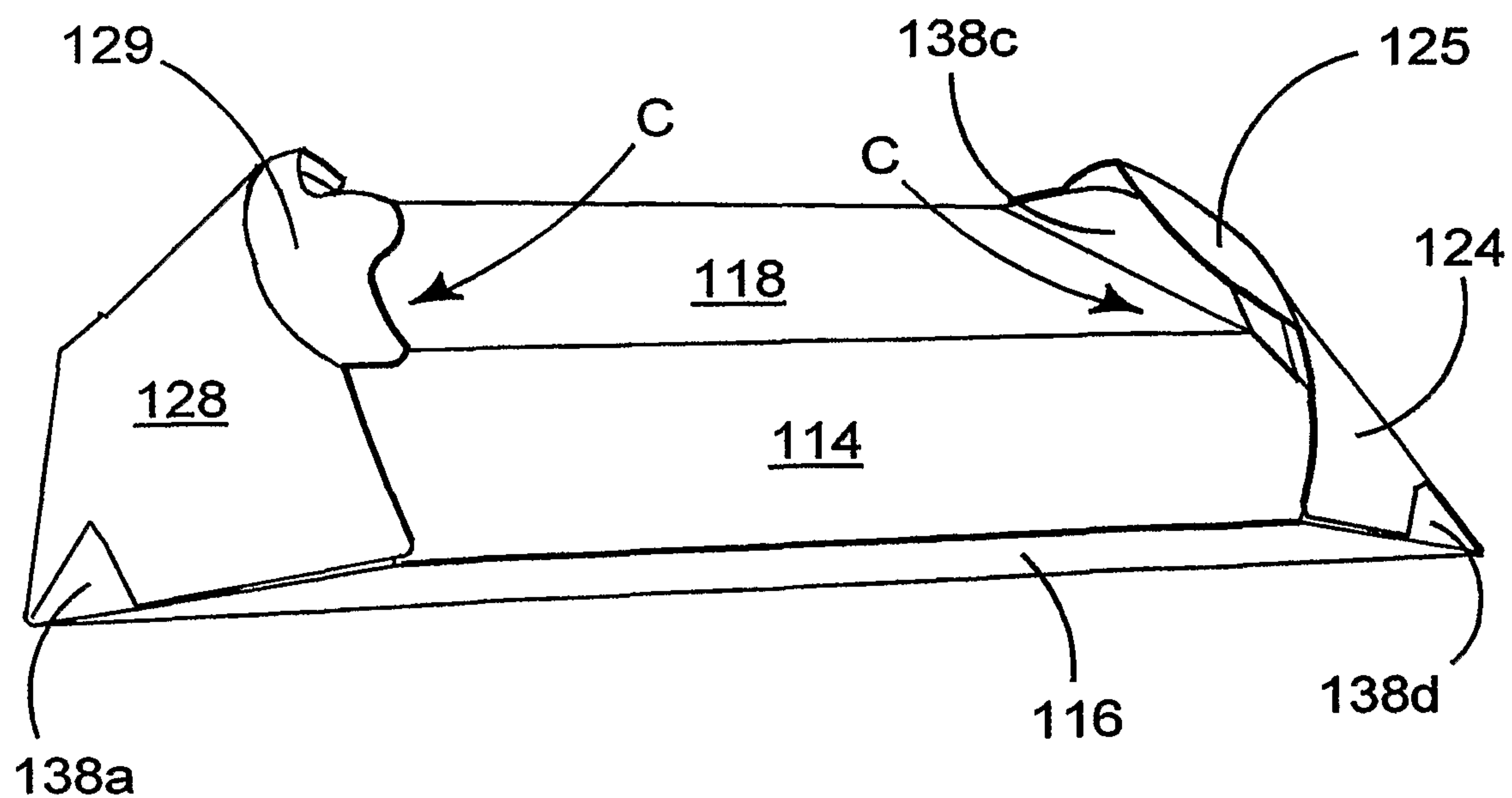


FIGURE 13

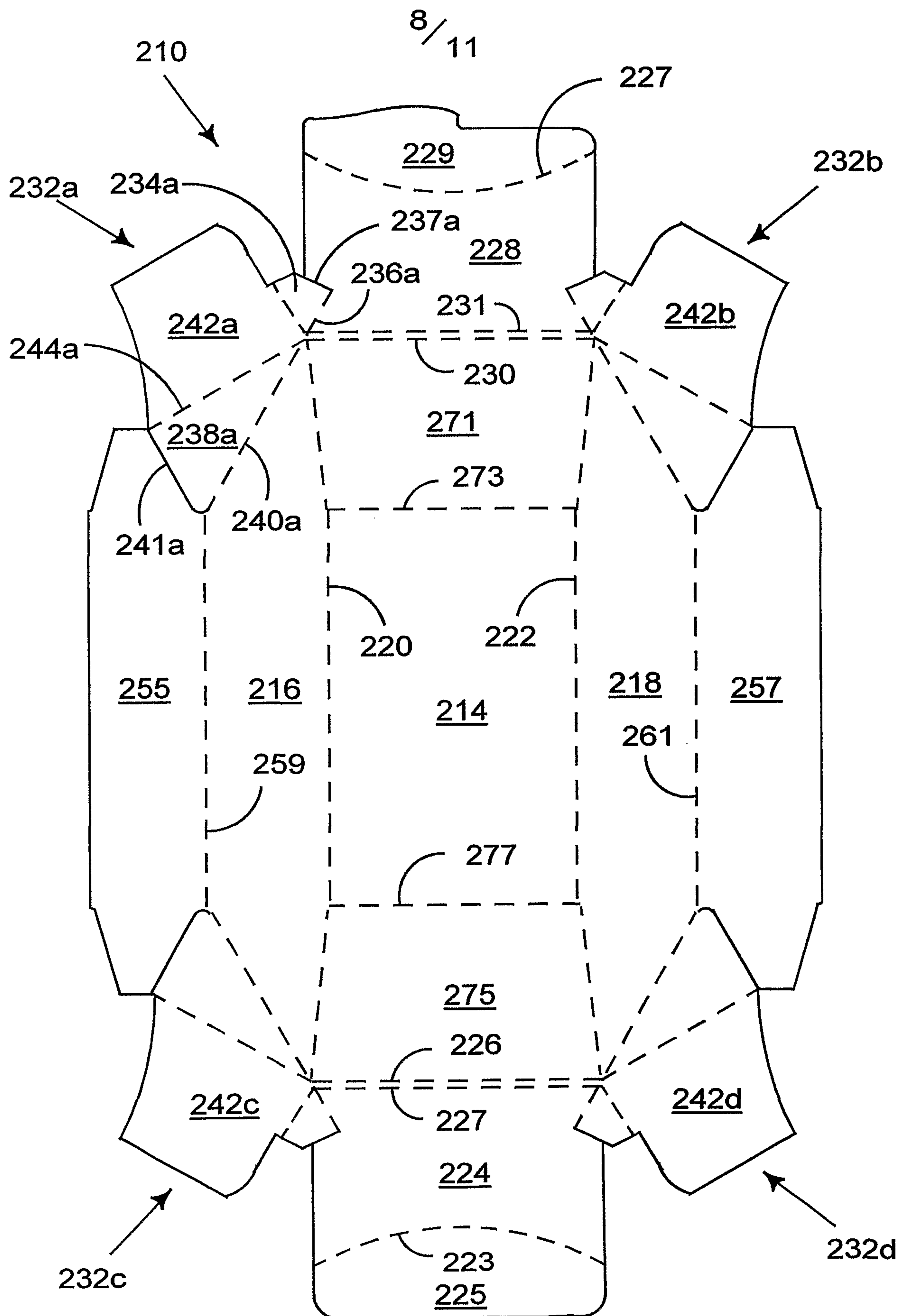


FIGURE 14

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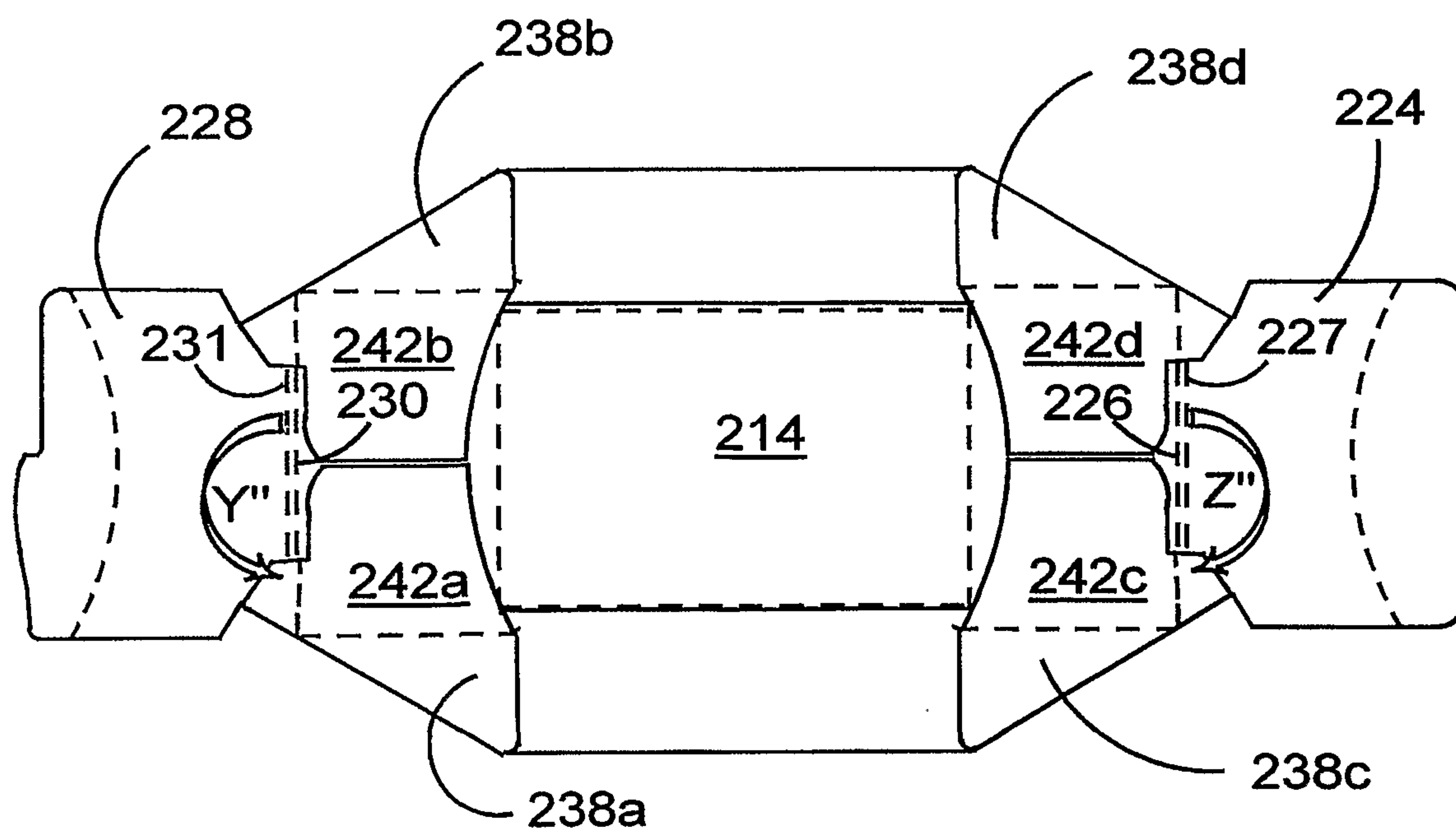


FIGURE 17

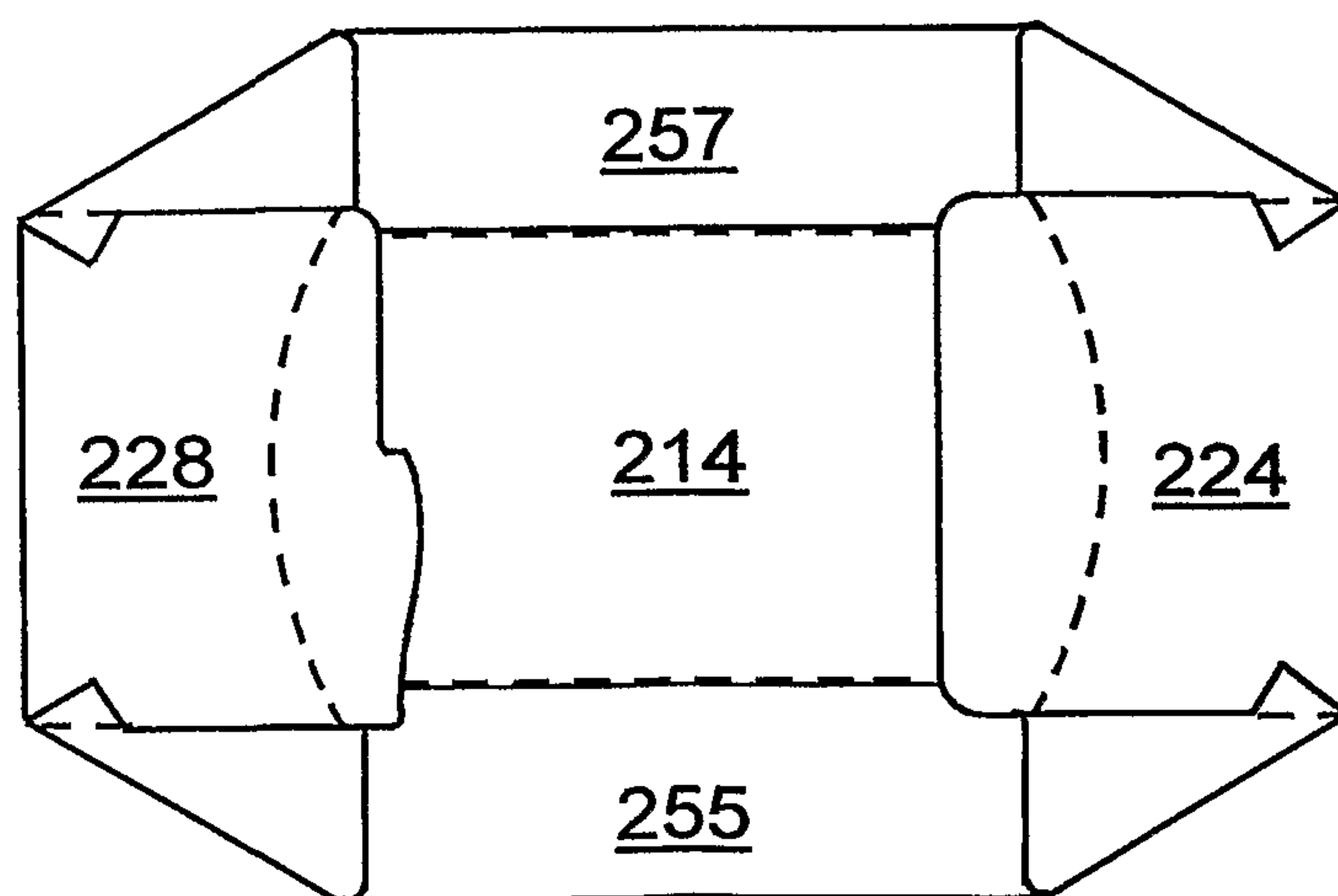


FIGURE 18

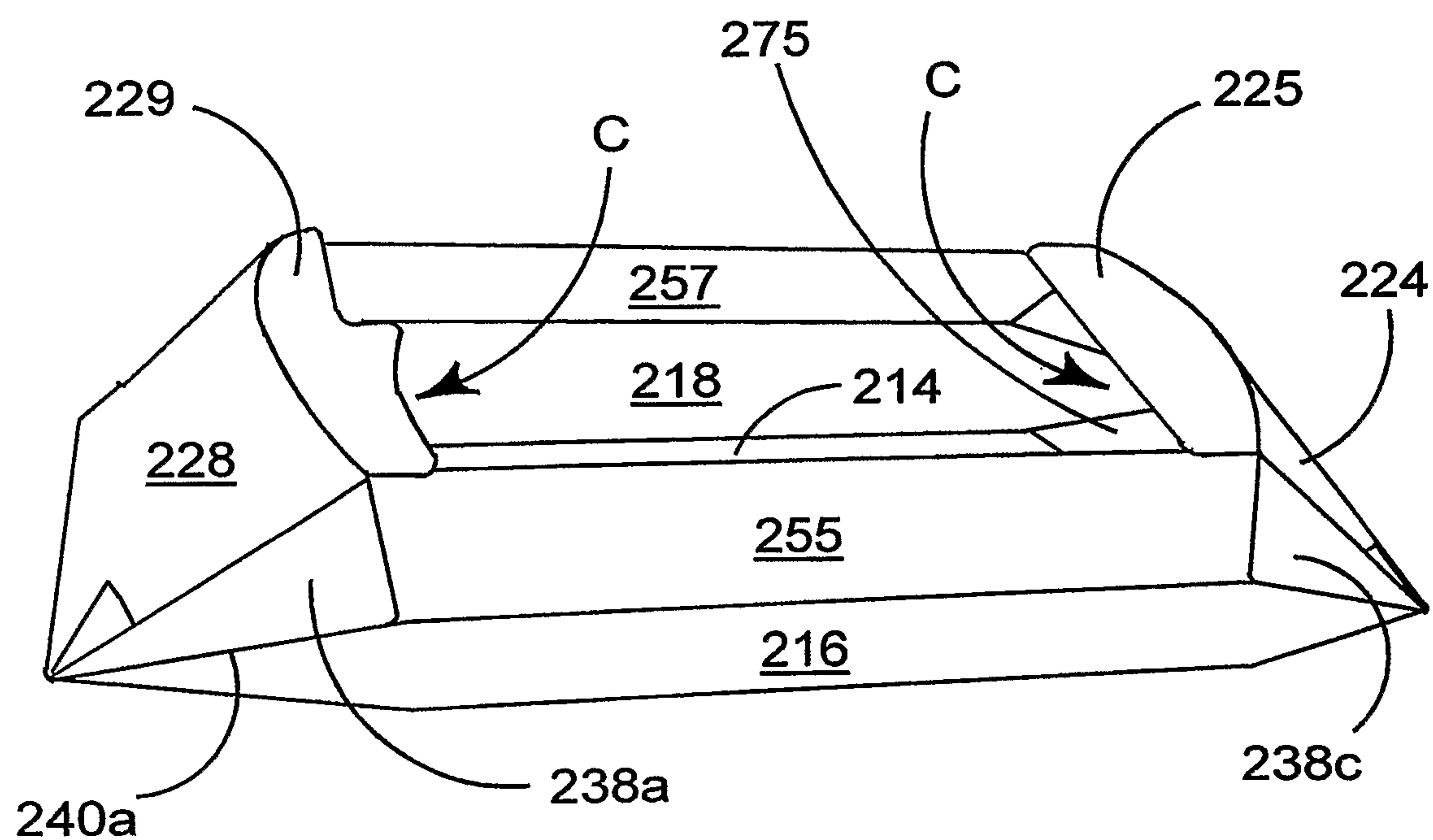
$$\frac{11}{11}$$


FIGURE 19

