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(54) **Article carrier with integral bottle label**

(57) An article carrier for a plurality of containers having a curved wall surface such as bottles or cans (B) in which a discrete wall portion (36, 38, 40) of the carrier is secured to each of the containers in the carrier, each discrete portion being frangibly connected (36f, 36ff) to adjacent parts of the carrier, the arrangement being such that when a container is removed from the carrier its discrete portion of the carrier remains attached thereto to serve as a label.

Blanks suitable for constructing such a carrier, and containers whose curved side walls are labelled with such a discrete wall portion are also described.

A convenient means for applying a label to a container having a curved wall surface is described, and a package is provided from which individual containers can be removed on a one-by-one basis without disruption to the integrity of the package after each successive removal.

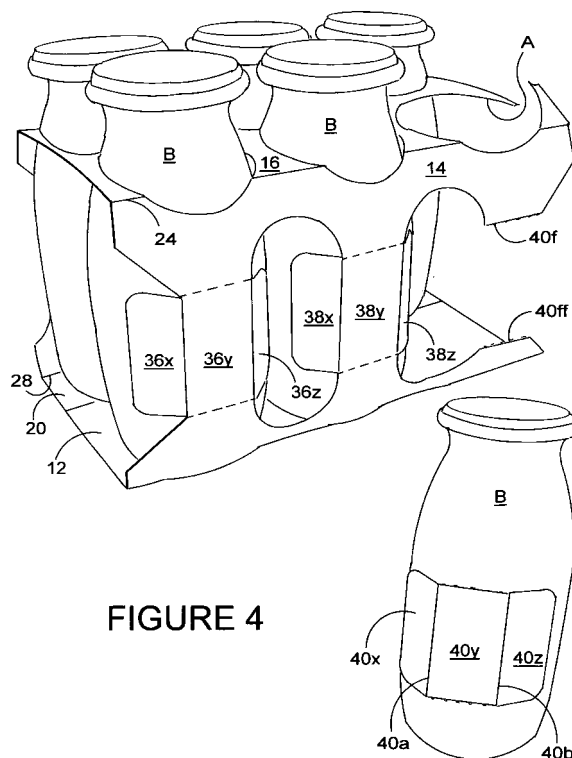


FIGURE 4

Description

[0001] This invention relates to a wraparound style bottle carrier in which portions of the side walls of the carrier are secured to the bottles and when the carrier is opened to gain access to the bottles the secured portions remain secured to the bottles so they function as the bottle labels.

[0002] Packages in which a portion of the paperboard material from which the package is formed and is adhered to primary containers disposed within the package are known. For example, US 4415082 (Martin) shows a package in which portions of the package 48, 49 50 and 51 are all secured to the packaged bricks "C". Upon opening the carton by removing the tear strip 44, the adhered portions remain attached and serve as handles for the bricks.

[0003] A further package in this general field is disclosed in US4787509 (Pasternicki). In the Pasternicki arrangement a wraparound carrier includes detachable portions 8, which are glued to each primary container 9 and serve as a means to retain the primary containers within the carrier. Upon opening the package and removal of the containers, the detachable portions are separated from the carrier and remain secured to the containers. A further arrangement is shown in US4262814 Roccaforte.

[0004] A problem associated with the prior art is that portions of the outer package save secured to a planar surface such as the side of a brick or the side of a cup having a generally square cross-section.

[0005] In the present invention, portions of the outer packaging are attached to containers having a curved side wall and seeks to overcome or at least mitigate the problems of the prior art.

[0006] The invention provides in a first aspect an article carrier for a plurality of containers having a curved wall surface such as bottles or cans, in which a discrete wall portion of the carrier is secured to each of the containers in the carrier, each discrete portion being frangibly connected to adjacent parts of the carrier, the arrangement being such that when a container is removed from the carrier its discrete portion of the carrier remains attached thereto to serve as a label.

[0007] Preferably the discrete wall portions include a pair of oppositely disposed side flaps which are also secured to the container.

[0008] Conveniently a side flap may extend at least partly from one aperture in a wall of the carrier and in which wall frangible connections are provided between said discrete portion and parts of said wall adjacent thereto.

[0009] In preferred embodiments of the invention the discrete wall portions are arranged to be generally coplanar and a plurality of said discrete wall portions are preferably formed from one wall of the container.

[0010] Most conveniently, each side flap comprises a fold line or folded portion generally mid-way along its

length.

[0011] The side flap may be hingedly connected to the discrete wall portion.

[0012] In preferred embodiments of the invention, discrete wall portions are provided on a pair of oppositely located carrier panels.

[0013] Most conveniently, the article carrier is of wrap-around type and includes a plurality of containers in at least two rows.

[0014] In a second aspect of the present invention, there is provided a blank which is constructed and adapted to form an article carrier as defined in the first aspect.

[0015] It is preferred for the discrete wall portions to include a side flap wherein, in the planar configuration, adjacent side flaps of different wall portions are releasably secured together by means of a frangible connection therebetween.

[0016] Most conveniently the blank according to the second aspect of the invention is of unitary construction. The said blank may include a co-planar array of at least three discrete wall portions within the same wall panel, and wherein each discrete wall portion is provided with a pair of side flap extensions, adjacent side flaps of different wall portions being in contact and frangibly connected together within the region of an aperture in the said wall panel.

[0017] Most conveniently in preferred embodiments one wall panel of the carrier can incorporate at least two spaced parallel rows of such discrete wall portions suitable for forming an article carrier as defined in the first aspect and adapted to retain rows of containers which are at least of two containers' height.

[0018] In preferred embodiments of the blank, the discrete wall portion and any side flap connected thereto is provided with an adhesive strip. Such an adhesive strip may comprise a straight line of adhesive which, in application to the blank can be undertaken in a straight line machine without folding or rotation of the blank.

[0019] In accordance with a third aspect of the present invention there is provided an article carrier including a plurality of containers having a curved surface such as bottles or cans, wherein all containers are secured to the carrier by frangible connections within a wall member of the carrier whereby the packaged containers can be removed one-by-one successively without opening of the carrier other than disruption of the said frangible connections secured to one container being removed, whilst leaving the carrier intact with the remaining containers frangibly connected thereto.

[0020] Embodiments of the article carrier in accordance with the third aspect defined above are contemplated, incorporating any one or more of the preferred or optional features defined hereinabove.

[0021] In accordance with a fourth aspect of the present invention there is provided a blank constructed and adapted to form a carrier as defined in the third aspect of the invention.

[0022] The invention also provides, in a fifth aspect, a container having a curved wall surface such as a bottle or can including only one label means on said curved wall surface which consists of a discrete wall portion of an article carrier as defined in the first aspect of the present invention.

[0023] In preferred arrangements of container according to the fifth aspect of the present invention the discrete wall portion is provided with at least one pair of oppositely disposed and curved side flap extensions.

[0024] In preferred arrangements of container in accordance with the fifth aspect of this invention each side flap extension preferably includes a generally medial fold line or generally medial folded portion.

[0025] The container in accordance with the fifth aspect of the present invention in preferred arrangements may comprise a bottle or a can or pot.

[0026] Exemplary embodiments of the invention will now be described by way of non-limiting example, with reference to the accompanying drawings, in which:-

FIGURE 1 is a plan view of a first embodiment of a blank for forming a package according to the invention;

FIGURE 2 is a perspective end view of an assembled package including articles formed from the blank shown in Figure 1;

FIGURE 3 is a further perspective view from one end and from above of the package depicted in Figure 2;

FIGURE 4 shows the completed package of Figures 2 and 3, from which one of the labelled containers has been removed;

FIGURE 5 is a plan view of a second embodiment of a blank constructed and adapted to form a package according to the invention;

FIGURE 6 is a perspective view from above and one side of an assembled package, including retained containers, formed from the blank of Figure 5;

FIGURE 7 is a perspective view from above and one end of the package depicted in Figure 6;

FIGURE 8 is a perspective view from above and the other side of the package depicted in Figure 6;

FIGURE 9 is a subsequent view of the package depicted in Figure 8, after part of the package has been opened along frangible connections in a rear wall;

FIGURE 10 is a subsequent view of the partly opened package depicted in Figure 9, following fur-

ther separation of carton components and removal of labelled containers therefrom;

FIGURE 11 is a final view of the more fully opened package depicted in Figure 10, wherein all four labelled containers have been removed from the fully dismantled package;

FIGURE 12 is a plan view of a third embodiment of a blank constructed and adapted to form a package according to the invention;

FIGURE 13 is a perspective view from above and one side of an assembled package, including retained containers, formed from the blank of Figure 12;

FIGURE 14 is a perspective view from above and one end of the package depicted in Figure 13;

FIGURE 15 is a subsequent view of the package depicted in Figure 13, wherein one of the six retained containers is in process of being removed leaving the others intact, by separation of frangible connections between the labelled container and a wall of the package, and;

FIGURE 16 is a subsequent view of the package depicted in Figure 15, wherein the one labelled container has been completely removed and separated from the assembled package without opening of that package, leaving the remaining labelled containers and the remainder of the package intact.

[0027] Referring to the drawings and initially to Figure 1, there is shown an elongate blank 10 formed from paperboard or other functionally similar material of known wraparound type for securing together a plurality of bottles or cans. In this particular embodiment the package comprises six plastic bottles B which are arranged in two rows of three bottles each. In other arrangements it is, of course, possible to have a further number of bottles arranged in different configuration, for example a single row, or three or more rows.

[0028] The blank 10 comprises in series a first base panel 12, a first side wall 14, a top wall 16, a second side wall 18 and second base panel 20 hinged one to the next along transverse foldlines 22, 24, 26 and 28 respectively.

[0029] The package is adapted to contain six bottles and when the package is formed into its wraparound configuration the bottles are seated on the overlapped base panels 12/20 and the necks of the bottles each protrude through a respective one of the apertures A provided in the top wall 16.

[0030] It will be seen that the base panel 12 and side wall panel 14 are each similar in all respects to the base panel 20 and side wall panel 18 respectively. Thus, the

features of the carton relating to the base and side walls will be described only in relation to base panel 12 and side wall panel 14, it being understood that like parts of panels 20 and 18 are of like construction.

[0031] The base panel includes a series of bottle heel retention openings 30 which are spaced along the transverse fold line 22 and interrupt somewhat into the lower part of the side wall 14. Side wall 14 has a pair of openings 32 and 34 respectively which in the complete package are disposed between the centre bottle of each row and the adjacent end bottles at each end of the carton. The side wall includes a set of label panels which are identified by reference numerals 36, 38 and 40. Initially, the label panels are connected one to the next along frangible connections 36¹ and 38¹ but these connections are broken when the blank is applied to the containers. Each of the label panels is foldably hinged to the rest of the wall panel 14. Thus label panel 36 has hinge lines 36a, 36b; label panel 38 has hinge lines 38a, 38b and likewise label panel 40 has hinge lines 40a and 40b.

[0032] When the blank is formed around the six bottles to be packaged, each of the label panels is placed so that the three panel sections e.g. 36x, 36y and 36z, are brought into contact with and secured to the cylindrical body of the adjacent bottle between the top and bottom of the bottle. Hence the hinged connections 36a and 36b are necessary in order to bring the panels 36x and 36z into face contacting relationship with the bottles.

[0033] In the arrangement of Figure 5, showing a plan view of a unitary blank according to a second embodiment the illustrated components have been prefixed by the numeral 1 and, where features correspond to or otherwise are similar to those of the first embodiment of blank shown in Figure 1, the same reference numeral has been used save for this prefix 1. Thus for example whereas in Figure 1 the first base panel has been identified by the reference 12, in the Figure 5 embodiment the first base panel, serving a broadly similar function, has been referenced 112.

[0034] In the Figure 5 arrangement an elongate blank 110 formed from paperboard or other functionally similar material of known wraparound type is shown for securing together a plurality of containers having a curved surface such as bottles or cans. In this particular embodiment, the package to be formed from the blank illustrated in Figure 5 will comprise four containers in an arrangement of one row comprising two bottles or pots, with a further pair of like bottles or pots stacked above in an arrangement of 2 by 2. Other arrangements are contemplated wherein it is possible to have a further number of bottles or pots arranged in different configuration for example into three or more rows.

[0035] The blank 110 comprises in series of a first base panel 112, a first side wall 114, a top wall 116, a second side wall 118 and second base panel 120 hinged one to the next along transverse fold lines 112, 124, 126,

128 respectively. The package to be formed is adapted to contain four pots and when the package is formed into its wraparound configuration the pots are seated on the overlapped base panels 112/120 and the tops of the bottles in the upper row are partly visible through retaining formations 190 provided in the top wall 116 and/or the side walls 114/118.

[0036] The blank is adapted to be secured together at base panels 112 and 120 to be overlapped by means of co-operating formations 192, 194 provided on the base panel 112 and corresponding slots or similar formations 193, 195 provided in the base panel 120. The base panel 112 includes a pair of pocket-like formations 119 which are adapted to receive a portion of the pots to be retained. The side wall panel 114 includes a centrally located aperture 191 through which parts of the pots to be retained can be viewed in the assembled package. The side wall 114 is also provided with pairs of frangible connections 196, 197 which extend from, in the case of frangible fold line 196, an outer edge of the side wall 114 to the region of the article-retaining formation 190. In the case of the complementary frangible fold line 197 this extends from the said aperture 191 also to the region of the said article-retention formation 190. As is apparent from the Figure 5 arrangement, the top wall 116 is provided with an array of four article-retaining formations 190 whereby a pair of such formations 190 is used in the assembled package to locate and stabilise the uppermost part of one of the retained pots.

[0037] The side wall panel 118 in this second embodiment is provided with a set of four label panels which are identified by principal reference numerals 136, 138, 140 and 142. It will be apparent from the Figure that this constitutes one upper label panel row 136, 138 and one lower panel row 140, 142. The upper label panel row 136, 138 is spaced apart from the lower label panel row 140, 142 by the intermediary of a detachable joining segment 198 of the said side wall panel 118.

[0038] The upper label panel row comprises two adjacent label panels which initially in the blank configuration are conjoined by means of a frangible connection 136¹. Similarly the lower label panel row 140, 142 comprising the individual label panels 140 and 142 are connected by means of a similar frangible connection (not referenced). It will be observed that the panels in each row are essentially co-linear, the upper label panel row also being generally parallel to the lower label panel row. Moreover, in this embodiment each label panel comprises of not only a first panel section (e.g. 136x, 136³), but also a secondary panel section (e.g. 136xx, and 136³³) which secondary panels are separated from the first such panel sections by means of fold lines (e.g. 136aa and 136bb). The upper part of the label panel (e.g. 136) has a frangible fold line 136f formed in the side panel section 118 and a lower frangible fold line 136ff also formed in the said side panel 118. The remaining three label panels 138, 140 and 142 are essentially similar in layout and corresponding reference numerals have

been used to depict the various panels, panel sections and frangible fold lines. It should however be noted that fold lines 136a, 136aa, 136b, 136bb (and in the equivalent label panels 138, 140 and 142) are in the nature of non-frangible fold lines capable of being folded about the respective fold lines without disruption thereto and in contrast to the specific frangible fold line connections (e.g. 136f, 136ff) which have been formed to be intentionally frangible as subsequently explained.

[0039] Referring to Figures 6 to 8 inclusive, an assembled package including four pots necessarily including curved side walls is illustrated, having been formed from a unitary blank as depicted in Figure 5. Thus the four bottles 1b are securely contained within the package in such manner that the labelled panels 136, 138, 140 and 142 have been folded about the respective fold lines (described in connection with the blank) and secured e.g. by glue to the outer curved surface of the immediately adjacent pot. It is apparent in at least this embodiment that the label panels serve as the sole label information for the bottles 1B apart from any product and/or other information as may be apparent from the lid of these containers. It will also be appreciated that the lid part of the respective pots or bottles 1B does not form an essential feature of the present invention. One embodiment of the invention provides a bottle or pot or similar container such as a can which includes on its outer curved surface a label panel of the type described above as a sole means of product and/or marketing information present on the said curved surface of the container.

[0040] Figure 6 shows in particular the joining segment 198 which provides additional strength and support to the overall package and to the labelled containers over and above that provided by those parts of the corresponding side panel 118 disposed above and beneath the said joining segment 198.

[0041] Figure 7 in particular shows the supplementary curvature of the label panels extending around the external curved surface part of the contained pots 1b. In this embodiment it is apparent that the label panels from both upper and lower label panel rows have been folded along corresponding fold lines 138b and 138b as well as 142b and 142bb (which references may be ascertained from the blank of Figure 5).

[0042] Figure 8 is a convenient view of the rear of such an assembled wraparound package in which lower portions of the lower row of bottles are seated within the pocket-like formations 119 of the preceding blank 110, and are part visible through apertures therein.

[0043] Referring to Figures 9 and 10 there is first shown a partial disassembly of the wraparound package just described with reference to Figures 6 to 8 inclusive. Thus in particular, the side wall 114 has been disconnected from the top panel 116 by means of the frangible connections 196, 197 to expose the four bottles 1b but leaving the label panels attached and intact. As shown in Figure 10, two of the retained containers 1b have been completely removed from the package in such

manner that the panel labels 136 and 138 remain firmly attached to the outer curved wall of the containers including the integrally formed panel sections and secondary panel sections. Removal of these containers from the package has been achieved by severance of the frangible fold lines 136f, 136ff and 138f, 138ff from the joining segment 198 to which they were formerly attached. In this view the upper panel 116 has been completely removed from the formed package leaving two containers 1B stored within and attached to the remainder of the opened package. Thus the two bottles resting on the base of the partially disassembled package have their panel labels 140 and 142 intact whilst attached to the side panel 118 and the joining segment thereof 198.

[0044] In the arrangement of Figure 11, all four individual containers have been removed from the fully disassembled package. Thus the additional two containers have been removed by severance of their corresponding frangible fold lines 140f, 140ff and 142f, 142ff from the joining segment 198 to which they were formerly attached. The remnants of the frangible fold connections at an upper part of the side wall panel 114 have been referenced 196a and 197a.

[0045] The arrangements depicted in Figures 12 to 16 inclusive comprising a third embodiment, are generally similar to the arrangements depicted in Figures 1 to 4 as described above. However items referenced in these Figures have been preceded by the numeral 2 and where the component is to all intents and purpose similar to the component illustrated in e.g. Figure 1, then the same reference numeral has been used save for this prefix 2. The essential differences in these arrangements over and above the arrangements of Figures 1, 4 reside in the wraparound package being a complete wraparound to cover the tops of the retained bottles 2B, the label panels 236, 238 and 240 are positioned at a lower position with respect to the bottle than according to the first embodiment, the base panels 212 and 220 are connected by respective inter-engagable formations 292, 294 and 293, 295, and moreover portions of the blank are formed to provide an uppermost web assembly for retaining the upper parts of the bottles 2B within the completed package. In relation to the label panels the same reference numerals have been used as in Figure 1 apart from the prefix "2."

[0046] In relation to the removal of a bottle 2B from the assembled packages of Figures 15 and 16 an additional distinction in this third embodiment is that the bottle can be removed (see Figure 16) by separation only of the upper and lower frangible fold lines (240f and 240ff) from the side wall panel 214 to which they were formerly attached without breakage, tearing or other disruption to the assembled package. This is in contrast to the arrangement in Figure 4 whereby a collar defining an aperture A in which bottle B is seated has become torn upon removal of a labelled container from the package according to the first embodiment.

[0047] Thus Figure 16 shows an arrangement in

which one labelled bottle 2B has been completely removed from the assembled package and which package remains intact and able to dispense other such bottles on a one-by-one basis. Each time a bottle is removed the remaining bottles being held in the package fully intact and without damage or similar disruption to the package whereby unwanted or accidental withdrawal of bottles from the assembled package can be substantially eliminated whilst preserving the integrity of the package after any number of bottles have been removed until the last one remaining bottle.

[0048] The label panels can be printed with suitable advertising or identification information and when the package is opened to remove an individual bottle (see e.g. Figure 4) the package is torn along frangible lines e.g. 36f, 36ff, so that the bottle can be removed from the package but the label panel 36 remains secured to the bottle.

[0049] By virtue of these arrangements not only can the individual bottles be labelled without providing separate labels but also because each individual container is secured within the package then very low board caliper may be used which is far more economical than conventional cartons. Of course, a further saving is made in that the individual labels provided for the bottles are not required in addition to the packaging since the package itself provides label panels for each of the bottles. The present invention and its preferred embodiment relates to an arrangement for providing a reclosable access structure in a wraparound carton. However, it is anticipated that the invention can be applied to a variety of carriers and is not limited to those of the wraparound type hereinbefore described and could be used for numerous applications for example a fully enclosed carton or a clip.

[0050] It will be recognised that as used herein, directional references such as "top", "base", "end", "side", "inner", "outer", "upper" and "lower" 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 one of the following, a score line, a frangible line or a fold line, without departing from the scope of invention.

[0051] It should be understood that various changes may be made within the scope of the present invention, for example, the size and shape of the panels and apertures may be adjusted to accommodate articles of differing size or shape.

Claims

1. An article carrier including a plurality of containers having a curved wall surface such as bottles or cans, in which a discrete wall portion of the carrier

is secured to each of the containers in the carrier, each discrete portion being frangibly connected to adjacent parts of the carrier, the arrangement being such that when a container is removed from the carrier its discrete portion of the carrier remains attached thereto to serve as a label.

2. An article carrier as claimed in claim 1, wherein said discrete wall portions include a pair of oppositely disposed side flaps which are also secured to the container.

3. An article carrier as claimed in claim 2, wherein a side flap extends at least partly from an aperture in a wall of the carrier, and in which wall frangible connections are provided between said discrete portion and parts of said wall adjacent thereto.

4. An article carrier as claimed in any preceding claim, wherein the discrete wall portions are arranged to be generally co-planar and a plurality of said discrete wall portions are formed from one wall of the container.

5. An article carrier as claimed in any one of claims 2 to 4, wherein each side flap comprises a fold line or folded portion generally mid-way along its length.

6. An article carrier as claimed in any one of claims 2 to 5, wherein the side flap is hingedly connected to the discrete wall portion.

7. An article carrier as claimed in any preceding claim including said discrete wall portions on a pair of oppositely located carrier panels.

8. An article carrier as claimed in any preceding claim which is of wraparound type and which includes a plurality of containers in at least two rows.

9. A blank constructed and adapted to form an article carrier as claimed in any preceding claim.

10. A blank as claimed in claim 9, wherein the discrete wall portions include a side flap and wherein, in the planar configuration, adjacent side flaps of different wall portions are temporarily secured by a frangible connection.

11. A blank as claimed in claim 9 or 10 which is of unitary construction.

12. A blank as claimed in any one of claims 9 to 11 including a co-planar array of at least three discrete wall portions within the same wall panel, and wherein each discrete wall portion is provided with a pair of side flap extensions, adjacent side flaps from different wall portions being in contact and frangibly

connected together within the region of an aperture in the said wall panel.

13. A blank as claimed in claim 12, wherein one wall panel of the carrier incorporates at least two spaced parallel rows of such discrete wall portions, suitable for forming an article carrier as claimed in any one of claims 1 to 8 and adapted to retain rows of containers which are at least of two containers' height. 5
14. A blank as claimed in any one of claims 9 to 13, wherein the discrete wall portion and any side flap connected thereto is provided with an adhesive strip. 10
15. A blank as claimed in claim 14, wherein the adhesive strip comprises a straight line of adhesive which can be applied to the blank in a straight line machine without folding or rotation of the blank. 15
16. An article carrier including a plurality of containers having a curved surface such as bottles or cans, wherein all containers are secured to the carrier by frangible connections within a wall member of the carrier whereby the packaged containers can be removed one-by-one successively without opening of the carrier other than disruption of the said frangible connections secured to one container being removed, whilst leaving the carrier intact with the remaining containers frangibly connected thereto. 20 25 30
17. An article carrier as claimed in claim 16 and as further defined in any one of claims 1 to 8.
18. A blank constructed and adapted to form a carrier as claimed in claim 16 or 17. 35
19. A blank as claimed in any one of claims 9 to 15 constructed and adapted to form an article carrier as claimed in claim 16. 40
20. A container having a curved wall surface such as a bottle or a can including only one label means on said curved wall surface which consists of a discrete wall portion of an article carrier as defined in claim 1. 45
21. A container having a curved wall surface such as a bottle or can including only one labelling means on said curved wall surface which consists of a discrete wall portion and at least one pair of side flap extensions thereto as defined in any one of claims 2 to 8. 50
22. A container as claimed in claim 21 wherein each side flap extension includes a generally medial fold line or folded portion. 55
23. A container as claimed in any one of claims 20 to 22 which is a bottle.

24. A container as claimed in any one of claims 20 to 22 which is a can.

25. A container as claimed in any one of claims 20 to 22 which is a pot.

26. A plurality of containers as claimed in any one of claims 20 to 25 contained within an article carrier as claimed in any one of claims 1 to 8.

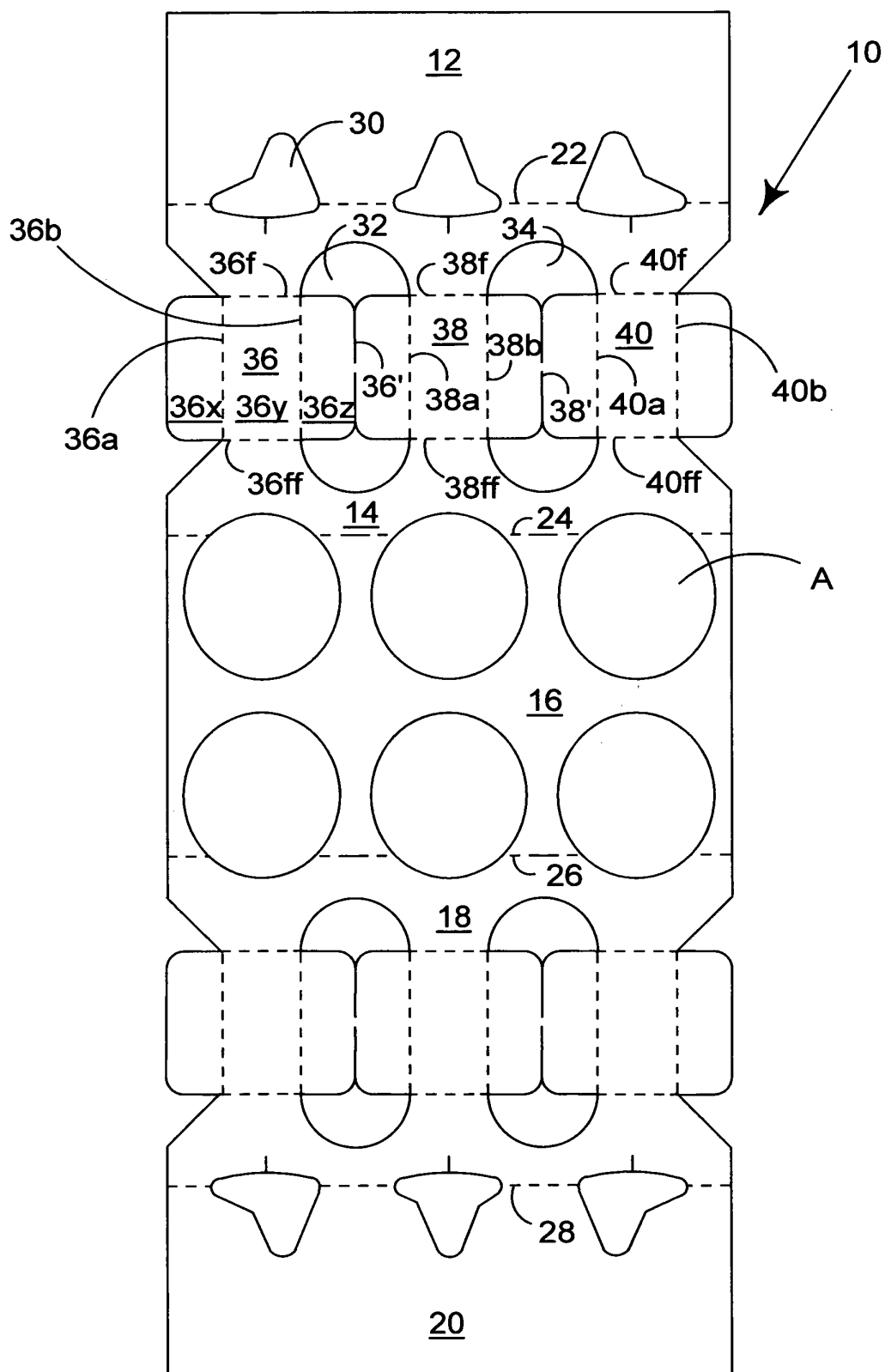


FIGURE 1

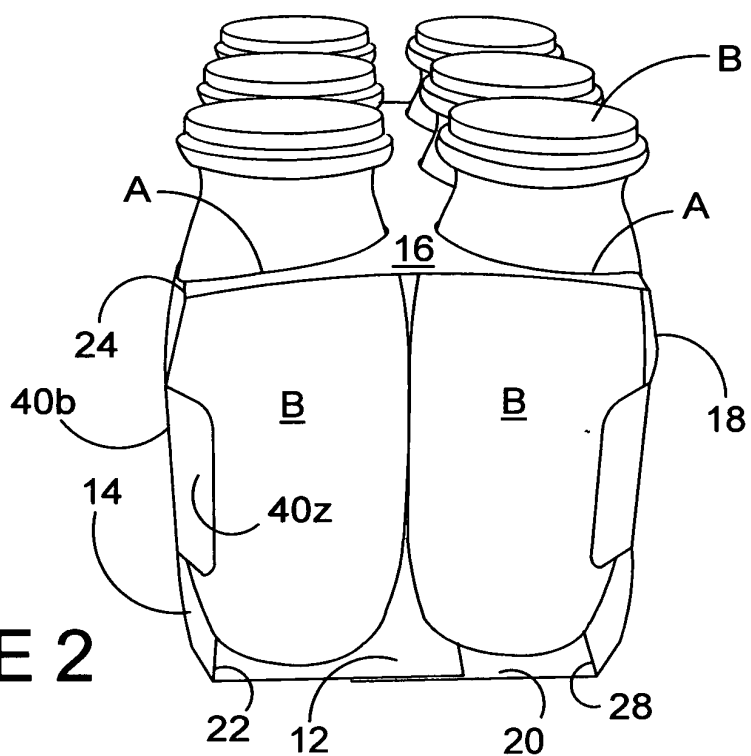


FIGURE 2

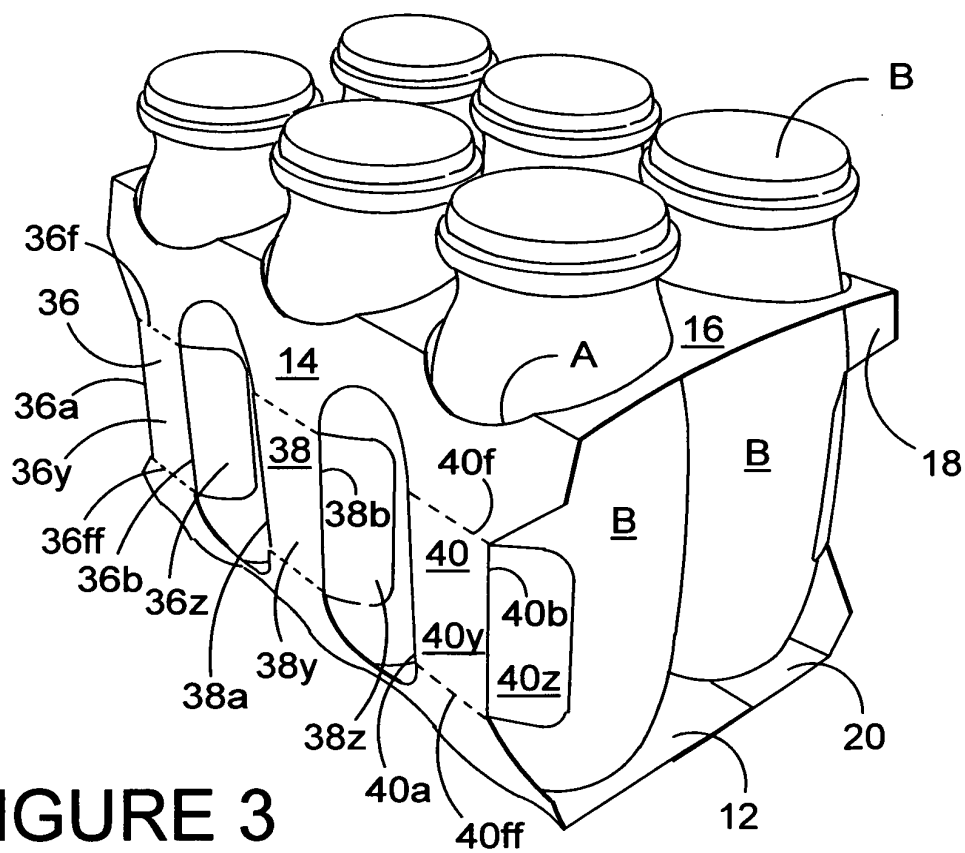


FIGURE 3

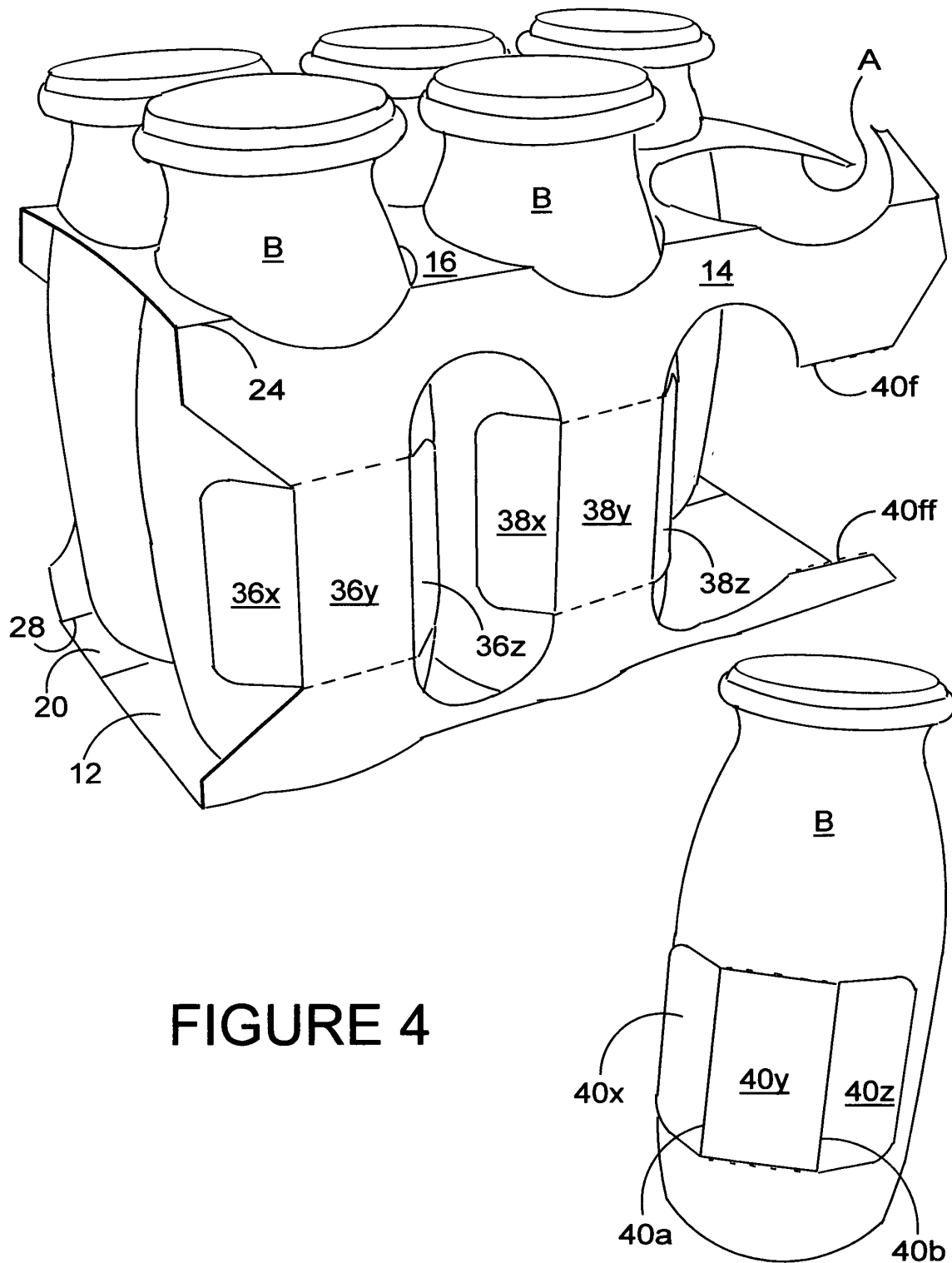


FIGURE 4

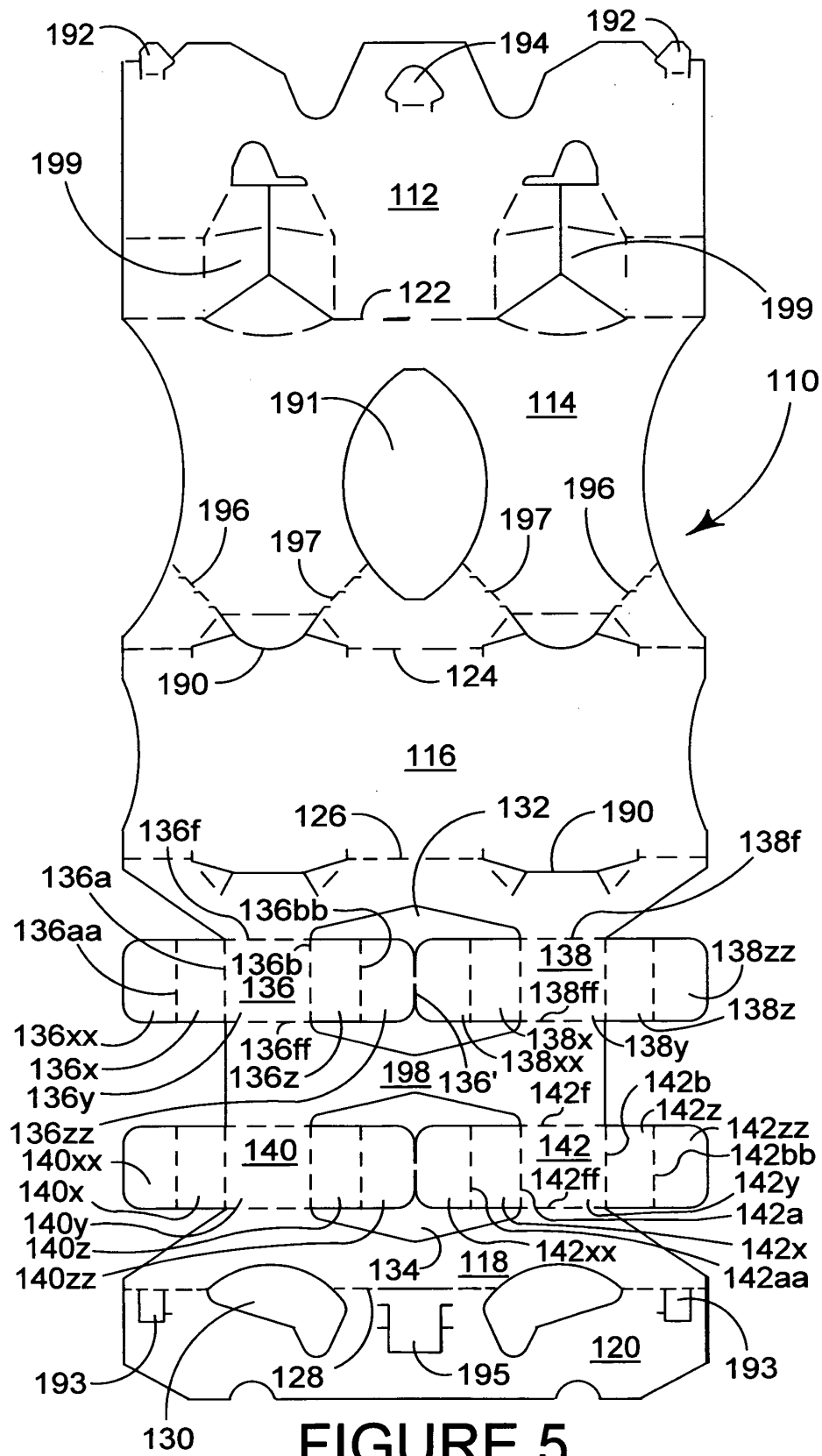


FIGURE 5

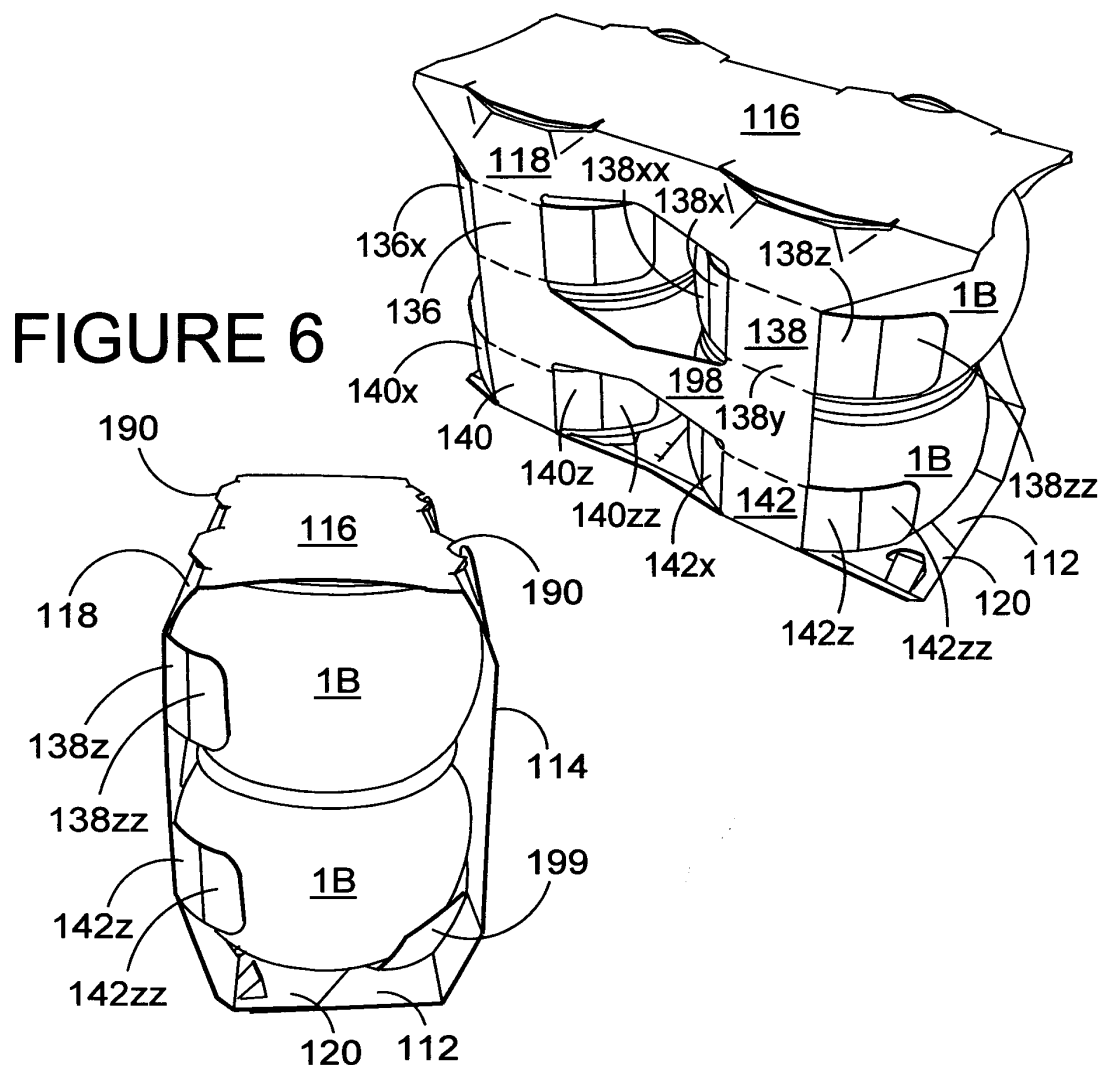


FIGURE 7

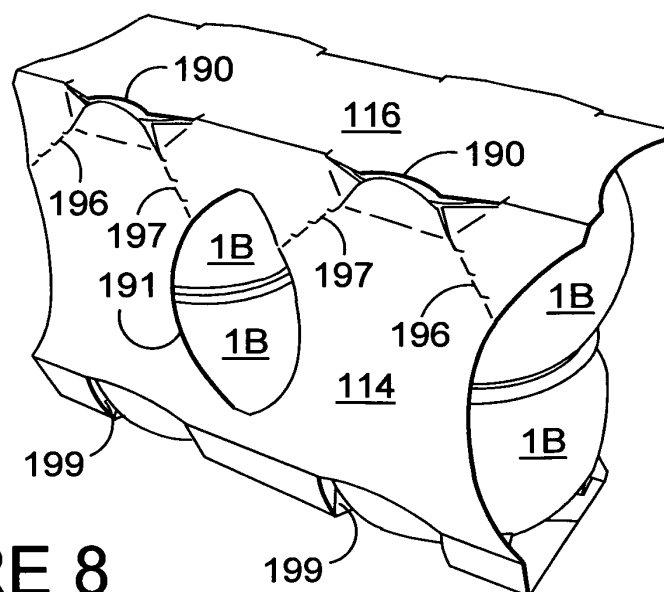


FIGURE 8

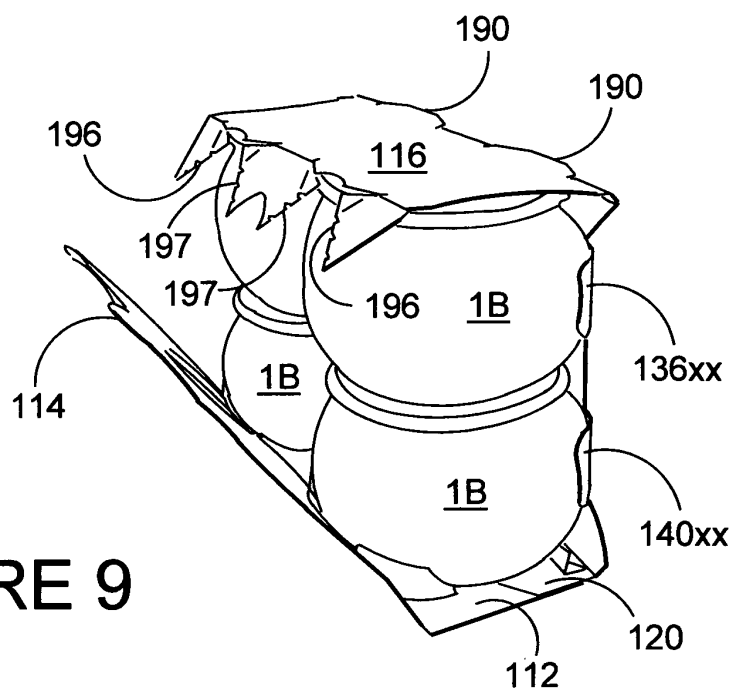


FIGURE 9

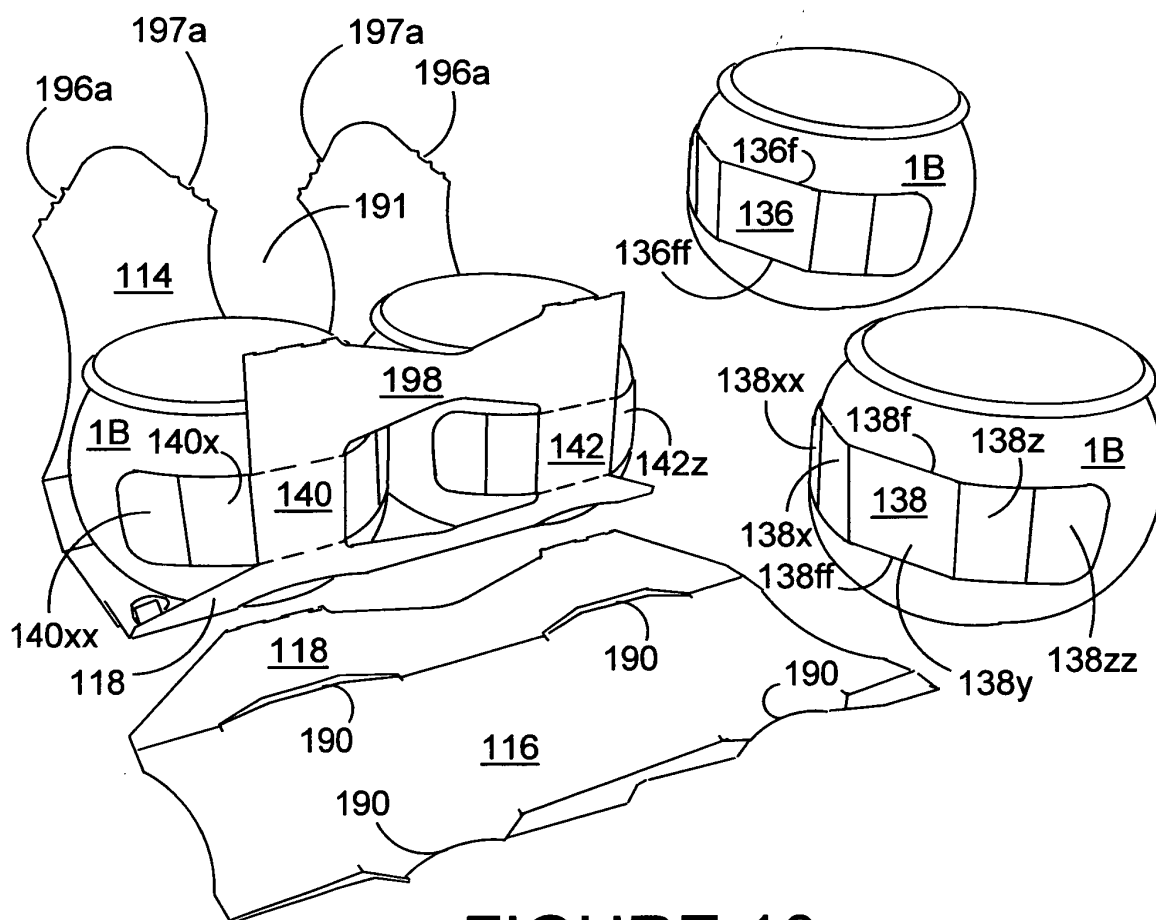


FIGURE 10

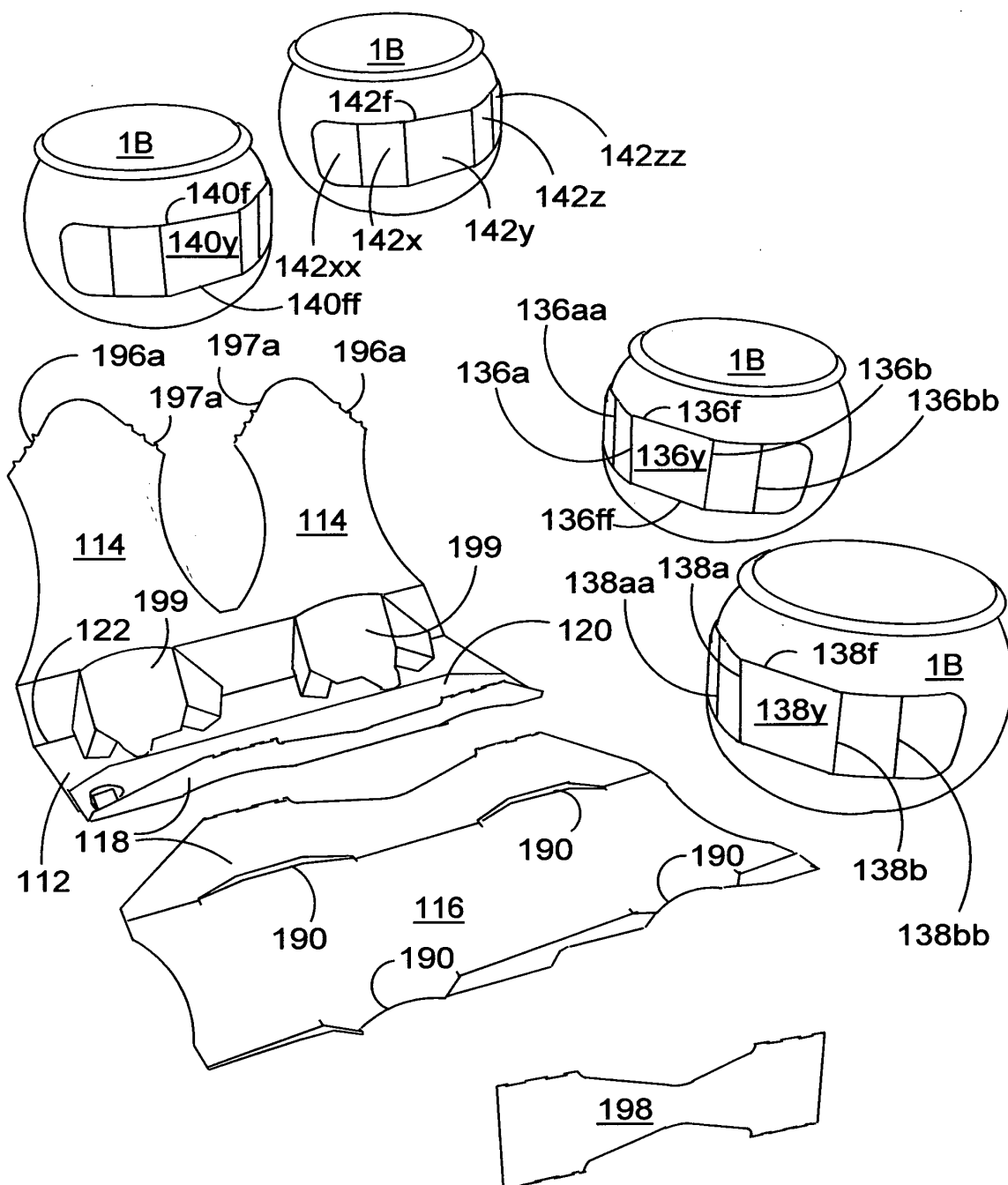
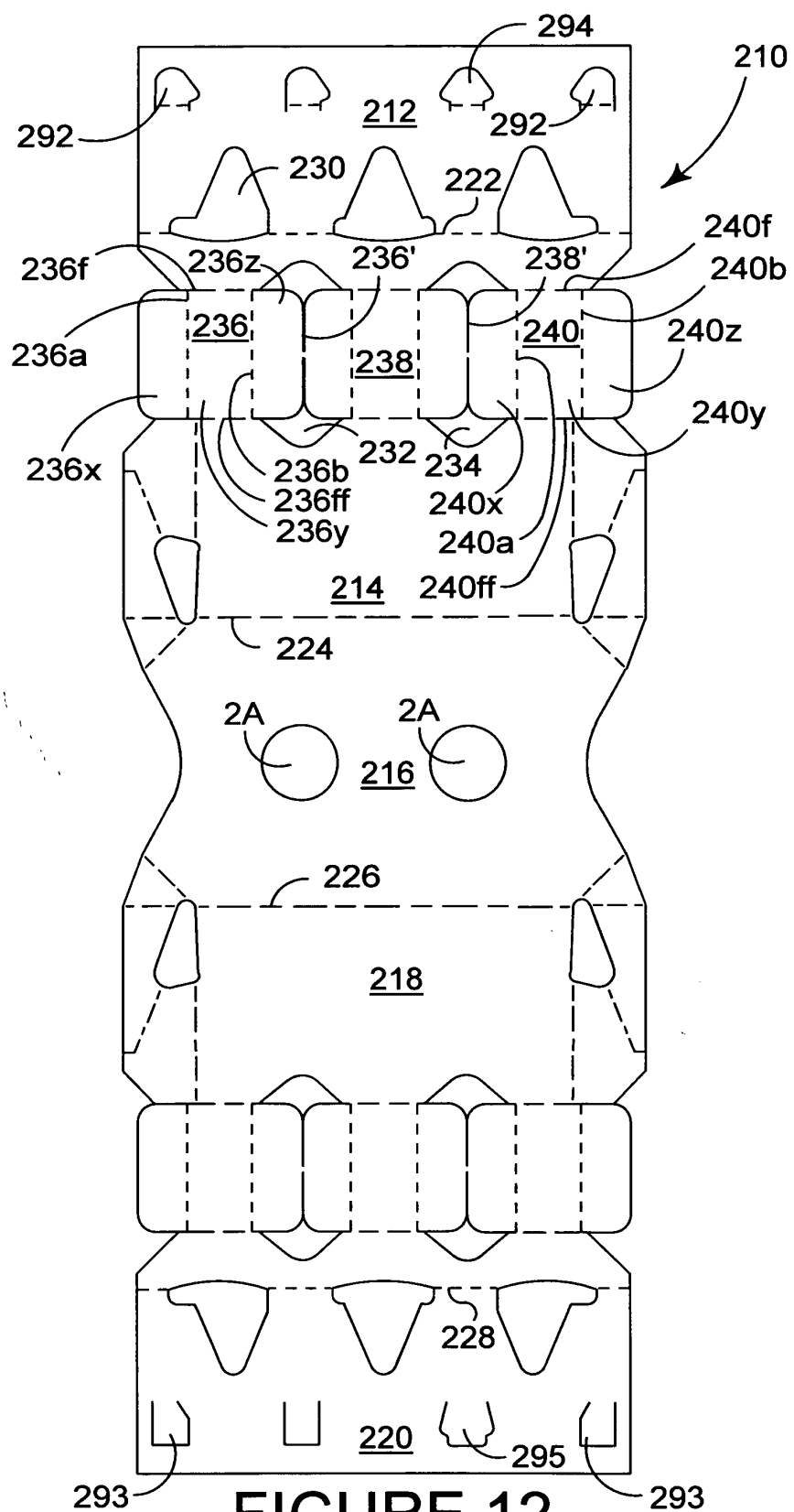


FIGURE 11



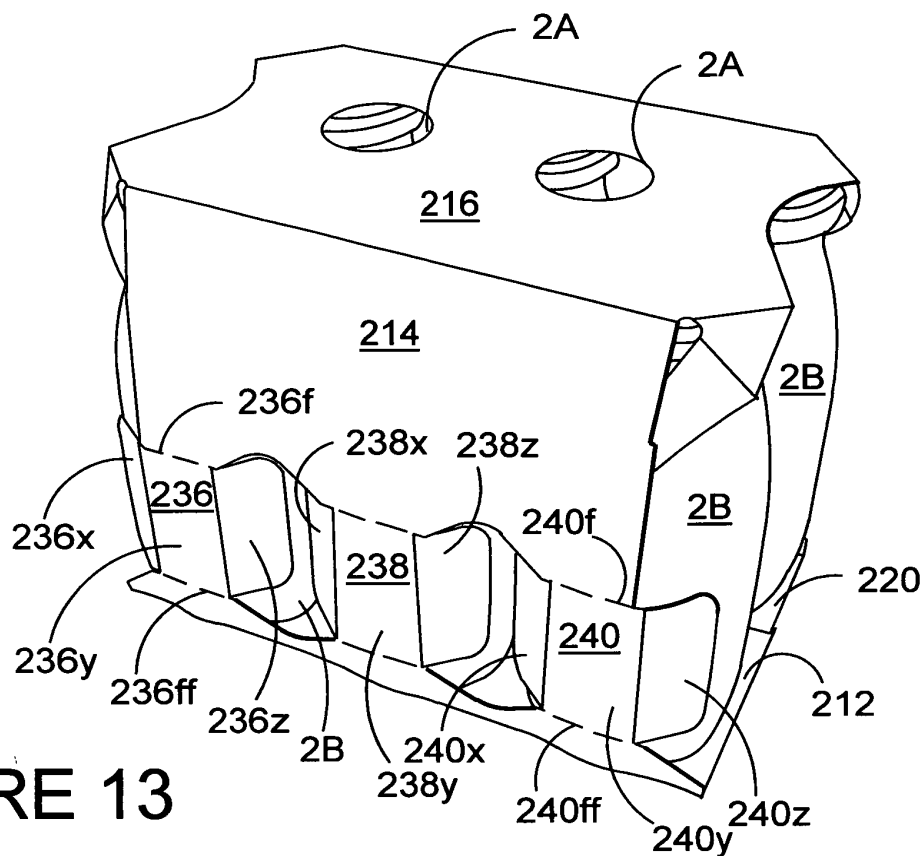


FIGURE 13

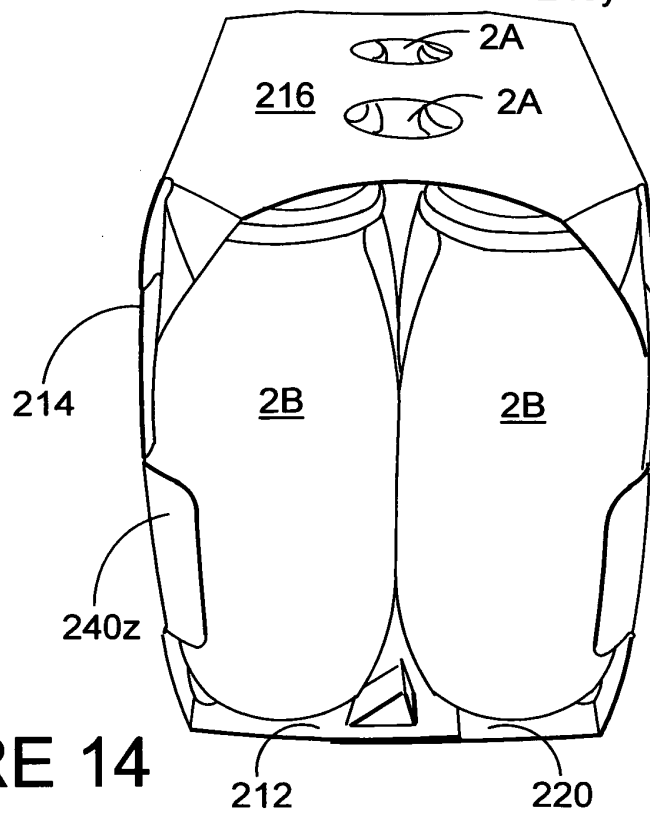


FIGURE 14

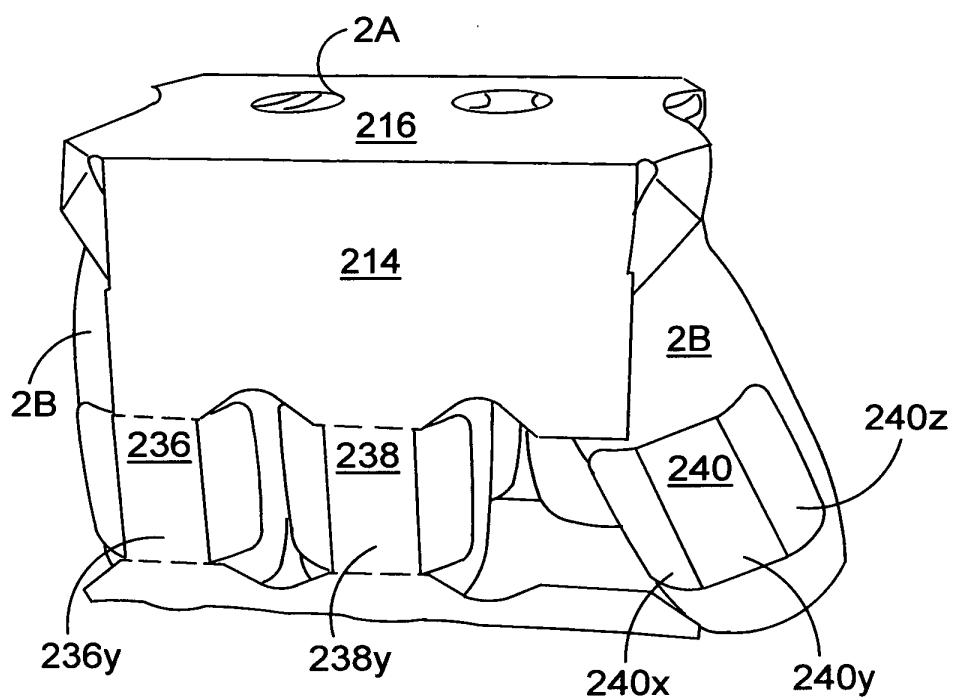


FIGURE 15

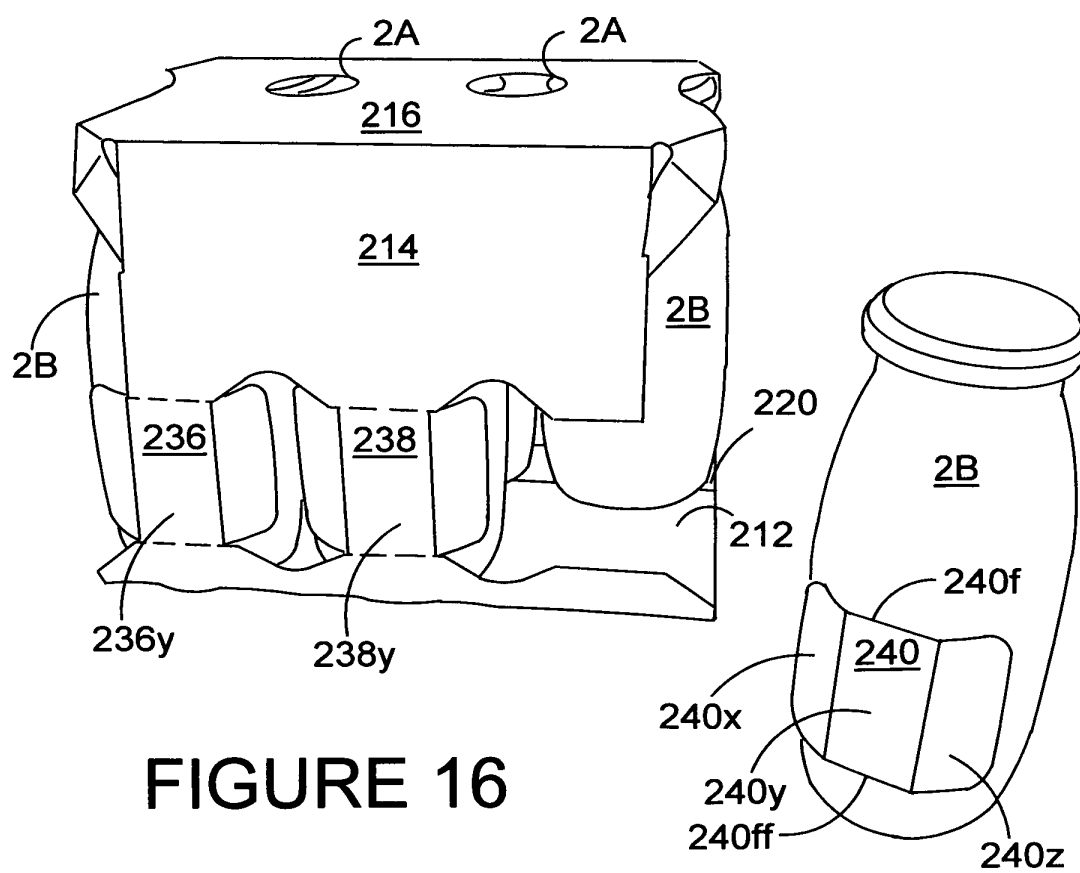


FIGURE 16



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 03 00 6917

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Place of search THE HAGUE		Date of completion of the search 30 June 2003	Examiner Bridault, A
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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