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(72) Inventor: **Saulas, Alain**
36000 Chateauroux (FR)

(74) Representative: **Hepworth, John Malcolm et al**
Hepworth Lawrence Bryer & Bizley
Bloxam Court
Corporation Street
Rugby, Warwickshire CV21 2DU (GB)

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(71) Applicant: **THE MEAD CORPORATION**
Dayton Ohio 45463 (US)

(54) **Reclosable and returnable carton and blank therefor**

(57) A reclosable carton and blank (10) for forming a reclosable carton comprising a container (14) connected to a flap portion (12), the container comprising top (24) and base (34) panels interconnected by front

(26) and rear (32) panels and a tear open flap (28) struck at least in part from the front panel to define an aperture. The flap portion is foldable from a display position where it projects upwardly from the container portion into a covering position where it closes the opening.

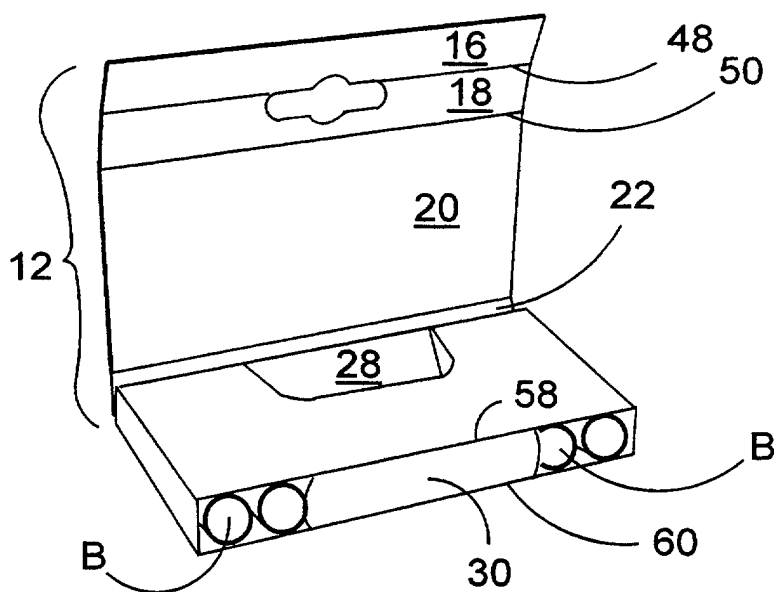


FIGURE 12

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Description

[0001] This invention relates to a carton adapted to carry one or more articles, for example batteries, and to a blank for a carton. Particularly, the invention relates to a carton in which an aperture may be formed and which is so constructed and arranged as to allow the aperture to be re-closed by folding of part of the carton.

[0002] There exist a number of inventions relating to a re-closable carton. US patents 4 201 292, 4 266 671, and 4 344 533 all relate to a carton involving a flap portion and a container portion, as does US patent 6 050 416. US patent 5 692 834 discloses a package with a resealing feature and a feature allowing the package to act as a non pre-paid mailer.

[0003] The problems associated with cartons of this type are that the articles must be prevented from being individually removed from a multiple pack whilst, at the same time, displaying the articles. Furthermore, the prior art does not address the problem of how to gain access to the articles contained within a carton whilst offering the possibility of forming a re-closable carton to contain those or other articles at a later date.

[0004] The present invention and its preferred embodiments seek to overcome or at least mitigate the problems of the prior art.

[0005] One aspect of the invention provides a reclosable carton comprising a container connected to a flap portion, the container comprising top and base panels interconnected by front and rear panels and a tear open flap struck at least in part from the front panel to define an aperture, the flap portion is foldable from a display position where it projects upwardly from the container portion into a covering position where it closes the opening. Optionally, the tear open flap extends into the top panel.

[0006] A second aspect of the invention provides a reclosable carton comprising a container connected to a flap portion, the container comprising top and base panels interconnected by front and rear panels and a tear open flap struck at least in part from the base panel to define an aperture, the flap portion is foldable from a display position where it projects upwardly from the container portion into a covering position where it closes the opening.

[0007] According to an optional feature of either aspect of the invention, the flap portion is formed with at least one intermediate fold line so that the flap portion may be folded to be disposed along two or more panels of the container portion. Preferably, the flap portion is formed with at least two intermediate fold lines so that the flap portion may be folded to be disposed along three or more panels of the container portion.

[0008] According to another optional feature of either aspect of the invention, the flap portion includes means by which to hang the carton.

[0009] In some embodiments, the flap portion when in the display position projects from the junction be-

tween the top and rear panels.

[0010] According to a further optional feature of this aspect of the invention, the tear open flap is foldable inwardly to be pressed against an article to retain the article within the container portion.

[0011] According to a still further optional feature of this aspect of the invention, the container portion comprises a series of panels collinear with the flap portion and a pair of side compartment portions hingedly attached to the rear panel.

[0012] Optionally, the base panel comprises one or more frangible sections adapted to define an aperture for the reception of one or more articles.

[0013] Preferably, one of the flap portion and the container portion is provided with securing means for fixing the flap portion to the container portion. More preferably, the rear panel has a strip of dual side adhesive tape for fixing the flap portion to the container. In some embodiments, that part of the rear panel having the strip of adhesive tape is detachably connected to the rear panel.

[0014] The flap portion may carry mailing indicia and is foldable from the display position to a mailing position where it lies along the exterior of the container portion with the mailing indicia facing outwardly. In those embodiments, with securing means, it is adapted to secure the flap portion in the mailing position. The mailing indicia may be carried by the rear surface of the flap portion.

[0015] A third aspect of the invention provides a returnable package comprising a closed empty compartment and a tear open feature for defining an opening through which a returnable article may be inserted into the compartment and there further comprising covering means for closing the opening.

[0016] A fourth aspect of the invention provides a returnable carton comprising a delivery compartment for receiving a new article and a return compartment for receiving a used article, there further comprising a tear-open feature for defining an opening through which a used article may be inserted into the return compartment and covering means for reclosing the opening.

[0017] A fifth aspect of the invention provides a blank for forming a carton comprising a container portion connected to a flap portion, the container portion comprising in series a top panel, a front panel, a base panel and a rear panel and there further comprising a tear open flap struck at least in part from the front panel to define an aperture when opened, the flap portion is adapted to be foldable in a set up carton from a display position where it projects upwardly from the container portion into a covering position where it closes the opening. The tear open flap may extend into the top panel.

[0018] A sixth aspect of the invention provides a blank for forming a carton comprising a container portion connected to a flap portion, the container portion comprising in series a top panel, a front panel, a base panel and a rear panel and there further comprising a tear open flap struck at least in part from the base panel to define an aperture when opened, the flap portion is adapted to be

foldable in a set up carton from a display position where it projects upwardly from the container portion into a covering position where it closes the opening.

[0019] Preferably, in the fifth or sixth aspects of the invention the flap portion is formed with at least one intermediate fold line so that the flap portion may be folded to be disposed along two or more panels of the container portion. More preferably, the flap portion is formed with at least two intermediate fold lines so that the flap portion may be folded to be disposed along three or more panels of the container portion.

[0020] In one class of embodiments, the blank having the container portion comprises a series of panels col-linear with the flap portion and a pair of side compart-ment portions hinged to the rear panel.

[0021] The base panel in the blanks of the fifth or sixth aspects of the invention may comprise one or more frang-ible sections adapted to define an aperture for the re-ception of one or more articles.

[0022] According to another optional feature of the fifth or sixth aspects of the invention, one of the flap por-tion and the container portion is provided with securing means for fixing the flap portion to the container portion.

[0023] According to a yet further optional feature of either aspect of the invention, the flap portion carries mailing indicia and is foldable from the display position to a mailing position where it lies along the exterior of the container portion with the mailing indicia facing out-wardly.

[0024] Exemplary embodiments of this invention will now be described, by way of example only, with refer-ence to the accompanying drawings, in which:

FIGURE 1 is a plan view of the carton blank accord-ing to one aspect of the invention;

FIGURES 2, 3, 4, 5, 6, 7, 8, 9 and 10 illustrate the construction of a carton from the blank in Figure 1 and the loading of articles within the carton;

FIGURES 11 to 14 show how a carton, formed from a blank as in Figure 1, may be reloaded and re-closed;

FIGURES 15 and 16 are perspective views showing a reloaded, re-closed carton formed from a blank as in Figure 1;

FIGURE 17 is a plan view of a carton blank accord-ing to a second embodiment of this invention;

FIGURES 18, 19, 20, 21 and 22 are plan views of blanks as in Figure 17, showing how they may be formed into a carton;

FIGURE 23 is a rear perspective view of a fully formed carton from a blank as in Figure 17;

FIGURE 24 is a front perspective view of a fully formed carton from a blank as in Figure 17;

FIGURE 25 is a front perspective view of a fully formed carton from a blank as in Figure 17, showing how an aperture may be formed in this embodiment; and

FIGURES 26 to 29 are perspective views showing how a carton from a blank as in Figure 17 may be reloaded and re-closed.

[0025] Referring to the drawings and in particular Fig-ure 1, there is shown a carton blank 10 made from pa-perboard or other similar foldable sheet material. The blank 10 is a unitary blank comprising a series of panels hinged one to the next although it is envisaged that the carton may be formed from two or more blanks without departing from the scope of the invention.

[0026] Figure 1 shows a blank 10 for forming a reclos-able carton comprising a container portion 14 connected to a flap portion 12, the container portion 14 comprising top and base wall panels interconnected by front and rear wall panels 26, 32 and a tear open flap 28 struck at least in part from the front panel to define an aperture, the flap portion 12 is foldable from a display position where it projects upwardly from the container portion 14 into a covering position where it closes the opening.

[0027] In this embodiment, the blank 10 comprises a hanging support portion 12 hinged to a con-tainer portion 14 by fold line 54. Preferably, the hanging support portion 12 comprises a plurality of panels hinged together in series to provide a flap. Thus there comprises an upper panel 16 hinged to a first support panel 18 by fold line 48; the first support panel 18 is hinged to a main sup-port panel 20 via fold line 50; the fold line 52 then con-nects the main support panel 20 to a third support panel 22 and support panel 22 is then connected to the con-tainer portion via fold line 54.

[0028] The container portion 14 comprises a plurality of panels for forming front, rear, top and base walls. In this embodiment, the container portion 14 includes a top wall panel 24 hinged to the hanging support portion 12 via fold line 54 and to front panel 26 by fold line 56. The front panel 26 is hinged to the base panel 30 and to the frangible panels 46a and 46b in this embodiment, along fold line 58. Preferably, base panel 30 and the frangible panels 46a and 46b are con-nected to rear panel 32 along fold line 60. Preferably, a securing flap 34 is provided to secure rear panel 32 to top panel 24. Securing flap 34 is hinged to rear panel 32 along fold line 62.

[0029] There may further comprise a tear panel 28 struck from front panel 26 and defined in part by frangi-ble line 29. In this embodiment, tear panel 28 is substan-tially rectangular in shape. The tear panel 28 defines the aperture for gaining access to the interior of the com-

pleted package and therefore, can be shaped according to the type of article to be packaged. The tear panel 28 may extend into the top panel 24 in some embodiments to terminate at the fold line 54.

[0030] The rear panel 32 is connected, in this embodiment, to end panels 36a and 36b, by fold lines 64a and 64b respectively.

[0031] There further comprises one or more compartments, 13a and 13b respectively, for receiving articles inserted through the apertures A1 and A2 (Figure 5), defined by the respective frangible panels 46a and 46b.

[0032] Compartments 13a and 13b are connected to one or more of the panels for forming the container. In this embodiment, the compartment 13a is connected to end wall panel 36a along fold line 66a and compartment 13b is connected to end panel 36b along fold line 66b. The compartments 13a and 13b are formed in like manner and therefore reference is made to compartment 13a only.

[0033] Compartment 13a comprises a series of panels which in this embodiment, is provided by a partition panel 38a, a spacer panel 40a and a securing tab 42a, hingedly connected one to the next along fold lines 66a, 68a and 70a, respectively. The securing tab 42a, preferably, extends into spacer panel 40a and is separated therefrom by cut lines 78a and 80a. Preferably, there further comprises a gusset panel 41a hingedly connecting securing flap 42a to partition panel 38a along fold line 72a, but which is otherwise unconnected to partition panel 38a. Cut lines 78a and 80a, as well as the continuation of the fold line 68a, allow the formation of gusset panel 41a from the side panel 38a so that gusset panel 41a is maintained in a substantially perpendicular relationship with the securing tab 42a when the carton is formed, described below.

[0034] Vertically struck from end panels 36a and 36b are support panels 44a and 44b, 45a and 45b that are hinged thereto. The, rear panel 32 may include a fastening strip 76, optionally constructed of dual side adhesive tape.

[0035] Preferably, hanging support panel 18 comprises a hanging aperture 74.

[0036] Turning to the construction of the carton as illustrated in Figures 2 to 8, or Figures 18 to 23, it is envisaged that the carton of the present invention can be formed by a series of sequential folding and gluing operations in a straight line machine such that the carton is not required to be rotated or inverted to complete its construction. The folding process is not limited to that described below and may be altered according to particular manufacturing requirements.

[0037] In order to form the carton reference is made to Figures 2 to 6, which illustrate one example of the construction process. First, compartments 13a and 13b are moved out of a state of collinearity with the carton blank 10. The compartments 13a and 13b are folded in directions X and Y along fold lines 66a and 66b, shown in Figures 2 and 3 into face contacting arrangement with

rear panel 32. Securing flaps 42a and 42b are secured to rear panel 32 by glue or other suitable means known in the art. In this embodiment, glue is used and represented by the reference G, although the position of the glue spots is not limited to that described in the drawings. The blank shown in Figure 3 is in a flat collapsed condition ready to be supplied to an end user for loading.

[0038] In order to erect the cartons, the compartments 13a and 13b are formed first: by folding end panels 36a and 36b inwardly along fold lines 64a and 64b so that tabs 41a and 41b are also folded out of alignment with respect to securing tabs 42a and 42b respectively and to lie in a substantially perpendicular relationship with both the partition panels 38a and 38b and with their respective securing tabs 42a and 42b, as shown in Figures 4 and 5. Thus an article receiving cell A1 and A2 is formed by each compartment structure 13a and 13b. The cells in each compartment are separated by gusset panels 41a and 41b, so as to provide additional rigidity to the carton. The cells A1 and A2 are used to receive articles after the carton has been opened, described below.

The articles B are placed between the two spacer panels 40a and 40b and the rear panel 32, as shown in Figure 6. Thereafter the container is formed by folding base panel 30 and the hanging support structure 12 along fold line 60, so that base panel 30 is brought into abutment with the compartments, as shown in Figure 7. Thereafter, the front panel 26 is folded along fold line 58 into face contacting relationship with the partition panels 38a and 38b and, optionally secured thereto. Top panel 24 is folded along fold line 56 into abutment with the securing flap 34 which has also been folded inwardly along fold line 62. The securing flap and top wall panel are secured together by glue or other suitable means known in the art. The hanging support structure extends outwardly from top panel 24 as shown in Figures 8 and 9.

[0039] In those embodiments with tabs 44a, 44b, 45a, 45b they are folded inwardly along each of their respective fold lines, prior to folding the respective base panel 30 and securing panel 34. Preferably, the tabs are secured to their adjacent base or securing panels. The carton is in a loaded condition ready to be supplied to an end user, as shown in Figure 9.

[0040] To gain access to the interior of the carton the user will break the frangible connection between the tear panel 28 and front panel 26 and the tear panel is separated from the front panel to reveal the articles B, as shown in Figure 10 and they can be removed from the carton through the aperture A5.

[0041] In order to reload the carton, articles B are inserted by breaking the frangible panels 46a and 46b and passing the articles B therethrough in the direction W as shown in Figure 11, and/or through tear panel 28. Thereafter the carton is re-closed whereby the front face of support panel 22 is brought into direct abutment with the top panel by perpendicular folding along fold line 54. Similarly, folding along lines 52, 50 and 48 brings panels

20, 18 and 16 into respective contact with the front panel 26, the base panel 30 and the rear panel 32, as illustrated in Figure 13. Finally, upper panel 16 is secured to rear panel 32 by securing means such as a fastening strip 76 to complete the formation of a reloaded carton enclosing the articles and covering any aperture which may have been formed within the container portion, as shown in Figure 14.

[0042] Figures 15 and 16 illustrate a reclosable carton for containing a plurality of articles, which includes an address label for postage purposes. Suitable mailing indicia, for example a label or pre-printed address can be applied to one of the exterior faces of a panel 32, 20 forming the package.

[0043] The carton can be used as a package to post the articles to a desired location, because the package is secured in a closed position to prevent articles inadvertently leaving the carton. The package is also sufficiently rigid to prevent it from being torn or the articles damaged during transit.

[0044] Figures 17 to 29 depict a second embodiment of this invention wherein like features have been designated the same reference numerals with the prefix "1" added to them. The second embodiment is similar to the first embodiment and therefore only the differences will now be described in any greater detail

[0045] In this embodiment, the top panel 124 is hingedly connected directly to the main support panel 120 by the fold line 152. The support panel 120 is then hingedly connected to a single further support panel 118 by fold line 150 and that support panel 118 is then hingedly connected to the upper panel 116 along fold line 148.

[0046] In this second embodiment the upper panel 116 is of the similar size to the front panel 126 and includes two adhesive strips 186 and 188.

[0047] Preferably, a second hanging aperture 184 is included in the support panel 118 of this embodiment.

[0048] The optional tear panel 128 in this embodiment extends preferably for the length of the front panel 126 and does not extend into top panel 124.

[0049] This embodiment preferably further includes a frangibly pre-cut dual side adhesive strip 182 which may be pushed out, defining aperture A9 (Figure 27) and may be used to stick the upper panel 116 to the front panel 126 when re-closing the carton, described in more detail below.

[0050] In this second embodiment, shown in Figure 17, the use of cut lines 194a, 194b, 195a, 195b, 196a, 196b, 197a, 197b, 198a, 198b, 199a and 199b forms apertures 190a and 190b and 192a and 192b within the sides panels 138a and 138b and partition panels 140a and 140b, to improve folding during construction. As in the first embodiment, this configuration allows the panels 141a and 141b to maintain a substantially perpendicular relationship with their respective end tabs 142a and 142b, thus dividing the apertures A7 and A8, derived from the frangible panel 146a and 146b, into two

cells for receiving articles B¹.

[0051] The container portion of this second embodiment is constructed by an equivalent method to that for the first embodiment. The securing tabs 142a and 142b are fastened to the back of the rear panel 132 as shown in Figure 19 and the carton is supplied to the packaging concern in a flat collapsed condition. In order to set up and load the carton, the end panels are erected in like manner to the first embodiment, so that the compartments are formed by folding the end panels 136a, 136b inwardly to form article receiving cells A7 and A8. The gusset panels 141a and 141b separate adjacent article cells, as shown in Figure 20.

[0052] The articles are then loaded onto the carton, between the spacer panels 140a and 140b and the container is then formed whereby the base panel 130 is folded into abutment with tabs 144 and the compartment structures. The articles B¹ are inserted into the compartment, shown in Figure 2, and the front panel 126 is folded over and top panel 124 is secured to securing flap 134, which is folded along fold line 162 to maintain a substantially perpendicular relationship with the rear panel 132, shown in Figure 22. This also brings the securing panel 134 into contact with the upwardly folded tabs 145a and 145b.

[0053] A fold is made at line 152 to allow the main support panel 120 to become coplanar with the rear panel 132. The further support panel 118 and the upper panel 116 are then folded into a face-to-face arrangement with the back of the support panel 120 thus allowing at least part of the upper panel 116 to come into face-to-face contact with the rear panel 132. Securing means provided in tab 182 for fastening the upper panel 116 to the rear panel 132 complete the formation of the carton, as shown in Figures 23 and 24.

[0054] The articles are removed in like manner to the first embodiment, via the tear panel 128 shown in Figures 24 and 25.

[0055] After a first use, articles B¹ may be inserted in the direction V through the frangible panels 146a and 146b into the resultant apertures A7 and A8. The front panel 116 is detached from the rear panel 132 by pushing the tab 182 outwardly away from the compartment to separate it from the rear panel to reveal aperture A9, shown in Figure 27. A fold is made at fold line 152 such that the support panel 120 may come into face contacting arrangement with the rear panel 132. Further folds at fold lines 148 and 150 allow support panel 118 to come into contact with base panel 130 and the upper panel 116 to come into contact with the front panel 126, thus covering any aperture A7, A8, A9 which may have been formed therein. Preferably, the dual side adhesive strip 182 from the rear panel 132 and, optionally the glue strips 186 and 188 may be used as a securing means to fasten the upper panel 116 to the front panel 126, illustrated in Figures 28 and 29.

[0056] Optionally, the upper panel 116 comprises mailing details and a pre-paid stamp allowing the re-

closed carton to act as a means for recollection of the used articles B¹.

[0057] A benefit of the arrangement of the second embodiment lies in the fact that the adhesive strip 182 and/or the optional securing means, hereinbefore exemplified by the glue strips 186 and 188, are concealed within the carton until they are brought into use.

[0058] In some embodiments, the blank will be formed with one face coated and the other face is non-coated. This is common in the packaging field to keep costs down. The printed matter is applied to the coated side so as to improve the resolution and quality of the graphics. It is desirable, for any mailing indicia to be pre-printed onto the blank at the time of printing the other information on the blank. In this embodiment it is possible to print the indicia onto the coated side, because the folding arrangement ensures the coated sides face outwardly. Beneficially, this reduces the printing costs.

[0059] It will be recognised that as used herein directional references such as "top", "bottom", "base", "end", "upper" and "side" do not limit their 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 may 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 the invention.

[0060] It will be understood that numerous changes may be made within the scope of the invention. For example, the size and shape of a panel may be altered according to the specific requirements of the articles to be packaged, as may the number and arrangement of the receiving cells and apertures, without departing from the scope of invention.

Claims

1. A reclosable carton comprising a container connected to a flap portion, the container comprising top and base panels interconnected by front and rear panels and a tear open flap struck at least in part from the front panel to define an opening, the flap portion is foldable from a display position where it projects upwardly from the container portion into a covering position where it closes the opening.
2. A reclosable carton as claimed in claim 1 wherein the tear open flap extends into the top panel.
3. A reclosable carton comprising a container connected to a flap portion, the container comprising top and base panels interconnected by front and rear panels and a tear open flap struck at least in part from the base panel to define an opening, the flap portion is foldable from a display position where it projects upwardly from the container portion into a covering position where it closes the opening.
4. A reclosable carton as claimed in any one of claims 1 to 3 wherein the flap portion is formed with at least one intermediate fold line so that the flap portion may be folded to be disposed along two or more panels of the container portion.
5. A reclosable carton as claimed in claim 4 wherein the flap portion is formed with at least two intermediate fold lines so that the flap portion may be folded to be disposed along three or more panels of the container portion.
6. A reclosable carton as claimed in any one of the preceding claims, wherein the flap portion includes means by which to hang the carton.
7. A reclosable carton as claimed in any preceding claim wherein the flap portion when in the display position projects from the junction between the top and rear panels.
8. A reclosable carton as claimed in any preceding claim wherein the tear open flap is foldable inwardly to be pressed against an article to retain the article within the container portion.
9. A reclosable carton as claimed in any one of the preceding claims, wherein the container portion comprises a series of panels collinear with the flap portion and a pair of side compartment portions hinged to the rear panel.
10. A reclosable carton as claimed in any one of the preceding claims, wherein the base panel comprises one or more frangible sections adapted to define an aperture for the reception of one or more articles.
11. A reclosable carton as claimed in any one of the preceding claims, wherein one of the flap portion and the container portion is provided with securing means for fixing the flap portion to the container portion.
12. A reclosable carton as claimed in claim 11 wherein the rear panel has a strip of dual side adhesive tape for fixing the flap portion to the container.
13. A reclosable carton as claimed in claim 12 wherein that part of the rear panel having the strip of adhesive tape is detachably connected to the rear panel.
14. A reclosable carton as claimed in any one of claims 11 to 13 wherein the flap portion carries mailing indicia and is foldable from the display position to a mailing position where it lies along the exterior of the container portion with the mailing indicia facing

outwardly.

15. A reclosable carton as claimed in claim 14 wherein the securing means is adapted to secure the flap portion in the mailing position.

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16. A reclosable carton as claimed in claim 14 or claim 15 wherein the mailing indicia is carried by the rear surface of the flap portion.

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17. A returnable package comprising a closed empty compartment and a tear open feature for defining an opening through which a returnable article may be inserted into the compartment and there further comprising covering means for closing the opening.

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18. A returnable carton comprising a delivery compartment for receiving a new article and a return compartment for receiving a used article, there further comprising a tear-open feature for defining an opening through which a used article may be inserted into the return compartment and covering means for reclosing the opening.

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19. A blank for the formation of a reclosable carton as claimed in any one of the claims 1 to 16 or a returnable package of claim 17 or a returnable carton of claim 18.

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20. A blank for forming a carton comprising a container portion connected to a flap portion, the container portion comprising in series a top panel, a front panel, a base panel and a rear panel and there further comprising a tear open flap struck at least in part from the front panel to define an aperture when opened, the flap portion is adapted to be foldable in a set up carton from a display position where it projects upwardly from the container portion into a covering position where it closes the opening.

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21. A blank as claimed in claim 20 wherein the tear open flap extends into the top panel.

22. A blank for forming a carton comprising a container portion connected to a flap portion, the container portion comprising in series a top panel, a front panel, a base panel and a rear panel and there further comprising a tear open flap struck at least in part from the base panel to define an aperture when opened, the flap portion is adapted to be foldable in a set up carton from a display position where it projects upwardly from the container portion into a covering position where it closes the opening.

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23. A blank as claimed in any one of claims 20 to 22 wherein the flap portion is formed with at least one intermediate fold line so that the flap portion may be folded to be disposed along two or more panels

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of the container portion.

24. A blank as claimed in claim 23 wherein the flap portion is formed with at least two intermediate fold lines so that the flap portion may be folded to be disposed along three or more panels of the container portion.

25. A blank as claimed in any one of claims 20 to 24, wherein the flap portion includes means by which to hang the carton.

26. A blank as claimed in any of claims 20 to 25 wherein the container portion comprises a series of panels collinear with the flap portion and a pair of side compartment portions hinged attached to the rear panel.

27. A blank as claimed in any of claims 20 to 26, wherein the base panel comprises one or more frangible sections adapted to define an aperture for the reception of one or more articles.

28. A blank as claimed in any of claims 20 to 27, wherein one of the flap portion and the container portion is provided with securing means for fixing the flap portion to the container portion.

29. A blank as claimed in any one of claims 20 to 28 wherein the flap portion carries mailing indicia and is foldable from the display position to a mailing position where it lies along the exterior of the container portion with the mailing indicia facing outwardly.

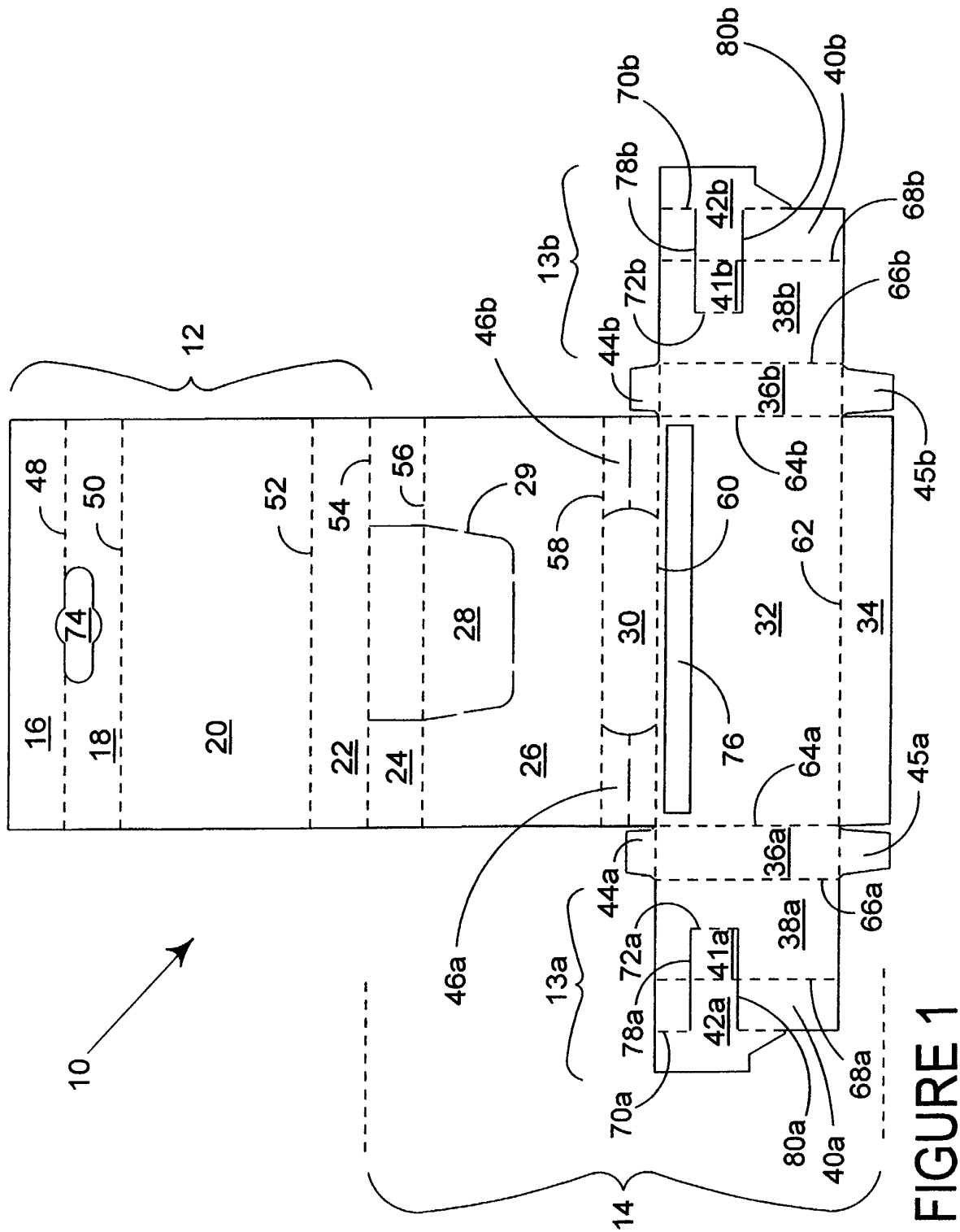


FIGURE 1

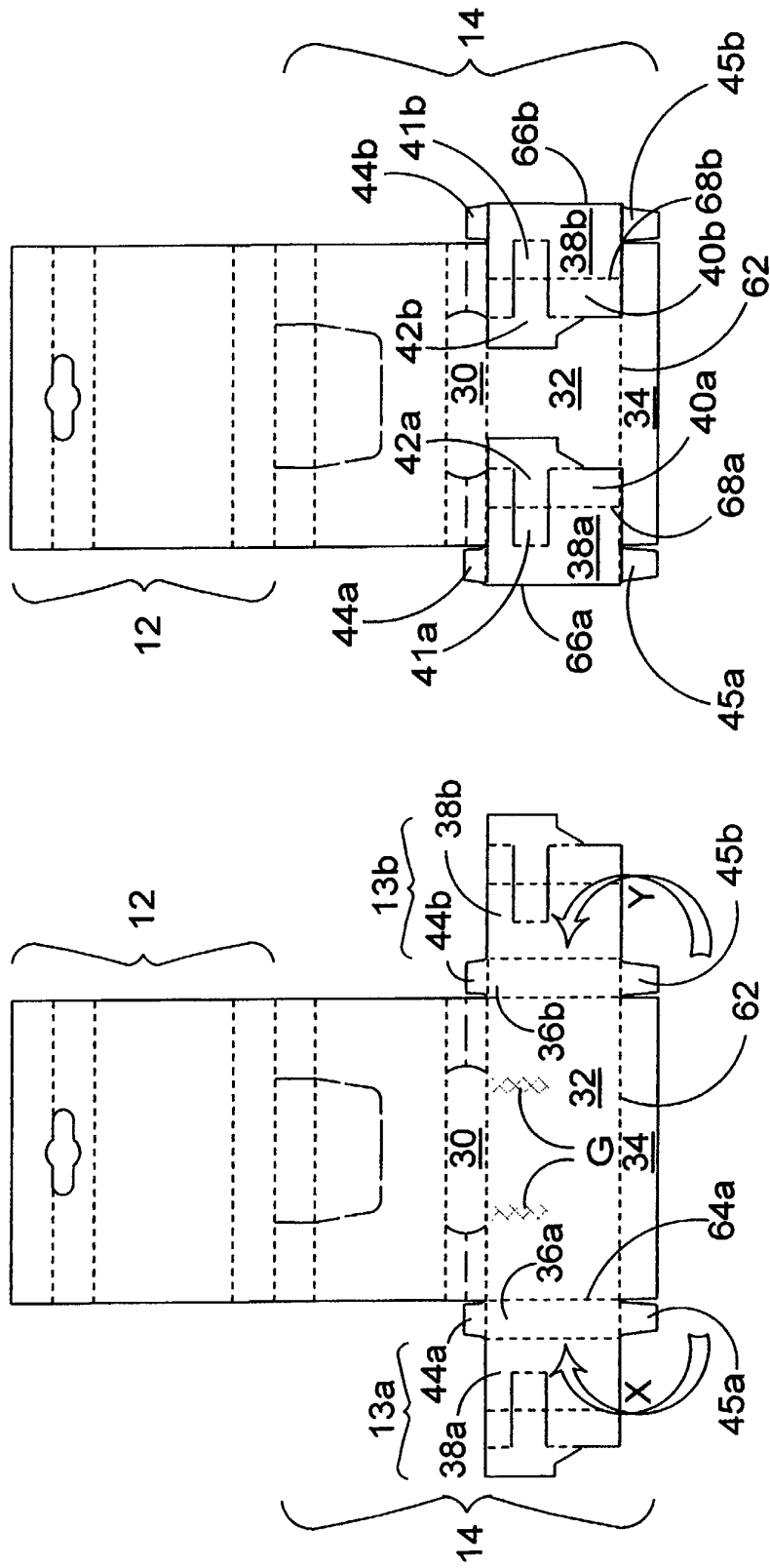


FIGURE 2

FIGURE 3

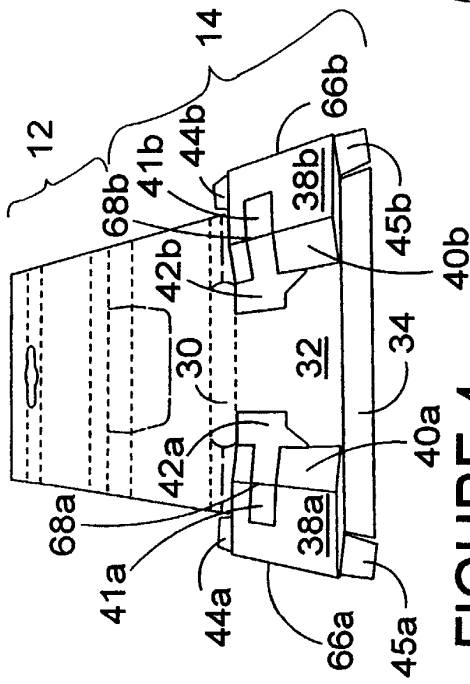


FIGURE 4

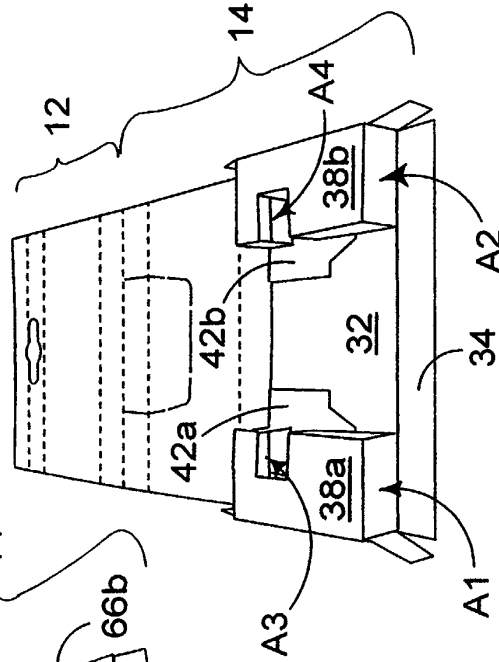


FIGURE 5

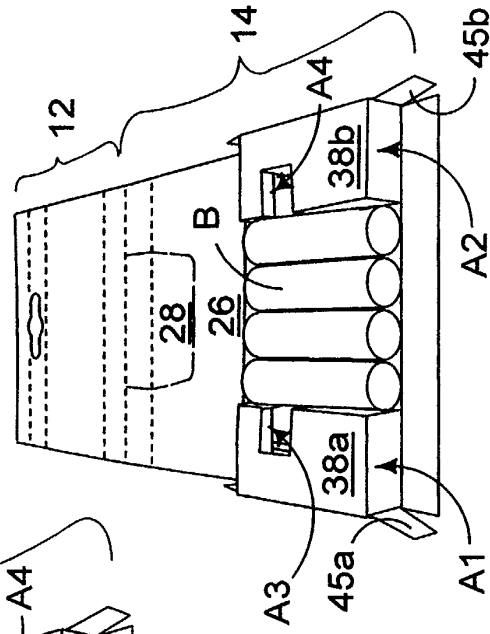


FIGURE 6

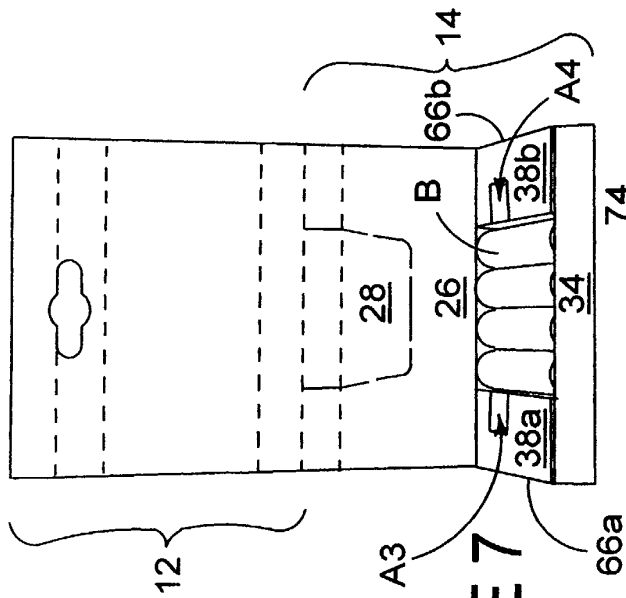


FIGURE 7

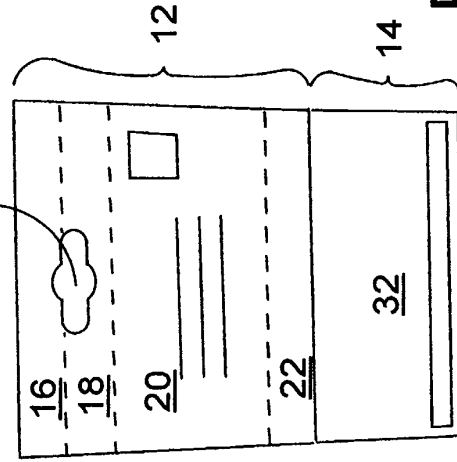


FIGURE 9

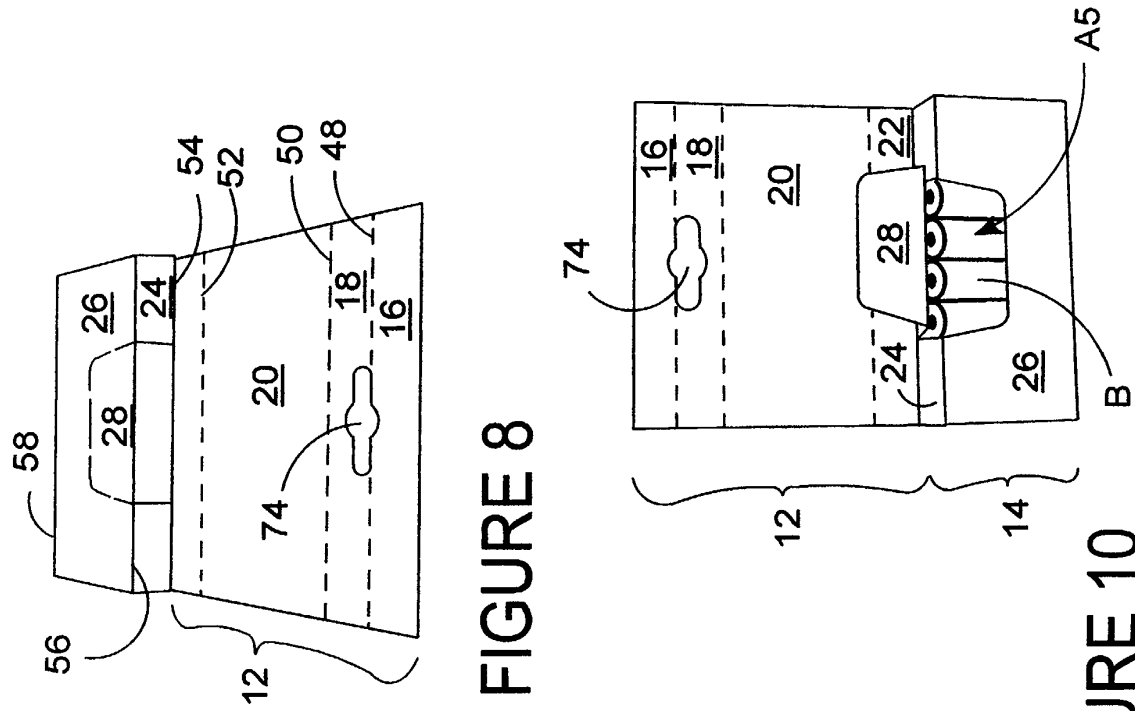


FIGURE 8

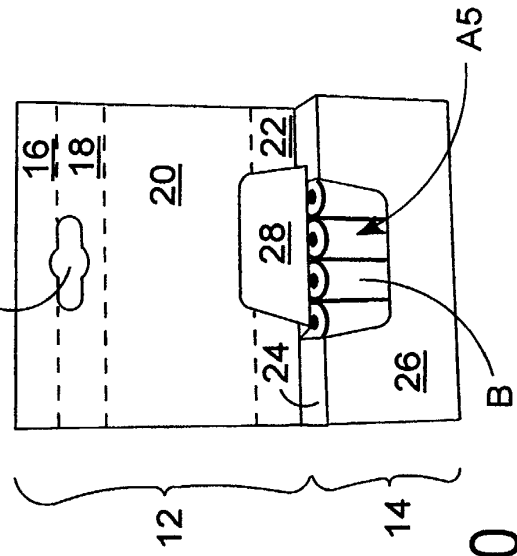
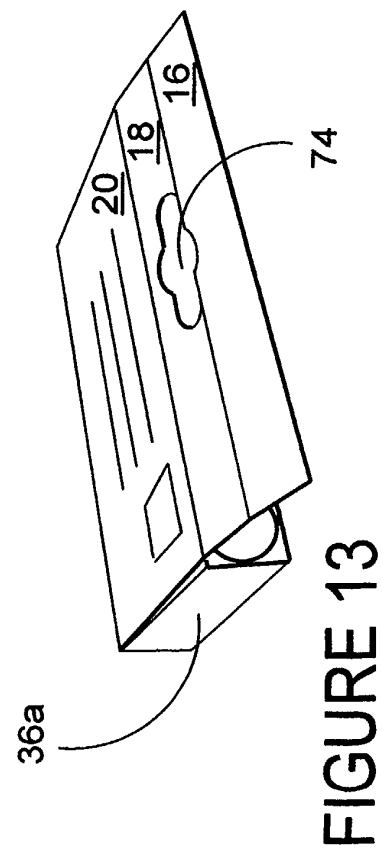
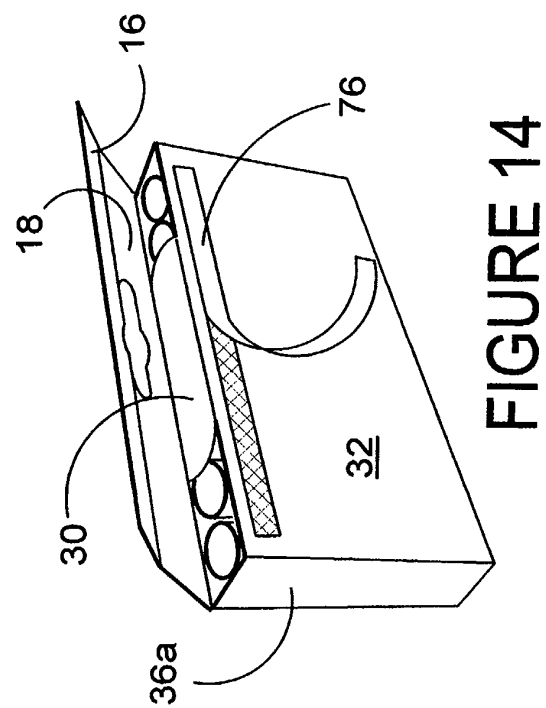
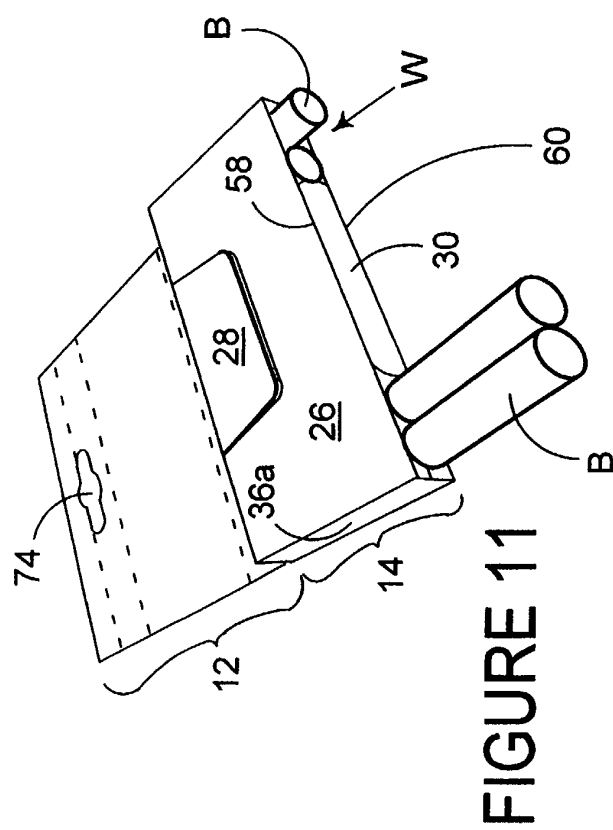
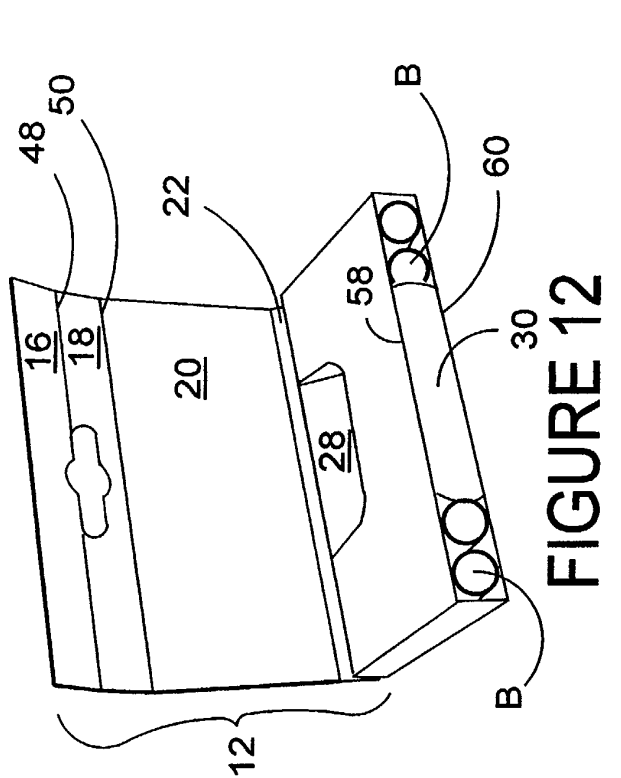
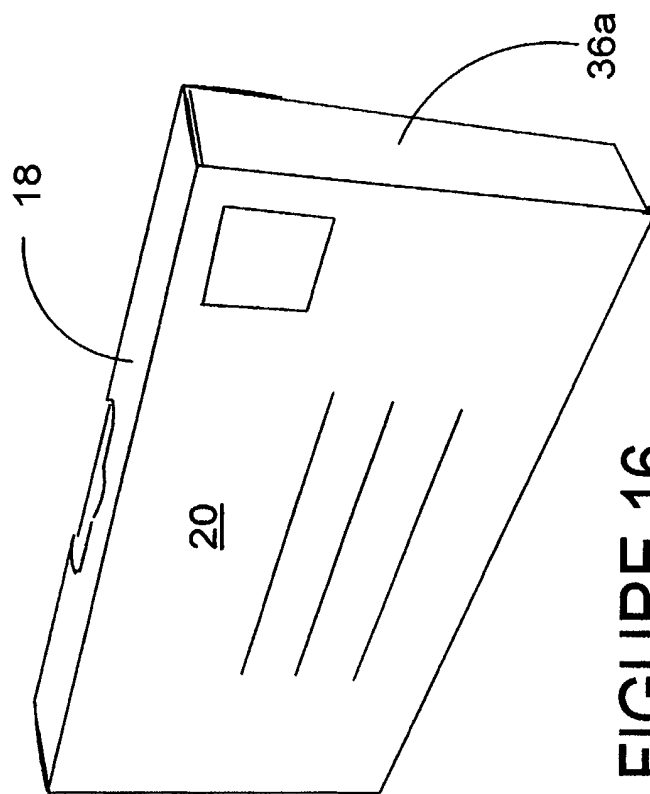
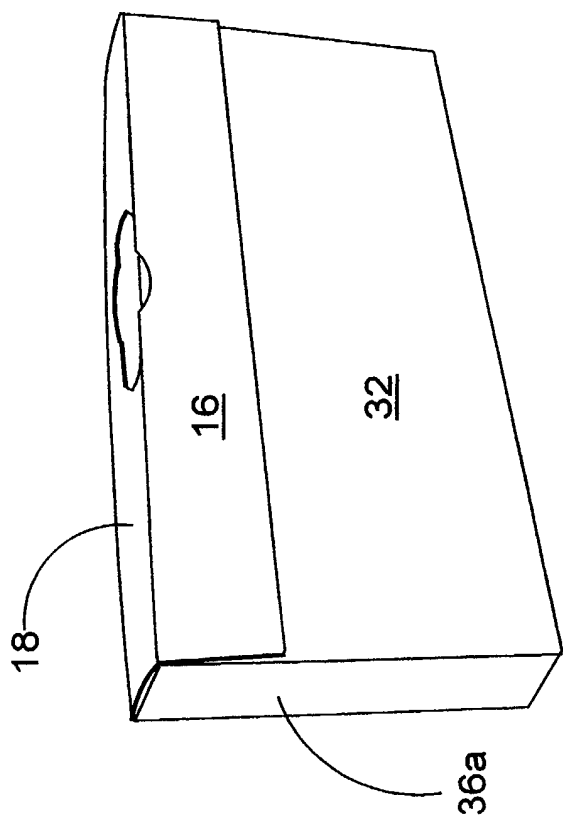
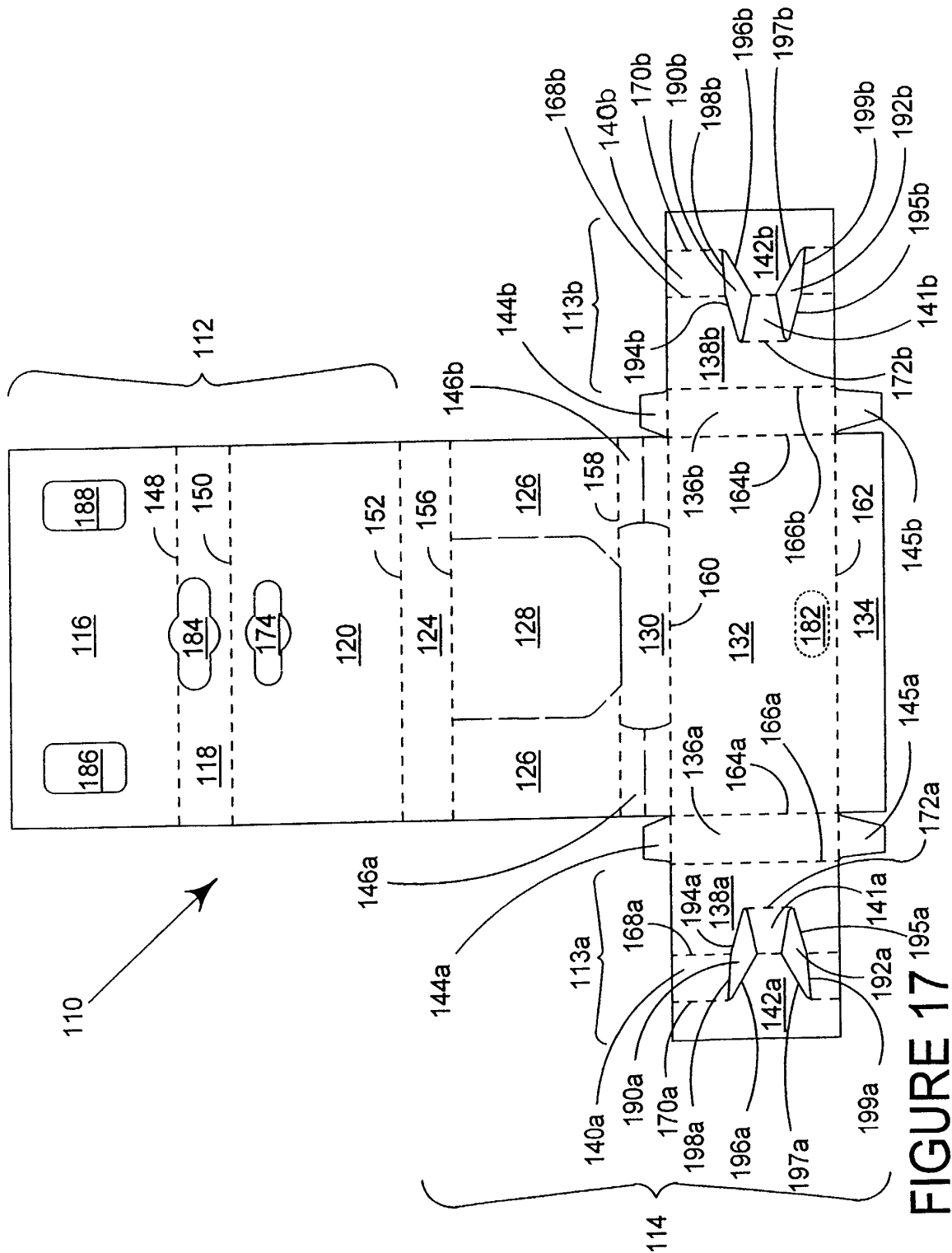


FIGURE 10







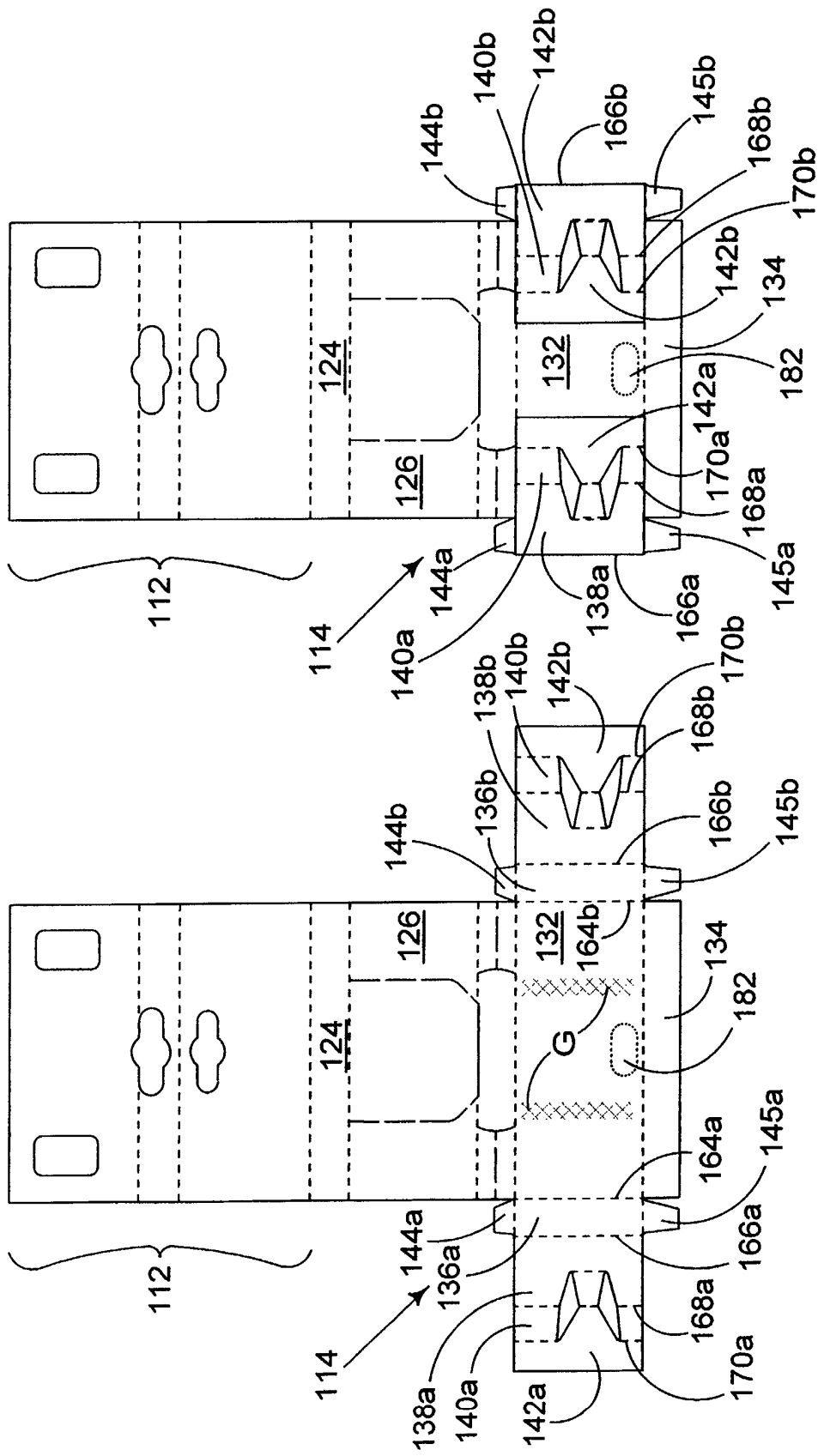
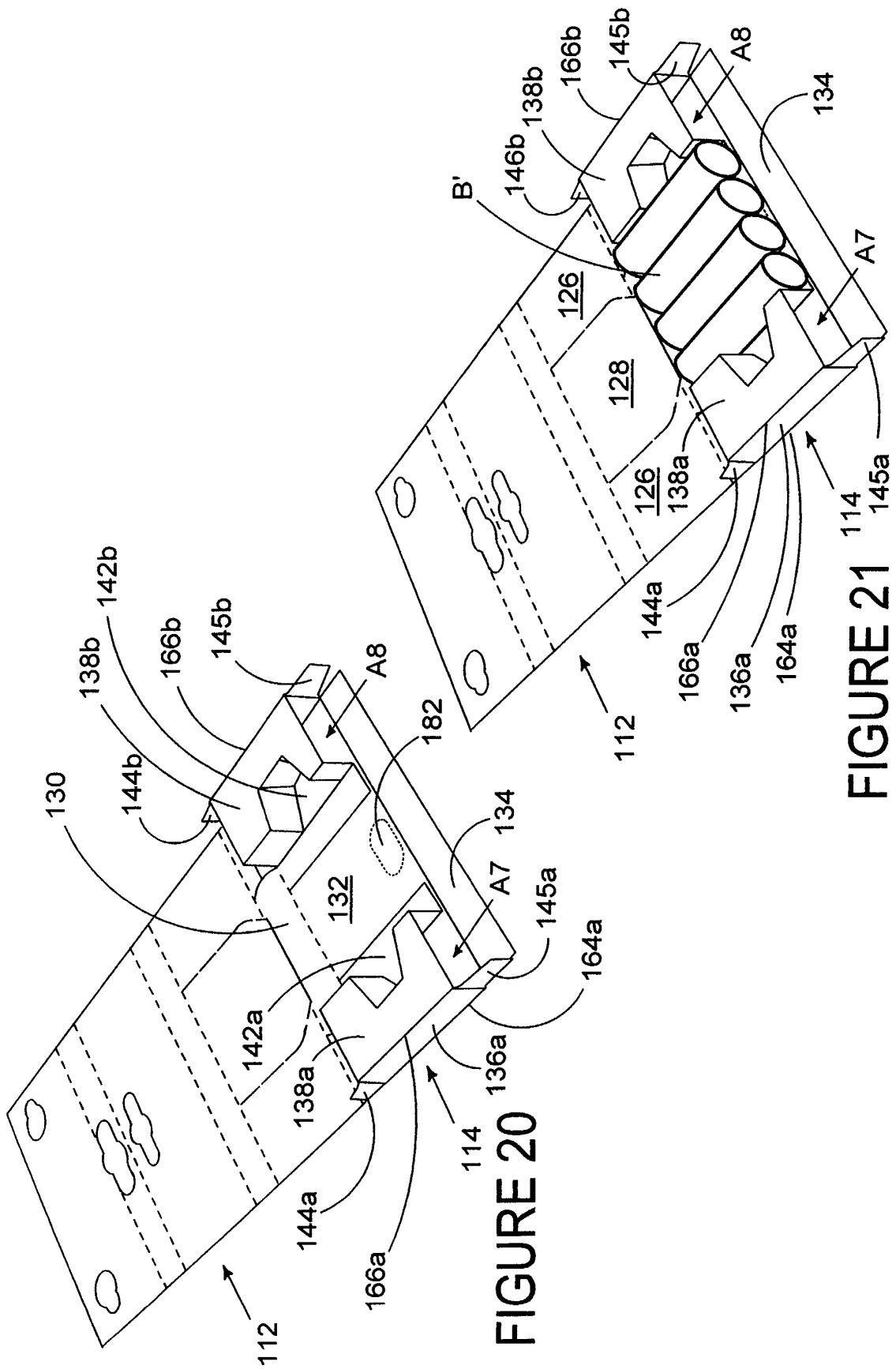


FIGURE 19

FIGURE 18



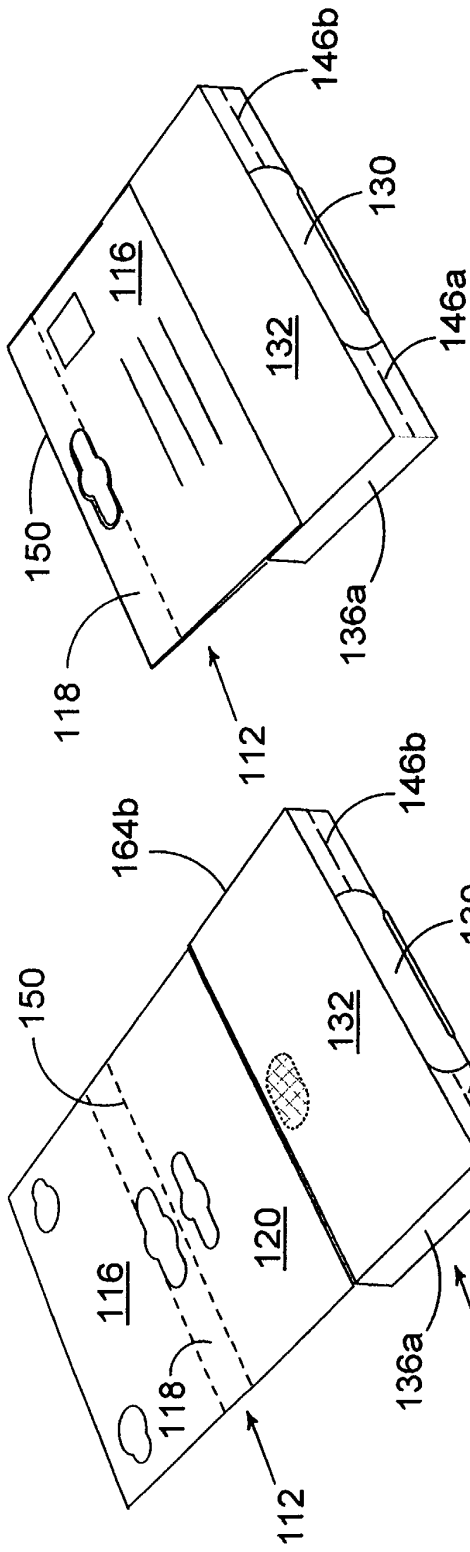


FIGURE 23

FIGURE 22

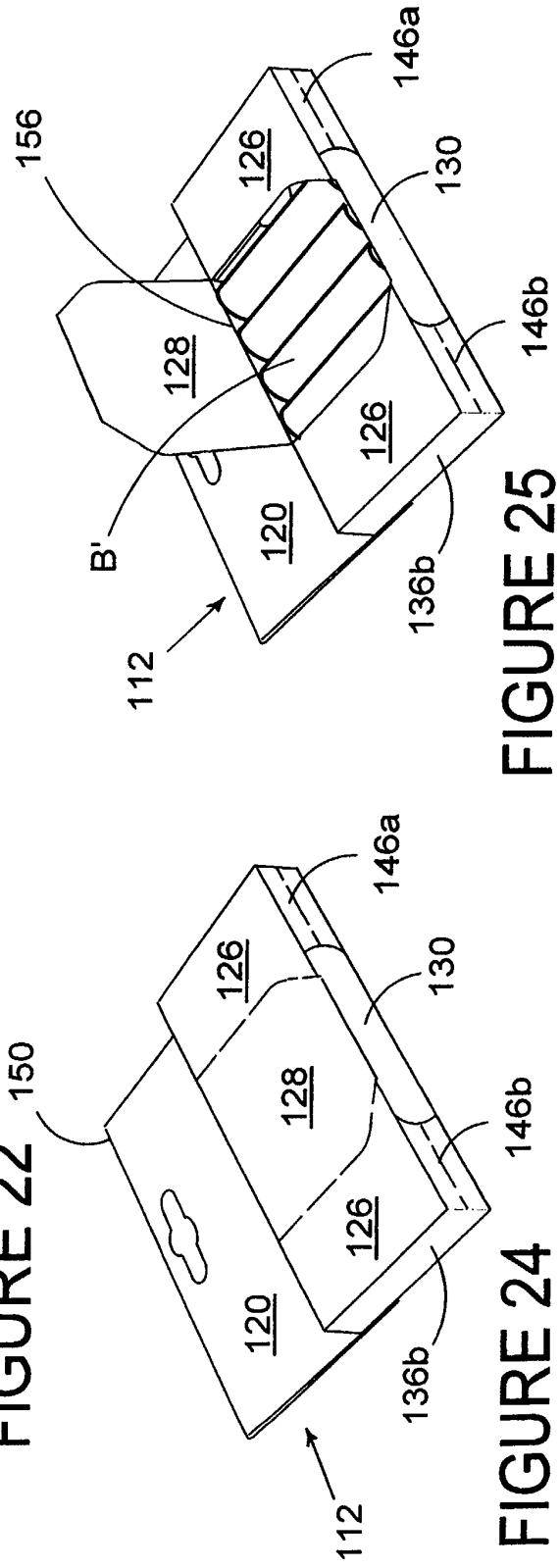


FIGURE 25

FIGURE 24

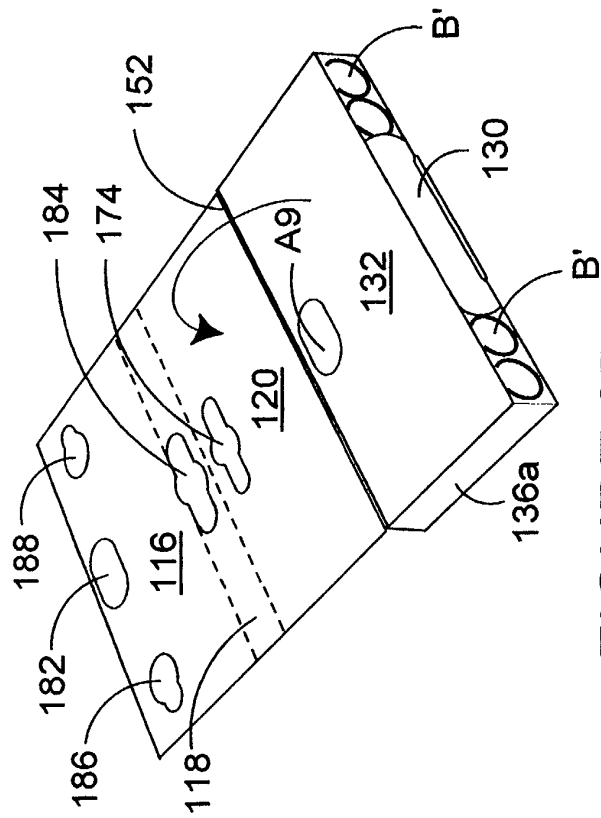


FIGURE 27

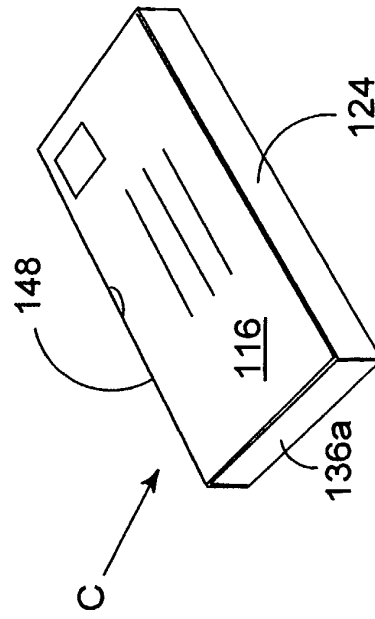


FIGURE 29

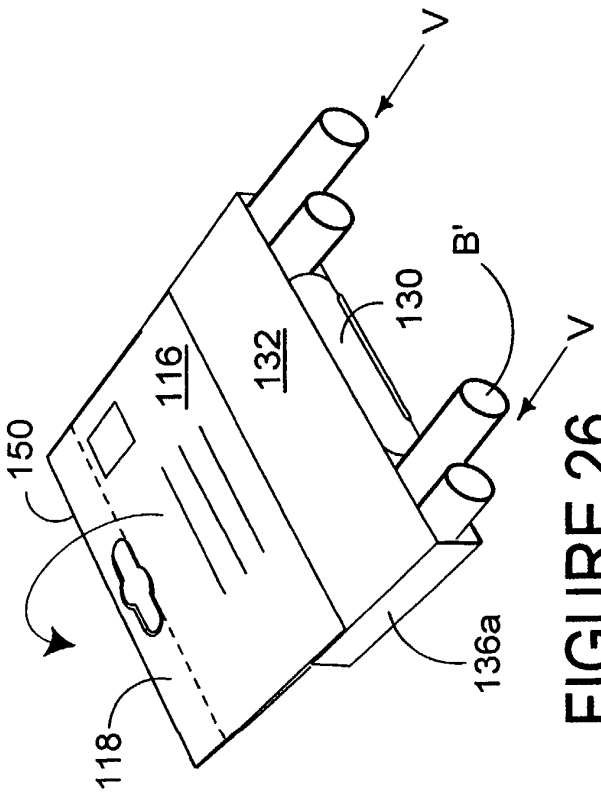


FIGURE 26

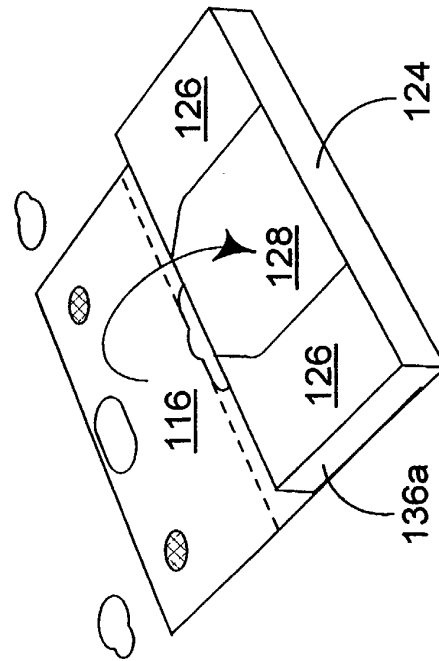


FIGURE 28

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
D,X Y A Y A A A	<p>US 4 201 292 A (DAVIDSON THOMAS L ET AL) 6 May 1980 (1980-05-06)</p> <p>* the whole document *</p> <p>US 4 412 619 A (VAN LAER ALBERT) 1 November 1983 (1983-11-01)</p> <p>* column 4, line 11-59; figures 8,9 *</p> <p>US 2 397 041 A (ROBERT PANTALONE VINCENT) 19 March 1946 (1946-03-19)</p> <p>* abstract; figures *</p> <p>US 3 507 442 A (VANDAM EDWARD ROGER ET AL) 21 April 1970 (1970-04-21)</p> <p>* abstract; figures *</p> <p>US 5 263 586 A (KEABLE JOHN B) 23 November 1993 (1993-11-23)</p> <p>* abstract; figures *</p>	<p>17-19</p> <p>1,2,4, 6-8,20, 21,23,25 3,22</p> <p>1,2,4, 6-8,20, 21,23,25</p> <p>9,26</p> <p>11,28</p> <p>14, 16-18,27</p>	<p>B65D5/42 B65D71/00</p> <p>TECHNICAL FIELDS SEARCHED (Int.Cl.7) B65D</p>
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 21 January 2003	Examiner Balz, O
CATEGORY OF CITED DOCUMENTS		<p>T : theory or principle underlying the invention</p> <p>E : earlier patent document, but published on, or after the filing date</p> <p>D : document cited in the application</p> <p>L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>	
<p>X : particularly relevant if taken alone</p> <p>Y : particularly relevant if combined with another document of the same category</p> <p>A : technological background</p> <p>O : non-written disclosure</p> <p>P : intermediate document</p>			

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EP 02 01 9428

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21-01-2003

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4201292	A	06-05-1980	NONE
US 4412619	A	01-11-1983	AT 9671 T 15-10-1984 CA 1173411 A1 28-08-1984 DE 3166425 D1 08-11-1984 EP 0042184 A1 23-12-1981 ES 267724 Y 16-10-1983 GR 75275 A1 13-07-1984 IE 51702 B1 18-02-1987 JP 1689969 C 27-08-1992 JP 2060574 B 17-12-1990 JP 57068341 A 26-04-1982
US 2397041	A	19-03-1946	NONE
US 3507442	A	21-04-1970	NONE
US 5263586	A	23-11-1993	NONE

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82