

(19)



Europäisches Patentamt

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Office européen des brevets



(11)

EP 1 058 651 B1

(12)

EUROPEAN PATENT SPECIFICATION

(45) Date of publication and mention
of the grant of the patent:

09.10.2002 Bulletin 2002/41

(21) Application number: **99911034.9**

(22) Date of filing: **02.03.1999**

(51) Int Cl.7: **B65D 5/46**

(86) International application number:
PCT/US99/04551

(87) International publication number:
WO 99/044898 (10.09.1999 Gazette 1999/36)

(54) **BEVERAGE CARTON WITH STRAP TYPE CARRYING HANDLE**

KARTON FÜR GETRÄNKEBEHÄLTER MIT BANDARTIGEM TRAGEGRIFF

CARTON POUR RECIPIENTS DE BOISSON DOTE D'UNE POIGNEE DE PORTAGE DE TYPE
SANGLE

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI NL
PT SE**

(30) Priority: **02.03.1998 GB 9804301**

(43) Date of publication of application:
13.12.2000 Bulletin 2000/50

(60) Divisional application:
02005869.9 / 1 232 957

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(56) References cited:
WO-A-96/01770 **DE-U- 7 901 421**
FR-A- 1 447 790 **GB-A- 825 971**
US-A- 4 784 266

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Description

[0001] This invention relates to a carton which is particularly but not only suitable for accommodating beverage containers such as cans and which incorporates a "strap-type" carrying handle which is automatically set up into a position of use as the carton is being closed after having been loaded.

[0002] Beverage cartons which include carrying handles and indeed, strap type carrying handles are known. For example, US 4,166,570 (Lazerand et al) discloses a packaging carton for beverage cans which a strap type handle. The handle strap has a central user portion exposed to view in a handle access aperture in top wall of the carton, extends across the top wall and has opposite ends which terminate in respective ones of a pair of end closure flaps which are hinged to the top wall. The handle strap is reinforced by a separate strip of reinforcing material, for example, a fibrous tape.

[0003] In the present invention, a carton having a strap handle type is provided, the strap being reinforced by a separate strip formed from material at one end of the blank from which the carton is formed. The handle strap is connected to a handle and has a user portion exposed to view in a handle access aperture but is otherwise disposed internally of the carton.

[0004] The carton is set up as an open-ended sleeve for loading and is then end-loaded whereafter the carton is completed by closure of the end closure panel. The end closure panel closing has an effect on the disposition of the handle strap. As the top end closure panels are folded into their closing positions the handle strap becomes slack into a position ready for use. When the carton is lifted by the central user part of the handle strap, the strap bows upwardly and protrudes through the handle access aperture proud of the top wall. The load is transmitted from the handle strap to the top wall of the carton at each of the opposite ends of the handle access aperture and is distributed through the top wall.

[0005] A further problem has been identified regarding the packaging of shaped articles, for example pear shaped bottles, whereby known cartons do not support the articles sufficiently well to minimise movement of the articles within the carrier.

[0006] The present invention has sought to overcome or at least mitigate the problems of the prior art.

[0007] One aspect of the invention provides a carton for beverage containers which carton includes a series of hinged wall panels forming a sleeve and end closure panels hinged to at least one associated hinged panel for closing, at least in part, the opposite ends of a sleeve, wherein the carton includes handle means by which the carton can be carried. The handle means comprises a strap and has a user part which is in substantially co-planar relationship with the one hinged panel when in a stored condition. The strap is so connected at its opposite ends to the end closure panels as to provide a surplus of material to enable the user part to be brought

into a position of use.

[0008] According to an optional feature of this aspect of the invention ends of the strap remote from the user part are attached to inwardly displaced parts of the end closure panels and intermediate parts between the user part and the ends which are unattached to the one hinged panel and free to provide the surplus of material.

[0009] According to another optional feature of this aspect of the invention, the inwardly displaced parts may each comprise a step, the tread of which is provided by the respective end closure panel and the riser of which is provided by the one hinged panel and wherein the step is positioned to be located between upper portions of adjacent articles at the end of the carton to provide a stabilizing spacer therebetween.

[0010] According to a further optional feature of this aspect of the invention the step automatically may be put into its operative position when the respective end closure panel is folded into its end retaining position.

[0011] According to another optional feature of this aspect of the invention the step may include a fold line intermediate the fold lines by which it is hinged to the one hinged panel and to the respective end closure panel, each inwardly displaced part folding in a toggle action along the fold lines when the respective end closure panel is folded into its end retaining position.

[0012] According to a further optional feature of this aspect of the invention the tread may be shaped to engage part of an article to be retained therewith. Preferably, the step may be located between upper portions of adjacent articles to provide a stabilising spacer therebetween.

[0013] According to yet another optional feature of this aspect of the invention, the user part of the handle means may be connected to a portion of the one hinged panel of the carton.

[0014] According to a still further optional feature of this aspect of the invention the user part may be formed from material which is integral with the one hinged panel.

[0015] A second aspect of the invention provides a blank for forming a carton for beverage containers which blank includes in series hinged wall panels for forming a sleeve and end closure panels hinged to at least one associated hinged panel, wherein the blank includes handle means comprising a strap and having a user part which is in substantially co-planar relationship with the one hinged panel when in a stored condition. The strap is so connected at its opposite ends to the end closure panels as to provide a surplus of material to enable the user part to be brought into a position of use in a set up condition.

[0016] Preferably, ends of the strap remote from the user part may be attached to inwardly displaced parts of the end closure panels and intermediate parts between the user part and the ends are unattached to the one hinged panel and free to provide the surplus of material. More preferably, inwardly displaced parts may

each comprise a step, the tread of which is provided by the respective end closure panel and the riser of which is provided by the one hinged panel and wherein the step is positioned to be located between upper portions of adjacent articles at the end of the carton to provide a stabilizing spacer therebetween.

[0017] Optionally, the step may include a fold line intermediate the fold lines by which it is hinged to the one hinged panel and to the respective end closure panel, the each inwardly displaced part folding in a toggle action along the fold lines when the respective end closure panel is folded into its end retaining position.

[0018] According to an optional feature of the second aspect of the invention the user part of the handle means may be connected to a portion of the one hinged panel of the carton.

[0019] According to another optional feature of the second aspect of the invention the user part may be formed from material which is integral with the one hinged panel.

[0020] An embodiment of the invention will now be described by way of example, with reference to the following drawings in which:

FIGURE 1 is a plan view of a blank of a wrap round carton;

FIGURE 2 is a plan view of part of the carton illustrating the portion for receiving and retaining an article;

FIGURE 3a is a perspective view of the upper panels of the blank shown in Figure 1;

FIGURE 3b is a perspective view of the inner face of the upper panels of blank showing the end closure panels being formed;

FIGURE 4 illustrates the lower portion of the carton formed substantially from a blank illustrated in Figure 1; and

FIGURES 5a, b, c and d illustrate the upper portion of the carton shown in Figure 1 showing various views of the handle during its construction.

[0021] Referring to the drawings and in particular Figures 1 and 2 thereof, an article carrier is formed from a unitary blank 10 made from paper board or other suitable foldable sheet material, which can be adapted to accommodate the variety of articles, for example six bottles arranged in two rows of three bottles each. It is envisaged the carrier can be adapted to accommodate a different number of bottles according to user requirements. Turning to the carton blank 10 illustrated in Figure 1, this blank includes a first base panel 12, sloping heel panel 14, lower side panel 16, upper side panel 18, shoulder panel 20, top panel 22, second shoulder panel 24, second upper panel 26, second lower side panel 28, sloping heel panel 30, second base panel 32 hingeably connected one to the next in a longitudinal plane along fold lines 34, 36, 38, 40, 42, 44, 46, 48, 50 and 52 respectively.

[0022] For tightening the wrapper around a group of articles, tightening apertures 58 are formed in base panel 12 while a similar tightening aperture 60 are formed in second base panel 34. With the wrapper disposed about a group of articles and with the base panels 12 and 34 disposed in an overlapping relationship, machine elements enter the tightening apertures 58, 60 and move towards the other, so as to tighten the wrapper about the group of articles as is well known. After the wrapper is tightened, it is locked by means of locking tabs 62 which are driven through the apertures and defined by retaining tabs 64 respectively. The configurations of locking tabs and retaining tabs 62, 64 are well known and the locking operation is well understood.

[0023] Article support and retaining means 66 comprises a series of article engaging reinforcing flaps 68,70,72,74,76,78 struck from the respective sloping heel panels 14,30 and base panels 12;32. The article support and retaining means further comprises a series of article support panels 80,82,84;86,88,90 struck from respective lower side panels 14,28. Article support panels 80-90 and article engaging reinforcing flaps 68-78 are identical and therefore a detailed description of article support panel 80 and article engaging reinforcing flap 68 only are here included and described in greater detail by reference to Figure 2.

[0024] Thus, in this embodiment, the article engaging reinforcing flaps 68 comprises a pair of oppositely disposed flaps 92,94 foldably joined to sloping heel panel 14 along fold lines 96 and 98 respectively. Preferably, fold lines 96 and 98 are convergent in an upward direction. Flaps 92, 94 are also connected to base panel 12 along fold lines 100 and 102 respectively, being convergent towards the free end edge of base panel 12. Preferably, fold lines 96;98 and 100; 102 intersect at interrupted fold line 34. A cut line 104 separates adjacent flaps 92,94 and optionally a further pair of fold lines 106,108 extend between the intersection of fold line 34 with fold lines 100,96;102,98 respectively and cut line 104.

[0025] The lower edges of flaps 92,94 define an edge of tightening aperture 58 and the upper edge of flaps 92,94 extend into an article heel receiving aperture 110, struck from part of the sloping heel panel 14 and extending into lower side panel 16. In the embodiment illustrated in Figure 2, the article heel receiving aperture 110 is interrupted by article support panel 80 interconnecting opposed sides edges of the interrupted lower side panel 16.

[0026] The article support panel 80 comprises a series of cut lines 112, 114 being preferably arcuate. Thus, each set of cut lines 112 and 113 are spaced on either side of a notional centre line extending from points intermediate upper and lower edges 115,116 of the article support panel 80. In this embodiment, each set comprises four cut lines 112 and 114, although it is envisaged that there could be more cut lines to increase the protrusion or fewer cut lines to reduce it. Thus, articles of

varying shapes and sizes can be packaged without departing from the scope of invention, by the addition or removal of cut lines 112, 114. In use, the cut lines 112, 114 define a displaceable zone, hereinafter described.

[0027] Turning again to the construction of the blank illustrated in Figure 1, the blank further comprises a pair of opposed ends closure (or "adpanels") panels 118, 120 hingeably connected to top panel along interrupted fold lines 122 and 124 respectively, positioned along the longitudinal edges of top panel 22. The construction at each end of the top panel and end closure panels 118, 120 is similar and therefore like parts at one end of the top panel are designated by reference numerals to like parts of the opposite end with the addition of suffix 'a'. The main portion 126 of end closure panel 122 spans and constitutes one end of the top panel as hinged to an adjacent part thereof along longitudinal fold line 122.

[0028] The end closure panel 118 also includes gusset panels 128 and 130 hingeably connected together along fold line 122 and extending outwardly from upper side panel 18 and shoulder panel 20. Gusset panel 128 is connected to shoulder panel 20 along fold line 132 extending from aperture 134 to intersect with fold line 40. As shown in Figure 1, cut line 136 defines the lower edge of gusset panel 128 extending outwardly from the intersection of fold lines 40 and 132. Gusset panel 130 is connected to main portion 126 by lateral fold line 138. Gusset panel 130 can be separated from main portion 126 by a corner arrangement. By way of example, the corner arrangement comprises a series of panel portions 140, 142 which are hingeably connected together by fold lines 144, 146 and to gusset panel 130 by fold line 138 to define a substantially curved corner.

[0029] Likewise, the opposing corner of the end closure panel 118 is constructed from the end closure panel 118 also includes gusset panels 148 and 150 hingeably connected together along fold line 122 and extending outwardly from upper side panel 26 and shoulder panel 24. Gusset panel 148 is connected to shoulder panel 24 along fold line 152 extending from aperture 154 to intersect with fold line 46. As shown in Figure 1, cut line 156 defines the lower edge of gusset panel 148 extending outwardly from the intersection of fold lines 46 and 152. Gusset panel 150 is connected to main portion 126 by lateral fold line 158. Gusset panel 150 can be separated from main portion 126 by a corner arrangement. By way of example, the corner arrangement comprises a series of panel portions 160, 162 which are hingeably connected together by fold lines 164, 166 and to gusset panel 150 by fold line 158 to define a substantially curved corner.

[0030] In one class of embodiments, a stabilizing (or bottle neck spacer) flap 168 shown in Figure 1 is struck from the blank partially in the top panel 22 and partially in the main portion of end closure panel 118 so that the flap 168 is hinged to those panels about fold lines 170, 172 respectively but otherwise cut out from the blank. Flap 168, preferably comprises a tread panel 174 and

a riser panel 176, connected together along fold line 178, which panels are adapted during carton construction to define a step (or keel element).

[0031] The top panel 22 can further comprise a central user portion 180, frangibly connected to the top panel 22. In this embodiment, the central user portion 180 is substantially rectangular in shape and comprises a pair of support panels 182, 184 struck from and connected to the side edges of central user portion along fold lines 186, 188 respectively. Additionally, a handle strap 190, shown in the Figure 3a can be applied to the inner surface of the blank 10, being secured to the central user portion 180 and the opposed main portions 126, 126a of end closure panels by glue or other means known in the art. Preferably, the handle strap 190 is also glued to the tread panels 174, 174a of each step as shown in Figure 3a. It is further preferred the handle strap is formed from paper board, laminated paper board, fibrous tape or other suitable plastics material.

[0032] Turning to the construction of the carton, illustrated in Figures 3b, 4 and 5a,b,c,d, the blank requires a series of sequential folding and gluing operations which can be performed 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 limited to that described below and can be altered according to particular manufacturing requirements.

[0033] Thus, articles A are held together in two rows of three articles A and the carton blank is introduced to the articles A. In this embodiment the blank is introduced from above. The shoulder panels 20, 24 and side panels 16, 18, 26, 28 of the blank are then folded about fold lines 42 and 48 respectively such that side panels preferably taper downwardly and outwardly from top panel 24 and the end closure panels are constructed.

[0034] The end closure panels 118 and 120 are folded downwardly at each end of the sleeve formed by the wrap around folding action. At the same time, gusset panels 128, 130 and 148, 150 are folded inwardly about fold lines 132, 152 and 122 whereby gusset panels 128; 148 come into face to face relationship with shoulder panel 20 and 24 respectively. The panels are at the stage of construction shown in Figure 3b. Thereafter, the side panels 18, 26 continue to be folded such that the second gusset panels 130, 150 come into face to face contact with their respective first gusset panels 128, 148. During the aforementioned folding process the corner arrangements are also formed whereby panel portions 140, 160 are folded out of alignment with next adjacent panel portion 142, 162 to define a substantially curved corner portion, shown in Figure 3b.

[0035] Optionally, the faces of gusset flaps 128, 148 in contact with shoulder panels 20, 24 respectively may be secured together by means known in the art to hold the end closure panels in place. Additionally, or alternatively, first and second gusset panels 128, 130, 148, 150 may be secured together by glue or other means known in the art.

[0036] Each of the stabilising (or bottle neck spacer) flaps 168, 168a are formed with cut line 175, 177, 175a, 177a intermediate and substantially perpendicular to fold lines 170, 172, 170a, 172a about which flaps can fold in a toggle action to define a step 191 at each end of the top panel 22. This action can occur automatically upon folding the end closure panels which brings the flaps 191 into their operative position in which the flaps are displaced out of the plane of the top panel inwardly of the carton, as shown in Figure 3b. Optionally, cut lines 175, 177; 175a, 177 are shaped to define a shaped edge adapted to cooperate with a neck portion of an article. Once displaced the, or each, stabilizing flap 168, 168a is disposed between neck portions of adjacent end of articles within the package to assist in maintaining the articles in their correct upright positions within the package, particularly to prevent the bottles topping inwardly whereas the end closure panels prevent the bottles toppling end wise of the package.

[0037] The article support and retaining means 66 is also formed whereby the article engaging flaps 68 to 78 are folded inwardly to define receiving faces as is well known, and base panels 12 and 34 are folded out of alignment with sloping heel panels 14 and 32 and lower side panels 16 and 30 respectively and the side panels and base are brought into contact with respective articles A, such that the lower portion of articles A protrude through apertures formed from the retaining means and are held in position thereto by flaps 92, 94 of retaining means, 66, shown in Figure 4. It will be appreciated that the articles support panels 80 to 90 are also moved out of alignment with lower side panel upon engagement with a portion of the article whereby a displaceable zone 192 is formed, which displaceable zone is arranged to protrude outwardly of the plane of the side walls 16, 28 to accommodate a portion of an adjacent article. It will be seen from Figure 4, the displaceable zone 192 comprises a multiplicity of connected sections 194 each occupying a different plane to the next adjacent section. More particularly, the connected sections 194 are provided by the arcuate cut lines 112, 114 as shown in Figure 2 and 4.

[0038] Thereafter, base panels 12 and 34 are brought into overlapping relationship and connected together as hereinbefore described. Thus, the carton is in a set up and loaded condition.

[0039] The handle is formed by reference to Figures 5a and 5d. The central user portion 180 can be detached from the top panel 22 whereby at least a portion of the handle strap stands proud of the top panel, shown in Figure 5b. It will be seen from Figure 3b that the strap is so connected at the opposite ends of the end closure panels as to provide a surplus of material to enable the central user portion 180 to be brought into a position of use, shown in Figure 5c. The support panels 182, 184 are folded under the handle strap 190, such that the central user portion 180 is wrapped around the strap, the central user portion 180 provides a cushion for the strap,

shown in Figure 5c. Further, the central user portion 180 is designed for ease of use. When the carrier is in use there is a tendency for the handle strap to draw the end closure panels 126, 126a and corner arrangements 139, 159 inwardly thereby to improve the integrity of the carton and providing a self tightening effect, shown in Figure 5d.

[0040] The present invention and its preferred embodiment relate to an article carrier which is shaped to provide satisfactory strength to hold articles securely but with a degree of flexibility so that load transfer to the handle is absorbed by the carrier. The shape of the blank minimises the amount of paper board required and the carrier can be applied to an array of articles by hand or automatic machinery. It is anticipated that the invention can be applied to a variety of carrier and is not limited to the wrap around type. For example the top panel 22, side panels 20, 24 and end closure panels 118, 120 of the aforementioned carton can be applied to a top gripping carton and likewise the article retaining and support means 66 can be applied to other carton types, without departing from the scope of the inventions.

Claims

1. A carton for holding a plurality of articles which carton includes a series of hinged wall panels (12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32) forming a sleeve and end closure panels (118, 120) hinged to at least one associated hinged panel (22) for closing, at least in part, the opposite ends of a sleeve, wherein the said carton includes handle means by which the carton can be carried, said handle means comprising a strap (190) and having a user part (180) which is in substantially co-planar relationship with said one hinged panel (22) when in a stored condition **characterised in that** the strap (190) is so connected at its opposite ends to said end closure panels (118, 120) as to provide a surplus of material to enable said user part to be brought into a position of use.
2. A carton according to claim 1 wherein ends of the strap (190) remote from the user part (180) are attached to inwardly displaced parts (168, 168a) of the end closure panels (118, 120) and intermediate parts between the user part (180) and said ends which are unattached to said one hinged panel (22) and free to provide said surplus of material.
3. A carton according to claim 2 wherein said inwardly displaced parts (168, 168a) each comprise a step (191), the tread (174, 174a) of which is provided by the respective end closure panel (118, 120) and the riser (176, 176a) of which is provided by said one hinged panel (22) and wherein the step (191) is positioned to be located between upper portions of ad-

jacent articles at the end of the carton to provide a stabilizing spacer therebetween.

4. A carton according to claim 3 wherein said step (191) automatically is put into its operative position when said respective end closure panel is folded into its end retaining position.
5. A carton according to claim 4 wherein said step (191) includes a fold line (178) intermediate the fold lines (170, 172) by which it is hinged to said one hinged panel (22) and to said respective end closure panel (118, 120), said each inwardly displaced part (168, 168a) folding in a toggle action along said fold lines (170, 172, 178) when said respective end closure panel is folded into its end retaining position.
6. A carton as claimed in any of claims 3 to 5 wherein the tread (174, 174a) is shaped to engage part of an article(s) to be retained therewith.
7. A carton as claimed in claim 6 wherein the step (191) is located between upper portions of adjacent articles to provide a stabilising spacer therebetween.
8. A carton according to any of claims 1 to 7 wherein said user part (180) of said handle means is connected to a portion of said one hinged panel (22) of the carton.
9. A carton according to any of the preceding claims wherein said user part (180) is formed from material which is integral with said one hinged panel (22).
10. A blank for forming a carton for holding articles which blank includes in series hinged wall panels (12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32) for forming a sleeve and end closure panels (118, 120) hinged to at least one associated hinged panel (22), wherein the said blank includes handle means comprising a strap (190) and having a user part (180) which is in substantially co-planar relationship with said one hinged panel when in a stored condition **characterised in that** the strap (190) being so connected at its opposite ends to said end closure panels (118, 120) as to provide a surplus of material to enable said user part (180) to be brought into a position of use in a set up condition.
11. A blank according to claim 10 wherein ends of the strap (190) remote from the user part (180) are attached to inwardly displaceable parts (168, 168a) of the end closure panels (118, 120) and intermediate parts between the user part (180) and said ends are unattached to said one hinged panel (22) and free to provide said surplus of material.

12. A blank according to claim 11 wherein said inwardly displaceable parts (168, 168a) each comprise a step (191), the tread (174, 174a) of which is provided by the respective end closure panel (118, 120) and the riser (176, 176a) of which is provided by said one hinged panel (22) and wherein the step (191) is adapted to provide a stabilizing spacer in a set up carton.

13. A blank according to claim 12 wherein said step (191) includes a fold line (178) intermediate the fold lines (170, 172) by which it is hinged to said one hinged panel (22) and to said respective end closure panel (118, 120), said each inwardly displaceable part (168, 168a) is adapted to fold in a toggle action along said fold lines (170, 172, 178) when said respective end closure panel is folded into its end retaining position.

14. A blank according to any of claims 10 to 13 wherein said user part (180) of said handle means is connected to a portion of said one hinged panel (22) of the blank.

15. A blank according to any of claims 10 to 14 wherein said user part (180) is formed from material which is integral with said one hinged panel (22).

16. A package comprising a carton as claimed in any of claims 1 to 9 and a plurality of articles arranged in an array.

Patentansprüche

1. Schachtel zum Halten einer Vielzahl von Gegenständen, wobei die Schachtel eine Reihe von gelenkig miteinander verbundenen Wandflächen (12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32) einschließt, die eine Röhre ausbilden, sowie Endverschlusswandflächen (118, 120), die mit wenigstens einer dazugehörigen, gelenkig angebrachten Wandfläche (22) zum wenigstens teilweisen Verschließen der gegenüberliegenden Enden einer Röhre gelenkig verbunden sind, wobei die Schachtel Griffmittel einschließt, mittels welcher die Schachtel getragen werden kann, wobei die Griffmittel einen Trageriemen (190) umfassen und einen Benutzerteil (180) aufweisen, der in einer im Wesentlichen co-planaren Beziehung mit der einen gelenkig angebrachten Wandfläche (22) steht, wenn sich dieser im verstauten Zustand befindet, **dadurch gekennzeichnet, dass** der Trageriemen (190) so an seinen gegenüberliegenden Enden mit den Endverschlusswandflächen (118, 120) verbunden ist, einen Überschuss an Material bereitzustellen, um dem Benutzerteil zu ermöglichen, in eine Gebrauchsposition gebracht zu werden.

2. Schachtel gemäß Anspruch 1, wobei die von dem Benutzerteil (180) entfernten Enden des Trageriemens (190) an inwärts verschobenen Teilen (168, 168a) der Endverschlusswandflächen (118, 120) und zwischen dem Benutzerteil (180) und den Enden liegenden Teilen angebracht sind, wobei die Enden nicht an die eine gelenkig angebrachte Wandfläche (22) angebracht sind und die Freiheit besitzen, den Überschuss an Material bereitzustellen. 5
3. Schachtel gemäß Anspruch 2, wobei die inwärts verschobenen Teile (168, 168a) jeweils eine Stufe (191) umfassen, deren Tritt (174, 174a) von der jeweiligen Endverschlusswandfläche (118, 120) und deren Stich (176, 176a) von der einen gelenkig angebrachten Wandfläche (22) bereitgestellt ist und wobei die Stufe (191) positioniert ist, zwischen oberen Abschnitten von benachbarten Gegenständen am Ende der Schachtel angeordnet zu werden, um dazwischen ein stabilisierendes Abstandsstück bereitzustellen. 10
4. Schachtel gemäß Anspruch 3, wobei die Stufe (191) automatisch in ihre operative Position gebracht wird, wenn die jeweilige Endverschlusswandfläche in ihre Endrückhalteposition gefaltet ist. 15
5. Schachtel gemäß Anspruch 4, wobei die Stufe (191) eine Faltlinie (178) zwischen den Faltlinien (170, 172) einschließt, durch welche sie an die eine gelenkig angebrachte Wandfläche (22) und an die jeweilige Endverschlusswandfläche (118, 120) gelenkig angebracht ist, wobei jeder inwärts verschobene Teil (168, 168a) entlang der Faltlinien (170, 172, 178) in einem Schließmechanismus faltet, wenn die jeweilige Endverschlusswandfläche in ihre Endrückhalteposition gefaltet ist. 20
6. Schachtel gemäß einem der Ansprüche 3 bis 5, wobei die Stufe (174, 174a) geformt ist, einen Teil eines Gegenstands/von Gegenständen in Eingriff zu nehmen, der/die damit zurückgehalten werden soll(en). 25
7. Schachtel gemäß Anspruch 6, wobei die Stufe (191) zwischen oberen Abschnitten von benachbarten Gegenständen angeordnet ist, um dazwischen ein stabilisierendes Abstandsstück bereitzustellen. 30
8. Schachtel gemäß einem der vorstehenden Ansprüche, wobei der Benutzerteil (180) der Griffmittel mit einem Abschnitt der einen gelenkig angebrachten Wandfläche der Schachtel verbunden ist. 35
9. Schachtel gemäß einem der vorstehenden Ansprüche, wobei der Benutzerteil (180) aus Material ausgebildet ist, welches aus einem Stück mit der einen gelenkig angebrachten Wandfläche (22) besteht. 40
10. Zuschnitt zum Ausbilden einer Schachtel zum Halten von Gegenständen, wobei der Zuschnitt in Reihe gelenkig miteinander verbundene Wandflächen (12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32) zum Ausbilden einer Röhre einschließt, sowie Endverschlusswandflächen (118, 120), die gelenkig mit wenigstens einer dazugehörigen, gelenkig angebrachten Wandfläche (22) verbunden sind, wobei der Zuschnitt Griffmittel einschließt, die einen Trageriemen (190) umfassen und einen Benutzerteil (180) aufweisen, welcher in im Wesentlichen coplanarer Beziehung mit der einen gelenkig angebrachten Wandfläche steht, wenn er verstaut ist, **dadurch gekennzeichnet, dass** der Trageriemen (190) so an seinen gegenüberliegenden Enden mit den Endverschlusswandflächen (118, 120) verbunden ist, einen Überschuss an Material bereitzustellen, um dem Benutzerteil (180) zu ermöglichen, in eine Gebrauchsposition in einem aufgerichteten Zustand gebracht zu werden. 45
11. Zuschnitt gemäß Anspruch 10, wobei die von dem Benutzerteil (180) entfernten Enden des Trageriemens (190) an inwärts verschiebbare Teile (168, 168a) der Endverschlusswandflächen (118, 120) angebracht sind, sowie an zwischen dem Benutzerteil (180) liegenden Teilen und wobei die Enden nicht an die eine gelenkig angebrachte Wandfläche (22) angebracht sind und frei sind, einen Überschuss an Material bereitzustellen. 50
12. Zuschnitt gemäß Anspruch 11, wobei die inwärts verschiebbaren Teile (168, 168a) jeweils eine Stufe (191) umfassen, deren Schritt (174, 174a) von der jeweiligen Endverschlusswandfläche (118, 120) und deren Stich (176, 176a) von der einen gelenkig angebrachten Wandfläche (22) bereitgestellt ist und wobei die Stufe (191) angepasst ist, ein stabilisierendes Abstandsstück in einer aufgerichteten Schachtel bereitzustellen. 55
13. Zuschnitt gemäß Anspruch 12, wobei die Stufe (191) eine Faltlinie (178) zwischen den Faltlinien (170, 172) einschließt, mittels derer sie an die eine gelenkig angebrachte Wandfläche (22) sowie die jeweilige Endverschlusswandfläche (118, 120) gelenkig angebracht ist, wobei jeder inwärts verschiebbare Teil (168, 168a) angepasst ist, in einem Verschlussmechanismus entlang der Faltlinien (170, 172, 178) zu falten, wenn die jeweilige Endverschlusswandfläche in ihre Endrückhalteposition gefaltet ist.
14. Zuschnitt gemäß einem der Ansprüche 10 bis 13, wobei der Benutzerteil (180) der Griffmittel mit einem Abschnitt der einen gelenkig angebrachten

Wandfläche (22) des Zuschnitts verbunden ist.

15. Zuschnitt gemäß einem der Ansprüche 10 bis 14, wobei der Benutzerteil (180) aus Material ausgebildet ist, welches aus einem Stück mit der einen gelenkig angebrachten Wandfläche (22) besteht.
16. Verpackung, umfassend eine Schachtel gemäß einem der Ansprüche 1 bis 9 und einer Vielzahl von in einem Rechteck angeordneten Gegenständen.

Revendications

1. Carton destiné à maintenir une pluralité d'articles, ledit carton comprenant une série de panneaux de paroi rabattables (12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32) formant un manchon et des panneaux de fermeture d'extrémité (118, 120) reliés à au moins un panneau rabattable associé unique (22) pour fermer, au moins partiellement, les extrémités opposées d'un manchon, ledit carton comprenant des moyens formant poignée par lesquels le carton peut être transporté, lesdits moyens formant poignée comprenant une sangle (190) et ayant une partie utilisateur (180) qui est sensiblement dans le même plan que ledit panneau rabattable unique (22) lors du stockage, **caractérisé en ce que** la sangle (190) est reliée à ses extrémités opposées auxdits panneaux de fermeture d'extrémité (118, 120) de manière à fournir un surplus de matériau pour permettre à ladite partie utilisateur d'être amenée en position d'utilisation.
2. Carton suivant la revendication 1, dans lequel les extrémités de la sangle (190) éloignées de la partie utilisateur (180) sont fixées à des parties déplacées vers l'intérieur (168, 168a) des panneaux de fermeture d'extrémité (118, 120) et des parties intermédiaires entre la partie utilisateur (180) et lesdites extrémités qui ne sont pas fixées audit panneau rabattable unique (22) et libres de fournir ledit surplus de matériau.
3. Carton selon la revendication 2, dans lequel lesdites pièces déplacées vers l'intérieur (168, 168a) comprennent chacune un gradin (181), dont la marche (174, 174a) est fournie par le panneau de fermeture d'extrémité respectif (118, 120) et dont la contremarche (116, 176a) est fournie par ledit panneau rabattable unique (22) et dans lequel la marche (191) est positionnée pour être située entre les parties supérieures d'articles adjacents à l'extrémité du carton pour fournir entre eux une pièce d'espacement stabilisatrice.
4. Carton selon la revendication 3, dans lequel ledit gradin (191) est mis automatiquement en position

opérationnelle lorsque ledit panneau de fermeture d'extrémité respectif est plié dans sa position de retenue d'extrémité.

5. Carton suivant la revendication 4, dans lequel ledit gradin (191) comprend une ligne de pliage (178) intermédiaire entre les lignes de pliage (170, 172) par lesquelles il est relié audit panneau rabattable unique (22) et audit panneau de fermeture d'extrémité respectif (118, 120), chaque dite partie déplacée vers l'intérieur (168, 168a) se pliant en basculant le long desdites lignes de pliage (170, 172, 178) lorsque ledit panneau de fermeture d'extrémité respectif est plié dans sa position de retenue d'extrémité.
6. Carton selon l'une quelconque des revendications 3 à 5, dans lequel la marche (174, 174a) a une forme qui lui permet de se mettre en prise avec une partie d'un ou des articles à retenir grâce à celle-ci.
7. Carton selon la revendication 6, dans lequel le gradin (191) est situé entre des parties supérieures d'articles adjacents pour fournir une pièce d'espacement stabilisatrice entre eux.
8. Carton selon l'une quelconque des revendications 1 à 7, dans lequel ladite partie utilisateur (180) desdits moyens formant poignée est reliée à une partie dudit panneau rabattable unique (22) du carton.
9. Carton selon l'une quelconque des revendications précédentes, dans lequel ladite partie utilisateur (180) est formée d'un matériau qui est intégral avec ledit panneau rabattable unique (22).
10. Flan destiné à former un carton pour maintenir des articles, lequel flan comprend des panneaux de paroi rabattables en série (12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32) pour former un manchon et des panneaux de fermeture d'extrémité (118, 120) reliés à au moins un panneau rabattable associé unique (22), ledit flan comprenant des moyens formant poignée comprenant une sangle (190) et ayant une partie utilisateur (180) qui est sensiblement dans le même plan que ledit panneau rabattable lors du stockage, **caractérisé en ce que** la sangle (190) est reliée à ses extrémités opposées auxdits panneaux de fermeture d'extrémité (118, 120) de manière à fournir un surplus de matériau pour permettre à ladite partie utilisateur (180) d'être amenée en position d'utilisation à l'état monté.
11. Flan selon la revendication 10, dans lequel les extrémités de la sangle (190) éloignées de la partie utilisateur (180) sont fixées à des parties déplaçables vers l'intérieur (168, 168a) des panneaux de fermeture d'extrémité (118, 120) et des parties intermédiaires entre la partie utilisateur (180) et les-

dites extrémités ne sont pas fixées audit panneau rabattable unique (22) et libres de fournir ledit surplus de matériau.

12. Flan selon la revendication 11, dans lequel lesdites parties déplaçables vers l'intérieur (168, 168a) comprennent chacune un gradin (191) dont la marche (174, 174a) est fournie par le panneau de fermeture d'extrémité respectif (118, 120) et la contremarche (176, 176a) est fournie par ledit panneau rabattable unique (22) et dans lequel le gradin (191) est apte à fournir une pièce d'espacement stabilisatrice dans un carton monté. 5
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13. Flan selon la revendication 12, dans lequel ledit gradin (191) comprend une ligne de pliage (178) intermédiaire entre les lignes de pliage (170, 172) par laquelle elle est reliée audit panneau rabattable unique (22) et audit panneau de fermeture d'extrémité respectif (118, 120), chaque dite partie déplaçable vers l'intérieur (168, 168a) est apte à se plier en basculant le long desdites lignes de pliage (170, 172, 178) lorsque ledit panneau de fermeture d'extrémité respectif est plié dans sa position de retenue d'extrémité. 15
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14. Flan selon l'une quelconque des revendications 10 à 13, dans lequel ladite partie utilisateur (180) desdits moyens formant poignée est reliée à une partie dudit panneau rabattable unique (22) du flan. 30
15. Flan selon l'une quelconque des revendications 10 à 14, dans lequel ladite partie utilisateur (180) est formée d'un matériau qui est intégral avec ledit panneau rabattable unique (22). 35
16. Emballage comprenant un carton selon l'une quelconque des revendications 1 à 9 et une pluralité d'articles disposés en rangée. 40

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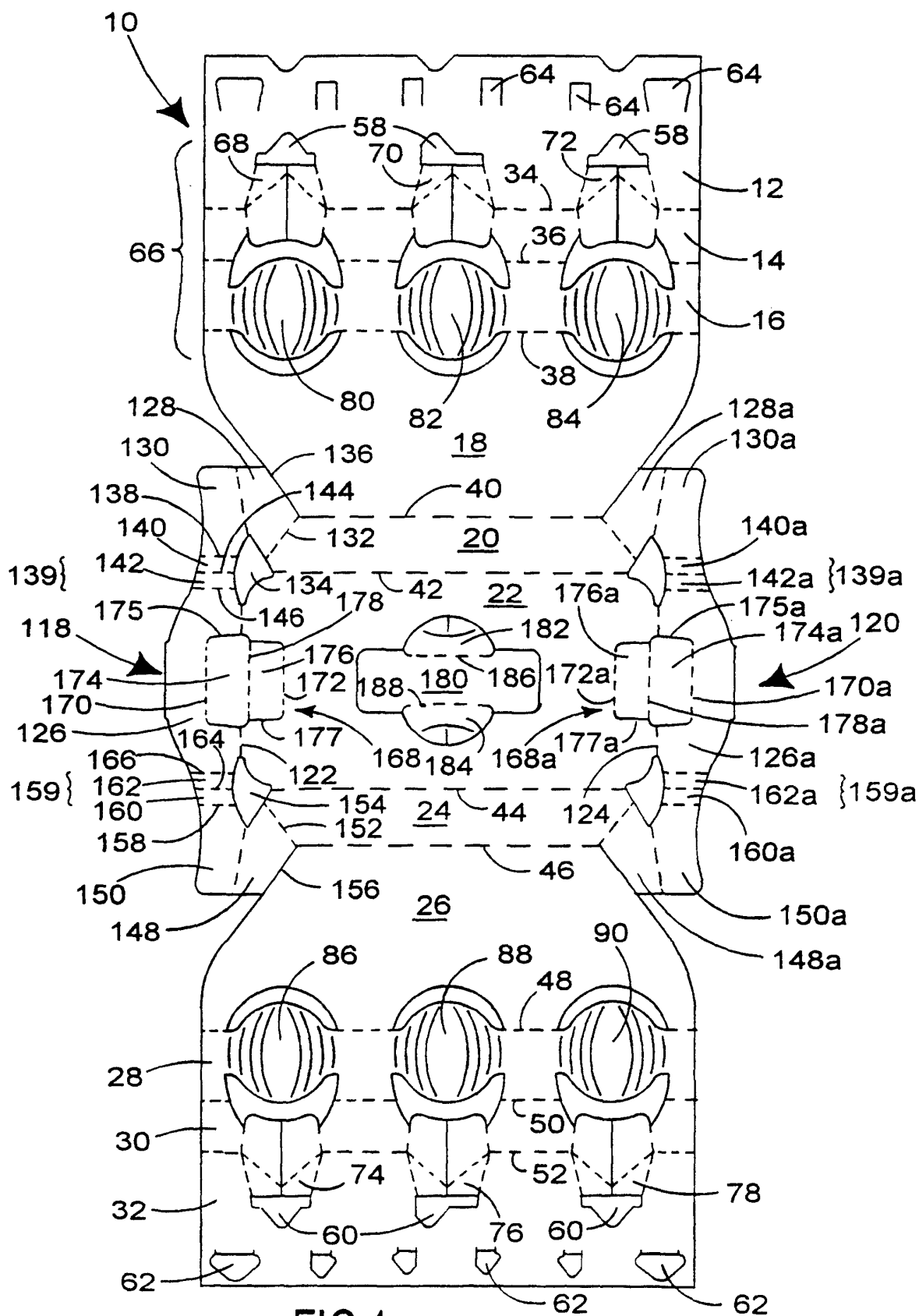


FIG. 1

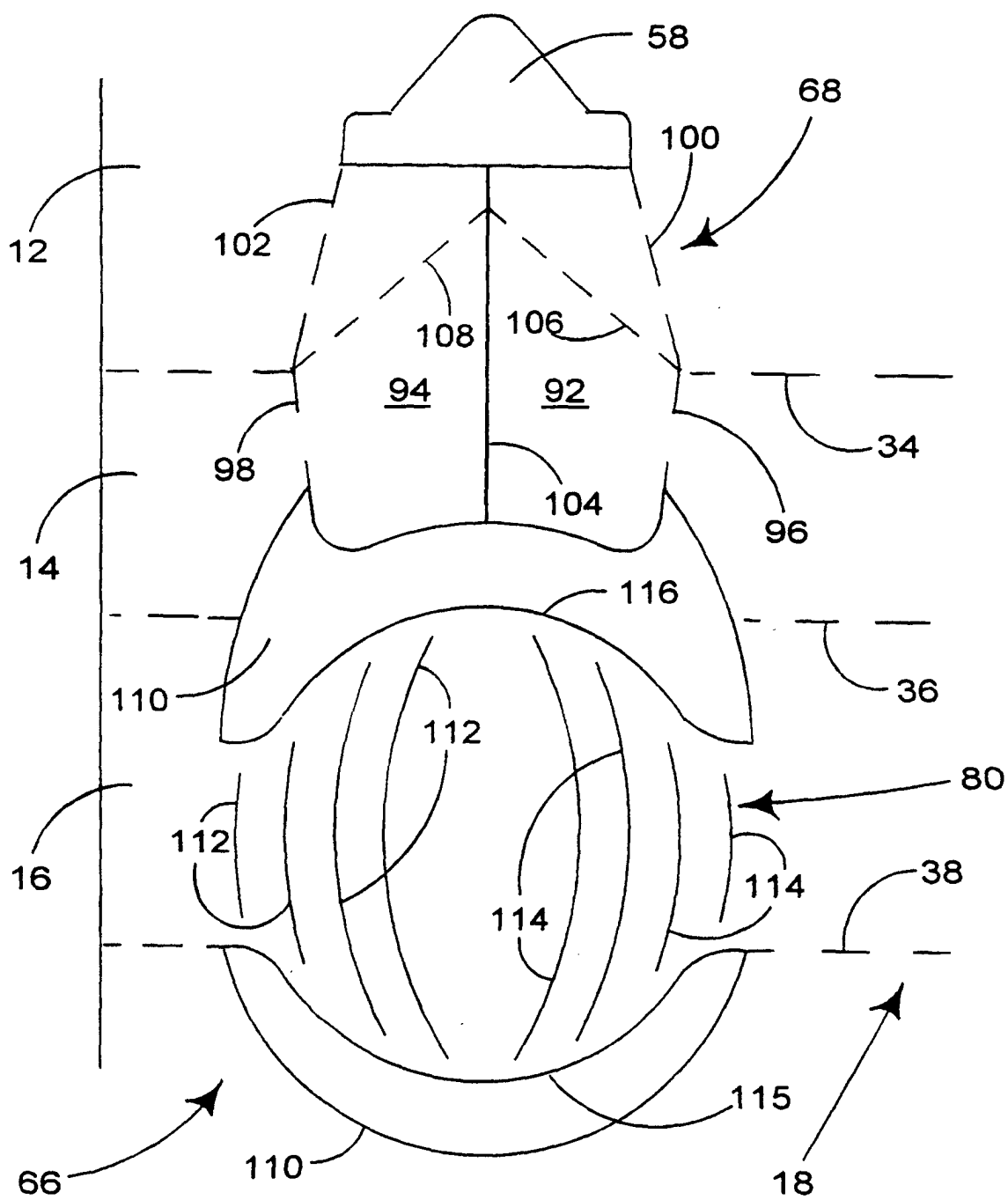
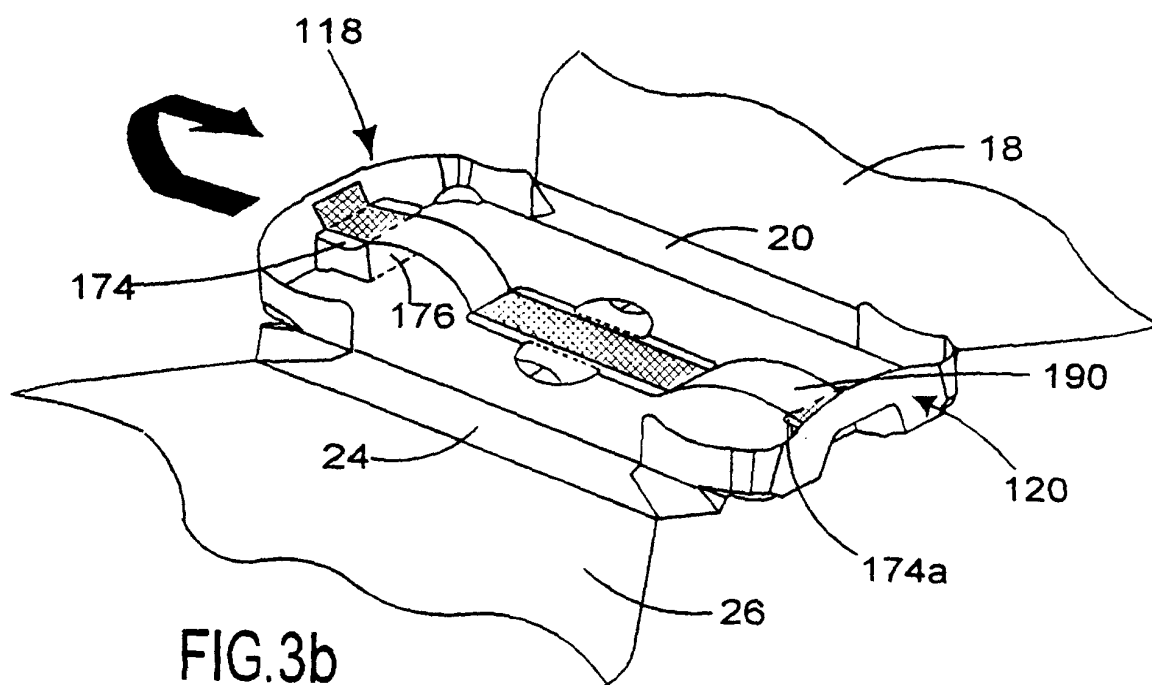
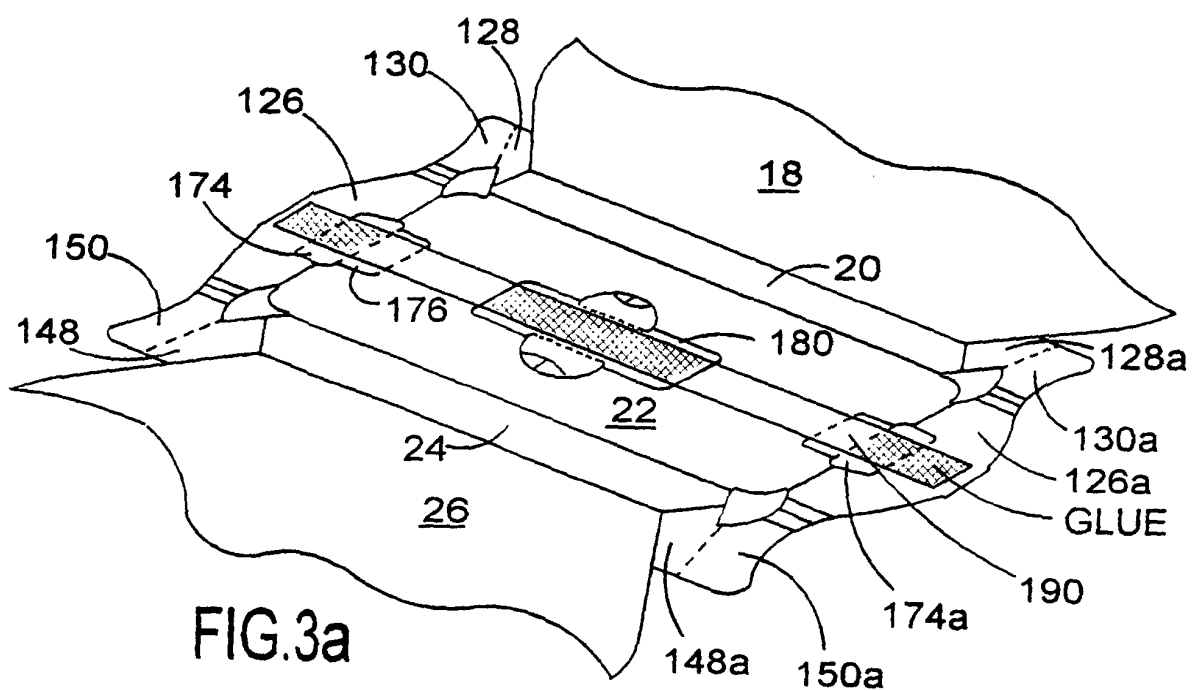


FIG.2



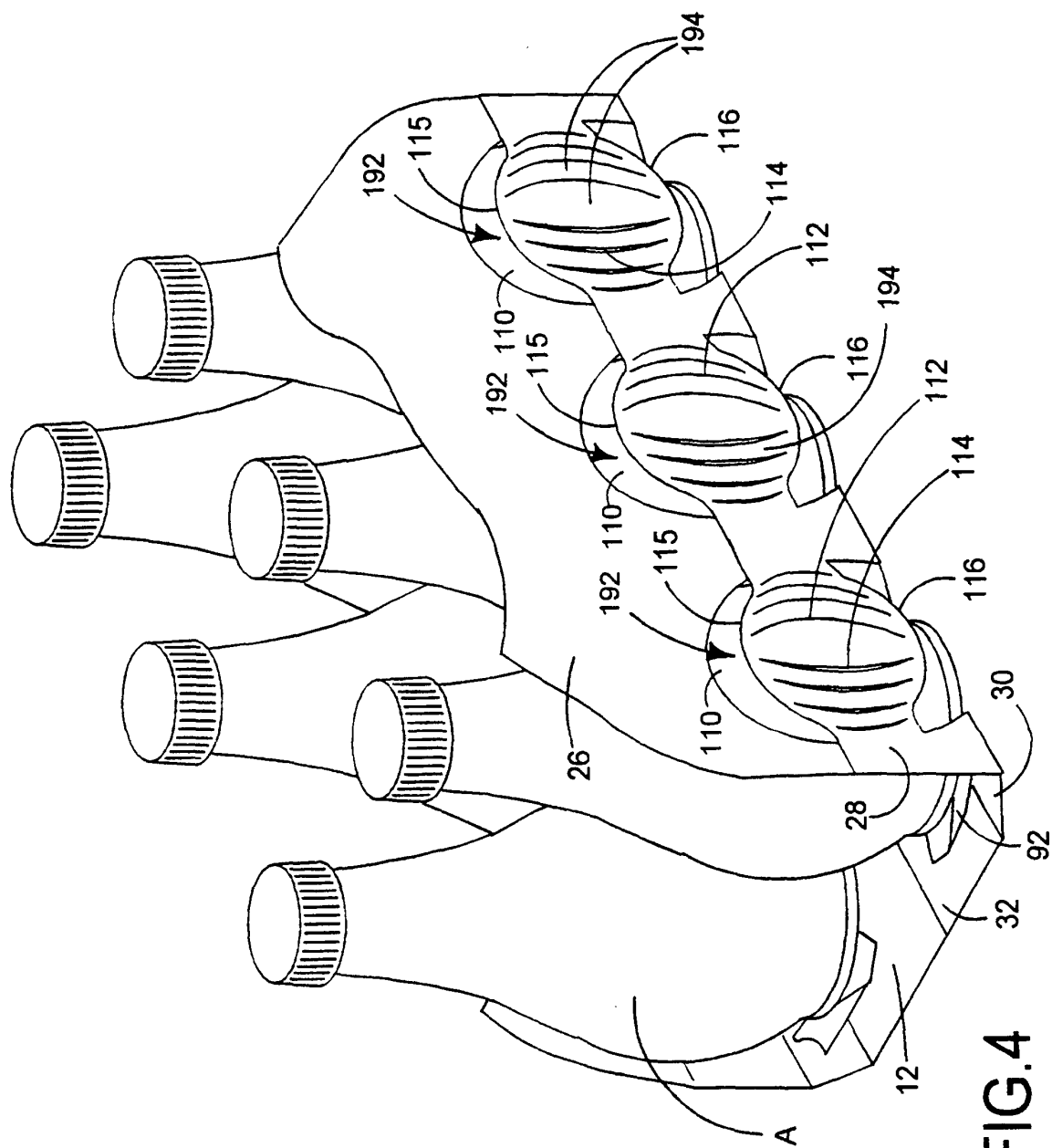


FIG. 4

