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(54) Secondary package

(57) The invention relates to a secondary package (1) for gathering a plurality of primary packages (2), comprising a flat base (3) supporting said packages, and an envelope (4) that surrounds the base (3) and holds the packages (2) together.

Said base (3) comprises a medium folding line (5) that pivotally connects two halves (3a,3b) of the base supporting the packages (2), and comprises a handle (6)

disposed vertically between the base halves (3a,3b), along the folding line (5), and said envelope (4) comprises a transversal precut (7) in the region of the folding line, along the lateral sides (8) and the top side (9) of the secondary package, so that when the envelope (4) is opened along said precut (7), it still holds tightly the packages (2), and the base halves can be pivoted around the medium folding line (5) to allow access to the handle (6).

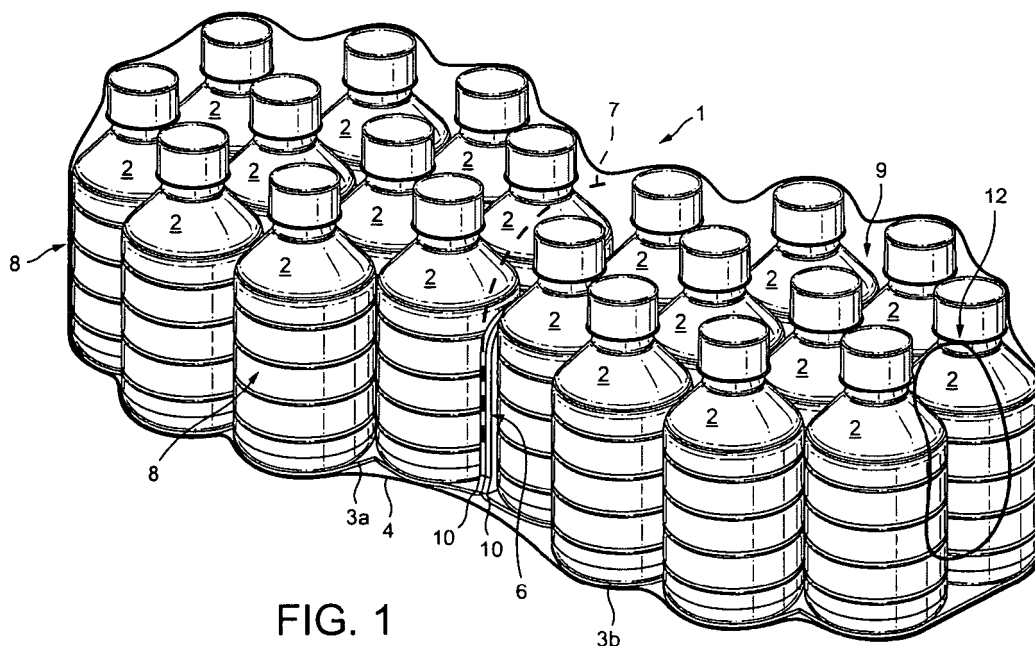


FIG. 1

Description

[0001] The present invention relates to a package, preferably a film package, for gathering a plurality of primary containers, such as bottles, that comprises an integrated handle.

[0002] In the field of gathering packages, the prior art shows packages to group a plurality of primary containers such as for example water bottles, or metal cans. These known packages are typically made out of a shrinkable film that is rolled around the set of bottles and heat-treated so as to shrink around the bottles to tightly hold them together. Once gathered, the primary packages, for example the bottles, form a pack.

[0003] In the following description, it will be considered for the sake of clarity that the gathering package is made out of a shrinkable film, and the primary packages are plastic bottles. However, this limitation should not be considered as restricting the scope of the invention. Other types of materials than shrinkable plastic film may also be used for the gathering package, and other types of primary packages than plastic bottles may be gathered.

[0004] The interest of such film gathering packages has been known for long, and is a consumer must to facilitate handling and transportation of a set of primary containers.

[0005] Some of the known film gathering packages comprise a handle that is glued onto the outer surface of the film by means of adhesive tape for example.

[0006] These known film gathering packages show good reliability for consumers because they provide good gathering of the primary containers - for example bottles of mineral water — and the handle facilitates handling.

[0007] However, when a consumer is being shopping and wishes to transport the pack of bottles into a shopping trolley, it is necessary to place the pack into the trolley. However, such a pack is usually quite bulky and a lot of space into the trolley is lost for filling with other products.

[0008] Therefore, a need exists for a package for gathering a plurality of primary packages, that is easy to handle and that can be arranged in a shopping trolley in such a way that a maximum of space remains available into said trolley.

[0009] The present invention addresses the problems set out above with a secondary package for gathering a plurality of primary packages, comprising a horizontal flat base for supporting at least some of said plurality of primary packages, and an envelope that surrounds the base and the plurality of primary packages so as to tightly hold the latter together.

[0010] According to the invention, the secondary package is characterized in that:

- (i) said base comprises a medium folding line that pivotally connects two halves of the base supporting the primary packages, and further comprises a carrying handle that is disposed vertically between the base halves, along the medium folding line, and

- (ii) said envelope comprises a transversal precut in the region of the folding line, at least along the lateral sides and the top side of the secondary package, so that when the envelope is open along said precut, it still holds tightly the primary packages disposed on each of the two base halves, and said halves can be pivoted around the medium folding line to allow access to the carrying handle.

[0011] As can be understood from the above, the secondary package according to the present invention is particularly advantageous as it allows several types of uses, as explained in detail in the following detailed description of one particular example of the present invention.

[0012] In a highly preferred embodiment of the present invention, the base is made out of a single die cut that comprises two secondary folding lines each disposed in one half of the base, said secondary folding lines being parallel and equidistant from the medium folding line of the base, two holes being symmetrically disposed between the medium and secondary folding lines, said handle being formed by folding the die cut along the medium and secondary folding lines. Preferably in this embodiment, the two portions of the base forming the handle are glued together.

[0013] According to this preferred embodiment, the vertical handle that is disposed between the base halves that support the primary packages, is made in one piece and is integral with the rest of the base. This manufacturing solution is particularly cost-effective and simple to assemble in the factory.

[0014] Also, in a highly preferred embodiment of the present invention, the shape of the flat base corresponds to the contours of the envelope, the width of the base in the region of the medium folding line, being inferior to the maximum width of each half of said base.

[0015] In this case, the flat base is prevented from slipping out of the rest of the secondary package when the precut has been used to open the envelope in two halves and the secondary package is in the open configuration.

[0016] Alternatively, said handle could be made out of a strip that is fixed along the medium folding line of the base.

[0017] In one embodiment of the present invention, both halves of the base are symmetrical along the medium folding line.

[0018] Furthermore, the envelope of the secondary package is preferably made out of a thermoshrinkable film, and/or said base is preferably made out of a corrugated plastic board. However, another material could be used, such as a reinforced cardboard sheet, so that it is especially resistant to traction forces, and also humidity proof.

[0019] In a preferred embodiment, the horizontal flat base is rigid.

[0020] In one preferred embodiment of the invention, the primary packages are water-containing plastic bottles.

[0021] Additional features and advantages of the present invention are described in, and will be apparent from, the description of the presently preferred embodiments which are set out below with reference to the drawings in which:

Figure 1 is a perspective top view of a secondary package according to the invention ;
 Figure 2 is a side view of a secondary package according to the invention ;
 Figure 3 is a top view of a secondary package according to the invention ;
 Figure 4 is a bottom view of a secondary package according to the invention ;
 Figure 5 is a perspective top view of a secondary package according to the invention in a partially unfolded state ;
 Figure 6 is a perspective top view of a secondary package according to the invention in a completely unfolded state and accessible carrying handle ;
 Figure 7 is a side view similar to figure 6 ;
 Figure 8 is a top view of the base of a secondary package according to the invention ;
 Figure 9 is a schematic top view of a plurality of secondary packages of the invention, disposed adjacent to one another in a pallet layer.

[0022] The secondary package 1 according to the invention, as shown in Figure 1, is meant for gathering a plurality of primary packages 2. In the particular embodiment as described hereafter in detail, the primary packages are water containing plastic bottles 2.

[0023] The secondary package 1 comprises a horizontal rigid flat base 3 made out of corrugated plastic board, for supporting said water bottles 2. The secondary package 1 further comprises an envelope 4 that surrounds the base 3. The envelope 4 is heat shrinkable thermoplastic envelope tightly holds the bottles 2 together.

[0024] According to the invention, the secondary package 1 is characterized in that:

- (i) the base 3 comprises a medium folding line 5 that pivotally connects two halves 3a, 3b of the base supporting the primary packages 2 - both halves of the base being symmetrically disposed across the folding line 5 -, and said base 3 further comprises a carrying handle 6 that is disposed vertically between the base halves 3a, 3b, along the medium folding line 5, and
- (ii) the envelope 4 comprises a transversal precut 7 in the region of the medium folding line 5, along the lateral sides 8 and the top side 9 of the secondary package 1, so that when the envelope 4 is open along said precut 7, it still holds tightly the primary packages 2 disposed on each of the two base halves 3a, 3b, and said halves 3a, 3b can be pivoted around the medium folding line 5 to allow access to the carrying handle 6, as shown in figures 5 and 6.

[0025] As can be understood from the above, the secondary package 1 according to the present invention is particularly advantageous as it allows at least three different types of configurations and uses.

[0026] Firstly, as shown in figures 1 to 4, when the envelope 4 is not open along the precut line 7, the two halves 3a, 3b of the base 3 are in the same plane, and the carrying handle 6 does not protrude from said envelope 4. In this configuration, the profile of the secondary package 1 is generally parallelepipedic and allows for piling several layers of such packages 1 in a pallet for storing and transportation (not represented in the drawings).

[0027] Secondly, when a consumer takes the secondary package in a store, the envelope 4 can be open along the precut 7 as shown in figure 5, and the two halves 3a, 3b of the base can be pivoted around the medium folding line 5 - that is used as a hinge - in order to reveal the carrying handle 6 that becomes accessible to a user. At that time, it is very easy to carry the whole secondary package 1 using the handle 6, and the envelope 4 still holds the water bottles 2 disposed on each half 3a, 3b of the base.

[0028] In that case, as can be seen in figures 4, 6 and 8, the shape of the flat base 3 corresponds to the contours of the envelope 4, and the width W of the base 3 in the region of the medium folding line 5 is inferior to the maximum width W_{max} of each half 3a, 3b of said base. Therefore, it is impossible for the base 3 to slip outside of the envelope 4 when the latter is open along the precut as shown in figure 6.

[0029] Also in that case, as shown in figure 8, the base 3 is made out of a single die cut that comprises two secondary folding lines 10 each disposed in one half 3a, 3b of the base. These folding lines 10 are parallel and equidistant from the medium folding line 5 of the base 3. Furthermore, two holes 11 are symmetrically disposed between the medium 5 and secondary 10 folding lines, and said handle is formed by folding the die cut of the base 3 along the medium 5 and secondary 10 folding lines. The vertical handle 6 that is disposed between the base halves 3a, 3b that support the primary packages 2, is made in one piece and is integral with the rest of the base 3 as can be seen in figure 8.

[0030] Thirdly, when a consumer wishes to place the purchased package 1 of water bottles 2 in a trolley (not shown in the drawings), it is easy to place said secondary package 1 astride a side wall of the trolley, such that: one half of the secondary package is disposed inside the trolley, and the other half of the secondary package hangs outside the trolley, so as to save space in the trolley for other purchases.

[0031] As can be seen in figures 1 to 4, the envelope 4 of the secondary package 1 is made out of a thermoshrinkable film. Consequently, the envelope 4 does not cover the entire surface of the water bottles 2 held inside, and windows 12 in the envelope 4 are disposed at each extremity of the secondary package 1, as can be

seen particularly in figure 1.

[0032] As can be seen in figure 9, the disposition of the water bottles 2 on the base 3, and the fact that the contours of said base 3 is adapted to the disposition of the water bottles, makes it convenient to place several secondary packages of the invention, such that adjacent secondary packages are interlocked. This allows for building compact and strong layers of secondary packages in a pallet.

[0033] It should be understood that various changes and modifications to the presently preferred embodiments described herein will be apparent to those skilled in the art. Such changes and modifications can be made without departing from the spirit and scope of the present invention and without diminishing its attendant advantages. It is therefore intended that such changes and modifications be covered by the appended claims.

Claims

1. A secondary package (1) for gathering a plurality of primary packages (2), comprising a horizontal flat base (3) for supporting at least some of said plurality of primary packages, and an envelope (4) that surrounds the base (3) and the plurality of primary packages (2) so as to tightly hold the latter together, **characterized in that** :

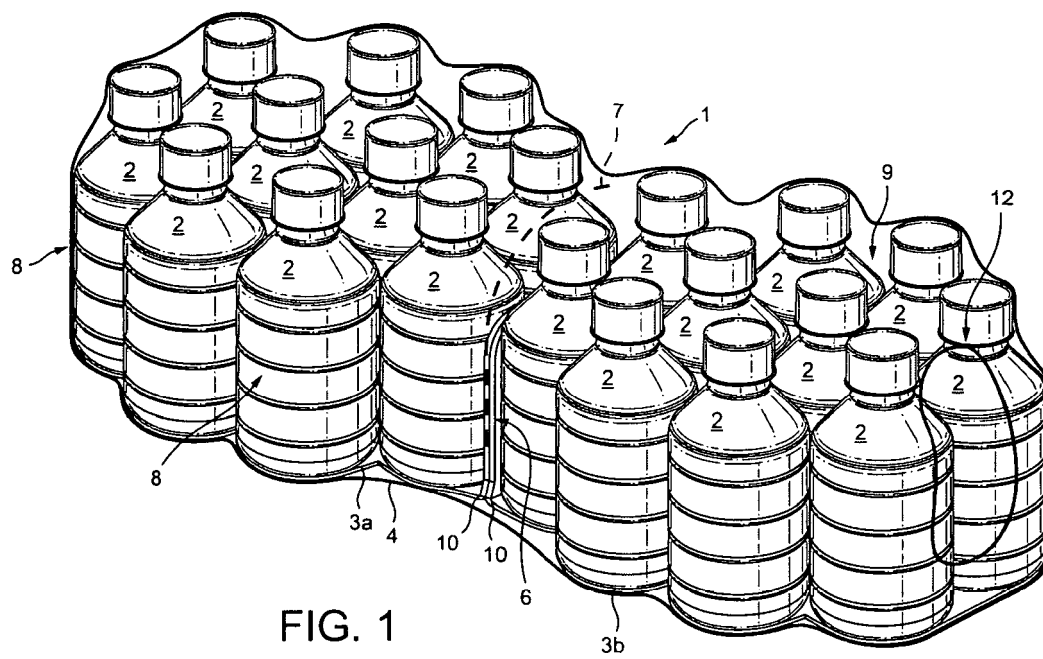
(i) said base (3) comprises a medium folding line (5) that pivotally connects two halves (3a, 3b) of the base supporting the primary packages (2), and further comprises a carrying handle (6) that is disposed vertically between the base halves (3a, 3b), along the medium folding line (5), and (ii) said envelope (4) comprises a transversal precut (7) in the region of the medium folding line, at least along the lateral sides (8) and the top side (9) of the secondary package (1), so that when the envelope (4) is open along said precut (7), it still holds tightly the primary packages (2) disposed on each of the two base halves (3a, 3b), and said halves can be pivoted around the medium folding line (5) to allow access to the carrying handle (6).

2. A secondary package (1) according to claim 1, wherein the base (3) is made out of a single die cut that comprises two secondary folding lines (10) each disposed in one half (3a, 3b) of the base, said secondary folding lines (10) being parallel and equidistant from the medium folding line (5) of the base, two holes (11) being symmetrically disposed between the medium (5) and secondary (10) folding lines, said handle (6) being formed by folding the die cut along the medium and secondary folding lines.

3. A secondary package according to claim 2, wherein

the two portions of the base forming the handle are glued together.

4. A secondary package (1) according to any of the preceding claims, wherein the shape of the flat base (3) corresponds to the contours of the envelope (4), the width W of said base (3) in the region of the medium folding line (5) being inferior to the maximum width W_{max} of each half (3a, 3b) of said base.
5. A secondary package (1) according to claim 1, wherein said handle (6) is a strip that is fixed along the medium folding line (5) of the base (3).
6. A secondary package (1) according to any of the preceding claims, wherein both halves (3a, 3b) of the base are symmetrical along the medium folding line (5).
7. A secondary package (1) according to any of the preceding claims, wherein said envelope (4) is made out of a thermoshrinkable film.
8. A secondary package (1) according to any of the preceding claims, wherein said base (3) is made out of a corrugated plastic board.
9. A secondary package (1) according to any of the preceding claims, wherein the horizontal flat base is rigid.
10. A secondary package (1) according to any of the preceding claims, wherein the primary packages (2) are water-containing plastic bottles.



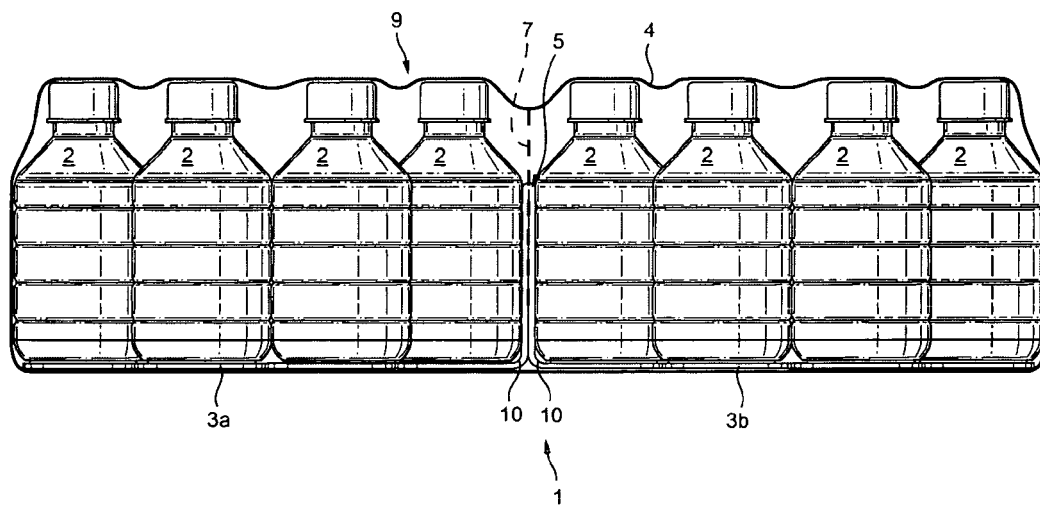


FIG. 2

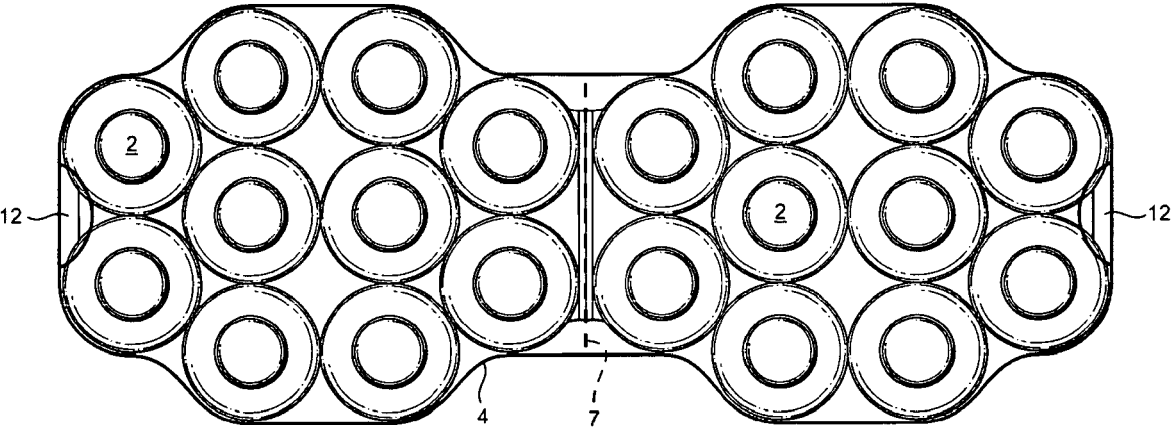


FIG. 3

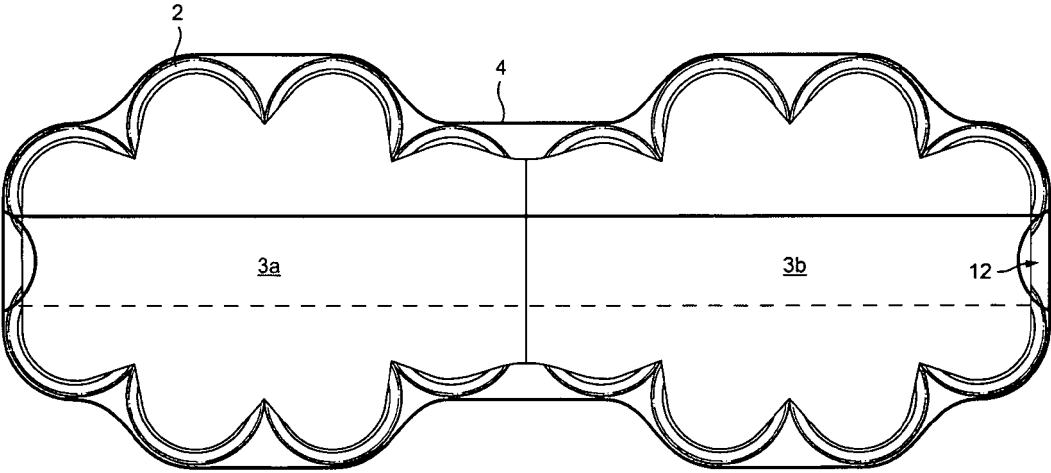


FIG. 4

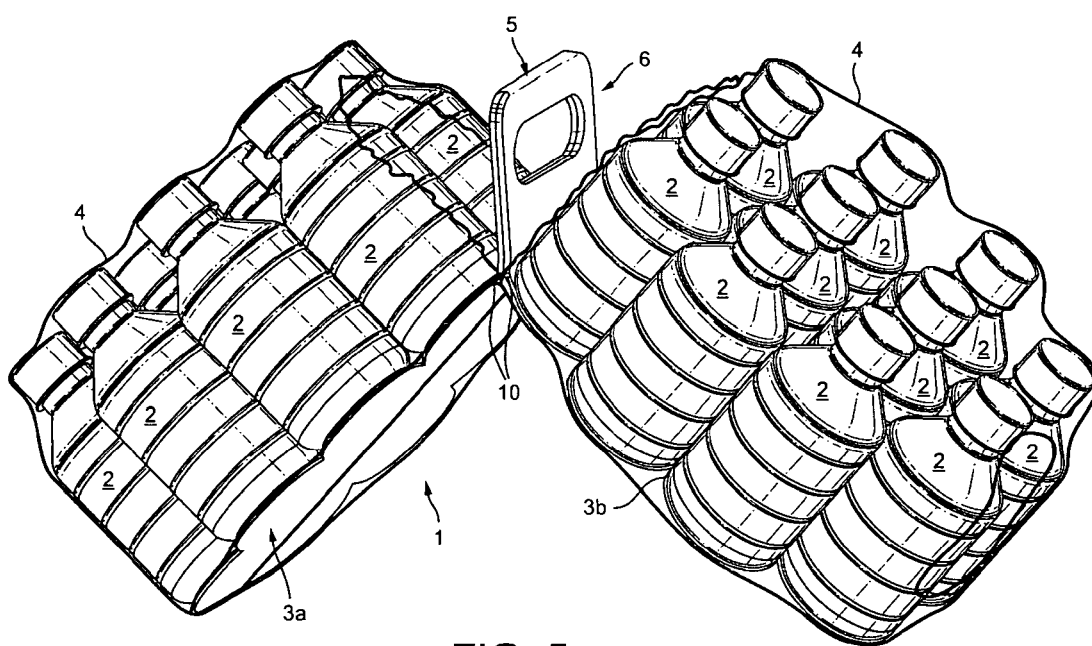


FIG. 5

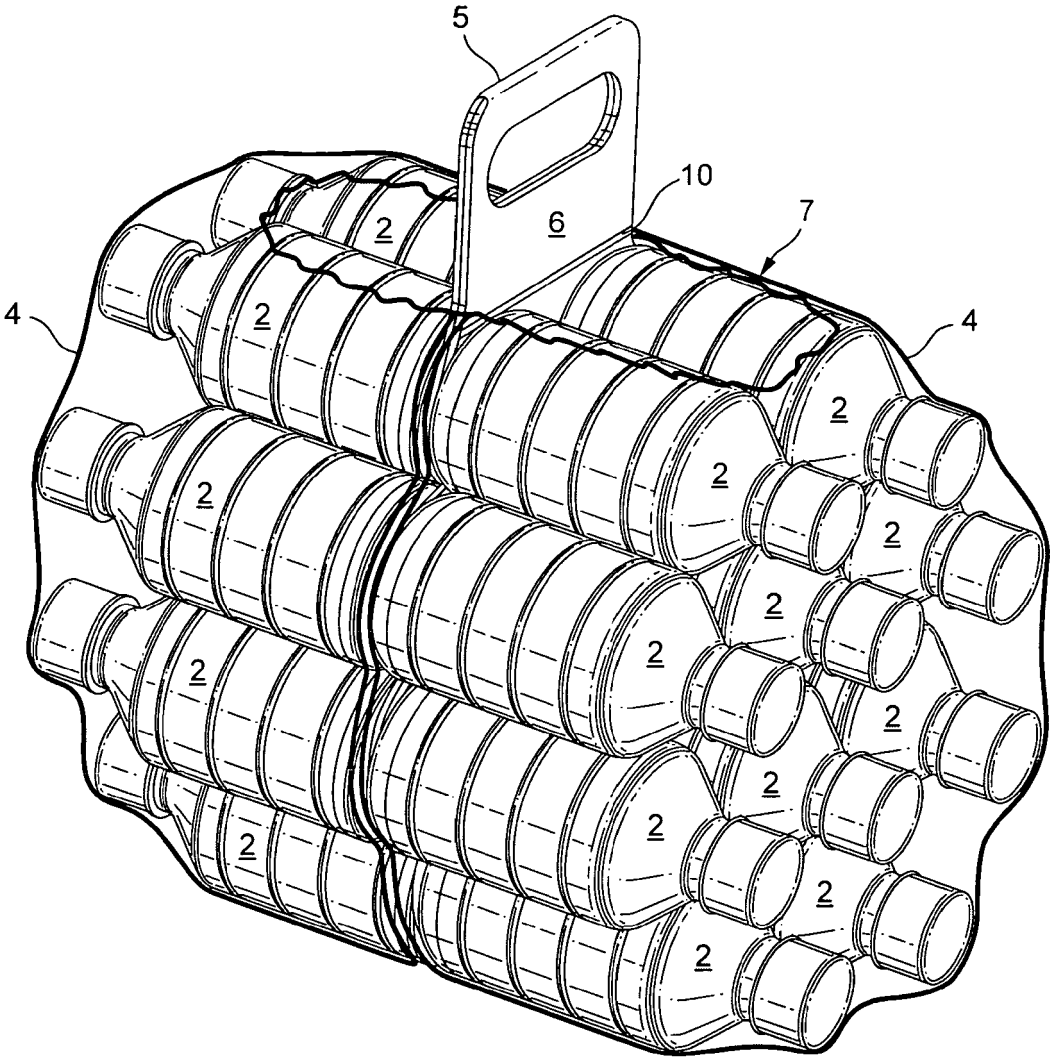


FIG. 6

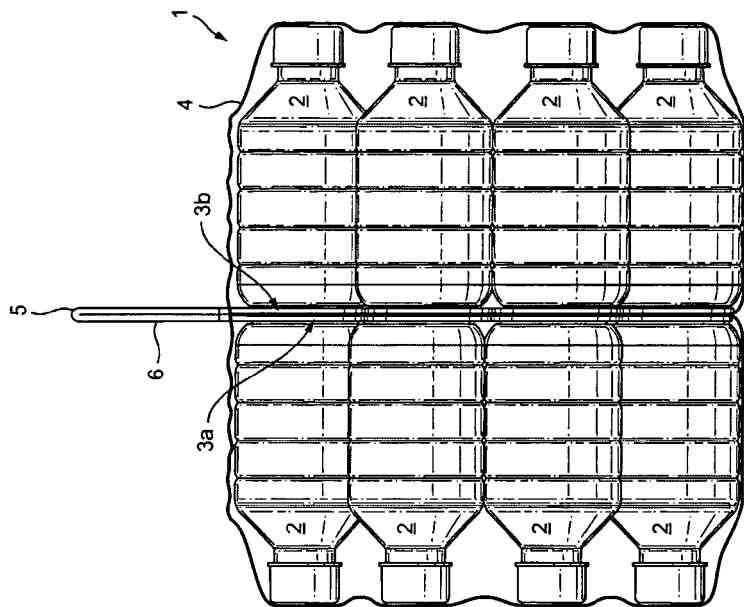


FIG. 7

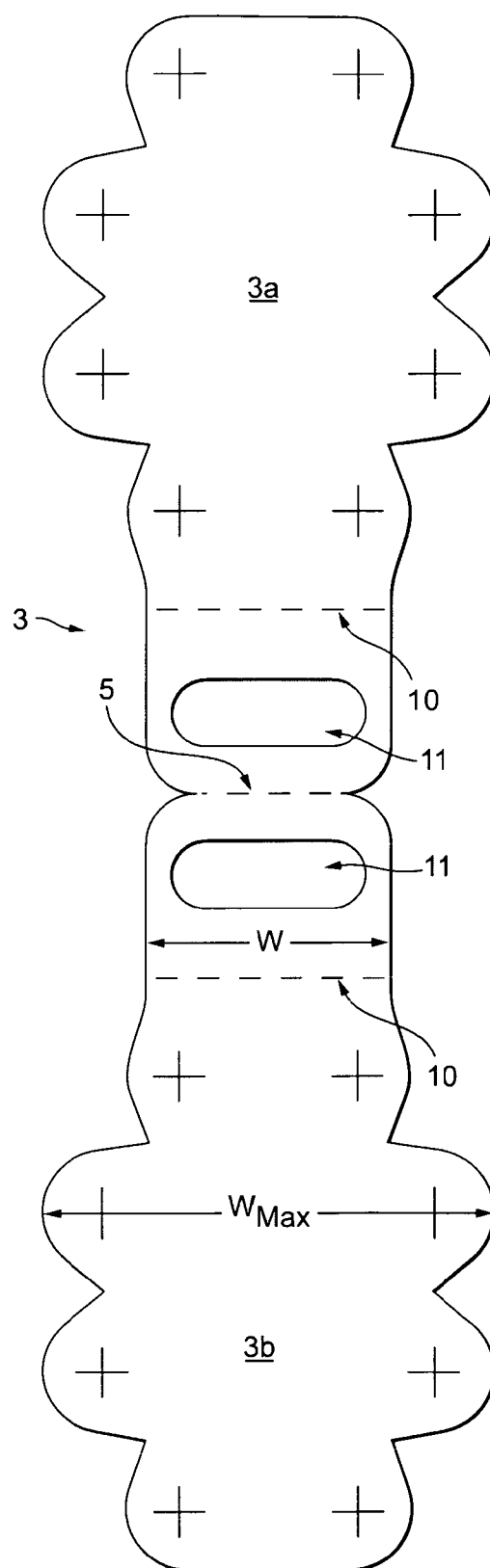


FIG. 8

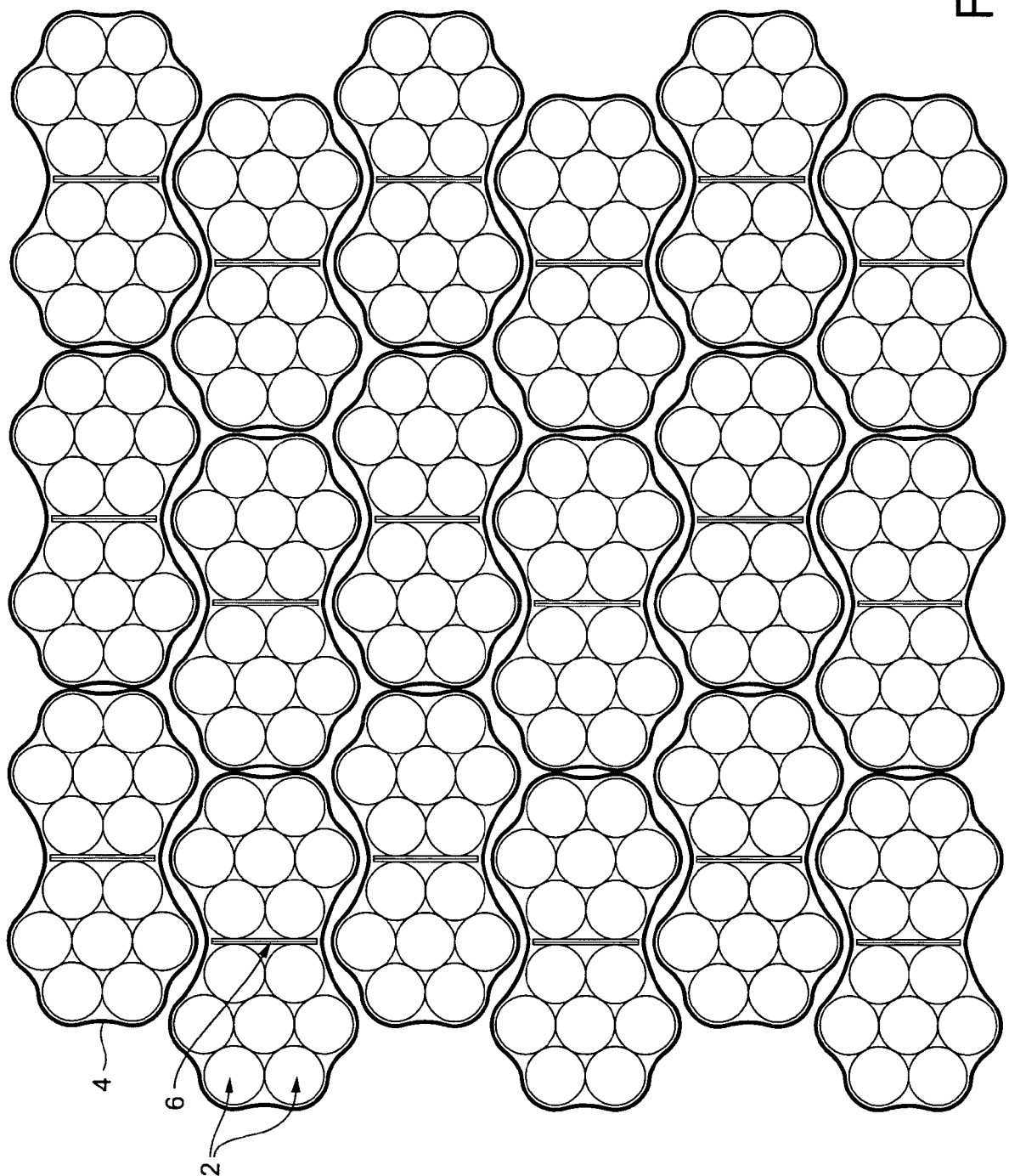


FIG. 9



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	FR 1 503 707 A (LA CELLOPHANE, SOCIETE ANONYME) 1 December 1967 (1967-12-01) * the whole document *	1,2,4,6,7,9	B65D71/10
A	----- US 5 168 989 A (BENNO ET AL) 8 December 1992 (1992-12-08) * column 1, line 41 - line 63 * * column 3, line 49 - line 65 * * figures 4,7 *	1,2,4,6	
A	----- US 4 050 579 A (GORSKI ET AL) 27 September 1977 (1977-09-27) * column 7, line 7 - line 9 * * column 7, line 46 - line 49 * * column 8, line 1 - line 9 * * figures 7-10 * -----	1-4,6,7,9	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC) B65D
Place of search The Hague		Date of completion of the search 7 November 2005	Examiner Leijten, M
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3

EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 05 10 5024

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
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