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(54) Container package with carrier and surrounding sleeve

(57) A package (10) for containers (16) such as beverage bottles and cans includes a carrier (12) with an array (22) of loops (52), one loop (52) surrounding each container (16). A wide sleeve (14) surrounds the group (18) of containers (16) held by the carrier (12). In a preferred arrangement, the carrier (12) includes four rows of loops (52), with a handle (20) extending upwardly between the middle two rows. The loops (52) are disposed within the sleeve (14).

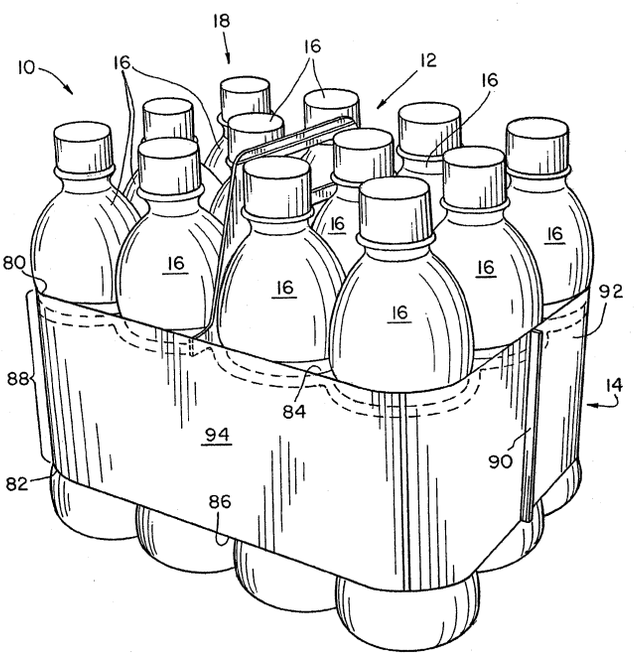

Fig. 1

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Description

[0001] The present invention relates to packages for groups of containers, and, more particularly, to plastic carriers having arrays of loops for engaging and holding individual containers, particularly for large groups of containers.

[0002] Container carriers are used frequently to unitize a plurality of containers, such as bottles or cans, into conveniently saleable quantities. Both paperboard and plastic are materials commonly used. Paperboard carriers generally comprise a box in which the containers are held. The box may be totally enclosed, or may have an open top, with individual compartments for each container. In an enclosed box, a handle in the form of an opening or slot in the box may be provided. In an open top box, a handle can be extended upwardly between rows of the container compartments. Disadvantages of paperboard carriers include excess material and cost. Further, once opened, an enclosed box no longer holds the containers securely. An open top carrier can spill the contents therein, if inverted.

[0003] Plastic carriers have achieved wide acceptance for their performance, light weight, low cost and versatility in being adapted for containers of different sizes and shapes. The general design for plastic carriers includes the formation of apertures in a stretchable plastic. The apertures are sized and shaped to stretch around the periphery of the containers to be held, either bottles or cans. Automated machinery is available for attaching stretchable plastic carriers to containers quickly and efficiently.

[0004] For convenient carrying of a group of containers held by the carrier, various types of hand-grasps are known. For example, it is known to provide holes for finger-tip grasping of the package, It is also known to provide a handle on the carrier, either along one side of the group of containers, or a the tops of the containers.

[0005] In one such known design, the carrier is formed from two webs of plastic material juxtaposed over one another. Handle portions and container engaging portions are stamped from the juxtaposed webs simultaneously. The webs are fused or welded along selected portions, such as by lamination. The resulting handle portion is thereby, a double thickness of material, and the container engaging portions freely depend from the remainder of the carrier, at each side thereof. The container engaging portions are a single ply of material.

[0006] Rapid or instantaneous visual product recognition is an aspect of marketing for many beverage suppliers. While the containers individually lend themselves to consumer identification, the area visible on any one container within the group held by a carrier is small, potentially limiting the impact of the printed area, or "billboard". In this regard, paperboard carriers have an advantage, in that the side of the box, whether of the enclosed type or of the open-top type, provides a unitary billboard area. Shrinkable wraps have been used, and provide unitary billboard areas. However, once breached, the integrity of the wrap as a carrier is lost, and all containers held therein may become free. In addition, shrink-wrap carriers are not aesthetically pleasing at their ends, and it is difficult to incorporate a handle with a shrink wrap carrier.

[0007] A growing trend in the beverage industry is to group larger quantities of containers for sale. While plastic carriers, as described above, have been used for so-called twelve-packs, known carriers for twelve packs commonly have been the side handle variety. That is, with the containers secured in the carrier, and arranged in an upright position, the carrier handle is provided along one side of the group of containers. In a carrying position, the containers are positioned horizontally, at right angles to the upright position. For some consumers, carrying beverage containers horizontally is uncomfortable, because of fear, largely groundless, that a container seal may rupture, spilling all or a substantial quantity of the beverage. Further, a large group of containers, whether bottles or cans, secured only by stretchable rings in an array of a plastic carrier, might have a feel of instability, with individual containers allowed to skew or twist relative to other containers in the group.

[0008] What is needed in the art is a container package including a plastic loop array type of carrier having significant billboard area, and arranged for top handle carrying of a well-balanced and securely held group of containers.

[0009] The present invention provides a plastic carrier with an array of rings having one ring for each container, and a stretchable sleeve for surrounding and securing the group of containers, while also providing a large informational billboard on each side of the group of containers. In a preferred arrangement, the containers are held in four rows, with a top handle extending upwardly between the middle two rows.

[0010] In one form thereof, the invention provides a package for a group of containers including individual containers to be held in rows and ranks. The package has an integral plastic carrier including a container holding portion of interconnected stretchable loops, One loop is provided for each container, with each loop surrounding a different one of the containers. A handle portion is connected to the container holding portion. The handle portion extends upwardly between adjacent rows of containers, to above tops of the containers. A sleeve of stretchable material surrounds the group of containers.

[0011] In another form thereof, the invention provides a package for a group of individual containers arranged in at least four rows, with a plurality of containers in each row. A stretchable array of interconnected loops has one loop for each container. Each container is disposed in a separate loop that surrounds the container. A handle is substantially parallel to the rows and is connected to the array. The handle is disposed between adjacent rows of containers and extends upwardly between the contain-

ers, with two of the at least four rows of containers on each side of the handle.

[0012] In a further form thereof, the invention provides a carrier for a group of containers with an array of interconnected loops arranged in rows and ranks. The array includes four rows. A handle is connected to the array, with two rows disposed on each side of the handle.

Fig. 1 is a perspective view of a container package in accordance with the present invention;

Fig. 2 is a plan view of a carrier in the container package shown in Fig. 1;

Fig. 3 is a perspective view of the carrier shown in Fig. 2, with containers retained therein; and

Fig. 4 is a perspective view of another embodiment of a container package in accordance with the present invention.

[0013] Referring now more specifically to the drawings. and to Figure 1 in particular, a container package 1 0 in accordance with the present invention is shown. Package 10 includes a carrier 12 and a sleeve 14. In the exemplary embodiment shown in the drawings, package 12 is provided for a so-called twelve pack, and is shown for packaging a plurality of individual containers 16 into a group 18 of containers 16. However, it should be understood that the present invention can be used advantageously for packaging more or fewer containers 16 than the twelve pack shown. Further, while package 12 is illustrated for packaging individual containers 16 in the form of bottles, package 12 can be used for packaging containers 16 other than bottles. For example, package 10 can be used also for packaging cans.

[0014] With reference to Figures 2 and 3, carrier 12 is illustrated, Carrier 12 includes a handle portion 20, a container holding portion 22 and a truss-like suspension portion 24 connecting handle portion 20 to container holding portion 22. The actual configuration of carrier 12 will vary depending on the size, type and quantity of containers 16 to be held in carrier 12. In a preferred design for carrier 12 to hold a twelve pack as illustrated, carrier 12 is a two-ply structure having a first sheet 26 and second sheet 28. In Fig. 2, only a first sheet 26 is readily visible, with second sheet 28 disposed directly there behind. First sheet 26 and second sheet 28 are connected by one or more welds 30, 32, two such welds 30 and 32 shown in the drawings. The manner in which such welds can be made is well-known to those skilled in the art, and may include the application or extrusion of material between first sheet 26 and second sheet 28, to cause the sheets to fuse together. As illustrated, welds 30 and 32 are provided, respectively, near a top of handle portion 20 and a bottom of suspension portion 24. An additional weld or welds may be provided between those illustrated. Handle portion 20, container holding portion 22 and suspension portion 24 are formed as integral portions of each sheet 26 and 28. Welds 30, 32 bond sheets 26 and 28 such that the portions 20, 22 and 24 of each form a single integral carrier 12.

[0015] Suspension portion 24 is a double thick layer that includes a plurality of struts 34, 36 and 38, including first and second end struts 34 and 36, respectively, and a plurality of intermediate struts 38 formed in each first sheet 26 and second sheet 28. Suspension portion 24 essentially connects handle portion 20 with container holding portion 22.

[0016] Handle portion 20 includes a handle opening 40 formed through the double layer of first sheet 26 and second sheet 28. Handle portion 20 extends upwardly from suspension portion 24, and in an assembled package 10, the lop of handle portion 20 is above the tops of containers 16 50 that handle opening 40 is readily accessible for grasping by a person carrying package 10.

[0017] Container holding portion 22 comprises an array 50 of individual loops 52 formed in rows 54, 56, 58 and 60 parallel to handle portion 20; and ranks 62, 64 and 66 perpendicular handle portion 20. In the embodiment of carrier 12 illustrated in Figs. 1, 2 and 3, two of the rows 54 and 56 are provided on one side of handle portion 20, and two of the rows 58 and 60 are provided on the opposite side of handle portion 20. As those skilled in the art will understand, each row of loops 52 is a single-ply layer of material, rows 54 awl 56 being formed in first sheet 26 and rows 58 and 60 formed in second sheet 28.

[0018] Each loop 52 is configured to be stretched and totally surround an individual container 16. Voids 68 are provided in sheets 26 and 28 to allow stretching and shaping of loops 52, as necessary, to surround individual containers 16. The material for sheets 26 and 28 is both flexible and resilient, permitting significant stretching without breaking. Low-density polyethylene is a suitable plastic from which carrier I 2 can be made.

[0019] Sleeve 14 is formed as an endless band surrounding the perimeter of group 18 of containers 16 held by carrier 12. Sleeve 14 has a top edge 80 and a bottom edge 82, with an open top 84 and an open bottom 86. Containers 16 extend above top edge 80 and below bottom edge 82, through open top 84 and open bottom 86, respectively. Sleeve 14 has a sleeve height 88 between top edge 80 and bottom edge 82. Preferably, sleeve height 88 extends a substantially portion of the overall, height of containers 16.

[0020] Sleeve 14 can be formed from a strip of stretchable material formed into an endless band by bonding ends of the strip at a seam 90. At least an outer surface 92 of sleeve 14 is adapted for receiving printing thereon, the attachment of labels, or for holding other visually communicative indicia. Sleeve 14 thereby provides an enlarged billboard area 94 for the printing of consumer information, logos or other product identification features to promote consumer recognition.

[0021] In a preferred structure of package 10, array

50 is disposed within sleeve 14. That is, loops 52 engage containers 16 at a position on containers 16 between the level of top edge 80 and bottom edge 82. In a contemplated procedure for using package 10, sleeve 14 is applied after carrier 12 has been attached to individual containers 16. Sleeve 14 is stretched to surround group 18 of containers 16, and is positioned there around to cover carrier 12. The application of carrier 12 to individual containers 16 to form group 18, and the placement of sleeve 14 around group 18 can be performed with automated equipment known to those skilled in the art.

[0022] In addition to providing an enlarged billboard area 94, sleeve 14 stabilizes group 18, minimizing the degree to which individual containers 16 can twist or skew relative to other containers 16 within group 18. The cooperative association of carrier 12 and sleeve 14 provides a firm, stable feel to the package, increasing the comfort and confidence of consumers carrying the package. The arrangement of containers 16 in group 18 having four rows 54, 56, 58 and 60, with three containers 16 in each row, also provides a well-balanced, stable group 18. Providing handle 20 in the middle of group 18, with two rows 54 and 56 on one side of handle 20 and two rows 58 and 60 on the other side of handle 20 further aids in balancing group 18 for easy carrying.

[0023] The combination of a carrier 12 and sleeve 14 can be used in other configurations than the four row, three rank group 18 illustrated in Figs. 1, 2 and 3. For example, as illustrated in Fig. 4, a second embodiment of the invention provides a package 120 including a carrier 122 and a sleeve 124. Carrier 122 is provided with loops 126 that are arranged in two rows 128 and 130 parallel to a handle 132 of carrier 122.

[0024] In package 120, sleeve 124 surrounds the perimeter of containers 16 held by carrier 122 in group 18. Sleeve 124 thereby provides stability to package 120, while additionally providing an enlarged billboard area for advertising and marketing benefits.

[0025] The present invention provides improved stability of large packages such as twelve packs, by providing an encircling band for stabilizing containers held in a carrier. The band provides space for advertising and product recognition information.

Claims

1. A package (10) of a group of containers (16) including individual containers to be held in rows and ranks, said package (10) comprising;

   an integral plastic carrier (12) including a container holding portion (22) of interconnected stretchable loops (52), one said loop (52) for each said container (16), each of said loops (52) surrounding a different one of said containers (16), and a handle portion (20) connected to said container holding portion (22), said handle portion (20) extending upwardly between adjacent rows of containers (16), to above the tops of the containers (16); and

   a sleeve (14) of stretchable material surrounding the group of containers (16).

2. A package according to claim 1, wherein said container (16) holding portion (22) has two rows of loops (52) on each side of said handle portion (20).

3. A package (10) of containers (16), comprising;

   a group (18) of individual containers (16) arranged in at least four rows, with a plurality of containers (16) in each said row;

   a stretchable array (22) of interconnected loops (52), one of said loops (52) for each of said containers (16), each said container disposed in a separate loop (52) surrounding its container (16); and

   a handle (20) substantially parallel to said rows and integrally connected to said array (22), said handle (20) disposed between adjacent rows of containers (16) and extending upwardly between said containers (16), with two of said at least four rows of containers (16) on each side of said handle (20) .

4. A package according to claim 3, wherein each said row includes three containers (16).

5. A package according to claim 3 or 4, including a stretchable sleeve (14) surrounding said group (18) of containers (16).

6. A package according to claim 1, 2 or 5, wherein said sleeve has a top edge and a bottom edge, and a sleeve height between said top edge and said bottom edge, and said sleeve height substantially covering said containers (16).

7. A package according to claim 1, 2 or 5, wherein said container (16) holding portion (22) or said stretchable array (22) is disposed within said sleeve (14).

8. A package according to claim 1, 2, 5, 6 or 7, wherein said sleeve (14) has an outer billboard surface adapted for carrying visually communicative markings thereon.

9. A carrier (12) for a group (18) of containers (16), comprising;

   an array (22) of interconnected loops (52) arranged in rows and ranks, said array including four said rows; and

   a handle (20) connected to said array (22) , with two said rows disposed on each side of said handle (20).

10. A carrier according to claim 9, wherein each said row includes three said loops (52).

11. The carrier according to claim 9 or 10, wherein said handle (20) is connected to said array (22) by a suspension portion (34,36,38), said array (22) said suspension portion (34,36,38) and said handle (20) being integrally formed.

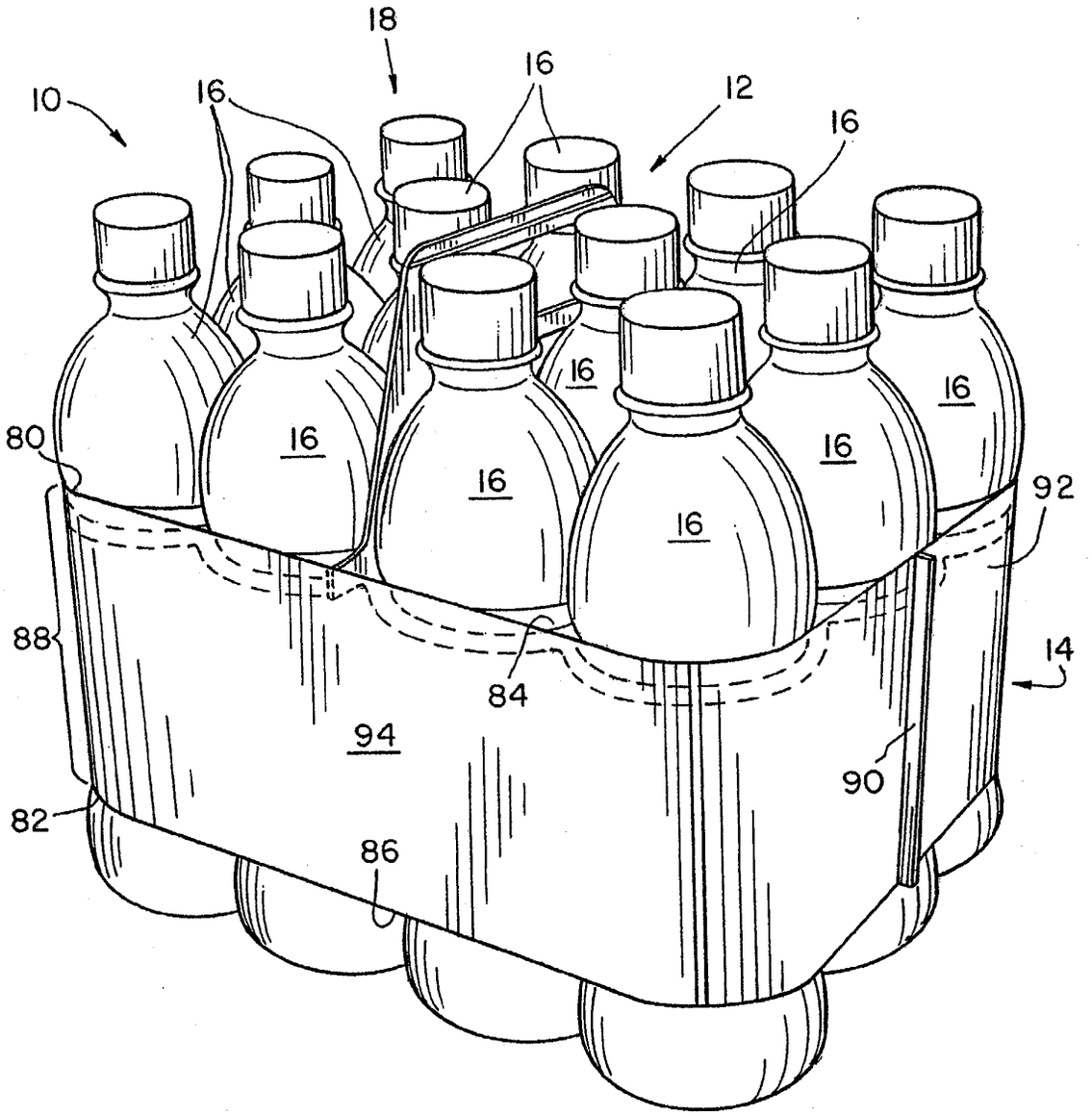

Fig. 1

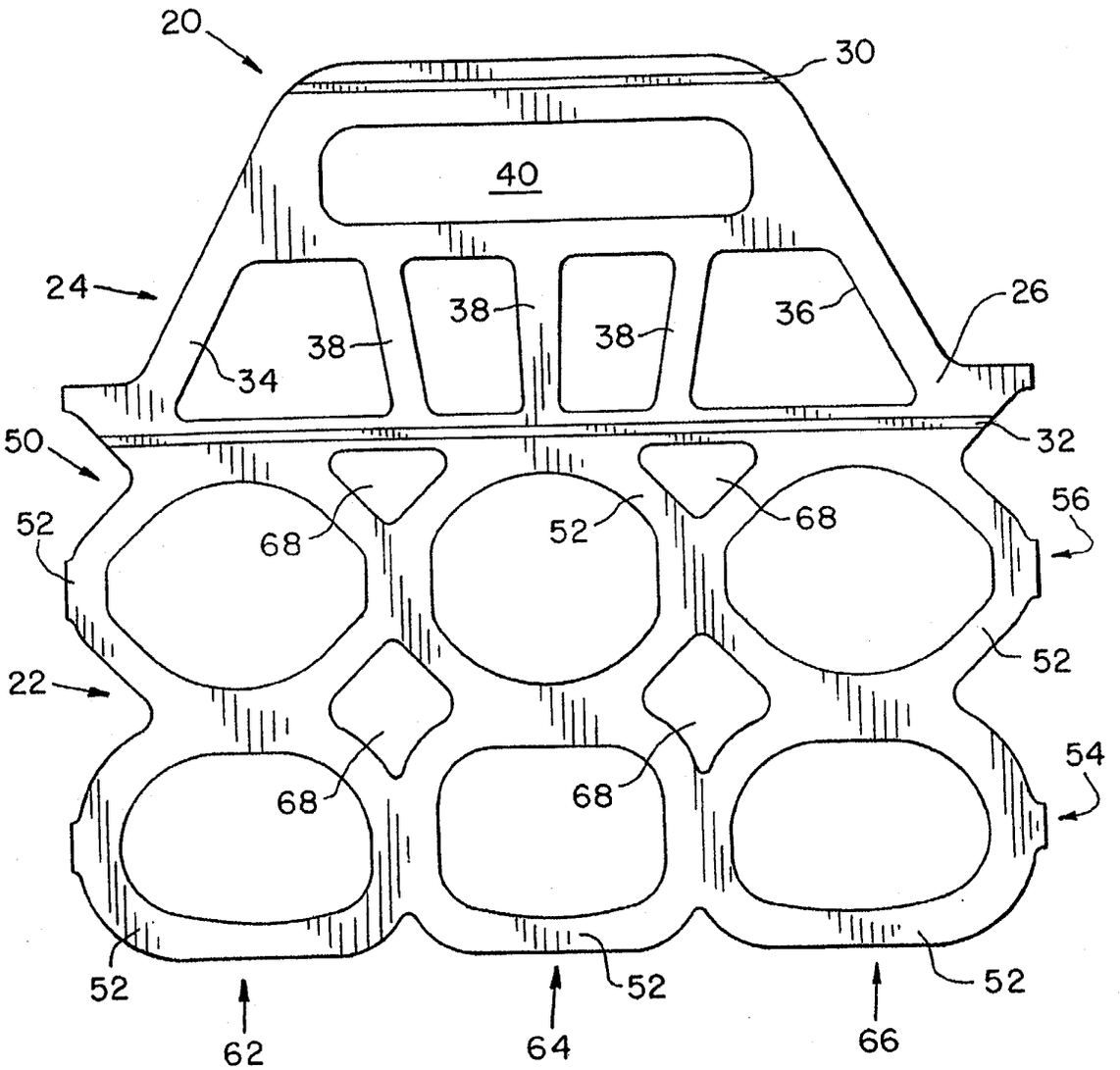
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Fig. 2

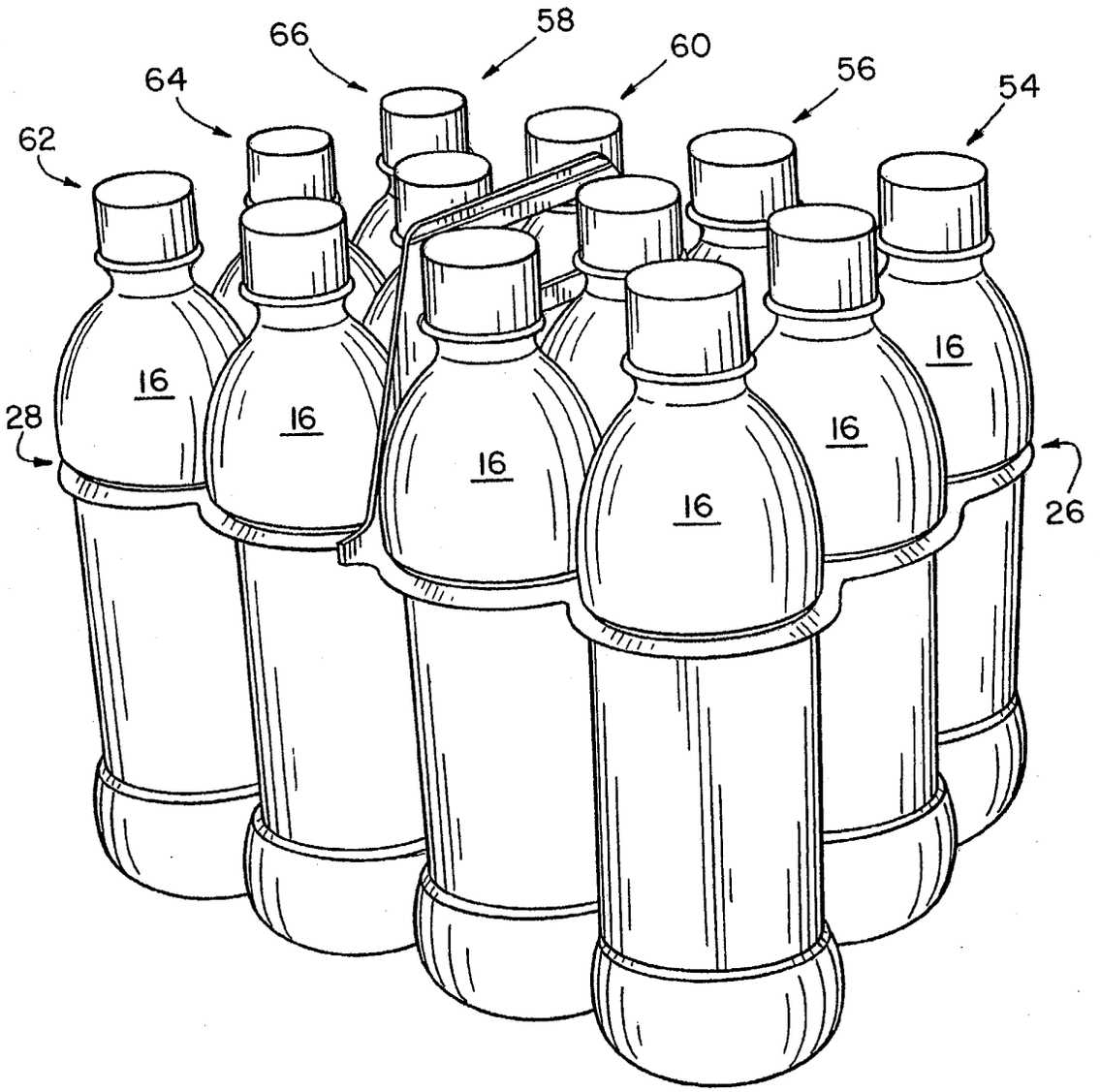

Fig. 3

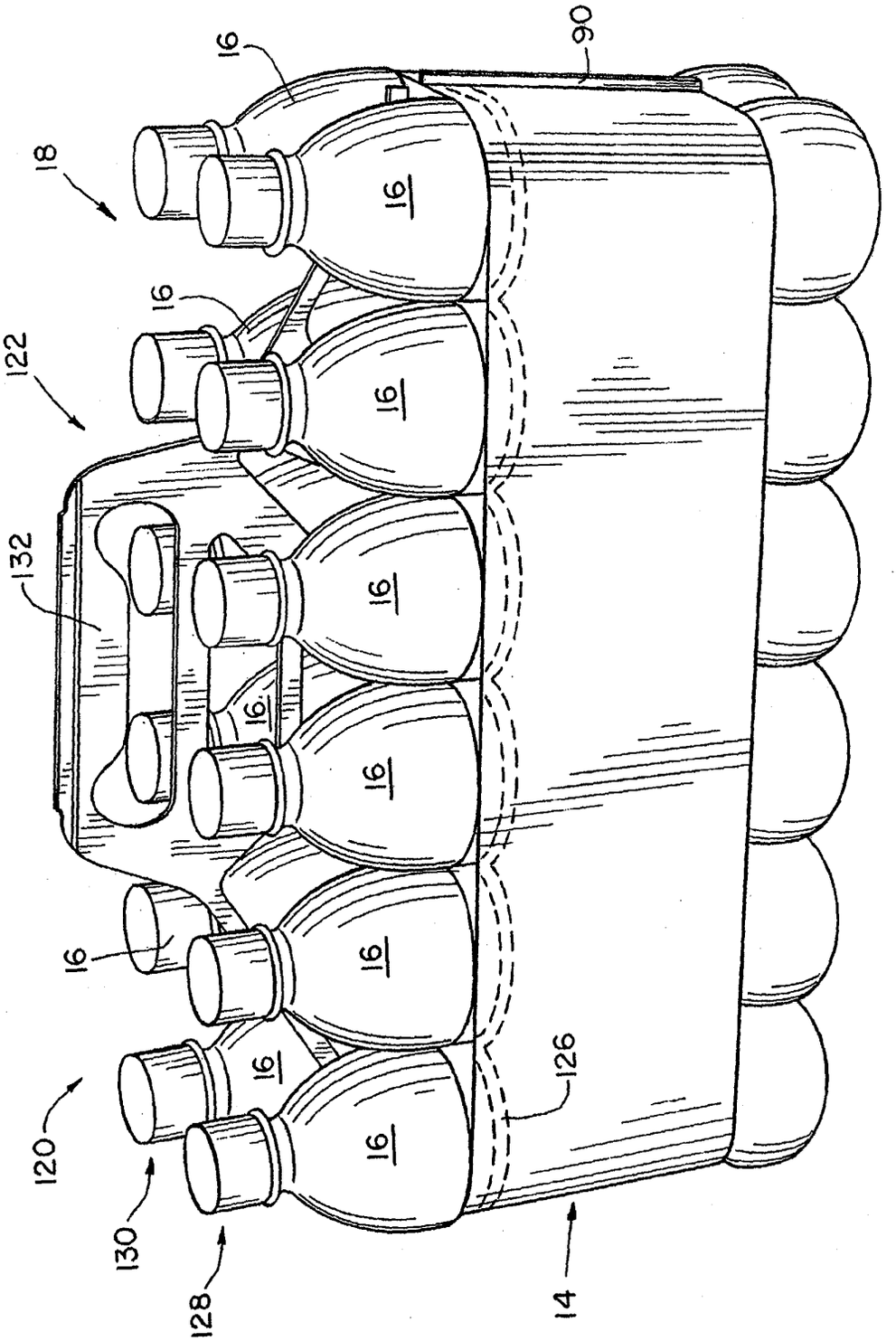

Fig. 4

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EUROPEAN SEARCH REPORT

Application Number
EP 03 25 5753

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A	* paragraphs [0012],[0025]; figures *	3	
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A	* column 2, line 45 - line 53; figure 4 *	2	
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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	22 January 2004	Fournier, J

CATEGORY OF CITED DOCUMENTS

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