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(54) **A carrier means for a number of bottles.**

(57) A carrier means for a number of bottles (9) with crown caps (10), with a holding means for holding the bottle necks below said crown caps, and with a handle for carrying. The carrier means comprises a board (1,1') of double corrugated cardboard, i.e. a corrugated layer with a layer of paper glued to both sides of it, if desired a double-double corrugated cardboard, i.e. two corrugated layers with intermediate layers of paper and layers of paper glued to both sides. In board (1, 1') a number of holes (2) is provided for holding the bottle necks, said holes (2) having a diameter permitting the crown cap (10) on a bottle (9) to be pushed through, but blocking for retraction of said crown cap due to resiliency of the material at the edge of the hole. The handle is composed of two openings (6) in said board.

In one embodiment board (1, 1') is extended at two opposite sides by a piece of board (7, 8) having an extension of at least half of the extension of board (1). Pieces of board (7, 8) have openings (6) and holes (2) which correspond to openings (6) and holes (2) in board (1, 1') when pieces of board (7,8) are folded back beneath board (1).

FIG.2

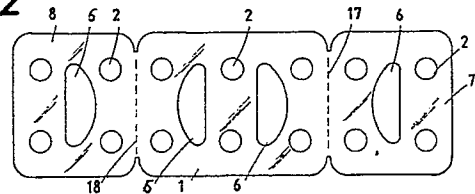
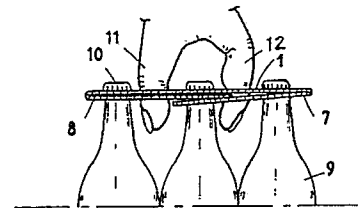


FIG.4



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The present invention relates to a carrier means for a number of bottles with crown caps, with holes for holding the bottle necks below said crown caps, and with handle openings. Various kinds of such carrier means are known. A device is, thus, known, which is produced from plastic material with resilient tongues engaging below the crown caps. Such carrier means are relatively expensive in production and make the bottled products more expensive since the carrier means is intended to be a throw away means. Furthermore, there is a known device produced from solid cardboard which is stamped out into an intricate pattern, so that the blank forms a carrier means with resilient flaps and a raised handle. This device is also relatively expensive in production, taking into consideration that the blank must be raised to form a carrier means.

From US-PS No. 2 299 625 a carrier means for a number of bottles is known, which consists of folded solid cardboard in which holes are stamped out for the crown caps of the bottles and for handle openings. The cardboard blank is folded with projecting handle portion and two laterally extending carrying portions for bottles. When the device is lifted with bottles placed in said holes the carrying portion for bottles will tilt, and the bottles are firmly held by the aid of a pole shoe effect. This kind of holding is hazardous, and the handle portion formed will render it difficult to place the carrier means on bottles standing in a crate, since the handle portion must then be bent all the way down to the bottle necks.

It is an object of the present invention to provide a carrier means which is inexpensive in production and may be so readily provided on bottles that anybody can do it, and which ensures firm holding of the bottle necks in the device.

According to the invention this is achieved by a carrier means of the kind mentioned above, which is characterized by the fact that the openings for bottle necks in the carrier means are formed in a plane board of double corrugated paperboard, i.e. a corrugated layer onto which a paper layer is glued on both sides, if desired, a double-double cardboard, i.e. two corrugated layers with intermediate paper layers and paper layers glued onto them on both external sides, said holes being smaller than the largest diameter of said crown caps and permitting the crown cap on the bottle to be pushed through said hole, but blocking the crown caps from being retracted due to the resiliency of the material at the edge of the hole, and that handle openings and holes for holding the bottle necks lie in the same plane in a position for use.

A further development of the invention is characterized by the fact that the board is enlarged by a piece of board at two opposite sides with an

extent corresponding to at least half of the extent of said board, and that said pieces of board have openings and holes corresponding to the openings and holes in said board when the pieces of board are folded back below the board.

The carrier means according to the invention is very inexpensive in production, being simply stamped out of corrugated cardboard material, and by use of a very simple stamping tool. No equipment is required for raising the blank to form the carrier means. It is so simple to provide the carrier means on the bottle caps that this may be done by ordinary shop assistants. This may be of interest if somebody desires a 6-pack or a 12-pack and there are no such ready packs in the shop. The carrier means is then just pushed down onto the necks of bottles standing in a crate, and a 6-pack or a 12-pack is, thus, provided in a simple manner. It may also be of interest at a brewery to provide 6-packs or 12-packs from bottles standing in crates. In this manner production may be based on packing the bottles in crates all the time. If, for one reason or another it is desired to offer bottles in smaller packs, e.g. in connection with cut rate, the bottles in crates may readily be rearranged into such smaller packs.

The invention is disclosed in more detail below with reference to the drawings, which show some embodiments of carrier means according to the invention.

Figure 1 shows a simple embodiment of a carrier means intended for six bottles and made from so called double-double corrugated cardboard,

Figure 2 shows another embodiment of a carrier means according to the invention, as seen from above and intended for six bottles,

Figure 3 shows the carrier means according to Figure 2 in an elevation,

Figure 4 shows the carrier means according to Figures 2 and 3 in use, and

Figure 5 shows a carrier means of the same kind as in Figure 2, intended for twelve bottles.

The simple carrier means according to Figure 1 consists of a board 1 of a double double corrugated cardboard, as will appear from the sectional view. Six circular holes 2 are provided in two rows in the board. The distance between rows is the same as the mutual distance between separate holes. In addition to said six holes there are two crescent-shaped openings 5 and 6. The carrier means with bottles is carried as shown in Figure 4, although said Figure shows a carrier means according to Figures 2 and 3.

Figure 2 shows a further development of the

invention, with basic board 1 being enlarged by a piece of board 7 and 8, respectively, at two opposite ends. Each piece of board 7 and 8 is provided with four circular holes 2, which correspond to holes 2 in board 1, when said additional pieces of board 7 and 8 are folded back beneath main board 1, as shown in Figure 4. Furthermore, each piece of board 7 and 8 is provided with a crescent-shaped opening which is inverted relative to adjacent opening 6 in board 1. In Figure 3 the embodiment of Figure 2 is seen from below, showing how pieces of board 7 and 8 are to be folded back beneath board 1.

In Figure 4 the embodiment according to Figures 2 and 3 is shown in use, bottles 9 being pushed through holes 2, so that crown caps 10 of the bottles are suspended with their lower ridges edge on the upper side of board 1. The user's thumb 11 is inserted into one of openings 5 or 6, and the remaining fingers 12 of the user's hand are inserted in the other opening 6 or 5.

Figure 5 shows an embodiment of the invention which is intended for twelve bottles. In board portion 1' twelve holes are provided in four rows 3, 4, and 13, 14. The distance between rows is equal and it is equal to the distance between separate holes 2 in each row. At two opposite ends of board 1' pieces of board 16 and 17 are provided. Said further pieces of board 15 and 16, as well as pieces of board 7, 8 in the described Figure, are connected with their associated boards 1, 1', via folding indications 17 and 18.

Experiments showed that the carrier means according to the invention is surprisingly strong in use. The bottle openings with crown caps pass readily through holes 2 when the board is pushed onto a number of bottles. The crown caps provide a very strong locking engagement with the top of board 1 or 1', respectively, so that there is no danger for the bottles unintentionally slipping out of the carrier means during transport or other use. In fact, quite some force is needed to get a bottle out of the carrier means if one pulls it in its longitudinal direction. The hold will, however, give way readily, if the bottle is tilted one way so that a lever arm is achieved and the lower side of the crown cap only acts against one side of the edge of hole 2. Since holes 2 are arranged according to a division which is accurately adapted to the diameter of a bottle 9, there will be no load on the carrier means.

Claims

1. A carrier means for a number of bottles (9) with crown caps (10), with holes (2) for holding the bottle necks below crown caps and with handle openings (6), **characterized in** that the holes for bottle necks in said carrier means are

provided in a plane board (1, 1') of double corrugated cardboard, i. e. a corrugated layer with a layer of paper glued to it on both sides, if desired, a double-double corrugated cardboard, i.e. two corrugated layers with paper layers between them and paper layers glued to them on both outsides, said holes (2) having a diameter which is smaller than the largest diameter of the crown caps and permits the crown cap (10) on the bottle (9) to be pushed through, but which blocks against retraction of the crown cap because of the resiliency of the material at the edge of the hole, and that handle openings (6) and holes (2) for holding bottles extend in the same plane in a position of use.

2. A carrier means as stated in claim 1, **characterized in** that board (1) is enlarged at two, preferably opposite, lateral edges by a piece of board (7,8) having an extent corresponding to at least half of the extent of the board, and that pieces of board (7, 8) have openings (6) and holes (2) corresponding to openings (6) and holes (2) of board (1) when said pieces of board (7, 8) are folded back beneath board (1, 1').

FIG.1

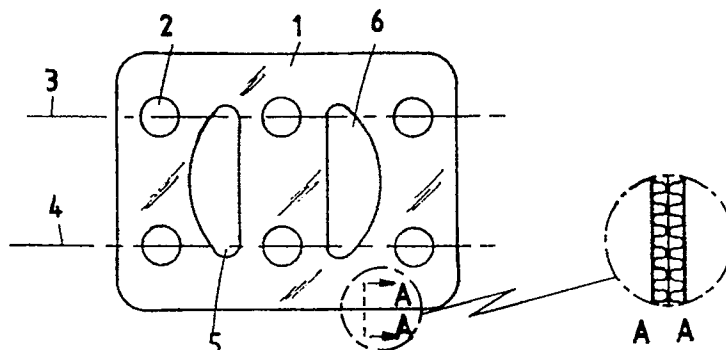


FIG.2

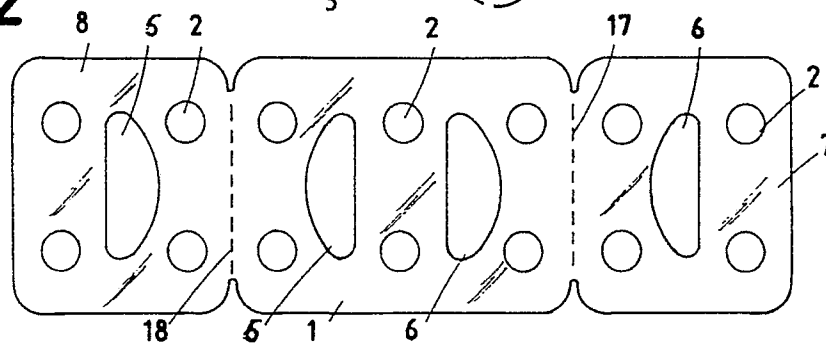


FIG.3

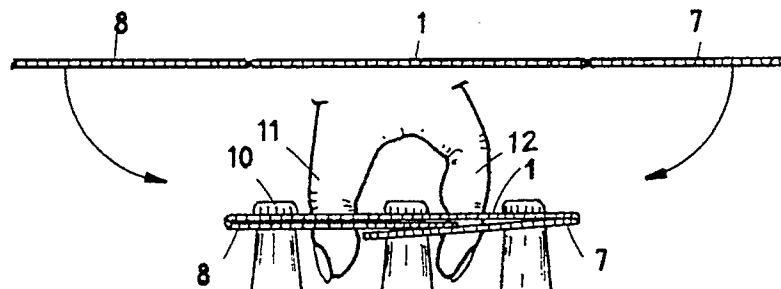
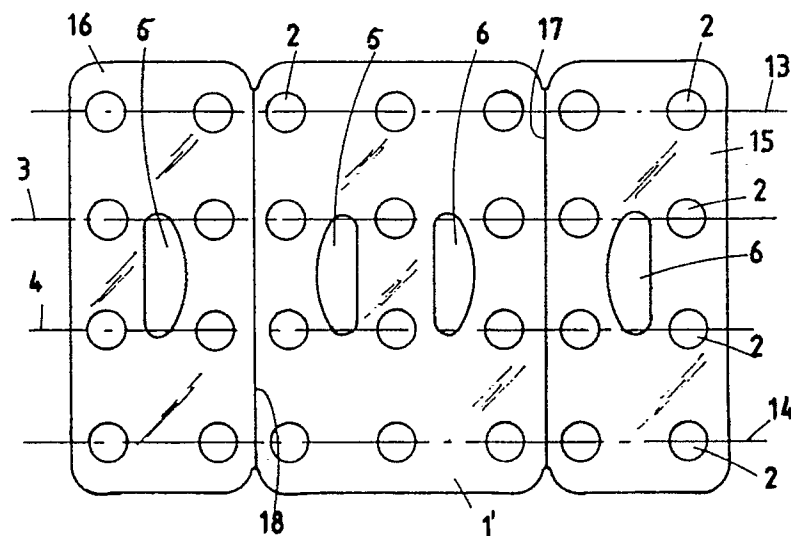


FIG.4



FIG.5





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EUROPEAN SEARCH REPORT

Application Number

EP 90 85 0226

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.5)
A	FR-A-2 363 493 (HEYDEMANN) * Figure 1; page 1, lines 23-28,35-39; page 2, lines 1-9; page 3, lines 23-29 * -- --	1	B 65 D 71/44
A	FR-A-2 561 625 (DEBIE) * Page 3, lines 7-12,20-23; page 5, lines 29-33 * -- --	1	
A	DE-U-8 908 156 (HAARKOSMETIK) * Figures 1,7; claim 11 * -- -- -- --	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 65 D
The present search report has been drawn up for all claims			
Place of search		Date of completion of search	Examiner
The Hague		05 December 90	FISCHER G.H.
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