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

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56 References cited :  
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**FR-A- 2 363 493**  
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**EP 0 460 341 B1**

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## Description

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.

Document FR-A-2.363494 discloses a carrier means for a number of bottles according to the preamble of claim 1, which consists of plain board in which holes are stamped out for the crown caps of the bottles and for handle openings. From DE-U-8.908.156 it is known to use double corrugated cardboard instead of carton.

Document US-PS No. 2 299 625 discloses a carrier means for a number of bottles, 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. The carrying portions are folded upon the board.

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.

This is achieved by a carrier means of the kind mentioned above, where the openings for the bottle necks in the carrier means are formed in a plane board, 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 where handle openings and holes for holding the bottle necks lie in the same plane in a position for use.

The invention is characterized by the fact that the board consists 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 and 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), said holes for the bottle necks in said carrier means being provided in a plane board (1, 1'), 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 said handle openings (6) and bottle holding holes (2) extending in the same plane in a position of use, **characterized** in that the board (1) consists 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 and 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 the two pieces of board (7, 8) having openings (6) and holes (2) corresponding to openings (6) and holes (2) of the board (1) when said pieces of board (7, 8) are folded back beneath the board (1, 1') in a position between the board and the bottles.

## Patentansprüche

1. Tragmittel für mehrere Flaschen (9) mit Kronenkorken (10), das Löcher (2) zum Halten der Flaschenhalse unterhalb der Kronenkorken sowie Grifföffnungen (6) aufweist, wobei die genannten Löcher für die Flaschenhalse im Tragmittel in einem planen Pappstück (1, 1') vorgesehen sind, wobei die genannten Löcher (2) einen Durchmesser aufweisen, der kleiner ist als der größte Durchmesser der Kronenkorken und es ermöglicht, daß der auf der Flasche (9) befindliche Kronenkorken (10) hindurchgedrückt wird, aber aufgrund der Elastizität des Materials am Rand des Lochs den Kronenkorken gegen ein Zurückziehen blockiert, und wobei die genannten Grifföffnungen (6) und die Löcher (2) zum Halten der Flaschen in Benutzungsposition in der gleichen Ebene liegen, **dadurch gekennzeichnet, daß** das Pappstück (1) aus verstärkter Wellpappe, d. h. einer gewellten Schicht mit einer aufgeklebten Papierschicht auf beiden Seiten, oder, falls gewünscht, aus einer doppelt verstärkten Wellpappe, d. h. zwei gewellten Schichten mit Papierschichten dazwischen und Papierschichten, die an ihren beiden Außenseiten aufgeklebt sind, besteht und an zwei, vorzugsweise einander ge-

5 gegenüberliegenden Seitenkanten durch ein Pappstück (7, 8) erweitert wird, dessen Größe mindestens der halben Größe des Pappstücks (1) entspricht, und daß die zwei Pappstücke (7, 8) Öffnungen (6) und Löcher (2) aufweisen, die sich mit Öffnungen (6) und Löchern (2) des Pappstücks (1) decken, wenn die genannten Pappstücke (7, 8) unter das Pappstück (1, 1') in eine Position zwischen dem Pappstück und den Flaschen umgeklappt werden.

## Revendications

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1. Moyen de préhension d'un lot de bouteilles (9) à capsules (10), muni de trous (2) pour maintenir les cols des bouteilles sous les capsules et d'ouvertures de préhension (6), les trous pour les cols de bouteille dans le moyen de préhension étant prévus dans une plaque plane (1, 1'), les trous (2) ayant un diamètre qui est inférieur au plus grand diamètre des capsules et qui permet à la capsule (10) d'une bouteille (9) d'être poussée à travers mais qui bloque un retrait de la capsule en raison de l'élasticité du matériau au bord du trou, et les ouvertures de préhension (6) et les trous de maintien de bouteille (2) s'étendant dans le même plan dans une position d'utilisation, caractérisé en ce que la plaque (1) consiste en un double cartonnage ondulé, c'est-à-dire une couche ondulée avec une couche de papier collée sur ses deux faces, si on le souhaite une deux fois double plaque ondulée, c'est-à-dire deux couches ondulées avec des couches de papier entre elles et des couches de papier collées à l'extérieur, et est agrandie au niveau de deux bords latéraux, de préférence opposés, par un morceau de carton (7, 8) ayant une étendue qui correspond à au moins la moitié de l'étendue de la plaque et en ce que les deux morceaux de carton (7, 8) comportent des ouvertures (6) et des trous (2) qui correspondent aux ouvertures (6) et aux trous (2) de la plaque (1) quand les morceaux de carton (7, 8) sont repliés sous la plaque (1, 1') entre la plaque et les bouteilles.

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FIG.1

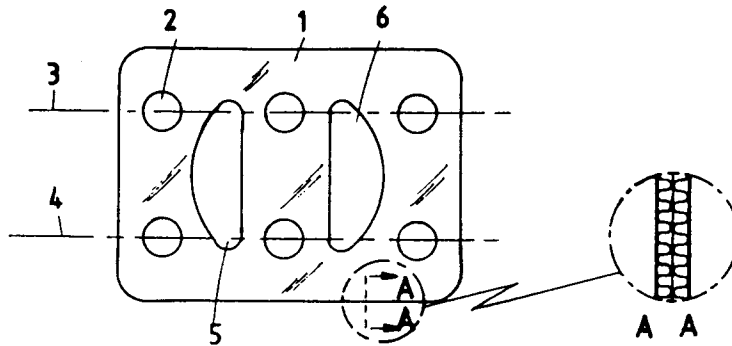


FIG.2

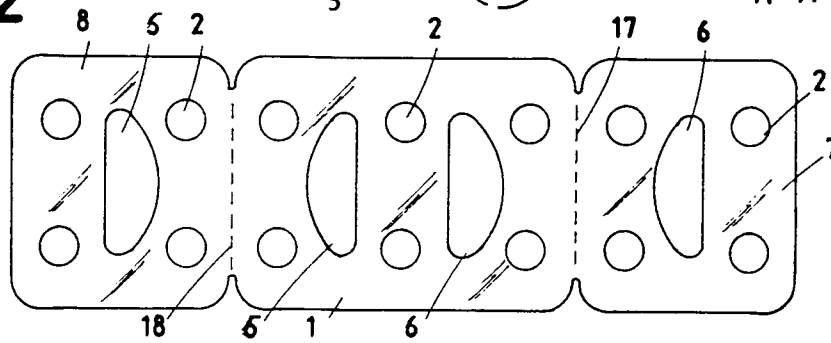


FIG.3

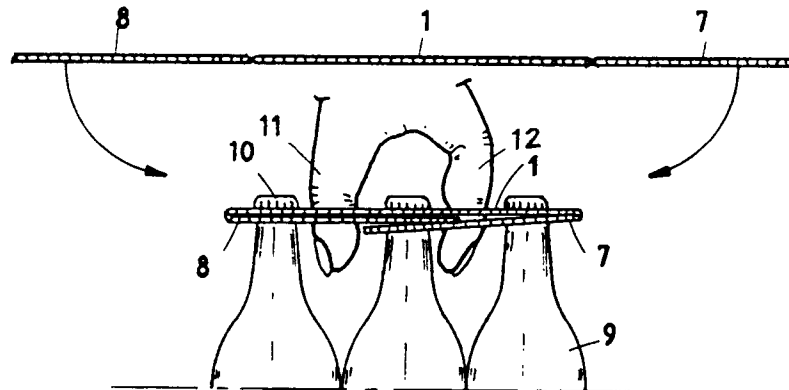


FIG.4

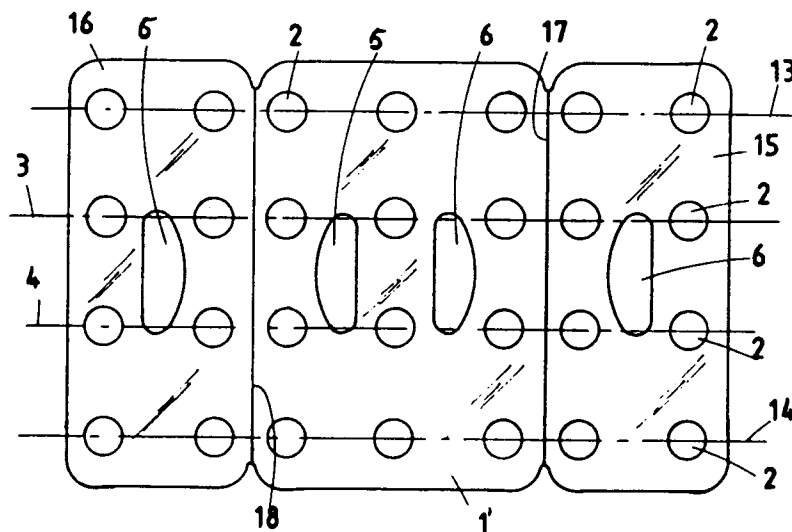


FIG.5

