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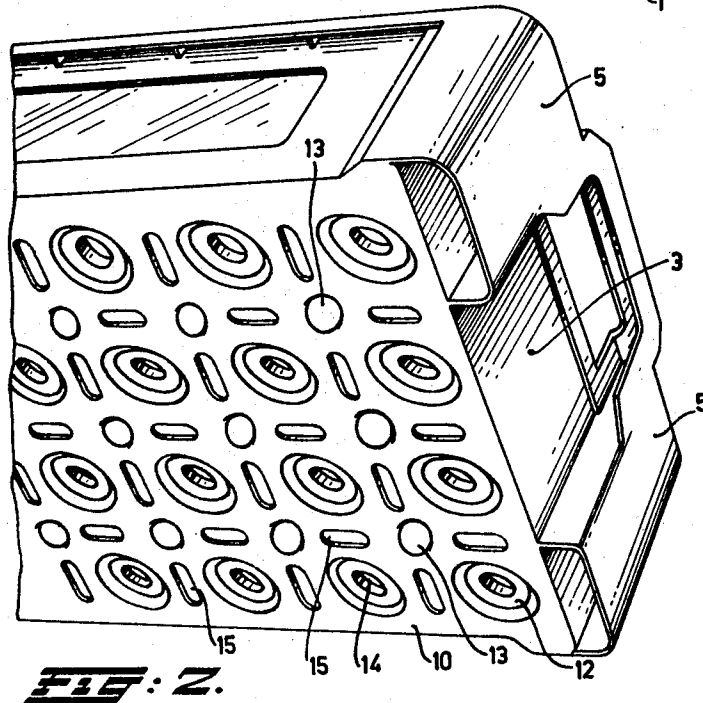
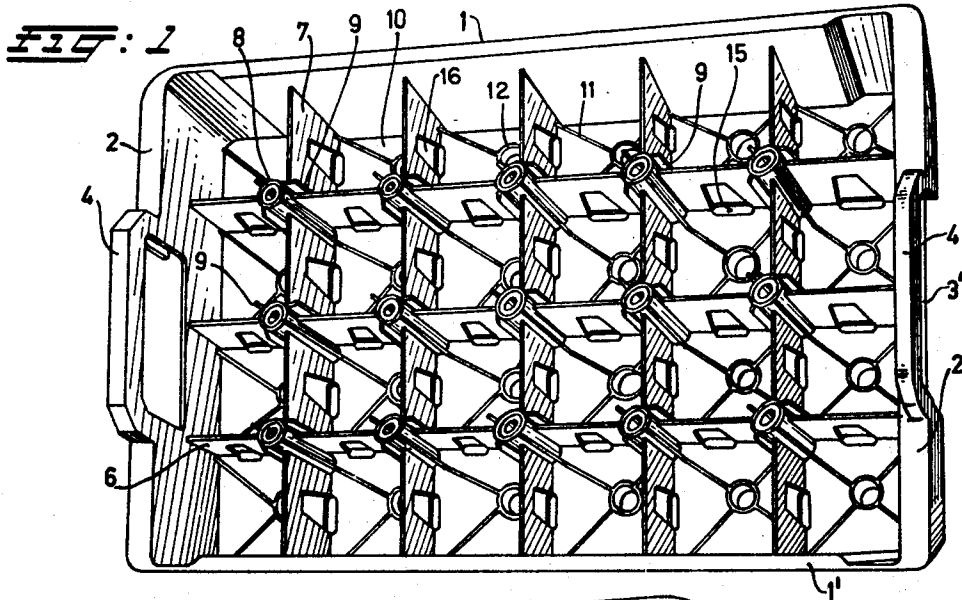
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CONTAINER FOR SOFT DRINK BOTTLES

Filed July 26, 1966

2 Sheets-Sheet 1



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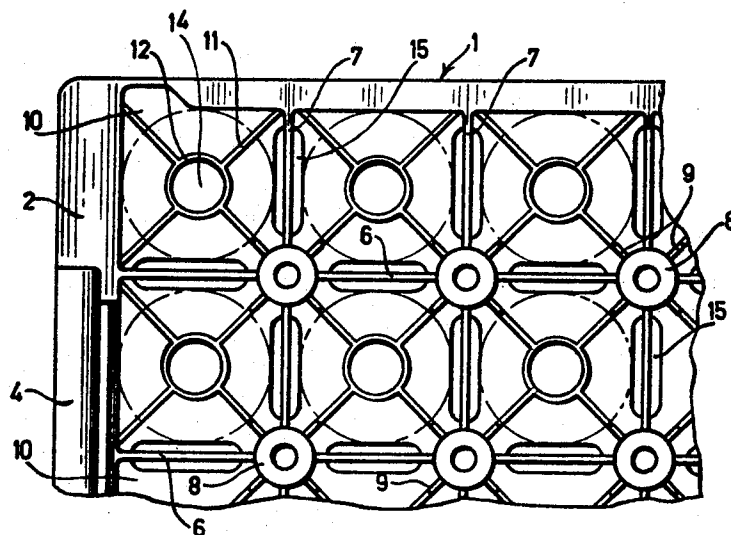


FIG. 3.

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1

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CONTAINER FOR SOFT DRINK BOTTLES

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ABSTRACT OF THE DISCLOSURE

A container for bottles with longitudinal and transverse partitions to define a number of bottle compartments and columns upstanding from the bottom of the container at the intersections of the partitions with ribs on the columns extending into the respective compartments. Also, there is provided a recessed handle structure at the ends of the containers with the end walls being double.

My invention relates to a container for bottles for soft drinks comprising elements which determine a number of bottle compartments.

Such bottles, which are universally used, are usually conveyed in open containers divided into compartments by means of partitions, the short cross walls of the containers being recessed so that a grip is formed.

It is a custom of the persons who transport and deliver the containers filled with the bottles to carry a filled container with each hand, in such a manner that the fingers of each hand clasp the bottle, while the thumb is hooked in the recess. The container is, thus, in fact carried on the bottle which is possible because the bottle in question has a slightly inclined position in the compartment concerned, the bottom of the bottle pressing against the wall of the compartment. It occurs frequently, however, that the bottle slips out of the container which results in that the whole, filled, container falls to the ground. In spite of such accidents this way of carrying the containers is so customary that it has appeared to be impossible to change this habit.

The personnel referred to above are also in the habit of putting the containers with their short side on the ground so that the bottles are more or less horizontal. This is, in fact, a consequence of the aforementioned way of carrying the containers, since the containers can be easily lifted without one having to stoop too low. This habit of setting down the containers is also the cause of much breakage since the bottles slip easily from the compartments.

It is an object of my invention to provide a container in which narrow, oblong, ribs are formed on the said elements which protrude into the compartment concerned for a length such that a bottle disposed in the compartment is gripped when the bottle moves at an inclined angle with respect of the bottom surface. The said ribs may, if need be, extend as far as the bottom of the container.

The container according to my invention is advantageous with respect to the known container in that the bottles, when gripped, assume an inclined position with respect to the bottom and thus are gripped by the ribs. This makes it possible to carry the containers in the above-mentioned way without the risk that the containers slip from the bottle. Another advantage is in that the effort in carrying the container is less. With the known containers it is always required to press the bottle vigorously against the wall by clenching the fingers in order to prevent the container from slipping away. This is no longer required with a container according to the invention, for when the bottom edge touches an abutment the container can no longer slip away.

Another object of my invention is to form the bottle

2

compartments by columns protruding from the bottom of the container. The conventional cross and longitudinal partitions are then omitted so that less material is required for the manufacture of the containers, the containers themselves being lighter and their manufacturing being easier.

My invention further aims to provide a container with ribs protruding into the respective adjacent compartments which are formed on each column situated in spaced relationship from the side walls, the number of these ribs being related to the shape of the compartments concerned. One or more ribs, protruding into the adjacent compartments, are provided on the walls of the container and in front of the columns situated therebeside. Evidently the container can also be constructed in such a way that longitudinal and transverse partitions extend parallel to the walls, the said partitions interconnecting the columns and connecting them with the walls.

The container according to the invention is universally usable and is very simple, while maintaining its general shape and outer dimensions, to adapt it to the diameter of the bottles to be packed. For that purpose the distance center to center of the compartments has a fixed value while the ribs protrude into the compartments over a length related to the diameter of the bottles to be accommodated.

The dimensions of the ribs can be related in a very simple way to the bottles to be packed; it is thus possible to provide the containers, which are in general to be manufactured by ejection moulding, with rather far projecting ribs which afterwards are machined and reduced to the proper size. It is also possible to construct the die with interchangeable inserts. The advantage of these features is in that for bottles with a different diameter containers of equal outer dimensions can be used, which is of greater importance for handling the bottles and filling the containers. Obviously such an advantage cannot be obtained with wooden containers.

Provided on the upper edge of at least one lateral wall is a handle protruding from that upper edge, while in the side wall situated thereunder a recess is provided which corresponds to the dimensions of the handle; the short side walls may be double walled and the central part thereof may be inwardly set back with respect to the outer parts, the outer wall of the double walled parts merging into the outer wall of the handle, the width of the handle being smaller than the width of the outer parts of the side walls.

Due to these features it is obtained that when the container is carried by hand by the handle, the position of the point of support is more convenient than in the known wooden containers which are carried by a recess in the short lateral wall. The container according to the invention is slanting less and the risk that the bottles slip from the container is smaller. The recess in the side walls permits the piling of the empty containers, the handles fitting in the recess.

A more complete understanding of my invention, and of further objects and features thereof can be obtained from the following description of illustrative embodiments thereof, when considered in connection with the accompanying drawing, wherein:

FIGURE 1 is a perspective view of an embodiment of the container according to my invention;

FIGURE 2 is another perspective view of a part of the container;

FIGURE 3 is a plan view of a part of this container.

The container according to my invention as shown in the FIGURES 1, 2 and 3 comprises the long walls 1, 1' and the short side walls 2, 2'. These short side walls consist of an inwardly set back central part 3, as seen

from the outer side, and they merge into the handles 4 which protrude upwardly from the container. The width of these handles, of which the outer side merges into the outer wall of the short side, is slightly smaller than the width of the side parts 5. In this way pinching of the fingers between the container and the bottles disposed therein when carrying the container is prevented.

Provided in the container is a number of longitudinal partitions 6 and a number of cross partitions 7. At the intersections of these partitions are upright hollow columns 8. These columns are each provided with four abutment ribs 9, protruding toward the center of the adjacent compartments. These ribs extend in the shown embodiment as far as the bottom 10. It is, however, also possible that they terminate at some distance from the bottom. In the represented embodiment they extend as far as the low diagonal ribs 11 formed on the bottom of the compartments and which in the proximity of the center thereof merge into a shallow cylindrical part 12 protruding from the bottom. Provided in the bottom is a pattern of apertures in the form of circular recesses 13, which in fact constitute the under span of the hollow columns 8, and the circular recesses 14 formed by the upright cylinders 12, while finally oblong drain apertures 15 are provided which are situated under the longitudinal and cross partitions 6, 7 respectively, these partitions being cut away over a definite distance over the oblong recesses, so that in the partitions themselves the recesses 16 are formed. Due to this configuration a considerable reduction of weight can be achieved without impairing the strength of the whole, while as a consequence of the upright cylindrical parts and the bottom ribs the load is uniformly distributed throughout the bottom.

As described in the preamble the ribs 9 serve as abutments for the bottles when the container is placed on one of its short sides.

The length which these abutments protrude into the compartments can be chosen at will. It is possible to manufacture the containers with abutments of which the width is greater than required for the purpose aimed at. In that case the abutment should be cut to size instance by means of a number of chisels mounted in a holder. Another possibility for the manufacture of the containers is to start from a die with interchangeable inserts for abutments of different dimensions. Due to the possibility of choosing the width at will the containers can in a simple way be related to bottles of different size while maintaining the general shape.

As has been clarified hereinbefore the ribs 9 can also terminate at a definite distance above the bottom. This arrangement is advantageous in that the bottles on sliding from the compartment perform a small tilting movement and are caught with their lower edge on these abutments.

It will be understood that this invention is susceptible to modification in order to adapt it to different usages and conditions and, accordingly, it is desired to comprehend such modification within this invention as may fall within the scope of the appended claims.

Having thus described the invention what is claimed as new and desired to be secured by Letters Patent is:

1. A container for bottles and comprising opposed pairs of long and short side walls and bottom wall means interconnecting said side walls to define a substantially rectangular container body, a plurality of partition members within said container body parallel to said side walls and intersecting to define a plurality of compartments for the bottles, hollow columns at the intersections of said partition members and extending from the bottoms of said compartments upstanding ribs extending diagonally across each compartment on the bottom thereof, and a plurality of abutment ribs on each of said columns extending from at least the top edges of said partition members to contact said bottom ribs and protruding into the respective compartments so that said abutment ribs are engageable by bottles in the respective compartments.

2. A container for bottles as claimed in claim 1 with the center distances between said bottle compartments being fixed, said abutment ribs protruding into the respective compartments to engage the bottles therein when said bottles are inclined with respect to the compartment bottoms.

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