

[54] **MULTI-CONTAINER PACKAGE**

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[58] Field of Search 206/65 E, 65 C, 65 S, 206/65 R, DIG. 18, 56 AB; 220/23.4, 97 R

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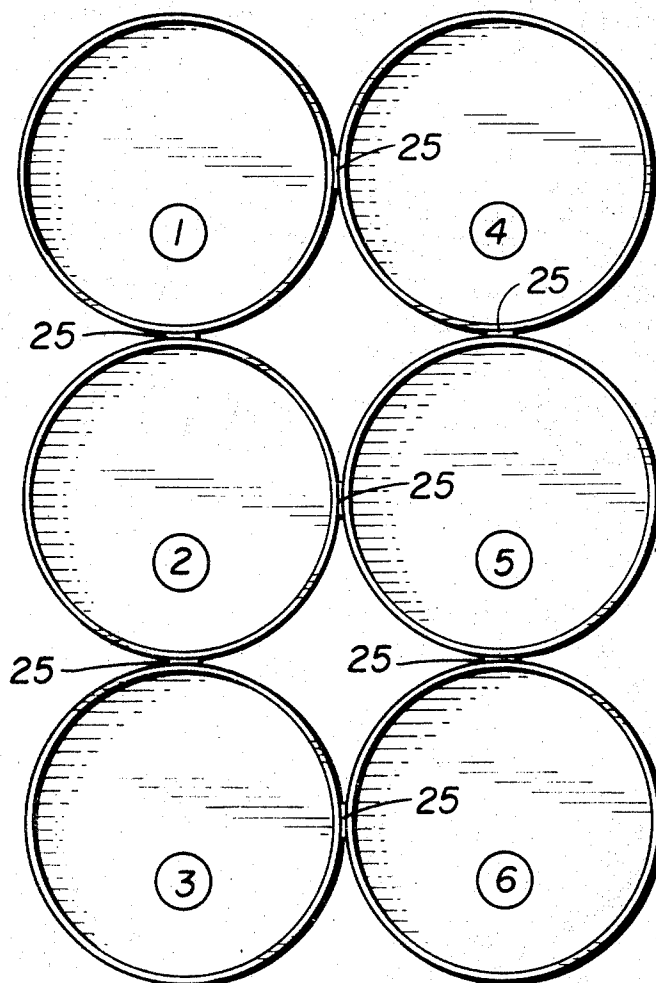
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[57]

ABSTRACT

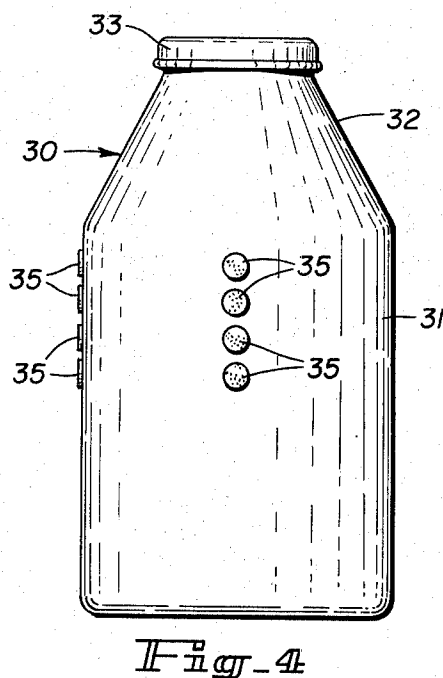
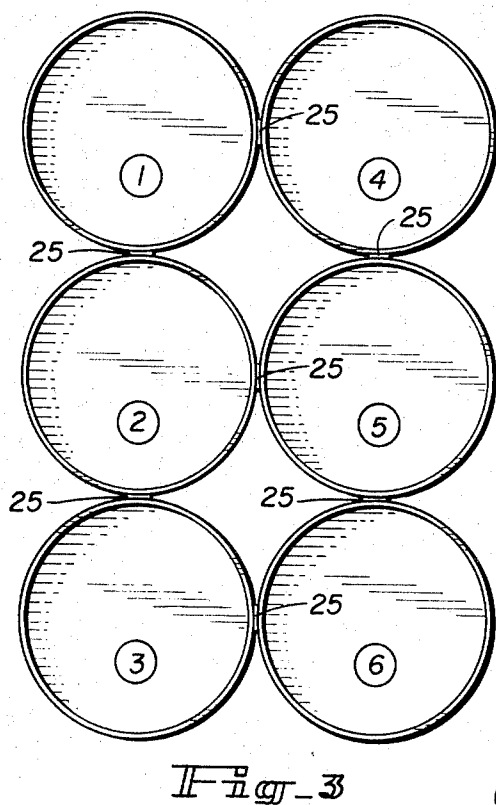
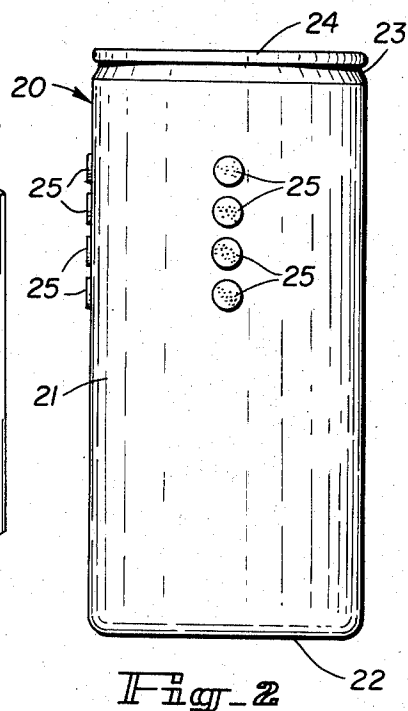
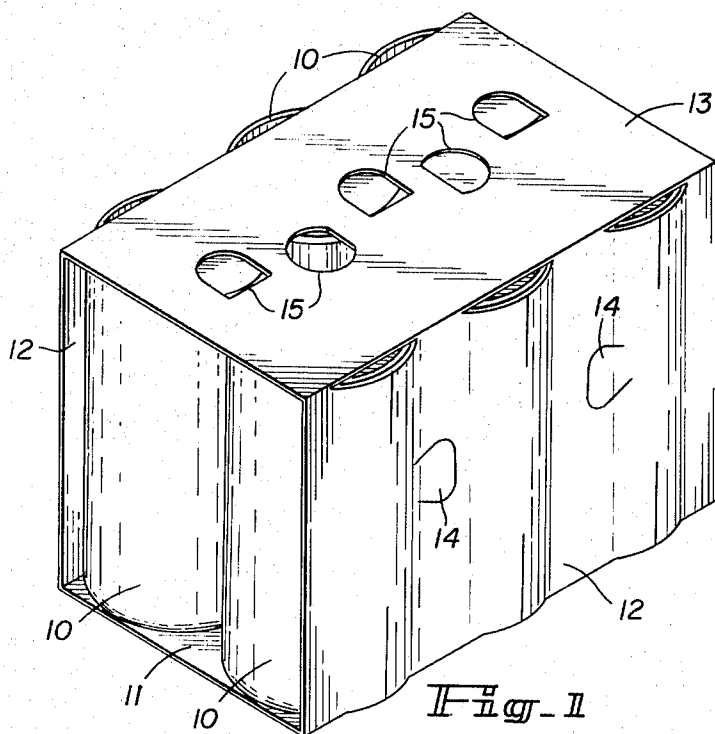
A multi-container package of cans or bottles containing beer, other beverages or contents, detachably connected together in side by side arrangement into a self-contained package free of any holder, tray, strap or wrapping. Adhesive material is applied to narrow areas on side surfaces of a container for contact with an adjacent container whereby they adhere detachably to each other.

4 Claims, 4 Drawing Figures



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MULTI-CONTAINER PACKAGE

This invention relates to a multi-container package of cans or bottles containing beer, other beverages or contents, commonly called "six-Packs".

For many years it has been customary to pack a plurality of beverage containers in disposable carry-type holders made of pasteboard paper, usually designed to hold six cans or bottles, for distribution to purchasers. The holders, of course, add to the cost of the package and serve no useful purpose after the contents have been unpacked. Further, the holders are a source of pollution and litter when discarded out of doors, and add to household waste which must be destroyed or disposed of otherwise.

The object of this invention is to provide a multi-unit package which consists of a plurality of filled cans or bottles detachably connected together in side by side arrangement into a self-contained package free of any holder, tray, strap or wrapping. This object is achieved at low cost by applying an adhesive material to container surfaces in the areas where adjacent containers contact each other. When cans constitute the package, the adhesive material preferably is applied in vertical rows on the cylindrical side surfaces which contact similar surfaces on an adjacent can. When bottles constitute the package, the adhesive material preferably is applied in vertical rows on the uniform diameter cylindrical portion of a bottle which contacts a similar surface on an adjacent bottle.

The application of this invention to beverage can assemblies has involved difficulties due to the fact that cans have been provided with chimes or upper end rims which project radially beyond the circumferential surface of the body of the container, thus preventing side surface contact between adjacent cans. With the advent of a uniform diameter can wherein the upper end of the cylindrical body has been necked and the top lid has been applied to the necked portion, the vertical side surfaces of adjacent cans can contact each other throughout their length. Adhesive material applied to the side surface of one can thus intimately contacts the side surface of an adjacent can for binding the two containers together. When the invention is applied to bottles which commonly have a tapered portion and reduced diameter neck and a uniform larger diameter cylindrical body, the adhesive is applied to the said larger uniform diameter portion which contacts a similar portion of an adjacent bottle. In assembling either cans or bottles in accordance with this invention, the containers are free of any radially projecting parts which would prevent surface contact between adjacent containers.

The invention may also be applied to containers rectangular in horizontal cross section, whereby the contacting flat side surfaces may be supplied with adhesive material for binding together adjacent containers.

In one embodiment of the invention, the adhesive is applied in the form of a broken vertical row, i.e., in vertically spaced apart dots located in the narrow area directly opposite an adjacent container. The adhesive material thus applied contacts the side surface of an adjacent container. The adhesive may be applied in a continuous row, if desired, instead of the broken row or dot arrangement. The application of the adhesive will be more fully described hereinafter by reference to the drawings.

In the drawings:

FIG. 1 is a perspective view of a conventional "six-Pack" comprising six beverage containers packed in a prior art carry-type holder.

FIG. 2 is an elevational side view of a beverage can embodying our invention.

FIG. 3 is a top plan view of six cans connected to each other in accordance with this invention and forming a self-contained unit free of any holder, tray, strap or wrapping.

FIG. 4 is a fragmentary elevational side view of a beverage bottle embodying the invention.

In FIG. 1 is shown a well known prior art "six-Pack" comprising six cans 10, vertically disposed in two rows, side by side, in a pasteboard holder which consists of a bottom 11, two sides 12, and a top 13. The sides 12 are cut to form flaps 14, and the top 13 is provided with holes 15 through which the fingers of the user may be inserted for carrying the package. In this prior art package, the cans 10 are separate from each other, and in the event of breakage of the holder the individual cans may drop out of the holder.

Referring to the container embodying our invention, as shown in FIG. 2, the beverage can 20 comprises a cylindrical body 21 of uniform diameter closed at its bottom 22, and necked at its upper end 23. The top cover or lid 24 is crimped on the edge of the necked portion 23. Due to the diminished diameter of the necked portion, the cover 24 does not extend radially beyond the diameter of the larger diameter cylindrical body portion 21 and therefore the cover 24 does not interfere with side contact of the cans 20. Adhesive material, such as glue, is applied to the side surface of the can, preferably in the upper half area, in vertical rows of spaced apart dots 25, as shown in FIG. 2. The rows 25 are spaced 90° apart.

As shown in FIG. 3, six of the cans have been assembled into a portable unitary package by adhesive 25 applied to the cans 20. For identifying the cans of the package shown in FIG. 3, they have been designated by encircled numerals 1 through 6. The exact method of application of the adhesive may vary, but the following description is one example of the procedure. The cans 20 located at the two ends of the six-can unit, designated by the encircled numerals 1, 3, 4 and 6, are provided with two parallel rows 25 of adhesive, spaced 90° apart on the vertical surface of the body 21, and those designated by the encircled numerals 2 and 5 between the end cans are provided with three parallel rows 25 of adhesive, also spaced 90° apart on said body 21. Thus cans 1 and 4 are bonded together by registering rows of adhesive, and each of said cans 1 and 4 is also bonded by another row of adhesive to cans 2 and 5. The latter are bonded to each other by registering rows of adhesive, and also to cans 3 and 6, which are bonded to each other. Thus each of the four end cans of the unitary package is bonded to two adjacent cans, and each of the middle two cans is bonded to three adjacent cans by the corresponding number of rows of adhesive 25.

The embodiment of the invention as applied to containers such as bottles is illustrated in FIG. 4. A bottle 30 has a cylindrical uniform diameter body 31 tapering toward a reduced diameter neck 32 closed by a cap 33. Rows of adhesive 35 function in the same manner as the adhesive 25 described herein as applied to cans.

The application of this invention to side surfaces of adjacent containers without contact-interfering con-

tours, by the use of registering rows of adhesive material on at least two spaced apart narrow areas of each container, results in a unitary, self-contained portable package consisting of firmly united but detachable containers.

We claim:

1. A multi-container package which is portable, self-contained and free of any handle, holder, tray, strap or wrapping, comprising a plurality of cylindrical containers located side by side and detachably bonded together by adhesive means applied to each container on a cylindrical side surface adjacent a cylindrical side surface of another container, said adhesive means being located in parallel narrow areas or rows spaced apart 90 degrees from each other and parallel to the axis of the container, located between and spaced from the ends of each container, the non-bonded areas of each cylindrical container side surface being spaced from the non-bonded areas of another cylindrical container side surface permitting gripping of a container on opposite sides for carrying the whole package.

2. The multi-container package defined by claim 1, which is a six-container package, in which two containers at opposite ends of the package each are provided with two spaced apart rows or areas of adhesive on their side surfaces, and the two containers between said end containers each are provided with three spaced apart rows or areas of adhesive on their side surfaces.

3. The multi-container package defined by claim 1, in which the containers are cylindrical cans each having a necked upper end on which a cover is crimped without protruding beyond the circumferential surface of the can, whereby the said containers are free of contours which interfere with contact between the sides of adjacent containers.

4. The multi-container package defined by claim 1, in which the containers are bottles each having a uniform diameter cylindrical portion and other portions of lesser diameter than the uniform diameter portion, and said adhesive material is applied to the uniform diameter portion.

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