Oct. 31, 1967 J. J. TANZER 3,350,131

COMBINED CARRYING UNIT AND COASTER

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FIG. 1

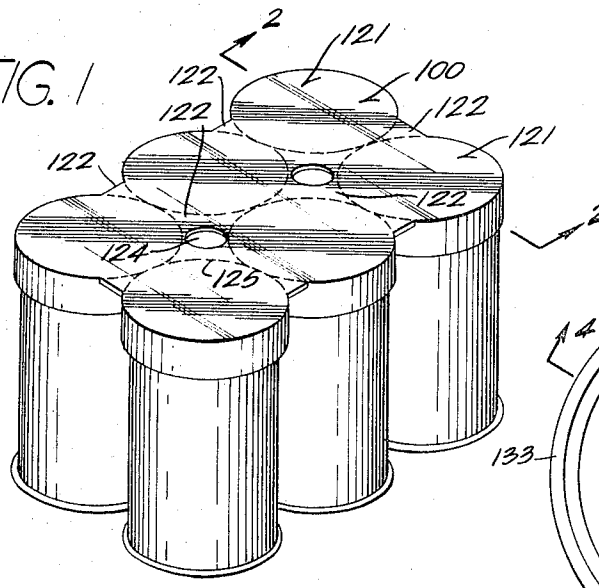
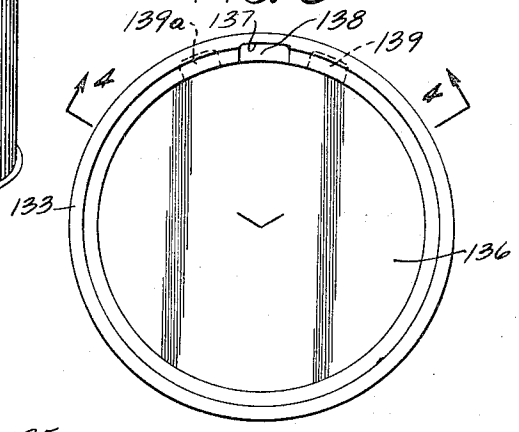



FIG. 3



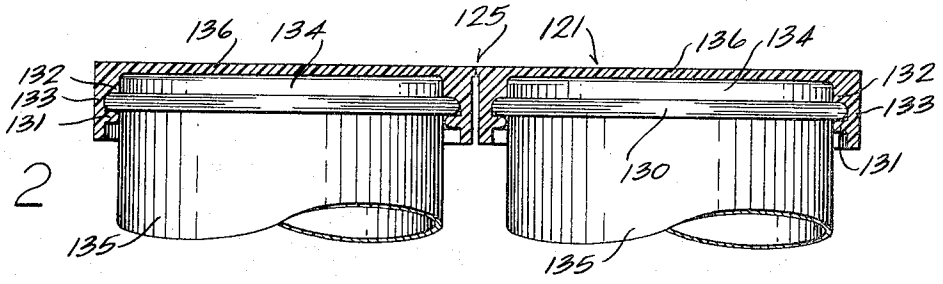
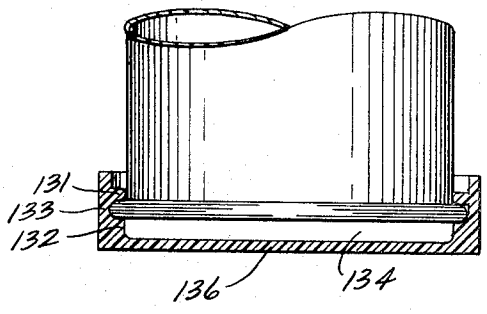




FIG. 2

FIG. 5



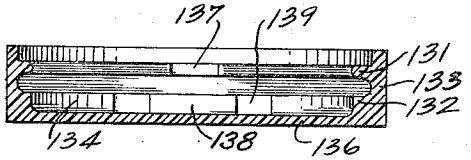




FIG. 4

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FIG. 6

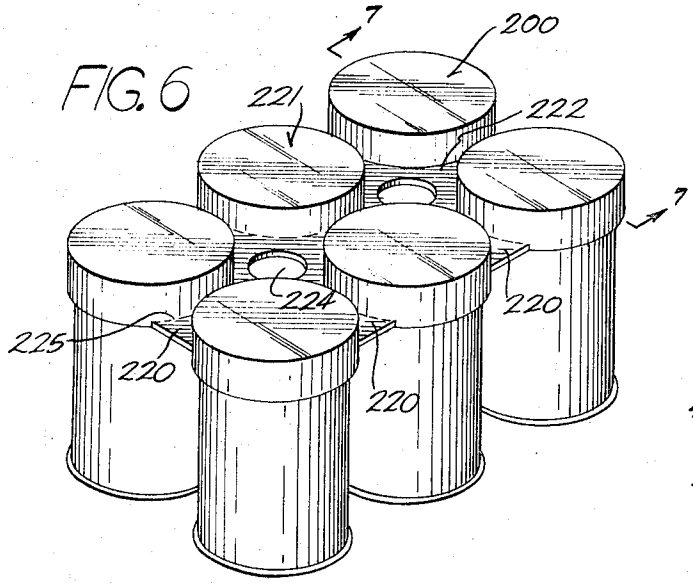



FIG. 11

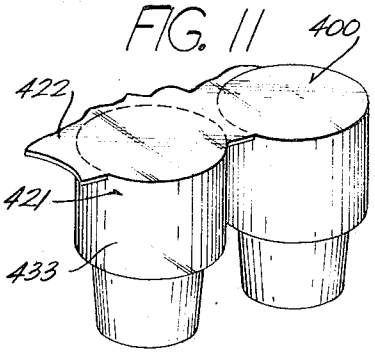



FIG. 7

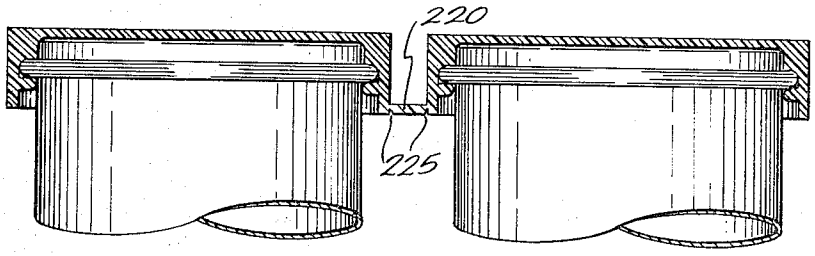
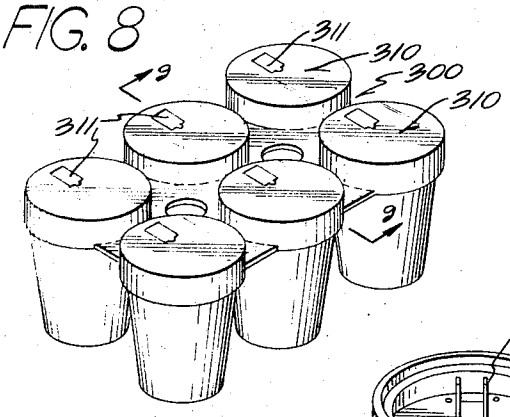



FIG. 8



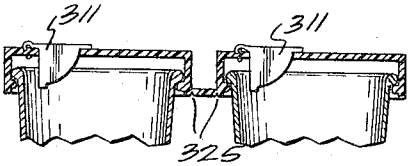




FIG. 9

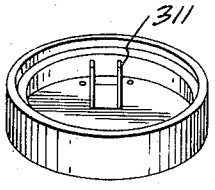



FIG. 10

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3,350,131

# COMBINED CARRYING UNIT AND COASTER

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9 Claims. (Cl. 294—87.2)


## ABSTRACT OF THE DISCLOSURE

A carrying pack for a plurality of containers and the like having an array of cup-shaped members which are separable from one another, the cup-shaped members also including a labyrinth seal with the containers in certain embodiments and a recloseable means in other embodiments.


More particularly, this application relates to a plastic unit which may be snapped onto a plurality of cans or cups, and which is specifically designed for use as a coaster when the can is removed from the unit. I have discovered an efficient and economical means for separating individual plastic cover units from a combined unit such as a six pack by scoring the underside of the plastic surface. In addition, my unit is provided with a shoulder which keeps the can from resting on the bottom of the unit when used as a coaster and an additional flange for securing the can against the shoulder, together with a single opening through the flange and two non-aligned openings through the shoulder to form a labyrinth seal which permits fluid to enter the bottom of the coaster readily without being able to leave it readily.

In one modification my invention also includes the provision of a very deep wall on the individual portion of my combined unit so that each may serve as a cup or dish, and in another modification my invention comprises the use of a reclosable cover which may include a spout as part of the closure either for distributing the contents of a container or for admitting a straw.

FIG. 1 is a perspective view of a preferred modification of my device.

FIG. 2 is a cross-sectional view on line **2**—**2** of FIG. 1.

FIG. 3 is a plan view of a single member separate from my carrying pack, which is inverted as it would be for use as a coaster.

FIG. 4 is a cross-sectional view on line **4**—**4** of FIG. 3.

FIG. 5 is a view similar to FIG. 4, but in which a can is shown in full lines within the device of my invention.

FIG. 6 is a perspective view of a modification of my device.

FIG. 7 is a view similar to FIG. 2 showing the modification of FIG. 6.

FIG. 8 is a perspective view of a further modification of my device.

FIG. 9 is a cross-sectional view on line **9**—**9** of FIG. 8.

FIG. 10 is an inverted perspective view of the unit of FIGS. 8 and 9.

FIG. 11 is a fragmentary perspective view of a further modification of my device.

As best shown in FIG. 1, my device consists of a carrying pack generally designated as **100** consisting of individual cup units generally designated as **121** joined by web areas **122**. The upper surfaces or end walls of the cup units **121** and the web areas **122** are all in a single plane, in order to present a flat upper surface for easy stacking and for the possible reception of advertising matter. Holes **124** may be provided to serve as entrances for fingers or for the reception of a carrying handle, if desired.



As best shown in FIG. 2, I provide scoring **125** on the bottom surface of webs **122** completely surrounding each individual cap member **121** to the extent that web **122** surrounds it. Score lines **125** are on the bottom surface of the web **122**, because an unbroken top surface makes a far stronger structure in the event the unit is dropped while loaded with cans or the like. The most probable direction of stress will place the top surface in tension and the lower surface in compression. Score line **125** does not weaken the structure to resist that type of stress. On the other hand, if a can is grasped and pulled outwardly and upwardly with respect to the remainder of the cans secured in my pack, the bottom surface is placed in tension and the upper surface in compression, causing the score line to separate so that the can or other container may be separated from the pack. I have found that score lines **125** are vastly superior to perforating, because the soft tough plastic material of which my pack is made is almost impossible to tear along a perforated line such as is known in the prior art. It is an important part of my invention to partially sever the plastic web, from the underside, rather than relying on a perforated line.

As is best shown in FIGS. 3 and 4, the chime **130** of the can is securely gripped between flange **131** and shoulder **132**, which provide upper and lower gripping surfaces. Together with wall **133**, the flange and the shoulder completely seal space **134** between the end of the can **135** and end wall **136** of cup unit **121**, which may be an upper wall or the lower wall depending on whether cup **121** is in use as a portion of a carrying pack or as a coaster.

The seal between cup **121** and the chime **130** of can **135** is broken by a single water channel **137** which interrupts flange **131** and extends into wall **133** as best shown in FIG. 3. The portion of channel **137** which intersects wall **133** also extends downwardly in wall **133** past the chime **130**. Shoulder **132** is provided with a lowered portion **138** between two lower water channels **139** and **139***a*. Thus, upper channel **137**, relieved shoulder portion **138**, and lower channel **139** and **139***a* make a connected system for permitting water to enter the lower space **134** between the bottom of a container and wall **136** of cup **121**, when cup **121** is in use as a coaster. While water enters space **134** rather readily under the influence of gravity, a jerk or upset is not likely to allow it to escape unless channel **137** is at the bottom of the upset coaster, because of the labyrinth seal between chime **130** and cup **121** over nearly the entire periphery of the can. Even if water does escape, it will not escape rapidly because the channel **137** is of small dimensions. A single small labyrinth is sufficient for the admission of water, because the edges of wall **133** form a raised wall about the flange **131** so that condensation water running down the can will be collected in the upper channel formed by the edge of wall **133** and will flow around to channel **137** to enter the lower space **134**. In effect, my device provides a labyrinth seal to admit water and trap it in the coaster. This is also an important feature of my invention. This feature also permits escape of condensation during use of my device as a carrier, as for instance when the carrier is applied to a can of warm beer which later cools. Pressure equalization is also facilitated.

FIGS. 6 and 7 show a modification of my device which is generally designated as **200** and is similar to that just described. The same reference characters in the **200** series have been used to indicate identical parts. However, in the device of FIGS. 6 and 7, web **222** connects the lower margins of wall **233**, rather than the ends **236** of cups **221**. Carrier **200** thus has a discontinuous top rather than a continuous top; however, I provide the same labryinth seal and the same score lines at the bottom surface of web

222, so that the modification of FIGS. 6 and 7 has many of the same advantages as the modification of FIGS. 1 through 5.

FIGS. 8 through 10 show a further modification of my device generally designated as **300** and using similar reference characters in the **300** series to designate like parts. The top of each cup **321** in carrier **300** is provided with a combined cap and spout **311**. This may serve as a dispensing opening for the goods being carried, or may serve as an entrance for a straw or the like. It is contemplated that the cap **311** will be useful prmarily where the goods being carried are not in closed cans, but are in open cups or the like, the cup **321** itself forming the cover. For this reason, I may omit channels **337**, relief **338**, or channels **339**, if desired. As shown in FIG. 9, I do provide the score lines at the bottom of web **322** partially severing the web in a circle about each cup wall **333**. It is a feature of my invention to provide a six pack or other carrier in which the portions of the carrier which cover the end of the container serve as a cap for the container, and it is also an important feature of my invention to provide several portions of a six pack carrier in which a cap or spout is provided for access to the goods, without removal of that portion of the carrier which forms the cover for the container.

FIG. 11 shows a still further modification in which the carrier **400** is composed of cups **421** connected by webs **422** which webs connect the upper surfaces **436** of the cups **421**. The cups themselves have deep walls **433** which extend approximately one-half the height of the container which is carried in the carrier **400**, so that the cup itself serves as an additional serving container in the manner of a cup or dish. It is an important feature of my invention to provide a six pack or other carrier in which the gripping elements of the carrier also serve as serving containers.

It should be understood that any of the modifications shown may have the web connecting the cup elements either flush with the top surface of the carrier or spaced any distance down the walls of the cups. In general, the most desirable form is that which has the flush upper surface, by reason of the fact that the web connects the closed ends of the cups rather than the open ends.

Other modifications may be made in my device, provided they come within the scope of the appended claims.

I claim:

**1.** A carrying pack for cans and the like comprising an array of cup-shaped members, each said cup-shaped member having side walls and an end wall, a web interconnecting said cups into a carrier unit, an internal annular shoulder at the intersection between said side wall and said end wall, an annular flange extending radially inwardly from said side wall and axially spaced from said shoulder, said shoulder and said flange being adapted to receive a container having a bead so that the bead is gripped between said flange and said shoulder, said carrier being characterized in that the web interconnecting said cups is partially severed along a continuous line immediately adjacent to the wall of each said cup and extending the entire distance of the intersection between said cup and said web, said flange and said shoulder making a watertight seal with said bead of said container, a single passage of very limited angular extent extending from the top to the bottom of said flange, and said shoulder being provided with a pair of passages angularly spaced from the passage of said flange and in fluid communication therewith.

**2.** The device of claim **1** further comprising a depressed area of said shoulder which interconnects said passages.

**3.** The device of claim **1** in which said web is flush with the end wall of said cup.



**4.** The device of claim **1** in which said web is spaced from the end wall of said cup.

**5.** The device of claim **1** in which the web interconnecting said cups is partially severed on the bottom surface thereof to provide an unbroken top surface for the web.

**6.** A carrying pack for cans and the like comprising an array of cup-shaped members each said cup-shaped members having side walls and an end wall, a web interconnecting said cups into a carrier unit, an annular shoulder at the intersection between said side wall and said end wall, an annular flange extending radially inwardly and annularly from said side wall and axially spaced from said shoulder, said shoulder and said flange being adapted to receive a container having a bead between said flange and said shoulder, said cup-shaped members being characterized by a deep annular side wall extending axially from said flange about one-half the axial length of said container, said web being partially severed on the bottom side along the entire length of the junction between said web and said wall.

**7.** A carrying pack for cans and the like comprising an array of cup-shaped members, each said cup-shaped member having side walls and an end wall, a web interconnecting said cups into a carrier unit, a shoulder at the intersection between said side wall and said end wall which is annular, a flange extending radially inwardly and annularly from said side wall and axially spaced from said shoulder, said shoulder and said flange being adapted to receive a container having a bead between said flange and said shoulder, said carrier being characterized by said container having an open top and each said cup having reclosable means in said end wall adapted to give access to said contents of said container.

**8.** A carrying pack for cans and the like comprising an array of cup-shaped members, each said cup-shaped member having side walls and an end wall, a web interconnecting said cups into a carrier unit, an internal annular shoulder at the intersection between said side wall and said end wall, an annular flange extending radially inwardly from said side wall and axially spaced from said shoulder, said shoulder and said flange being adapted to receive a container having a bead so that the bead is gripped between said flange and said shoulder, said carrier being characterized in that the web interconnecting said cups is partially severed along a continuous line immediately adjacent to the wall of each said cup and extending the entire distance of the intersection between said cup and said web, said flange and said shoulder making a watertight seal with said bead of said container, a single passage of very limited angular extent extending from the top to the bottom of said flange, and wherein said end wall of said cup is provided with means for forming a reclosable opening therein.

**9.** The device of claim **8** in which said means for forming a reclosable opening comprises a hinged pouring spout having a portion adapted to lie flat against the end wall of each said cup, an opening in said end wall beneath said portion.


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