United States Patent [19]

Frey

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[54] **PACKAGE FOR TUMBLERS AND THE LIKE**

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[52] **U.S. Cl.** **206/427**; 220/23.4

[51] **Int. Cl.** **B65d 85/62**

[58] **Field of Search** 206/427, 145, 151; 220/23.4

[56] **References Cited**

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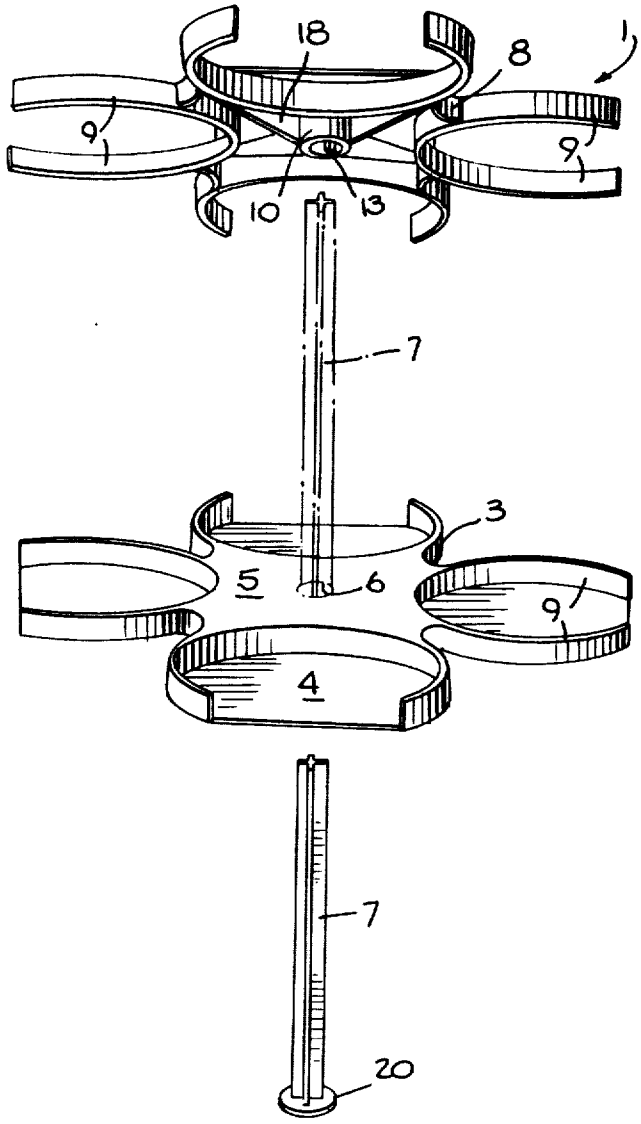
Primary Examiner—Leonard Summer

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[57] **ABSTRACT**

A molded plastic package is described for supporting articles such as tumblers for storage, transport and display. The package has a molded base including spaced cup-like receptacles for the bottoms of tumblers. A vertical molded plastic connecting rod attaches the base to a molded plastic top. The top has arcuate article gripping members corresponding in number and position to the cup-like receptacles in the base for engaging and gripping the upper rim portions of the stored articles.

3 Claims, 5 Drawing Figures



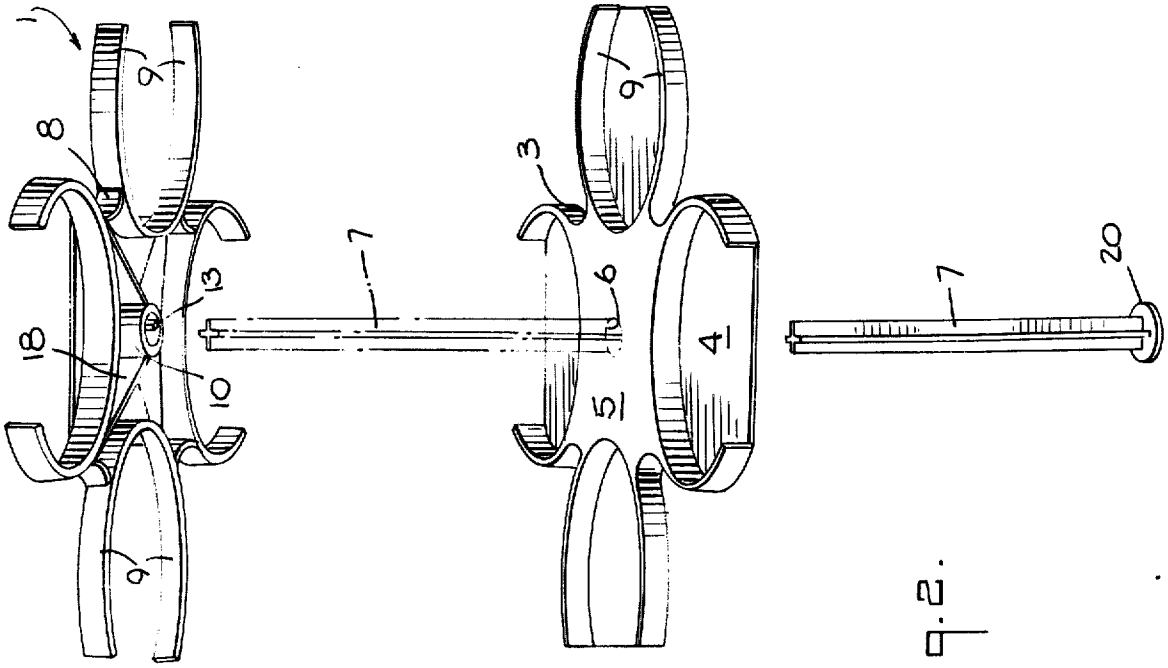


Fig. 2.

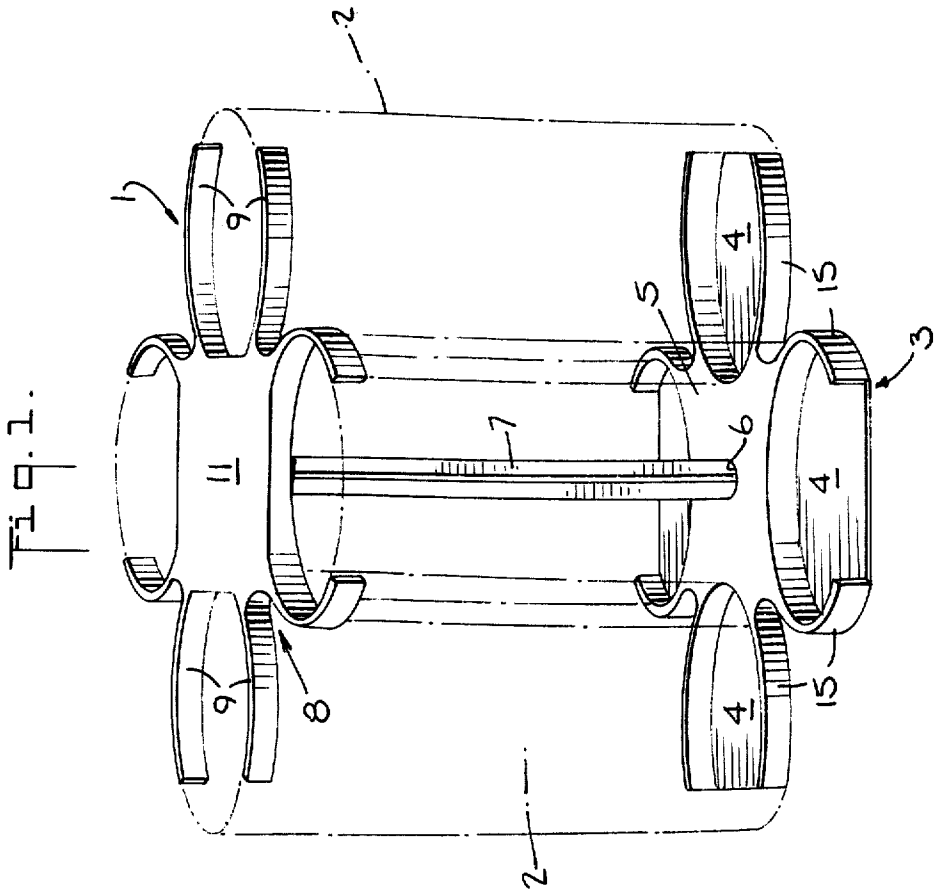


Fig. 1.

Fig. 4.

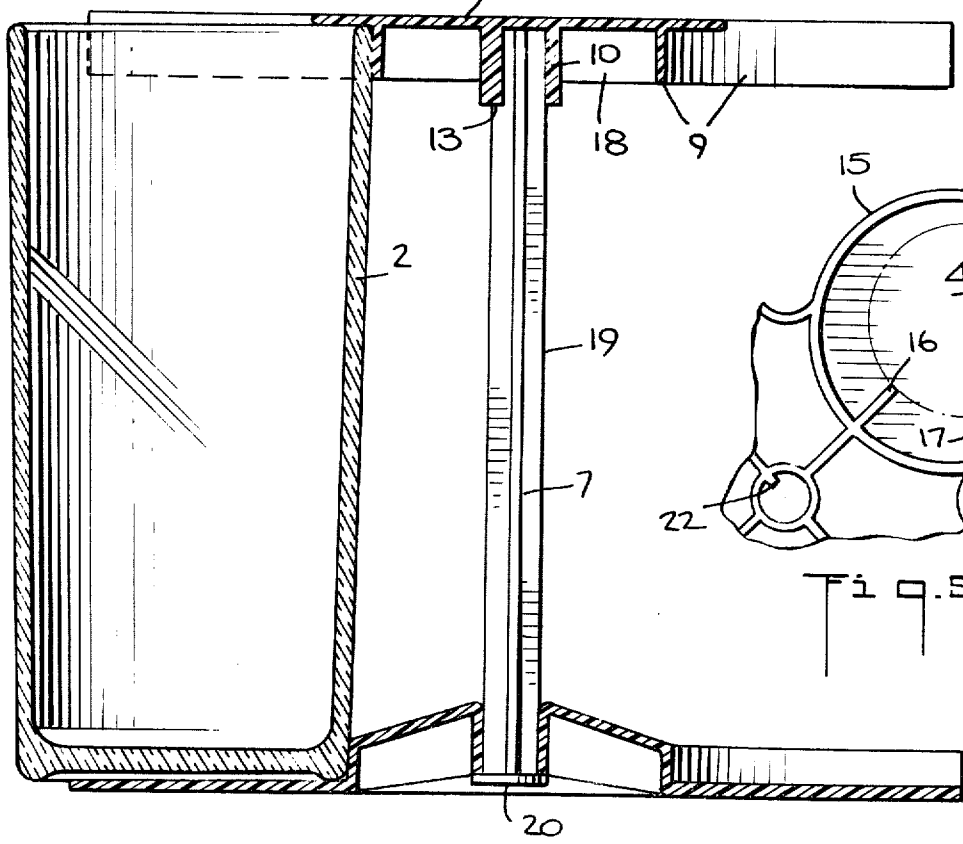
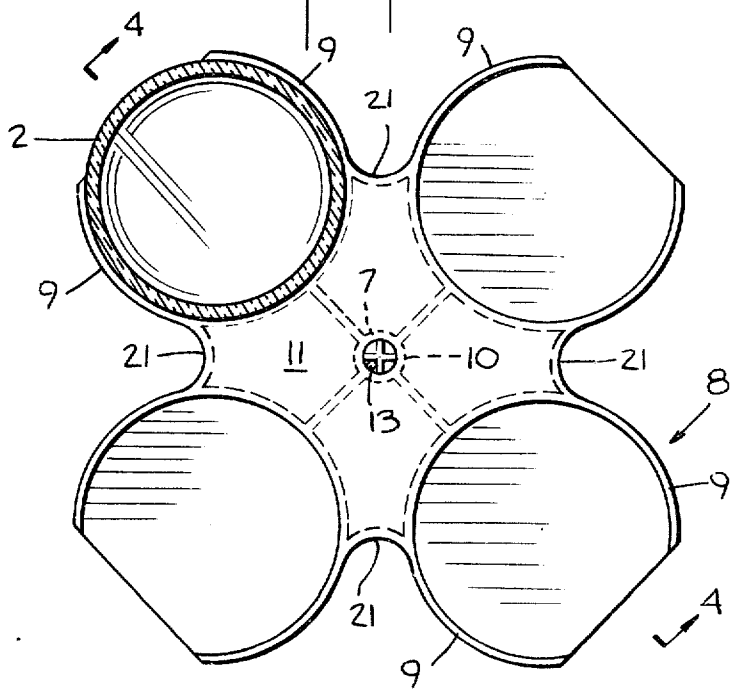


Fig. 5.

Fig. 3.



PACKAGE FOR TUMBLERS AND THE LIKE

BACKGROUND OF THE INVENTION

This invention relates to improved plastic packages for articles such as glass or plastic tumblers and the like. More particularly, the invention provides an inexpensive molded plastic support useful both for the storage and display of the articles and which has a novel shape or design particularly adapted for easy article loading.

This package is an improvement upon the packages described in U.S. Pat. No. 3,760,974 dated Sept. 25, 1973, and U.S. Pat. No. 3,693,830 dated Sept. 26, 1972, both entitled PACKAGES FOR TUMBLERS AND THE LIKE and invented by Richard K. Oglesbee.

These prior packages provide means for storing, shipping and displaying tumblers and the like which are inexpensive, convenient, and attractive packages for this purpose.

The package of the present invention incorporates similar desirable features and, in addition, is more easily loaded without the need to remove the package cover and permits the tumblers to be taken from and returned to the package with the cover remaining locked in place. This feature makes the package more adaptable for use with higher speed packing operations and additionally increases the suitability of the package for secondary use as a server or caddy. As will be more fully described below, these results are obtained by an improved design and particularly by an improved package cover design and its cooperating action with the base and post portions of the package.

Accordingly, an object of the present invention is to provide an improved package for articles such as tumblers and the like.

Another object of the invention is to provide a strong and lightweight shipping and display package for glass articles such as tumblers.

Another object of the invention is to provide an inexpensive and attractive shipping and display package for articles such as tumblers where the articles may be removed and replaced without removing the package cover.

Another object of the invention is to provide an improved package for tumblers and the like having an easy packing operation with a preassembled package.

Another object of the invention is to provide a package for distribution and display which also may be used as a server or caddy for full or empty tumblers or the like.

Another object of the invention is to provide a molded plastic package for tumblers and the like having a cover and a base and which may be packed without removal of either the cover or the base.

Another object of the invention is to provide a molded plastic package for tumblers and the like having flat upper and lower surfaces for facilitating package stacking and for providing surfaces for labeling.

Another object of the invention is to provide a reusable molded plastic package for tumblers and the like.

Other and further objects of the invention will be obvious upon an understanding of the illustrative embodiment about to be described or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of a preferred embodiment of the package for packaging cylindrical articles such as drinking tumblers and the like.

FIG. 2 is an exploded perspective view of the package of FIG. 1.

FIG. 3 is a top plan view of the base of the package.

FIG. 4 is a vertical sectional view taken along line 4—4 on FIG. 3.

FIG. 5 is a fragmentary top plan view of another embodiment of the package base.

DESCRIPTION OF THE PREFERRED EMBODIMENT

FIG. 1 illustrates a preferred embodiment of the package 1 used for shipping or displaying four cylindrical articles 2, such as glass or plastic tumblers or the like. The package 1 includes a bottom tray or base 3 having spaced cup-like receptacles 4 to receive the bottoms of the articles 2. The central portion 5 of the base 3 includes an aperture 6 for receiving a stem or a post 7 which passes upwardly through the aperture 6 and which is frictionally or adhesively attached to the base 3. A cover 8 has four spaced article receiving brackets or clips 9. The clips 9 are proportioned to frictionally engage the tops or rims of the stored articles 2. The length of the center post 7 is preferably fixed so that each of the clips 9 is almost fully engaged by the article 2 rims for providing maximum support. This dimension of the post 7, however, is not critical and the package 1 may be advantageously used for tumblers or other cylindrical articles all or some of which may be somewhat shorter or longer than an article 2 which just reaches the top of the post 7.

A receptacle 10 is formed integrally in the central portion 11 of the cover 8 for receiving the top 12 of the post 7. Upon assembly, the cover 8 is preferably retained in position by a friction lock 13.

The base 3, post 7 and cover 8 described above are preferably formed as unitary molded plastic pieces. The base 8 is preferably molded as a single unit including the apertured center portion 15 and the outwardly positioned article engaging receptacles 4 which have a cup-like form including a rim 15. Since the base 3 is molded as a single unit, this method of manufacture is adapted to the positioning of short flange members 16 (FIG. 5) at spaced positions on the article engaging rims 15. These flanges 16 are formed by using removable plugs in the mold used to form the base 3. The mold for the base includes a number of slots corresponding to the flanges 16. During the molding operation, a plug is inserted in all or a portion of the slot to control the flange length. Flanges are illustrated, for example, in FIG. 5 where three flanges 16 are provided of a length to engage spaced portions of a container bottom having a circumference shown by the circle 17. Where the package 1 is to be used for a tumbler 2 having a similar top and bottom, these flanges 16 may be completely eliminated in the manner illustrated in FIG. 1 or the flanges 16 may be made of differing lengths by changing the sizes of the plugs inserted into the mold slots.

The cover 8 is also conveniently molded as a single member including the stem engaging receptacle 10. Downwardly depending ribs 18 are preferably provided

on the underside of the cover **8** which act to stiffen the cover **8.**

The four article rim grips or clips **9** are molded integrally with the other portions of the cover **8.** Each clip **9** is seen to form the major portion of a circle with the open portion of the circle being positioned at the outermost section of each clip **9.** In order to provide for a sure grip on the articles **2,** each of the clips **9** has a substantial vertical dimension giving each of the clips **9** an elongated generally rectangular cross-section as illustrated at **9** in the portion shown in section in FIG. **4.** The shape of the clips **9** as well as their relatively great depth permits them to engage tumblers of differing heights. In the preferred dimensioning, a tumbler **2** would reach to about the upper portion of the clips **9** in the manner illustrated in FIG. **4.** Tumblers **2** with a lesser height would also be easily handled in the package as long as their rims engage a section of the clips **9.** Should the tumblers or other articles **2** be slightly taller than those illustrated in FIG. **4,** they may still be packaged since the cover **8** may be raised some distance on the post **7** during the packaging operation as long as there is adequate contact between the splines **19** of the post **7** and the receptacle **10** on the cover **8.**

With the cover **8** in place, the package **1** not only is useful for initial distribution and for display but it may also be used as a server or caddy for full or empty tumblers. The relatively large opening provided in the clips **9** having an arc of about 90° or so permits the tumblers **2** to be pulled outwardly from the clips **9** without the necessity of removing the cover **8** from the package **1.** During the initial packing, this process is reversed so that packages **1** may be fully assembled with the cover **8** in place before the packing operation.

The inwardly projecting detent or locking member **13** is formed within the cover post receptacle **10** for frictionally locking the cover **8** in place on the post **7** and for holding the clips **9** of the cover **8** in their proper positions with respect to the tumbler receptacles **4** in the base **3.** With the cover **8** held in place using the detent **13,** the package **1** may be lifted or handled using the spaced cover finger grip portions **21.** The flat central portion **11** of the cover **8** facing upwardly permits efficient stacking of the filled packages **1** and also provides a convenient surface for labels or other sales material or decoration.

When the tumblers or other articles **2** are positioned in the package **1,** the cover **8** and the base **3** combine to protect the packaged articles thereby preventing damage to the articles **2** particularly in the case of glass tumblers.

A preferred embodiment of the connecting post **7** comprises a splined member where the outer edges of the splines, such as the four splines **19** illustrated in the drawing, frictionally engage the sidewall of the base aperture **6** and the cover receptacle **10.** A button **20** is provided at the bottom of the post **7** to position the post in the base **3.** While satisfactory connection may be obtained by using a friction fit between the post **7** and the base **3** and cover **8,** a plastic solvent or cement may alternately be applied. A locking detent **22** (FIG. **5**) similar to detent **13** on the cover **8** may be provided in the base **3** aperture **6.**

The package provides a secure and convenient container which at the same time is attractive and gives visual exposure of the packaged articles. A package results which may be conveniently stacked or fitted within a larger corrugated board or other container for storage and shipment and which may thereafter be removed as a unit for display by a retailer. The customer may pick up and inspect the tumblers without opening or otherwise destroying the package and he may take the tumblers home as a unit and continue to use the package as a storage rack or server.

The package is seen to be both inexpensive and adjustable and to be adapted for manufacture from inexpensive molded plastic portions. The resulting package is easily loaded using hand or automatic packaging operations with the cover in place. The preferred material gives a moisture resistant package which may be stored in either moist or dry areas.

As various changes may be made in the form, construction and arrangement of the parts herein without departing from the spirit and scope of the invention and without sacrificing any of its advantages, it is to be understood that all matter herein is to be interpreted as illustrative and not in a limiting sense.

Having thus described my invention, I claim:

1. An improved molded plastic package for cylindrical articles comprising the combination of:

a plastic base with a central aperture;

a plurality of spaced article receiving receptacles on said base;

a plastic cover with a central receptacle;

a plastic post passing through said base aperture and connecting the receptacle on said cover to a central portion of said base for positioning a plurality of articles between said cover and said base;

a plurality of outwardly directed arcuate article clips on said cover forming a major part of a circle positioned for engaging arcuate portions of the article tops;

said post comprising an elongated member having a plurality of splines for frictionally engaging said base aperture and said cover receptacle; and

said cover receptacle including a locking detent for frictionally engaging said post and for positioning said cover clips with respect to said base receptacles.

2. The package as claimed in claim **1** in which said arcuate article clips extend about 250° to 290°.

3. The package as claimed in claim **1** in which said base aperture includes a locking detent for engaging said post.

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