July 18, 1967 R. E. KRUGGER 3,331,533

DISPOSABLE COMBINATION BEVERAGE AND CUP DISPENSER

Filed June 15, 1965 2 Sheets-Sheet 1

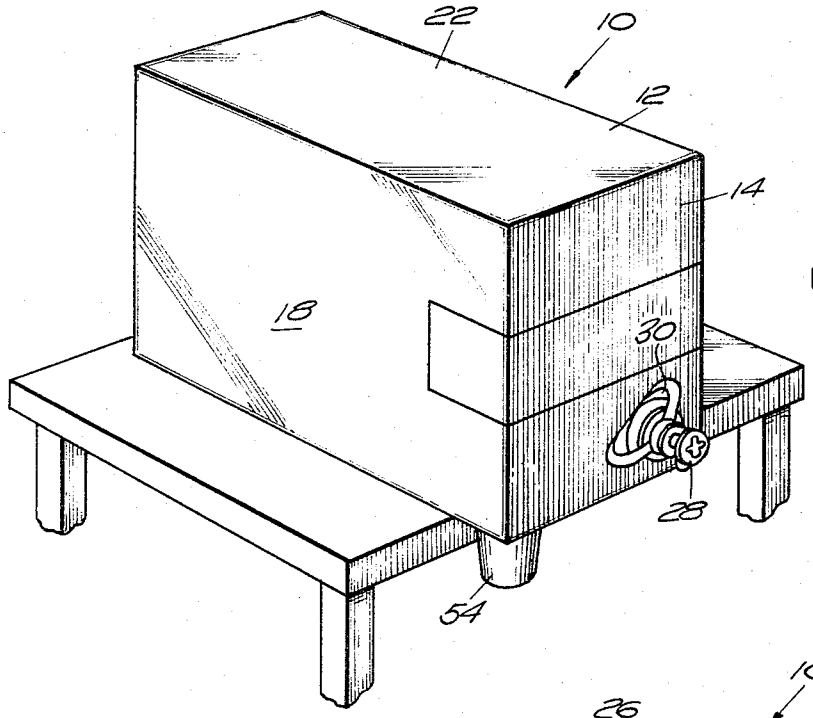


FIG. 1

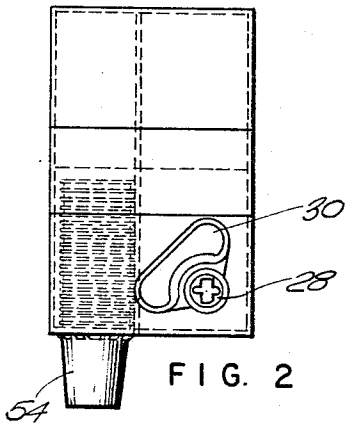


FIG. 2

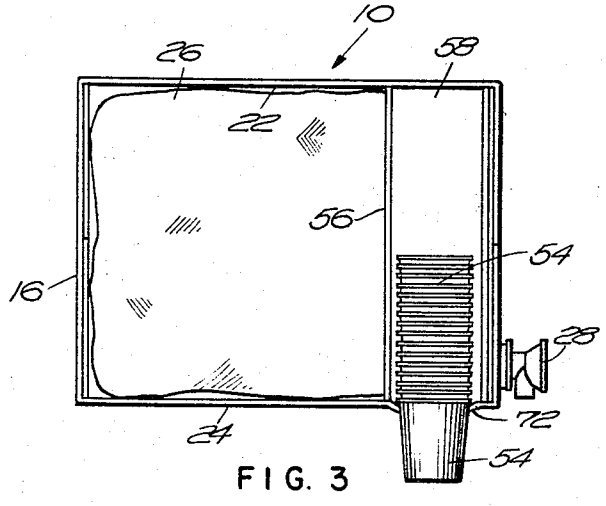


FIG. 3

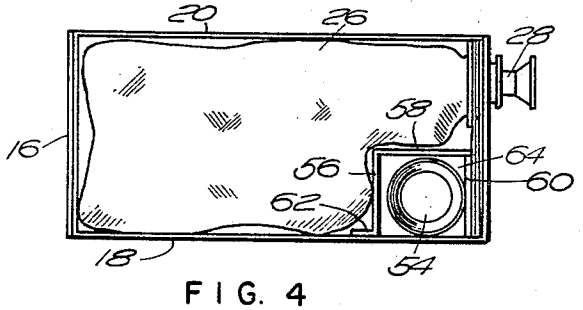


FIG. 4

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DISPOSABLE COMBINATION BEVERAGE AND CUP DISPENSER

Filed June 15, 1965 2 Sheets-Sheet 2

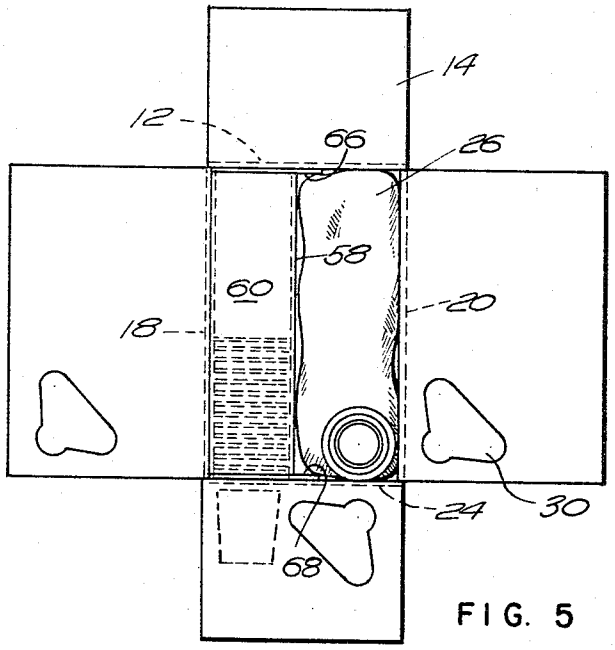


FIG. 5

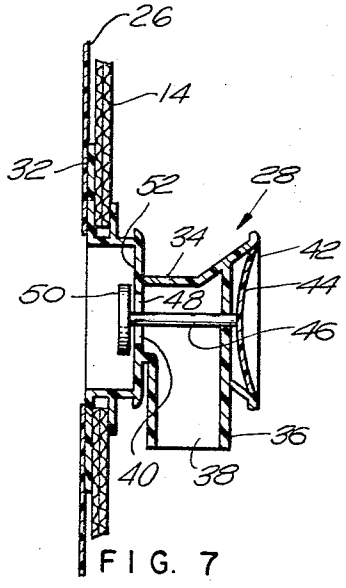


FIG. 7

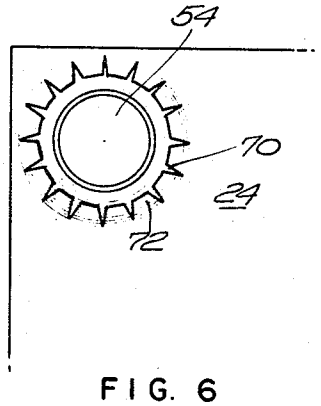


FIG. 6

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DISPOSABLE COMBINATION BEVERAGE AND CUP DISPENSER

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2 Claims. (Cl. 221—96)

This invention relates generally to disposable bulk containers for liquid refreshments and the like and more particularly, is directed towards a disposable beverage dispenser in combination with a self-contained cup dispenser.

There are presently on the market various types of disposable bulk containers. One of the most recent developments in this field is a disposable bulk container comprising a flexible plastic film bag packaged in a corrugated cardboard carton. The bag is provided with a suitable spout which, when in use, is projected through an opening in the carton. Thus, the beverage contained in the bag may be drawn off as required and, when the bag is empty, the entire unit may be discarded. Such bag and box type containers may be made up in various sizes ranging from a few quarts to several gallons capacity, for example.

The disposable type of liquid container is particularly suited for home use to package milk and similar beverages. The carton is easily stored in a refrigerator and the milk or other liquid may be drawn off directly without removing the carton.

The present invention is directed towards improvements in this type of dispenser and has for one of its objects the provision of a disposable combination bulk liquid container and cup dispenser.

Another object of this invention is to provide a combination bulk liquid storage container and cup dispenser in which a single disposable carton serves as a package for a bag adapted to hold a quantity of liquid and a dispenser for a number of stacked cups.

More particularly this invention features a disposable combination beverage and cup dispenser comprising a carton, a flexible imperforate bag disposed in the carton, valving means mounted to the bag and adapted to extend through one wall of the carton for dispensing liquid contained within the bag and walls defining a cup storage chamber within the carton. The carton is formed with an opening through an outer wall thereof in communication with the chamber whereby cups stored within the chamber may be withdrawn therefrom.

However, these and other features of the invention, along with further objects and advantages thereof, will become more readily apparent from the following detailed description of a preferred embodiment of the invention, with reference being made to the accompanying drawings, in which:

FIG. 1 is a view in perspective of a disposable combination bulk liquid container and cup dispenser made according to the invention,

FIG. 2 is a view in front elevation thereof,

FIG. 3 is a sectional view in side elevation,

FIG. 4 is a sectional plan view thereof,

FIG. 5 is a view in front elevation of the unit with the front end open to show details of construction,

FIG. 6 is a fragmentary bottom plan view, and,

FIG. 7 is a sectional side view of the nozzle.

Referring now to the drawings, the reference character **10** generally indicates a disposable combination bulk liquid container and cup dispenser generally organized about a carton **12** typically of corrugated cardboard having front and rear walls **14** and **16**, side walls **18** and **20** and top and bottom walls **22** and **24**. Disposed within the carton **12** is a bag **26**, of a suitable liquid-proof material such as polyethylene or the like, adapted to contain a beverage such as milk, for example.

The bag **26** is provided with nozzle means in the form of a valved nozzle **28** projecting through an opening **30** formed through the lower right hand side of the front wall **14**. In practice, the nozzle **28** may be located within the carton during shipping and the opening **38** may be covered by a punch out section which may be removed when the dispenser is to be put to use. It will be understood that the nozzle **28** is then manually withdrawn to a certain extent so that the outer end thereof projects from the front of the wall **14** as best shown in FIGS. 1, 3 and 4.

As shown in FIG. 7, the nozzle **28** preferably is a molded plastic article formed with a flanged base **32** which may be attached to the bag **26** by heat sealing or the like with a tubular body portion **34** extending out from the base **32** and formed with a right angular spout portion **36** having an internal passageway **38** in communication with a valving section **40**. Preferably both the bag and the nozzle are formed of a heat sealable material so that the two may be conveniently bonded to one another by well-known heat-sealing techniques. The bag, of course, is formed with an opening in registry with the nozzle opening and the flange of the nozzle is bonded to the bag about the bag opening whereby the contents of the bag may be drained. The outer end of the nozzle is provided with a conical portion **42** in which is seated a resilient member **44** which engages the outer end of a stem **46**. The stem **46** passes through a wall **48** and supports at its inner end a valve disc **50** adapted to seat against a valve seat **52** forming part of the valve body. It will be understood that the resilient member **44** serves to hold the valve disc **50** normally seated in a closed position whereby depression of the resilient member **44** by the thumb, for example, serves to unseat the valve disc to permit the liquid to discharge through the spout **36**.

In the forward left-hand corner, as viewed in FIG. 4, of the carton **12** there is formed a self-contained dispenser for cups **54** stacked vertically within the carton. The cup dispenser is formed by a single section of corrugated paperboard, for example, folded to define upright walls **56**, **58** and **60** along with a rearwardly extending marginal section **62** which is bonded to the inner face of the side wall **18**. The walls **56** through **60** define with the forward portion of the carton wall **18** a rectangular enclosure **64** extending vertically within the carton when set in an upright position as in FIG. 1 and adapted to accommodate a nested stack of cups **54** of paper, plastic or the like.

In order to better position the wall **58** with respect to the carton, hinged panels **66** and **68** located at the top and bottom respectively of the wall **58** are bonded to the inner faces of the top and bottom walls **22** and **24** of the carton. There is no need to bond the wall **60** of the cup dispenser insofar as this will be positioned by the front wall of the carton when it is closed. Also by leaving the wall **60** hinged to the wall **58**, the dispenser may be readily loaded from the front by merely placing the stack within the space **64** and then folding over the wall **60**. In the bottom wall **24** of the carton directly below the chamber **64** there is formed a circular opening **70** through which the cups may be withdrawn one by one. As a simple means of restraining the cups within the dispenser and to permit each cup to be withdrawn one by one the opening **70** is formed with inwardly projecting segments **72** about the margin of the opening. It will be understood that these projections serve to restrict the opening **70** by an amount sufficient to frictionally engage

the cups but insofar as they are formed from the corrugated cardboard forming the carton, they are sufficiently resilient to permit them to release each cup as it is manually grasped and withdrawn from the dispenser. In practice, and as best shown in FIG. 3, the projections **72** are curled downwardly to further facilitate easy removal of the cups while at the same time preventing the entire stack from dropping out accidentally.

It will be appreciated that the unit described herein provides a number of advantages in that various types of liquids may be stored, shipped and dispensed at any location and drinking cups will at all times be immediately available. A carton may be set on a table with the front end overhanging the front edge of the table as suggested in FIG. 1 or the unit may be placed in a refrigerator and cups removed and the beverage dispensed as desired. The unit is particularly useful for campers, picnickers, parties and the like where a relatively large amount of beverage is required and yet must be easily portable and low in cost. The natural insulating qualities of the corrugated carton serve to insulate the beverage contained in the bag for an extended period. The insulated properties might be further enhanced by the addition of a ply of aluminum foil, for example, lining the walls of the carton or other suitable insulating medium. A number of different beverages may be contained in the bag and once the contents are exhausted, the entire unit by reason of its low-cost may be discarded.

While the invention has been described with particular reference to the illustrated embodiment, it will be understood that numerous modifications thereto will appear to those skilled in the art. Accordingly, the above description and accompanying drawings should be taken as illustrative of the invention and not in a limiting sense.

Having thus described the invention, what I claim and desire to obtain by Letters Patent of the United States is:

1. A disposable combination bulk liquid container and cup dispenser, comprising

(a) a portable carton having top, bottom, side and end walls,

(b) an inner wall mounted within said carton at one end thereof,

(c) said inner wall together with portions of said carton walls defining a tubular enclosure located within said carton at one end thereof and extending vertically between said top and bottom walls when said carton is in an upright position,

(d) said tubular enclosure adapted to support a stack of cups mounted therein,

(e) said carton being formed with an opening through said bottom wall in communication with said enclosure and along the axis of said enclosure,

(f) restriction means disposed about said opening normally restraining said stack in said enclosure but permitting said cups to be manually withdrawn individually from said stack,

(g) a liquid impervious flexible bag disposed within said carton and adapted to contain a quantity of liquid,

(h) said bag generally conforming in size and shape to that portion of the interior of said carton not occupied by said enclosure,

(i) a valve mounted to said bag and adapted to project through an end wall of said carton for draining the contents of said bag,

(j) said valve being located at the same end of said carton as said enclosure and adjacent said bottom wall in close proximity to said enclosure.

2. A disposable combination bulk liquid container and cup dispenser according to claim **1** wherein the marginal edges of said opening are formed with a plurality of inwardly projecting segments.

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