United States Patent [19]

Jorgensen

[11] **3,743,130**

[45] **July 3, 1973**

[54] **DISPOSABLE AND COLLAPSIBLE PLASTIC COOLER**

[76] Inventor: **Blanche I. Jorgensen,** 1818 W. Norwood Avenue, Chicago, Ill. 60626

[22] Filed: **Apr. 23, 1971**

[21] Appl. No.: **136,712**

[52] **U.S. Cl.** ..... **220/9 R,** 62/372, 62/457, 190/41 Z, 220/13

[51] **Int. Cl.** **B65d 25/18**

[58] **Field of Search** ..... 220/9 R, 13; 62/372, 62/457, 530; 150/52 F; 190/41 Z

[56] **References Cited**

UNITED STATES PATENTS

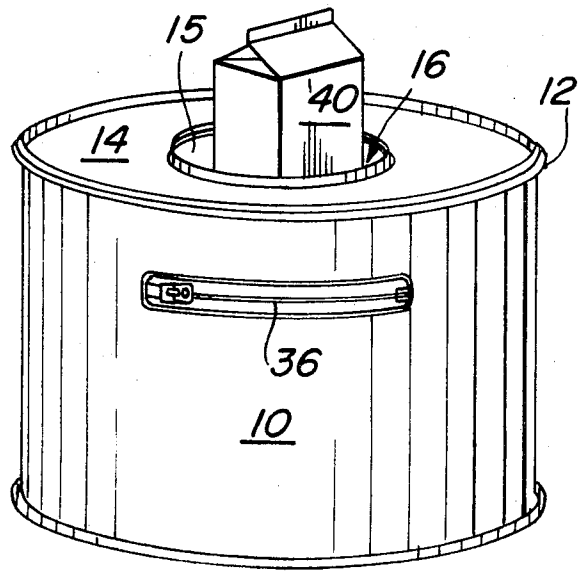
1,711,349	4/1929	Howard	190/41 Z
622,248	4/1899	Middlekauff	220/9 R
3,139,165	6/1964	Taussig	190/41 Z

Primary Examiner—Samuel B. Rothberg
Assistant Examiner—Stephen P. Garbe
Attorney—Rummler and Snow

[57] **ABSTRACT**

A disposable bedside cooler made of heat-sealed plastic which is collapsible for convenient storage having a dry inner cylindrical cavity for insertion of the object to be cooled and maintained dry therein surrounded by a watertight annular coolant chamber having a slide fastener in its outer cylindrical side wall adjacent the top of the cooler zip opening for the insertion of ice therein and zip closing for the nonspill of the ice and melt therefrom in the event of an accidental upset of the cooler.

3 Claims, 5 Drawing Figures



PATENTED JUL 3 1973

3,743,130

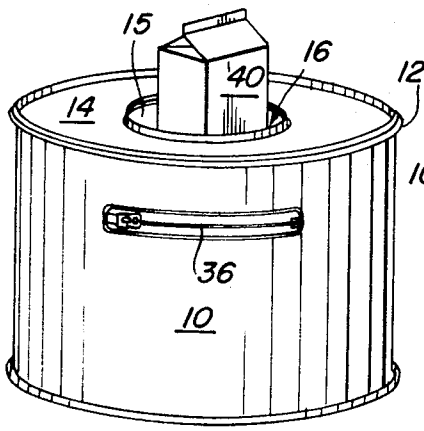


FIG - 1

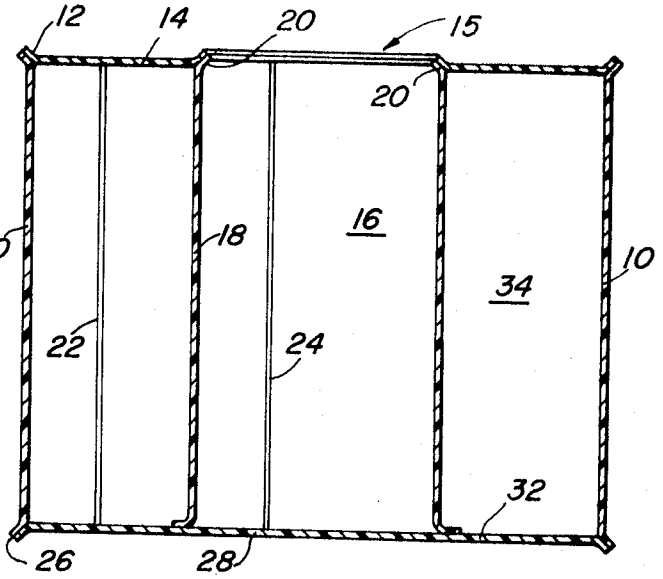


FIG - 3

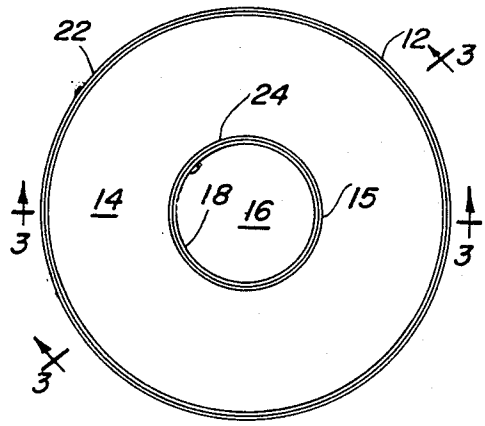


FIG - 2

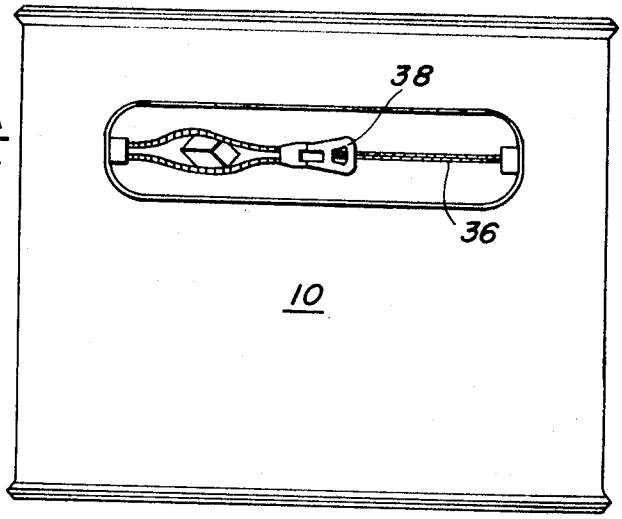


FIG - 5

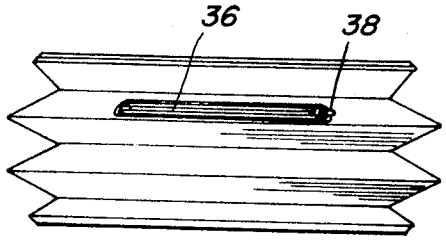


FIG - 4

INVENTOR.
BLANCHE I. JORGENSEN
BY Rummler & Shaw
Attys.

DISPOSABLE AND COLLAPSIBLE PLASTIC COOLER

BACKGROUND OF THE INVENTION

It has always been a problem in hospital patient care to have continuously available chilled drinking fluids at the bedside for the many medical needs of modern medicine, such as, for instance, cream for ulcer patients and juices for kidney and gall patients. The trend in hospitals of late has been toward the single use of equipment which is used around the person of the patient which can be taken home by the patient when discharged from the hospital, or disposed of as is seen fit. One of the most serious problems in hospitals is disposition of solid waste materials, which amounts on an average to 30 pounds per person per day, on a national scale.

Commercially available coolers used for this purpose are far from satisfactory. They are usually an open topped bucket filled with cracked ice or ice cubes. Such bucket collers are difficult to clean and in hospital work, cleanliness and sterilization are an absolute necessity.

Typically such a cooler for hospital bedside use is an aluminum bucket partially filled with ice in which a perforated metallic loose-fitting cover is laid having an axial opening for insertion of a liquid container. In this instance, the liquid container is wetted by the ice and ice melt so that not only is there ever present the danger of an ice water spill over everything within reach of the patient if the bucket is accidently knocked over (and this is a common occurrence), but the object cooled is wet and slippery to the grasp of the patient, thus compounding the possibilities and probabilities of such a spill. This condition is happening many times a day in hospitals.

Then, too, this bucket is not disposable so it must be completely and thoroughly sterilized after use by each individual patient, presenting a burdensome continuing maintenance problem to an already overloaded hospital facility, where the number of kitchen utensils, surgical instruments and bedside care pots, pans and bed chambers needing periodic sterilization is already legion. Sterilization of the aluminum bucket normally tarnishes the same and the same takes on an ugly, unsanitary sppearance.

If an article for hospital use is disposable, it should also be conveniently and sanitarily storable for quick assembly in readiness for use. None of the commercially available coolers satisfy this requirement.

There is thus a need for a disposable and conveniently storable bedside cooler with a dry cavity for cooling of objects to be consumed by the patient in connection with a substantially watertight coolant chamber closed for the retention of the ice cubes and melted ice therein whereby, in the event the container is knocked over, the ice cubes and melted water therefrom will be maintained therein without spill thereof.

SUMMARY OF THE INVENTION

The primary object of this invention is to provide a disposable bedside cooler preferably made of a heat-sealed plastic construction which is collapsible for convenient storage and has a dry inner cylindrical cavity open at the top and closed at the bottom for the insertion of objects to be cooled and maintained dry therein. This inner dry cylindrical cavity is surrounded by and contained in an annular coolant chamber having a sealed closed top and a sealed closed bottom and a cylindrical outer side wall which is water tight for the reception of ice cubes. The annular coolant chamber has a slide fastener closure anchored to the outer side wall adjacent the top of the coolant chamber for the insertion of ice therein to seal the closure after the filling of the coolant chamber with ice cubes.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of a cooler of heat-sealed plastic showing the dry cavity containing the object to be cooled with a slide fastener closure in the outer side wall of the annular coolant chamber in the closed position;

FIG. 2 is a top view of the cooler showing the dry cavity;

FIG. 3 is a cross-sectional view of the cooler taken along the lines 3—3 of FIG. 2 showing the heat-sealed junctures of the top and bottom walls with the inner cylindrical cavity wall and the outer cylindrical side wall;

FIG. 4 is a side view of the cooler shown collapsed and ready for storage; and

FIG. 5 is a side view of the cooler showing the slide fastener closure in the outer cylindrical side wall partially open for the insertion of ice cubes therein.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to FIGS. 1 and 3, it will be seen that the sealed watertight plastic cooler comprises an annular top wall 14 having an outer rim 12 spaced from a circular bottom wall 28. Circular bottom wall 28 has an outer rim 26 and an inner face 32. As shown in FIG. 3, an outer cylindrical side wall 10 is heat-sealed along its top end to the outer rim 12 of top wall 14, and along its bottom end to the outer rim 26 of bottom wall 28. The top wall 14 is provided with a central circular opening 15 having an inner rim 20 leading to a dry cylindrical cavity 16. Dry cylindrical cavity 16 has an inner cylindrical wall 18 which is heat-sealed along its upper end to the inner rim 20 of the top wall 14, and along its lower end to the inner face 32 of the bottom wall 28. The outer cylindrical wall 10 is heat-sealed along its length at juncture 22. The inner cylindrical wall 18 is heat-sealed along its length at juncture 24.

The area between the outer wall 10 and the inner wall 18, along with top wall 14 and bottom wall 28, forms annular coolant chamber 34 for containing the ice cubes, etc., while the area within the wall 18 forms the dry inner cavity 16 for the objects to be cooled.

In FIG. 5, attention is directed to slide fastener 36 anchored in side wall 10 adjacent to top wall 14 of the cooler with a tab 38 drawn for a partially open closure ready for introduction of ice into the chamber 34.

In FIG. 1, the slide fastener 36 is shown drawn in closed position for containing the ice when the cooler is in use by the bedside. Also shown is a typical fluid container 40 placed in dry cavity 16 to be cooled.

The cooler as endwise collapsed for storage is shown in FIG. 4 with tab 38 of slide fastener 36 fully drawn to completely open the closure.

The device of the present invention is preferably constructed from flat pieces of plastic, such as a translucent heavy (0.020 inch) vinyl (polyvinyl chloride) and built up by heat-sealing the seams.

It should be obvious that any waterproof material may be employed instead of polyvinyl chloride plastic and any means for closing the opening in the side wall may also be provided, like, for instance, the trademarked material "Vulcra" or the like.

Although but one specific embodiment of this invention is herein shown and described, it will be understood that details of the construction shown may be altered or omitted without departing from the spirit of the invention as defined by the following claims.

I claim:

1. A disposable and endwise collapsible plastic cooler comprising:

a. a sealed coolant chamber having a collapsible, cylindrical outer side wall and top and bottom walls;

b. a dry cavity located within said coolant chamber, said cavity being defined by a collapsible cylindrical inner side wall and the bottom wall of said coolant chamber, the said wall of said dry cavity extending between and attached at its top end to the top wall and at its bottom end to the bottom wall of said coolant chamber, the periphery of the top end of the inner wall defining the periphery of an opening which extends through the top wall of said coolant chamber;

c. a sealable closure in the outer side wall of the coolant chamber for insertion of ice therein, and

d. the inner and outer side walls of said cooler being held in spaced relation around its entire periphery.

2. The disposable and collapsible cooler as in claim **1** wherein the dry cavity is coaxial with the coolant chamber and the sealable closure is a slide fastener closure anchored to said outer side wall adjacent the top of said coolant chamber.

3. A disposable and collapsible cooler as set forth in claim **1** wherein the top end of said inner wall and the bottom walls of said cavity are substantially in the same plane as the top and bottom walls respectively of the sealed coolant chamber.

* * * * *