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UPRIGHT ICE CUBE TRAY

Filed Nov. 16, 1962

Fig. 1

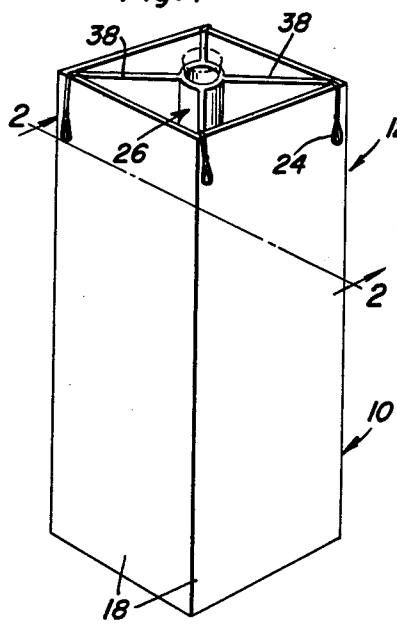


Fig. 2

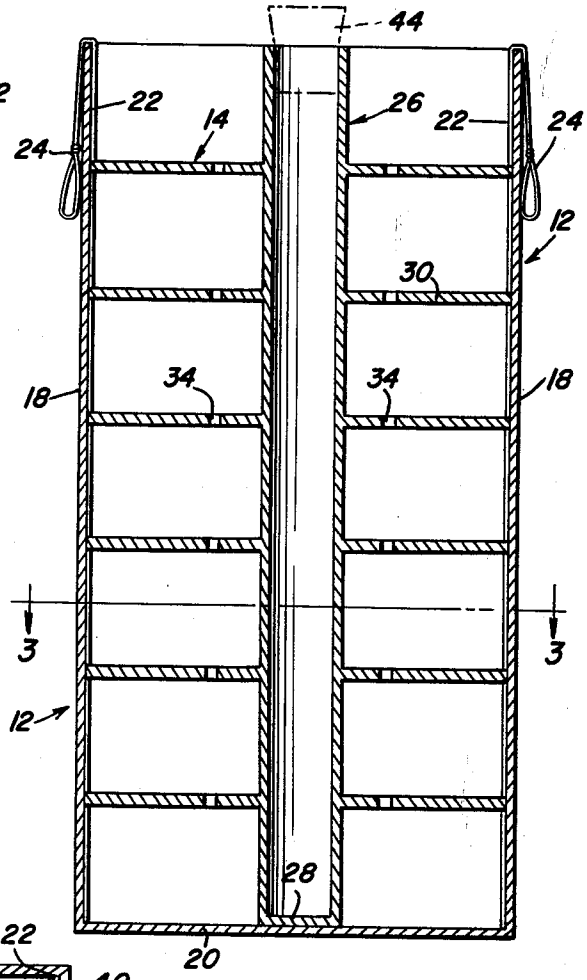


Fig. 3

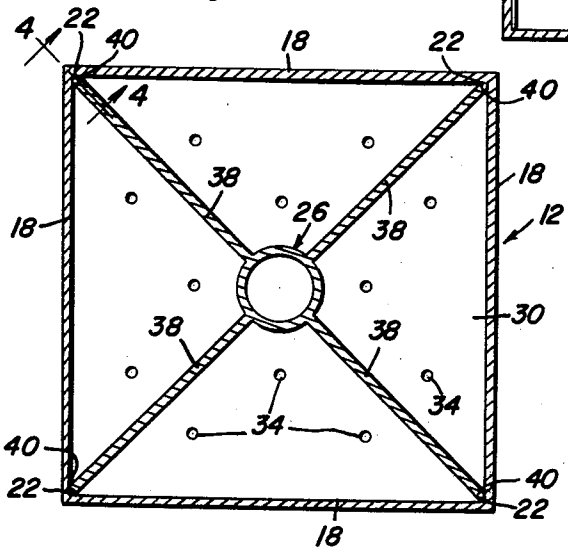
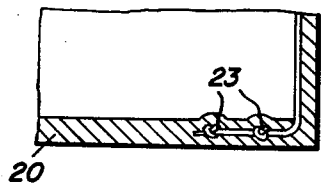


Fig. 4



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UPRIGHT ICE CUBE TRAY

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1 Claim. (Cl. 62—359)

This invention relates to a novel and useful upright ice cube tray and more specifically to an assembly comprising a tray and a compartment forming divider member which is receivable in the container and may be utilized to form a plurality of compartments within the container in which individual ice cubes may be formed by freezing water disposed within the container.

The upright ice cube tray of the instant invention utilizes a container closely resembling a wax or plastic covered carton such as that utilized to market milk but with the top removed. The disposable upright container is generally rectangular in horizontal cross section and includes adjacent upstanding walls which define four corners. At least one elongated and flexible tear member is secured at its lower end to the bottom portion of the container and extends upwardly along the inner surfaces of the container defining one of the corners thereof to the top of the container. The elongated flexible tear member may then be utilized to tear open the container in order that it may be separated from the compartment forming divider member and ice cubes supported thereby.

The main object of this invention is to provide an upright ice cube tray including a compartment forming divider member and upright container combination utilizing an upright container constructed in a manner whereby the upright container may be manufactured at an extremely low cost and may be considered as disposable after being used.

A further object of this invention is to provide an upright ice cube tray in accordance with the preceding object including a compartment forming divider member constructed in a manner whereby a heating element such as a Calrod may be advantageously positioned in a recess formed in the compartment forming divider member therefor and constructed in a manner whereby water will not be allowed to enter the recess for the Calrod whereby a Calrod heating element may be inserted into the recess and utilized to loosen the ice cubes from the compartment forming divider member.

A further object of this invention is to provide a compartment forming divider member constructed of a material having good heat transmitting qualities in order that ice cubes may be more readily formed in the compartments formed thereby.

Another object of this invention is to provide a compartment forming divider member constructed of aluminum whereby the compartment forming divider member may be slightly flexed so as to assist in the removal of the ice cubes therefrom and the compartment forming divider member may have a long life expectancy thereby requiring that only the upright container be disposable.

Another object of this invention is to provide an upright container including a plurality of elongated and flexible tear members with a tear member being provided at each corner of the container thereby enabling all sides of the container to be readily separated from the ice cubes disposed therein.

A final object of this invention to be specifically enumerated herein is to provide an upright ice cube tray in accordance with the preceding objects which will conform to conventional forms of manufacture, be of simple construction and easy to use so as to provide a device that will be economically feasible, long lasting and relatively trouble free in operation.

These together with other objects and advantages which

will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a perspective view of the upright ice cube tray of the instant invention;

FIGURE 2 is an enlarged vertical sectional view taken substantially upon the plane indicated by the section line 2—2 of FIGURE 1;

FIGURE 3 is a horizontal sectional view taken substantially upon the plane indicated by the section line 3—3 of FIGURE 2; and

FIGURE 4 is a fragmentary enlarged vertical sectional view taken substantially upon the plane indicated by the section line 4—4 of FIGURE 3.

Referring now more specifically to the drawings the numeral 10 generally designates the upright ice cube tray of the instant invention which includes a container generally referred to by the reference numeral 12 and a compartment forming divider member generally referred to by the reference numeral 14.

The upright container may be conveniently formed of wax or plastic coated cardboard and includes four upstanding side walls 18 interconnected by means of a bottom wall 20. A plurality of elongated flexible tear members 22 are provided and each has its lower end embedded in the bottom wall 20 of the container 12 and knotted as at 23. The elongated and flexible tear members 22 extend upwardly along the inner surfaces of the container defining a corresponding corner and to the top of the container 12. The upper ends of the elongated and flexible tear members 22 extend above the side walls 18 and are looped and knotted as at 24 and allowed to hang downwardly over the outer surfaces of the side walls 18.

The compartment forming divider member 14 includes a center tubular upright member 26 which is closed at its bottom end by means of a bottom wall 28 which rests upon the upper surface of the bottom wall 20 of the container 12. A plurality of panel-like divider plates 30 are secured to the upright tubular member 26 at points spaced longitudinally there along and extend transversely of the tubular member 26 and outwardly from all sides thereof. The divider plates 30 are each of a size and plan shape so as to be snugly received within the container 12 and each divider plate 30 is also suitably apertured as at 34.

The compartment forming divider member 14 also includes a plurality of generally radially extending webs 38 which are secured between adjacent ones of the divider plates and at their inner ends to the tubular member 26. Further, it may be seen that each of the divider plates 30 is provided with four corners and that each of the corners of the divider plates 30 is provided with a recess 40 in which the corresponding tear member 22 is receivable. Further, it may be seen that the radially extending webs 38 terminate a spaced distance from the outermost edges of the corresponding divider plates 30.

If it is desired, a cork or other suitable stopper 44 may be utilized to close the upper end of the tubular member 26. In operation, the compartment forming divider member 14 may be disposed within the container 12 and thereafter the latter may be filled with water. Then, the entire assembly may be positioned within a suitable refrigeration unit until the water is frozen. Then, after the assembly has ben removed from the refrigeration unit, one or more of the elongated and flexible tear members 22 may be utilized to separate adjacent walls of the container 12. After the compartment forming divider member 14 has been removed from the container with the ice cubes clinging thereto, the opposite ends of the divider member 14 may be grasped and torsional forces may be

utilized and applied to opposite ends of the divider member 14 in order to break the ice cubes from securement to the divider member 14.

If it is desired, the container 12 may first be all but completely filled with water and then the compartment forming divider member 14 may be inserted into the upper end thereof. The weight of the divider member 14 will then slowly cause the latter to drop downwardly and into the container 12 as the water within the container 12 passes upwardly through the apertures or openings 34 formed in the divider plates 30.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

An upright ice cube tray comprising a disposable upright container including upright side walls interconnected by means of a bottom wall, the juncture between adjacent side walls defining corners, said container being constructed of tearable material, an elongated flexible tear member in each of a plurality of said corners secured at its lower end to the bottom portion of said container and extending upwardly along the inner surfaces of said container defining said plurality of corners to the top of said container whereby said container may be torn along said plurality of corners to gain access to an ice cube separator disposed in said container, a compartment forming divider member constructed of a material having good heat transferring properties snugly and removably received within said container, said divider member comprising an elongated small diameter tubular center upright member having a bottom wall closing the lower end thereof and seated against the bottom wall of said container, a plurality of horizontal panel-like divider plates

secured to said upright tubular member at points spaced longitudinally therealong and from the opposite ends thereof, said divider plates extending outwardly from all sides of said tubular member at points spaced longitudinally therealong and from the opposite ends thereof and each being of a plan shape and size snugly received within said container, the corners of said divider plates each including a recess in which the corresponding tear member is snugly received, said divider member including a plurality of upright webs extending between adjacent ones of said divider plates and between the upper and lowermost divider plates and the adjacent ends of said tubular member, said webs radiating outwardly from said upright tubular member to the corners of said divider plates and being secured at their inner ends to said upright tubular member, the upper end of said upright tubular member being substantially flush with the upper end of said container, each of said divider plates having at least one aperture formed therein between adjacent ones of said webs for the passage of water between adjacent compartments formed in said container by said divider member

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