

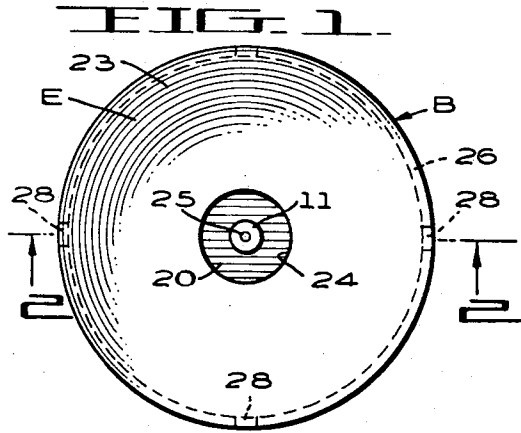
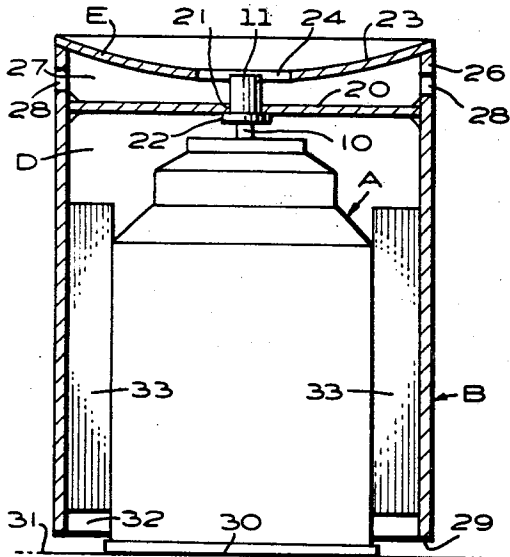
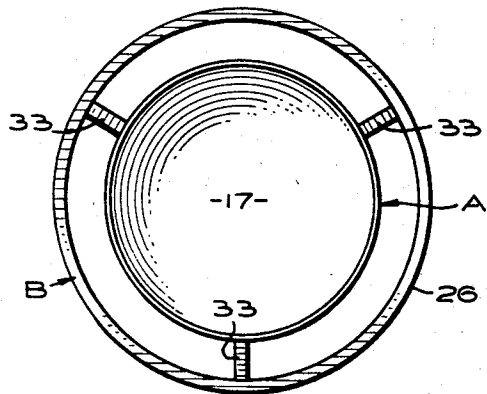
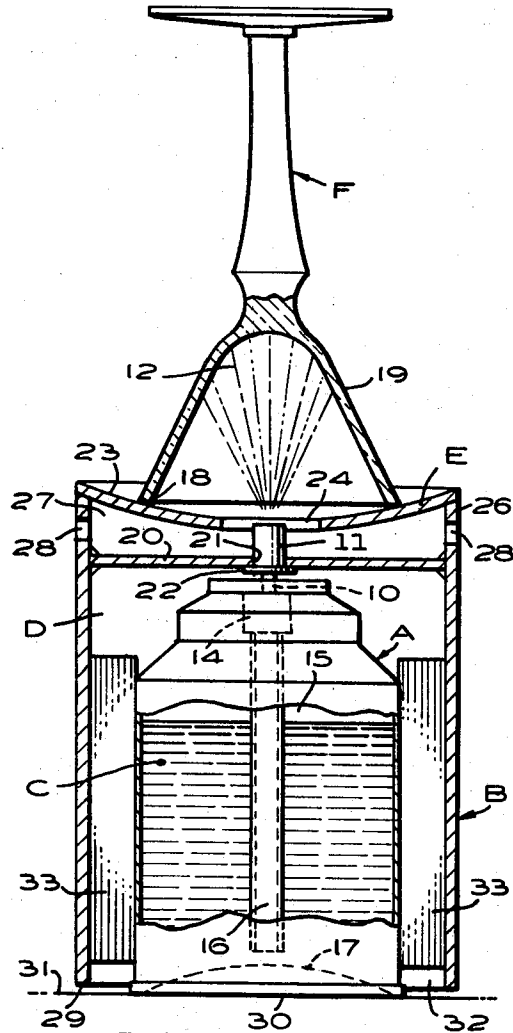
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DEVICE FOR CHILLING AND FROSTING DRINKING GLASSES

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DEVICE FOR CHILLING AND FROSTING DRINKING GLASSES

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ABSTRACT OF THE DISCLOSURE

The invention relates to a portable device for chilling glasses and consists of a portable pressurized liquid refrigerant container having a vertically displaceable spray nozzle and a holder surrounding the container. The holder has formed therewith a platform for holding glasses to be chilled and a portion for engaging the nozzle. Downward movement of the platform and holder actuates the nozzle to spray refrigerant onto the glass.

The present invention relates to improvements in a device for chilling and frosting drinking glasses. It consists of the combinations, constructions and arrangement of parts, as hereinafter described and claimed.

Heretofore, it has been proposed to utilize high pressure CO₂ for chilling cocktail glasses and the like by injecting this medium into the bowls of the glasses. However, the injecting devices previously used were rather complicated, and much difficulty has been experienced in freezing the injecting valves and orifices through which the CO₂ is discharged.

As the cardinal object of this invention, it is proposed to provide a simplified device that may be used for discharging a relative low pressure liquid into the bowls of drinking glasses so as to chill and frost the latter, for example, "Freon" and "Genetron" may be utilized as the chilling liquid with excellent results. These commercial items will be described in detail as the specification continues.

Another object of the invention is to provide a holder that is adapted to receive a pressurized container of the "Aerosol" type enclosing the selected chilling liquid. This holder is provided with a platform to extend around the spray nozzle of the container, the platform providing a support for engagement with the rim of a drinking glass. When the holder is depressed, the chilling liquid will be automatically sprayed into the bowl of the drinking glass to chill and frost the latter.

A still further object of the invention is to provide a device of the type described that is simple in construction, durable and efficient for the purpose intended, and which may be made at a relative low cost of manufacture.

Other objects and advantages will appear as the specification proceeds, and the novel features of the invention will be pointed out in the appended claims.

Drawing

For a better understanding of the invention, reference should be had to the accompanying drawing, forming part of this specification, in which:

FIG. 1 is a top plan view of my device for chilling and frosting drinking glasses.

FIG. 2 is a vertical sectional view taken along the plane 2-2 of FIG. 1, with parts being shown in elevation.

FIG. 3 is a bottom plan view of the assembled device shown in FIG. 2.

FIG. 4 is a sectional view similar to FIG. 2, but disclosing the holder in depressed position so as to discharge sprays of the chilling liquid into the bowl of an inverted drinking glass.

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While I have shown only the preferred embodiment of the invention, it should be understood that various changes, or modifications, may be made within the scope of the appended claims without departing from the spirit thereof.

Detail description

Referring now to the drawing in detail, I have shown a device for chilling and frosting drinking glasses which consists of two main components: (1) a pressurized container A and (2) a holder B. The container A is of the "Aerosol" type and encloses a chilling liquid or refrigerant C, under relative low pressure. This liquid is characterized in that it will form a coating of frost on glass, resulting from freezing ambient atmospheric moisture that condenses on the glass.

For this purpose, "Freon-12" (dichlorodifluoromethane) (chemical formula CCl₂F₂), made by Freon Products Division of E. I. du Pont de Nemours & Company, Incorporated, may be used. Another product now on the market is known as "Genetron 12" (dichlorodifluoromethane) (chemical formula CCl₂F₂) may be used and it is made by General Chemical Division of Allied Chemical. At ordinary room temperature of about 65° to 70° F., these two products have a vapor pressure of approximately 65 pounds per square inch, which is relatively low as compared with some 900 pounds per square inch for CO₂ previously utilized for chilling drinking glasses. Of course, I do not desire to be limited to these two products. The boiling point of "Freon-12" is -21.6° F.

The container A is provided with an outlet tube 10 having a spray nozzle 11 mounted thereon for discharge of the liquid C in the form of sprays 12, when this tube is moved into a predetermined liquid-dispensing position relative to the container A, as shown in FIG. 4. At that time, a dispensing valve means 14 of conventional construction in the art is opened, and pressure in the headspace 15 in the upper part of the container A forces the liquid C through a dip tube 16 that extends from near the bottom 17 to the valve means 14. When the nozzle 11 is free to move upwardly under the influence of a spring (not shown) contained in the valve means 14, the outlet tube 10 will be moved into a non-dispensing position, as shown in FIG. 2.

It will be noted that the holder B has a compartment D on its interior into which the container A may be telescoped, with the holder substantially enclosing the "Aerosol" container.

As disclosed in FIGS. 1, 2 and 4, a platform E is secured to the top of the holder B to extend around the spray nozzle 11, this platform providing a support for engagement with the rim 18 of the bowl 19 of an inverted drinking glass F, the bowl at this time surrounding the spray nozzle. As will be apparent from FIG. 4, the diameter of the platform E is large enough to accommodate drinking glass bowls of various sizes.

In order to move the outlet tube 10 downwardly into liquid-dispensing position, a partition 20 is fixed to the interior of the holder B to extend thereacross, this partition having an opening 21 through which the spray nozzle 11 projects. The partition 20 engages with an annular flange 22 fashioned on the exterior of the spray nozzle 11 so that a downward manual movement of the holder B from the position shown in FIG. 2 to the position of the holder illustrated in FIG. 4 will move the outlet tube 10 into liquid-dispensing position.

The platform has an upper dished surface 23 against which the rim 18 of the drinking glass F may be supported, and an opening 24 through which excess liquid C may drain from the dished surface. This opening surrounds and is spaced from the spray nozzle 11, whereby the liquid C may be sprayed upwardly from the orifice

25 of the spray nozzle into the bowl 19 and excess liquid may drain through this same opening.

The partition 20 is spaced below the platform E so that the former and the latter coact with the surrounding wall 26 of the holder B to define a chamber 27 into which the excess liquid C may drain. At least one hole 28 is formed in the wall 26 of the holder so as to place the chamber 27 in communication with the atmosphere and through which vapors of the liquid may be dissipated.

As illustrated in FIGS. 2 and 4, the holder B defines a lower rim 29 spaced above the bottom edge 30 of the container A, whereby the container may be placed on a supporting surface 31 and the holder B may be depressed manually to a sufficient distance to move the outlet tube 10 into liquid-dispensing position without obstruction by the supporting surface 31 (see FIG. 4).

Moreover, the holder B is provided with a lower open end 32 into which the container A may be telescoped, and the holder has a plurality of parallel ribs 33 on its interior disposed to bear against the container to guide the latter in axial movements and thus prevent the outlet tube 10 and its spray nozzle 11 from being bent laterally during reciprocating movements of the holder relative to the container.

From the foregoing description, it will be obvious that when the holder B is depressed relative to the container A, sprays 12 of the chilling liquid C will be discharged into the interior of the bowl 19 of the drinking glass F, whereby the bowl will be chilled and frost will form on the glass bowl resulting from freezing ambient atmospheric moisture that condenses on the glass.

When the supply of the chilling liquid C in the container A becomes exhausted, a replacement container may be readily inserted into the compartment D of the holder B, and the device is then ready for repeat operations of chilling and frosting drinking glasses.

The vapor pressure of the chilling liquid utilized is such as to preclude any breakage of the glass bowls 19 when the sprays 12 are discharged therein, and moreover the opening 24 and holes 28 permit a path through which any excess pressure may escape from the interior of the bowls placed over the spray nozzle 11. There is no danger of any parts of the device to freeze during the use thereof.

I claim:

1. In a device for chilling and frosting drinking glasses:
 - (a) a replaceable pressurized container enclosing a liquid refrigerant under relatively low pressure;
 - (b) the container being provided with an axial and internal outlet tube terminating with a spray-nozzle having an annular flange externally of the container

for the discharge of the liquid when said nozzle is depressed;

- (c) a holder covering and laterally surrounding the container;
 - (d) the holder having a platform top secured to the holder with a central opening to freely pass the nozzle therethrough without any engagement;
 - (e) the holder also having a transverse partition fixed to the interior of the holder below and spaced from said platform and, having a central opening passing the nozzle therethrough but engaging the annular flange so that the downward concurrent movement of the holder and platform will move the nozzle into liquid dispensing position.
2. The device for chilling and frosting drinking glasses as set forth in claim 1:
 - (g) in which the cover platform is dished and against which the rim of the bowl of an inverted drinking glass is positioned; and
 - (h) means internally of said holder for axially positioning the container but permitting axial movement of the holder relative to the container.
 3. The device of claim 2:
 - (i) atmospheric vents in the wall of the holder between the platform and the partition.
 4. The device for chilling and frosting drinking glasses, as set forth in claim 1:
 - (f) and in which the holder is provided with a lower open end into which the container may be telescoped, and the holder having a plurality of parallel ribs disposed to bear against the container to guide the latter in axial movements and thus prevent the outlet tube and its spray nozzle from being bent laterally during reciprocating movements of the holder relative to the container.

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