

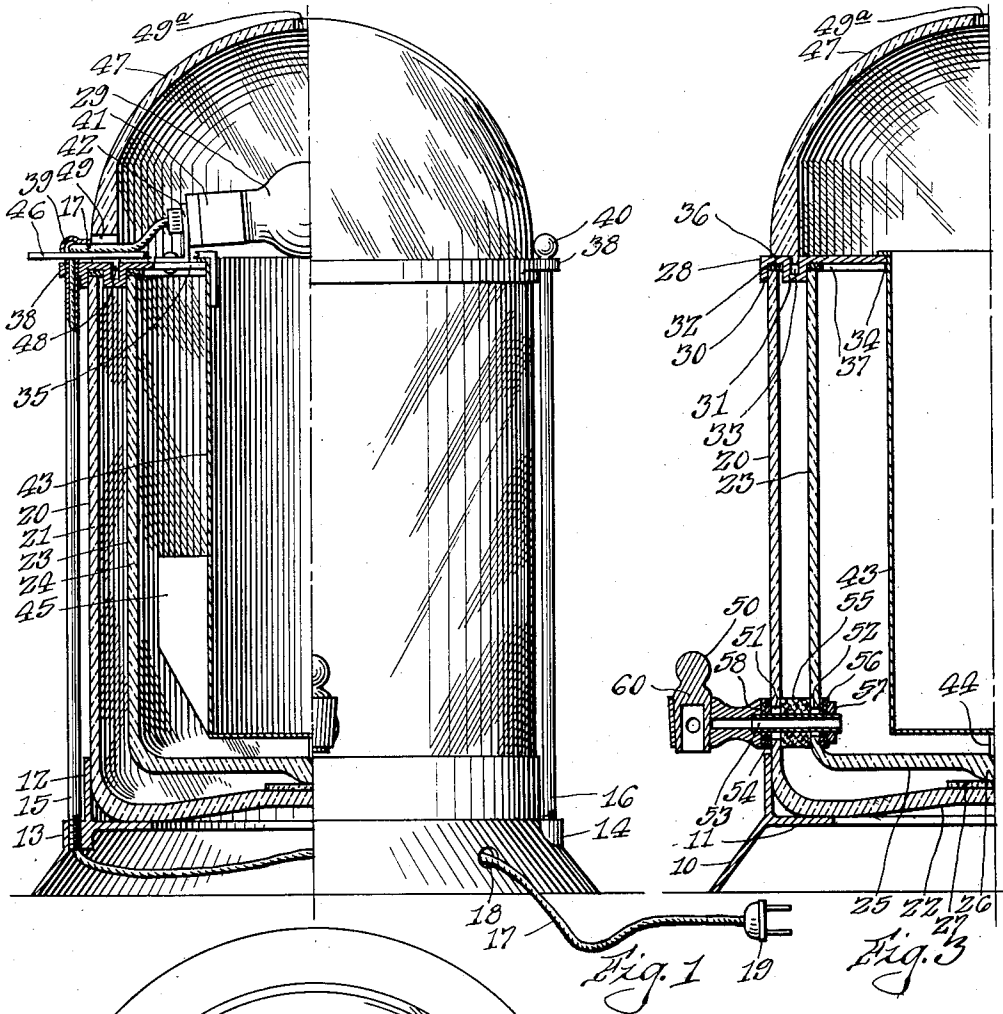
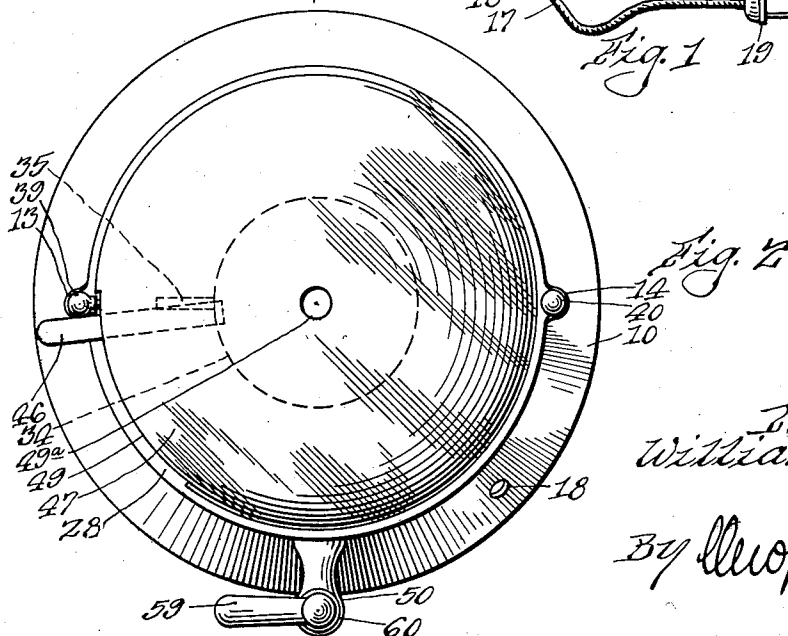
July 10, 1934.

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1,965,877

BEVERAGE COOLING APPARATUS

Filed April 5, 1933



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UNITED STATES PATENT OFFICE

1,965,877

BEVERAGE COOLING APPARATUS

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Application April 5, 1933, Serial No. 664,534

3 Claims. (Cl. 225-40)

This invention has to do with a display device for the dispensing of beverages and relates particularly to the parts thereof arranged for heat transfer.

It is an object of the present invention to provide a unique form of beverage cooling or heating apparatus having concentric spaced-apart walls and from which the beverage may be conveniently dispensed.

Another object of the present invention is the provision of an improved cooling (or heating) and dispensing apparatus having a cooling (or heating) element removably disposed within the reservoir thereof and suitable for agitating the contents of such reservoir.

Still another object of the present invention is the provision of an attractive apparatus for the cooling (or heating) of beverages and in which there is a cooling (or heating) element extending into the body of the beverage, there being agitating means on the cooling (or heating) element and means operatively connected to the cooling element and extending exteriorly of the apparatus for manually manipulating the agitating means.

Another object of the present invention is the provision of a cooling (or heating) device of the above type and which includes illuminating means for displaying the beverage contained therein.

Another object of the invention is the provision of a device of the above named character in which a heating element may be readily substituted for a cooling element without structural changes in the device.

With these and other desirable objects in view, the description hereinafter given is set forth in connection with the accompanying drawing illustrative of one form of the invention and hereby made a part of this specification and in which:

Figure 1 is a front elevation of the invention showing a part in cross section;

Figure 2 is a plan view of the invention and taken from above; and

Figure 3 is a fragmentary vertical sectional view of the invention to illustrate a faucet installation thereof.

Like reference characters will be used in the drawing and throughout the following description to indicate similar parts of the invention. Figures 1, 2 and 3 should be read conjointly with the description that follows.

In the illustrated form, the device comprising the invention is generally cylindrical, the lower end thereof resting upon a circular base 10. An

inturned annular flange 11 serves to support the device vertically while lateral displacement of the device, from the base, is precluded by a vertically disposed flange 12. Threaded apertures 13 and 14, antipodally arranged in the base 10, are adapted to receive the lower ends of brace rods 15 and 16. Brace rod 15 may be hollow whereby it may serve as a conduit for the accommodation of an electric conductor cable 17. Usually an end of the cable 17 will be led from the device by way of an aperture 18 in a side of base 10. Any standard form of electric plug member 19 may be provided at the end of the cord conductor 17 for the attachment to an electric power source.

An outer cylindrical vessel 20 has vertical side walls 21 and a bottom 22. The bottom 22 may be slightly arched, if desired, so that it can safely withstand pressure caused by the weight of other parts of the device supported thereby. Vessel 20 is made of transparent material, preferably glass.

Arranged concentrically within the vessel 20 is a second and quite similarly constructed vessel 23 having side walls 24 and a bottom 25. So that an air space will be formed between the two vessels 20 and 23, the latter named vessel is of a selected smaller diameter.

Formed within the center of the bottom 25 of vessel 23, which serves as a reservoir for the beverage to be cooled or heated, is a depressed portion 26 upon which the vessel 23 is to rest. A cushioning member 27 will usually be suitably secured between the depressed bearing portion 26 and the bottom of vessel 20. Member 27 may be made of hard rubber. The walls 21 and 24 of the vessels are conterminant in elevation to better adapt a cover member 28 to fit thereupon. Cover member 28 will usually be made by casting or pressing metal into the desired shape. However, the cover 28 may be made of glass or other transparent material so that it will permit the passage of light, from an incandescent bulb 29, downwardly into the beverage within the vessel 23.

Circumscribing the under side of the cover 28 are two flanges 30 and 31 that serve to effect a groove 32. In the upper face of the cover is a circular groove 33, which coincides with and extends downwardly into the body of flange 31.

Within the center of the cover 28 is a relatively large opening 34, from which one or more slits 35 may extend. Two annular strips of soft rubber, or the like, 36 and 37, will generally be secured to the bottom of the cover 28 by means of an adhesive. When the cover is placed over the two vessels 20 and 23 the tops of walls 21 and

24 will coincide with the pads 36 and 37, respectively, and fit snugly to the sides of flanges 30 and 31 so that the cover will fit tightly in place and not be subject to lateral movement. Apertured ears 38, within the cover 28, receive the upper ends of rods 15 and 16. Threaded heads 39 and 40 engage the upper ends of rods 15 and 16 and screw down onto said ears to hold the cover firmly seated upon the top of vessels 20 and 23.

It is desirable that the threaded head 39 be hollow as shown so that the electric conductor cable 17 may be led outwardly therefrom to a light socket 41 for the bulb 29. If desired, the socket 41 may be pivotally attached to the cover 28 as by means of a bracket 42 so that the bulb 29 may be easily displaced from its position over the cylindrical member 43.

After the cover 28 has been placed upon the device in the manner described, the cooling member 43 may be assembled with the device by inserting it through opening 34 and into the vessel 23. The member 43 is cylindrical and constructed from metal or other heat conducting material. Member 43 is hollow to adapt it to hold ice or solidified carbon dioxide or other cooling agent, or, if member 43 is to heat the contents of vessel 23, said member may have heating means therein such as a resistance coil. At the bottom of member 43 there may be placed a spindle 44 for being journaled in the depressed section 26 of the inner vessel. In Figure 1 is shown a fin 45 as attached to the side of cooling (or heating) member 43; more of such fins may be provided if desired. The fin, or fins, may be hollow and open to the cylinder 43 to further spread its effect. If more fins are placed upon the wall of the cooling member, they may be staggered with respect to a horizontal section through the member. For each fin provided in the device there must be a slit 35 in the cover 28 to permit the passage of such fins through the cover as the member 43 is lowered into the device.

A cover (not shown) may be used for fitting over the upper end of cylindrical member 43, if and when desired.

Extending radially from the top of the cylindrical member 43 is a handle 46. Said handle projects far enough beyond the peripheral edge of the cover that it may be easily grasped by an attendant for manipulating to oscillate the member 43 upon its bearing spindle 44 and to thereby move the fin or fins 45 within the beverage being treated.

For covering the top of the device is a dome-shaped piece 47, which rests upon the cover member 28. About the lower edge of the dome-like piece 47 is a flange 48 for seating in the circular recess 33 to insure the proper and secure seating of the piece. A section 49, for a distance of forty-five degrees with respect to the spherical center of the dome 47, is removed from the lower edge of the dome to accommodate angular movement of the handle 46. Section 49 also provides a convenient passage for cable 17 into the dome. An opening 49a in the top of the dome coacts with the section 49 to create a current of air for conducting heat, generated in the light bulb 29, from the dome.

The contents of the vessel, which may be placed therein by way of opening 34 when the member 43 is removed, may be drawn from the device through a faucet 50, which is placed at a lower side of the device. Holes 51 and 52 in the vessel walls 21 and 24, respectively, are drilled larger than the outside diameter of the hollow stem 53

of faucet 50. Gaskets of cork, rubber, or other suitable material indicated by numerals 54, 55 and 56, engage the opposite sides of the walls traversed by the faucet stem to prevent leakage of the liquid contents of the device and to provide a cushioned mounting for the faucet so that no injury may occur to the glass walls of the vessels by contact with a metal faucet. A nut 57 screws onto the inner end of the faucet stem and coacts with the faucet shoulder 58 to compress the gasket members and walls of the vessels tightly together. By manipulating the handle 59 the plug 60 can be turned to adjust the faucet so that a liquid may pass therethrough from the device.

Because of the double wall structure of the present cooling or heating and dispensing unit, the dissipation of cooling or heating energy is greatly reduced. Cover plate 28, whether transparent to provide for light passing therethrough from the light source 29, or opaque, coacts with the spaced-apart walls to form a dead air space about the reservoir.

Other advantages of the device reside in the disposition and construction of the cylinder 43, containing the cooling or heating agent, it having quite thin heat conductive walls so that there can be a rapid transfer of heat between the cylinder and the beverage in which it may be immersed. The rate of transfer of heat energy between the beverage and the cylinder member 43 may be further increased by moving the handle 46 to oscillate the member and hence to move the fins 45 to turbulate the beverage.

What is claimed as new and is desired to be secured by Letters Patent of the United States is:

1. A beverage cooling apparatus comprising a base, an open-top vessel having vertical transparent walls and disposed upon said base, a second open-top vessel having vertical transparent walls disposed within the first mentioned vessel to provide a dead air space between said vessels, apertures at the bottom of said vessels, a faucet member leading from the innermost of said vessels by way of said apertures, a cover for said vessels and having a central opening therein with slits extending from said opening into the body of said cover, a metallic container rotatably supported within the innermost of said vessels and removable by way of said cover opening, means for imparting rotative movement to said member, there being substantially vertical fins extending from the sides of said member into said second vessel, said fins serving to agitate the beverage when a rotative movement is imparted to said housing member and said slits accommodating the passage of said fins coincidental to insertion or withdrawal of said container through said top-opening.

2. A beverage cooling apparatus comprising a base, an open-top vessel having vertical transparent walls and disposed upon said base, a second open-top vessel having vertical transparent walls disposed within the first mentioned vessel to provide a dead air space between said vessels, aligned apertures at the bottom of said vessels, a faucet member leading from the innermost of said vessels by way of said apertures, a cover for said vessels and having a central opening therein with slits extending from said opening into the body of said cover, a hemispherical dome having translucent walls covering the whole top of the apparatus, means for illuminating the interior of said dome, a metallic container rotatably supported within the innermost of said

vessels and removable by way of said cover opening, means for imparting rotative movement to said member, vertically disposed fins extending from the sides of said container into said second vessel, said fins serving to agitate the beverage when a rotative movement is imparted to said housing member, and said slits accommodating the passage of said fins coincidental to insertion or withdrawal of said member through said top-opening.

3. A beverage cooling apparatus comprising a base, an open-top vessel having vertical transparent walls and disposed upon said base, a sec-

ond open-top vessel having vertical transparent walls disposed within the first mentioned vessel to leave an air space between said vessels, a container within said second vessel, an annular cover for said vessels and having an opening admitting of the insertion and withdrawal of said container from the apparatus, a hemispherical dome having opaque walls completely covering said vessels and tank and having air passages in different planes therein, and a lighting element within said dome between the planes of said apertures.

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15	90
20	95
25	100
30	105
35	110
40	115
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50	125
55	130
60	135
65	140
70	145
75	150