Feb. 25, 1936. G. JURKAT ET AL 2,032,130

LIQUID COOLING DEVICE

Filed Nov. 26, 1934

Fig. 1.

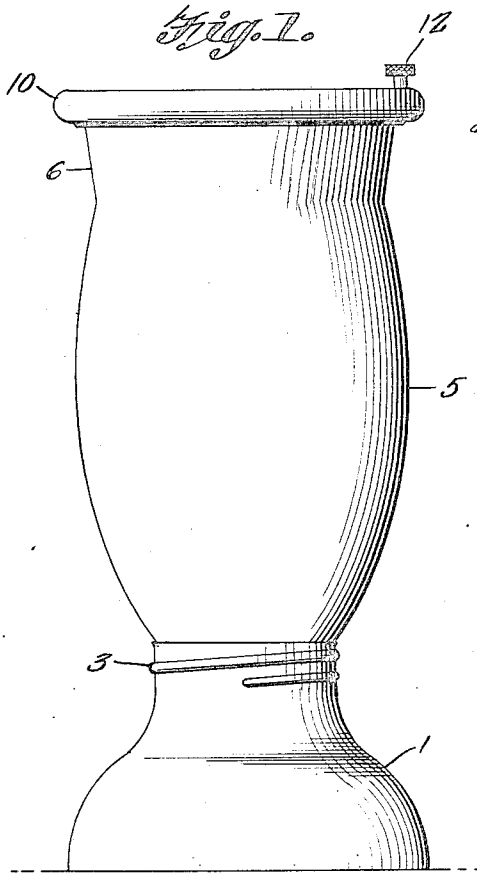


Fig. 2.

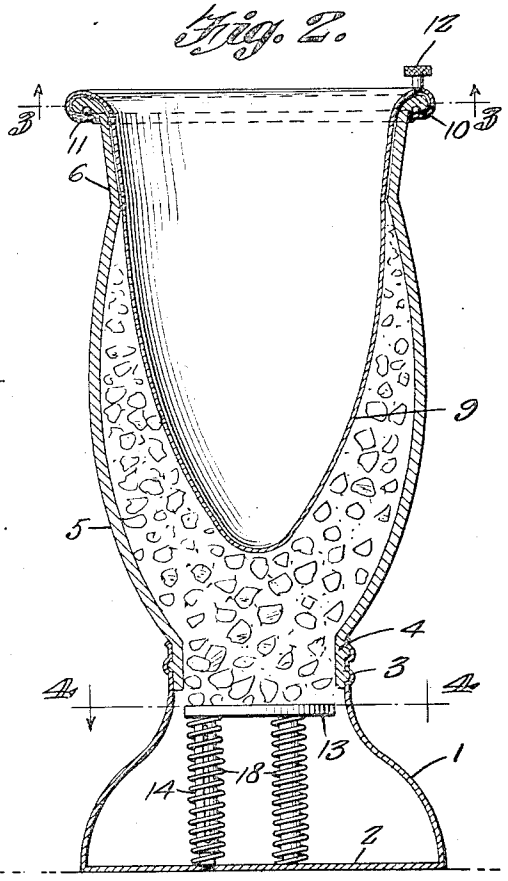


Fig. 3.

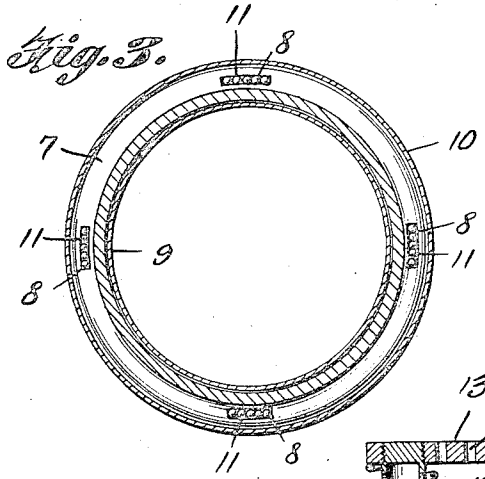


Fig. 4.

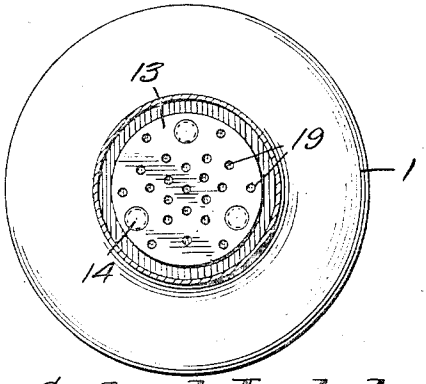
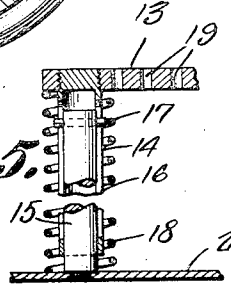


Fig. 5.



Gerhard Jurkat,
William A. Ebert,
INVENTORS

BY Victor J. Evans & Co.
ATTORNEY

P. J. Hickey
WITNESS:

Patented Feb. 25, 1936

2,032,130

UNITED STATES PATENT OFFICE

2,032,130

LIQUID COOLING DEVICE

Gerhard Jurkat and William A. Ebert,
Hoboken, N. J.

Application November 26, 1934, Serial No. 754,887

3 Claims. (Cl. 62—142)

This invention relates to cooling devices, and its general object is to provide a device for cooling liquids in an easy and expeditious manner, without the cooling medium coming in contact with the liquid, with the result the liquid retains its full strength and flavor and contamination by the cooling medium is impossible.

A further object of the invention is to provide a cooling device that is not only capable of cooling liquids quickly, but will retain the same cold for a prolonged period of time without attention.

Another object of the invention is to provide a cooling device with which ice can be used as a cooling medium, and while the device can be packed with very little effort, the ice is completely enclosed, which not only retards melting, but the ice is hidden from view.

A still further object of the invention is to provide a cooling device that is primarily designed for cooling liquids for use as drinks, such as cocktails and the like and the device is simple in construction, inexpensive to manufacture and extremely efficient in use and service.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawing and specifically pointed out in the appended claims.

In describing our invention in detail, reference will be had to the accompanying drawing wherein like characters denote like or corresponding parts throughout the several views, and in which:

Figure 1 is an elevation of the device which forms the subject matter of the present invention.

Figure 2 is a vertical sectional view taken therethrough with parts in elevation.

Figure 3 is a sectional view taken approximately on line 3—3 of Figure 2, looking in the direction of the arrows.

Figure 4 is a sectional view taken approximately on line 4—4 of Figure 2, looking in the direction of the arrows.

Figure 5 is a fragmentary sectional view illustrating a portion of the follower or packing means.

Referring to the drawing in detail, the reference numeral 1 indicates the base of our device and which includes a bottom wall 2, the latter having formed therewith and rising therefrom in graceful curves, the upper portion of the base which is restricted adjacent its upper end and threaded as at 3.

Threadedly received by the threaded upper end of the upright portion of the base 1 is the restricted lower end 4 of a shell 5, the latter being outwardly bulged in rounded formation and the bulged portion extends into an outwardly inclined portion 6 that terminates in a horizontally disposed annular bead 7 having recesses 8 arranged at intervals on the lower surface thereof and following its curvature as clearly shown in Figure 3.

The shell acts in the capacity as a bowl to receive a cooling medium such as ice, as indicated in Figure 2, and also received in the shell 5 is a substantially cup-shaped member 9 that is tapered toward its lower end in order to provide ample space between the same and the wall of the shell, so that a substantial quantity of ice or the like can be disposed between the wall of the member 9 and the shell.

The member 9 is suspended within the shell and for that purpose, the member 9 has formed with its upper end an annular tongued portion 10 that overlies the bead 7 and is directed to the under surface thereof as clearly shown in Figure 2 to contact bearings 11 such as balls disposed within the recess 8, with the result there will be antifriction means between the tongued portion 10 and the bead in order to allow for easy rotation of the cup-shaped member with respect to the shell, as will be apparent upon inspection of Figure 2. The cup-shaped member 9 is rotated through the instrumentality of a handle 12 that is secured to and rises from the tongued portion 10, therefore it will be obvious that the user can grip the handle 12 and revolve the cup-shaped member.

We also employ means for retaining the cooling medium in packed association about the cup-shaped member and that means includes a disk 13 that has threadedly secured and depending therefrom sleeves 14, the latter being telescopically mounted on posts 15 which are fixed to and rise from the bottom wall 2 of the base 1. The sleeves 14 are each provided with diametrically disposed vertically arranged slots 16 within which rides the ends of pins 17, there being one pin for each post and these pins extend through the posts as clearly shown in Figure 5, with the result the pins and slots act as means to limit the slidable movement of the sleeves on the posts, and surrounding the sleeves and posts are coil springs 18 which have their end convolutions engaging the bottom wall 2 and the disk 13 respectively, as best shown in Figure 5. The coil springs urge the disk upwardly, so that the cooling medium

will be disposed at all times in contact with the outer surface of the cup-shaped member 9.

The disk 13 is provided with a plurality of openings 19 to allow for the passage of water in the event that ordinary ice is used as a cooling medium, but of course it will be understood that dry ice or any other means can be used for that purpose.

From the above description and disclosure of the drawing, it will be obvious that we have provided a cooling device that is capable for cooling liquids for use as drinks and the like, in an easy and expeditious manner, as the device is filled with ice and the like, then the cup-shaped member which is used to receive the liquid is rotated through the instrumentality of the handle 12.

The device can be made in any size desired and from any material, in any design and not only acts as a sufficient cooling means, but also is ornamental in appearance.

It is thought from the foregoing description that the advantages and novel features of our invention will be readily apparent.

We desire it to be understood that we may make changes in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What we claim is:

1. A cooling device comprising a shell, base means for closing the lower end of the shell and being detachably secured thereto, liquid receiving means connected to and closing the upper end of the shell and mounted for rotation thereon, said shell being adapted to receive a cooling means and having the liquid receiving means suspended therein, and spring pressed means for retaining the cooling medium about the liquid receiving means and mounted in the base means.

2. A cooling device comprising a shell having open upper and lower ends, base means closing the lower end and being detachably secured thereto, a substantially cup-shaped member providing liquid receiving means and closing the upper end, said cup-shaped member being mounted for rotation with respect to the upper end, friction reducing means for the cup-shaped member, means by which the cup-shaped member may be rotated, said shell being adapted to receive a cooling medium with the cup-shaped member suspended therein, and spring pressed means arranged in the base means for retaining the cooling medium about the cup-shaped member.

3. A cooling device comprising a shell having open upper and lower ends, base means closing the lower end and detachably secured thereto, a substantially cup-shaped member suspended into the shell and having its upper end disposed about the upper end of the shell for connection therewith and for rotation with respect thereto, means by which the cup-shaped member may be rotated, said shell being adapted to receive a cooling medium for disposal about the cup-shaped member, and means including a spring pressed apertured disk mounted in the base means for retaining the cooling medium about the cup-shaped member.

GERHARD JURKAT.
WILLIAM A. EBERT.