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ART OF DISPENSING COOL DRINKING WATER.

APPLICATION FILED JULY 5, 1917.

1,382,070. **Patented June 21, 1921.**

Fig. 1.

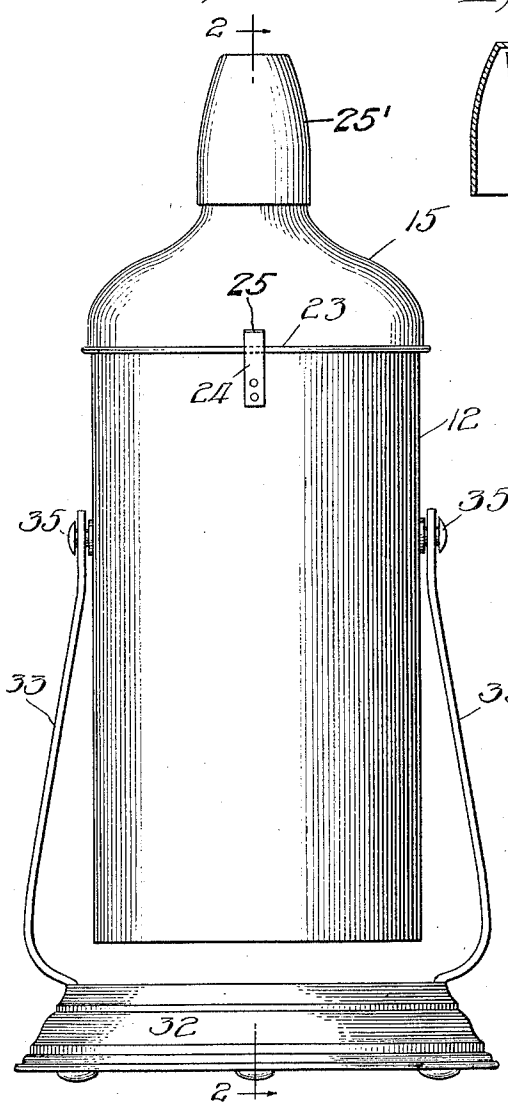


Fig. 4.

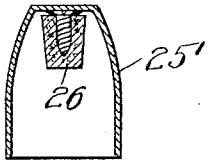
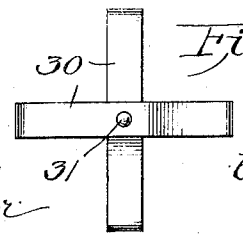


Fig. 2.

Fig. 3.



Witness:
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UNITED STATES PATENT OFFICE.

JOHN LAMPSON FATE, OF CHICAGO, ILLINOIS; DAISY L. FATE, EXECUTRIX OF SAID JOHN LAMPSON FATE, DECEASED, ASSIGNOR, BY MESNE ASSIGNMENTS, TO C. ROY GLEASON, OF CHICAGO, ILLINOIS.

ART OF DISPENSING COOL DRINKING-WATER.

1,382,070. Specification of Letters Patent. Patented June 21, 1921.

Application filed July 5, 1917. Serial No. 178,561.

To all whom it may concern:

Be it known that I, JOHN LAMPSON FATE, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in the Art of Dispensing Cool Drinking-Water; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the characters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in the art of dispensing cool drinking water, and refers more particularly to a method whereby water may be bottled at the spring or bottling station, suitably chilled before it is delivered to the user, and whereby the chilled water may be maintained at a suitably low temperature at the user's place without the necessity of refrigerating the bottle and its contents, said means being so arranged that the water may be poured or otherwise dispensed directly from the bottle for use in such manner that the water does not come in contact with the air or surfaces exposed to the air from the time it is bottled until it is used.

A further object of the invention is to provide a novel water cooler for individual water bottles adapted to receive and hold a bottle of water in such a way that the water may be poured directly from the bottle into the drinking glass so as to thereby avoid the objectionable feature of passing the water from the bottle through a refrigerator coil.

A further object of the invention is to provide a novel container for the bottle which is so constructed and arranged as to maintain the temperature of the water low without the use of ice and thereby save the cost of ice commonly employed in connection with water coolers for suitably cooling the water.

Other objects of the invention are to improve and simplify water cooling devices, and the invention consists in the combination and arrangement of the parts shown in the drawings and described in the specification, and is pointed out in the appended claims.

As shown in the drawings,—

Figure 1 is a side elevation of a water cooler embodying my invention.

Fig. 2 is an axial section thereof on the line 2—2 of Fig. 1.

Fig. 3 is a detail section thereof on the line 3—3 of Fig. 1.

Fig. 4 is a vertical sectional detail of a cap for the container and stopper for the bottle.

As shown in the drawings, 10 designates a double wall container, the walls of which inclose a space 11 from which the air is exhausted to produce a high vacuum. Said container is incased in a jacket 12 which extends around the bottom of the container at 14 so as to give an ornamental or finished appearance to the device and to protect the double wall container. 15 designates a dome-shape cover which surmounts the container and is formed of inner and outer walls 16, 17, respectively, which inclose a space 18 from which the air may be exhausted to produce a partial vacuum. The inner wall 16 is formed at its lower edge with a horizontal flange 19 which fits flat over an annular seat 20 at the upper open edge of the container, and the outer wall 17 of said cover overlaps the upper end of the container so as to form a rim 21 which fits tightly on the outside of said upper end of the container. Preferably, an elastic gasket 22 is interposed between the seat 20 and the cover flange 19.

Said cover is adapted to be detachably locked to said container by any suitable locking expedient by which the cover may be held down tightly on the container. As herein shown, the rim 21 of the cover is provided with an annular bead 23 which is engaged by spring latches 24 that are fastened to the jacket 12 and extend upwardly and overlap the beaded edge of said rim. Said latches are provided with outturned terminals 25 which form guides that are engaged by the rim when the cover is fitted in place on the container to center the cover, and also to press said latches outwardly so as to automatically engage the locking bead 21. The latches may be released from the beaded rim by pressure applied to the terminals 25.

Any other suitable means for thus detachably fixing the cover in place may be employed.

The upper, smaller end of the dome-shape

cover 15 is formed with an opening through which the neck of the bottle extends, and is provided at said opening with a yielding gasket or ring 24′ against which the neck of the bottle is adapted to be pressed. As herein shown, the inner wall member 16 of the cover is formed to provide an annular recess to receive said ring 24′; and the outer wall member 17 is formed over the convex surface of the recessed end of the inner wall. A cap 25′ is fitted over the neck of the dome-shape cover 15 and may be provided with a stopper or cork 26 that is herein shown as fixed to the end wall of the cap by a screw soldered to said cap and threaded axially in the cork or stopper.

27 designates the bottle which is supported in the container, and said container, with its closing cover 15, is so dimensioned with respect to the bottle that the upper end of the bottle neck extends through the yielding packing or gasket ring 24, so that when the cap 25 is removed water may be poured from said bottle. In order to prevent the bottle from being broken by contact with the bottom of the container, and also in order that the neck of the bottle may be held upwardly against the packing ring 24′ and thereby provide a dust and air-tight joint at this point, the said bottle is supported directly on a yielding support at the bottom of the container. Said yielding support consists in the present instance of a plate or platform 29 that is supported centrally on a pair of cross springs 30 that rest on the bottom of the container; and said plate may be fastened to said cross springs by a central rivet 31.

The container is swingingly supported in a suitable carrier by means which normally maintains the container upright, but which permits the container and the bottle therein to be tipped so as to pour water from the bottle. The carrier herein shown comprises a weighted base 32 and upstanding arms 33, 33, which latter are herein shown as provided with upwardly opening notches 34 to receive lugs 35, 35, which spring laterally from the jacket 12 of the container above the center of gravity of the device. The weighted base 32 is herein shown as made hollow and may be filled with any suitable heavy particles, such as shot, gravel or the like, so as to prevent the device from tipping.

In the use of my improved water cooler, the water is bottled at the springs or a bottling establishment and the bottles are sealed. The individual bottles are thereafter distributed to the customers at stated periods, as, for instance, in the morning, when used in an office service. The water bottles are subjected to a desirably low temperature just before being delivered, so that when placed in the containers said temperature will be maintained throughout the day without the use of ice or other auxiliary cooling means during the day. Therefore, the expense and annoyance of furnishing ice to a water cooler is obviated.

A further advantage of the use of my improved water cooler is that the water, after leaving the bottling establishment, is not exposed to contact with any surface or surfaces which may be contaminated by deleterious substances, such as dust or slime or sediment which may settle out of the water onto surfaces along which water as dispensed passes, as in other water coolers.

For instance, when the water is dispensed through a refrigerator pipe to which ice is applied in order to cool the water passing from the bottle to the faucet, the interior of the pipe soon becomes fouled by the matter which settles out of the water and unless great care is taken to constantly sterilize such pipes the water is likely to become contaminated and unfit for use. Furthermore, when water is dispensed from a large bottle supported in inverted positions over an ice refrigerated cooler, more or less dust, germs or other deleterious matter which collects on the bottle seat of the cooler will find its way into the water and render the same unsafe for drinking purposes.

My improved cooler is also applicable for domestic uses, in which a single cooler may be used with two or more bottles, one of which may be kept in the household refrigerator so as to be suitably cooled for use when the water in the bottle contained in the cooler becomes too warm for drinking purposes and by thus alternating the bottles suitably cooled water may be kept at all times for drinking purposes.

I claim as my invention:—

1. An iceless cooler for standard water bottles comprising a metal, double-wall container having air exhausted from the space between the walls and open at its top and adapted to receive through its top a removably mounted bottle, and an upwardly tapered, metal, double-wall cover, having air exhausted from the space between its walls, removably applied to the open top of the container and having an open cap receiving neck at its top through which the neck of the bottle extends.

2. An iceless cooler for water bottles comprising a metal, double-wall container arranged to provide between the walls an air tight chamber, with the air exhausted therefrom, said container being open at its top and adapted to receive through its open top a bottle, and a removable metal, upwardly tapered, double-wall cover, with air exhausted from the space between the walls thereof, applied over the open top of the container and having a restricted open cap receiving neck through which the neck of the

bottle is adapted to extend and in which it fits, the cover being spaced from the bottle neck except at the point where said bottle neck extends therethrough.

3. An iceless cooler for water bottles comprising a metal, double-wall container arranged to provide between the walls an air tight chamber, with the air exhausted therefrom, said container being open at its top and adapted to receive through its open top a bottle, a metal, removable double-wall cover applied over the open top of the container with air exhausted from the space between said walls, and having at its top a reduced open cap receiving neck through which the neck of the bottle is adapted to extend, and a gasket in the opening of said neck in which the bottle neck closely fits, said cover being spaced from the bottle neck in all its parts below said gasket.

4. An iceless cooler for water bottles comprising a metal, double-wall container arranged to provide between the walls an air tight chamber, with the air exhausted therefrom, said container being open at its top and adapted to receive through its open top a bottle, a metal, removable, double-wall cover applied over the open top of the container with air exhausted from the space between said walls, and having at its top a reduced opening through which the neck of the bottle is adapted to extend, a gasket in said opening in which the bottle neck closely fits, said cover being spaced from the bottle neck in all its parts below said gasket, and resilient means to press the bottle neck against said gasket.

In testimony that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 12th day of June, A. D. 1917.

JOHN LAMPSON FATE.

Witnesses:
W. L. HALL,
S. E. WALBRIDGE.