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W. A. HYED.

## WATER COOLING APPARATUS.

APPLICATION FILED APR. 5, 1908.

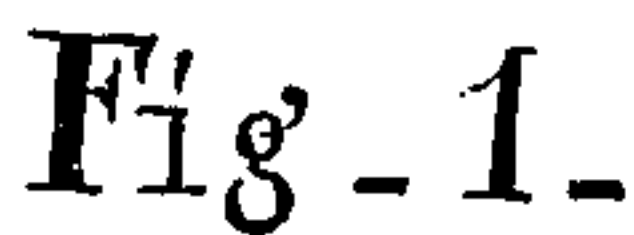


Fig - 2 -

Witness

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# UNITED STATES PATENT OFFICE.

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## WATER-COOLING APPARATUS.

No. 868,439.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed April 5, 1906. Serial No. 310,137.

*To all whom it may concern:*

Be it known that I, WILLIAM A. HYED, of Indianapolis, county of Marion, and State of Indiana, have invented a certain new and useful Water-Cooling Apparatus; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, in which like letters refer to like parts.

The object of this invention is to simplify and improve the construction of water-coolers or devices adapted to cool water for drinking and similar purposes, wherein the water is supplied to the cooler from a bottle or the like in an inverted position.

The nature of the invention will be understood from the accompanying drawings and the following description and claims.

In the drawings Figure 1 is a perspective view of the water-cooler. Fig. 2 is an enlarged central vertical section through the same, the lower part of the stand being omitted.

In detail 10 represents a tripod stand with a rim 11 on the upper end thereof upon which a refrigerating receptacle or ice-box 12 is secured. The stand has a shelf 13 for a drain vessel 14. There is also a holder 15 for a drinking tumbler 16, said holder being secured to a bracket 17 suspended from the rim 11, and a drain pipe 18 leads from said holder 15 to the drain vessel 14. The ice-box 12 of the water-cooler has an inner wall 20 and an inner bottom 21, leaving a space between the inner and outer walls, so that said ice-box is double walled. Within the ice-box there is placed a detachable water-holder or tank 22. It is cylindrical in the form shown herein and should be preferably of the same shape as the ice-box but of smaller diameter and dimensions so as to be readily put in place and removed from the ice-box. It is not a very deep receptacle so that the water therein will be readily cooled from the ice 23. Said tank is supported towards its rear end upon a transversely extending support 24 V-shaped in cross-section, that rests upon the bottom 21 of the ice-box. This support extends entirely across the bottom of the tank 22. At the front end of the tank there is an outlet through the nipple 25 and pipe 26 to which a faucet 27 is screwed. The pipe 26 extends through the two walls of the ice-box and rests upon the bottom 21 of the ice-box so as to furnish a support for the forward end of the tank 22. Thus the water tank 22 is supported in an elevated position and out of contact with the sides of the ice-box so that there will be ample circulation of cold air about the water tank, and the cold water from the melting cake of ice will spread over the surface of the water tank 22 and flow down the sides thereof and envelop the bottom. It is thus seen that a quantity of water standing in said tank will become quickly cooled. A funnel 30

is secured upon said water tank 22 so as to register with an inlet opening 31 in said tank. Said funnel extends upward to about the top of the ice-box. A waste outlet 32 leads from the ice-box.

A top is provided for the ice-box that is readily removable. The entire top is removable when desired, but for the purpose of introducing the ice, the top is divided into two sections, one of which may be called the stationary section 35 and the other the hinged section 36, the latter being hinged to the former by hinges 37, and said hinged portion having a knob 38. The stationary portion 35 of the top is provided with an opening 40 into which or through which the top of the funnel 30 extends.

This construction of water cooler is particularly adapted for the use of water bottles or vessels 41 in which distilled and mineral waters are usually shipped and handled. The water is supplied to this water cooler from such vessel by the latter being inverted and placed upon the water-cooler with the mouth of the bottle or vessel 41 extending into the top of the funnel 30. The vessel 41 is supported by a cylindrical upwardly extending support 42 that engages angularly the shoulder of the bottle. Said support is secured upon the stationary part of the top substantially as shown. There is preferably space in the opening 40 of the top about the upper end of the funnel so that there is a cooling chamber within the support 42 surrounding the bottle that is in communication with the refrigerating chamber of the ice-box, whereby the water in the lower part of the bottle, while in its inverted position, will be cooled as well as that which may be standing in the funnel 30, and the water tank 22.

This construction enables the ice to maintain a large quantity or proportion of the water in a cool condition so that a considerable quantity of cool water may be, if desired, drawn from the device at one time, and the water is gradually cooled, first in the lower part of the bottle and then in the funnel before it reaches the tank 22 and no warm water ever enters said tank. This causes a gradual cooling of the water as well as the cooling of a large quantity thereof at any one time.

With this construction the parts of the device may be readily separated and removed for cleaning or any other purpose. Thus the top may be lifted off, as it is not fastened to anything. The faucet may be readily unscrewed, and then the water-tank may be lifted out. This leaves an entirely open and free ice-box so that its interior may be readily cleaned, and the water-tank can also be removed and thoroughly washed.

What I claim as my invention and desire to secure by Letters Patent is:

In a water-cooling apparatus, an ice-box forming a refrigerating chamber with a top having an opening therein,

a water tank within said chamber and having a closed conduit leading from said water tank to a point outside the ice-box, a funnel upon said water tank that leads into the same, the upper end of said funnel registering with  
5 the opening in the top of the ice-box, a cylindrical support secured on the top of the ice-box around said opening, and an inverted bottle-shaped water vessel mounted upon said support with its mouth wedging into the upper part of said funnel, the arrangement being such as to form a

chamber above said ice-box around the lower part of said 10 water vessel and a passageway from said upper chamber to the refrigerating chamber in the ice-box.

In witness whereof, I have hereunto affixed my signature in the presence of the witnesses herein named.

WILLIAM A. HYED.

Witnesses:

J. S. BARTH.

N. ALLEMONG.