Jan. 15, 1935. L. C. SMITH 1,987,947

BEVERAGE DISPENSER

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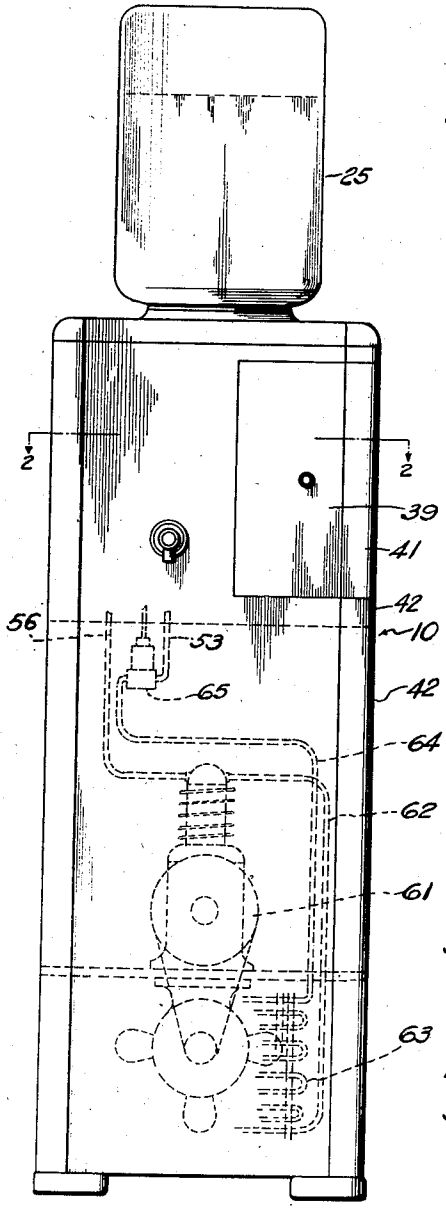



Fig. 1.

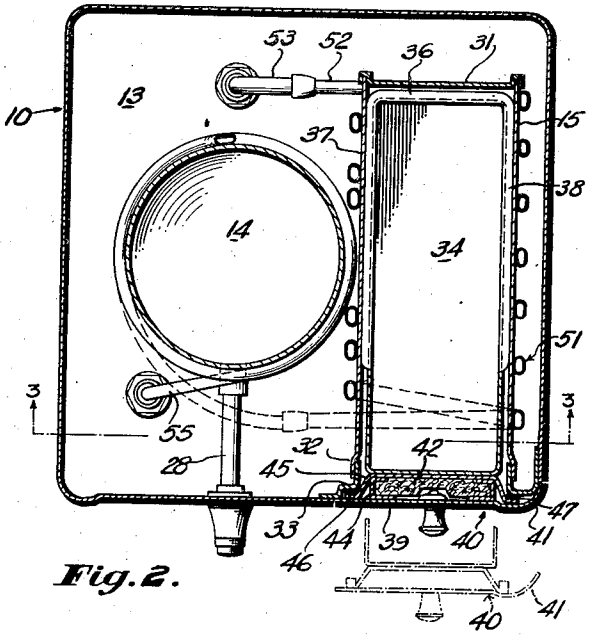



Fig. 2.

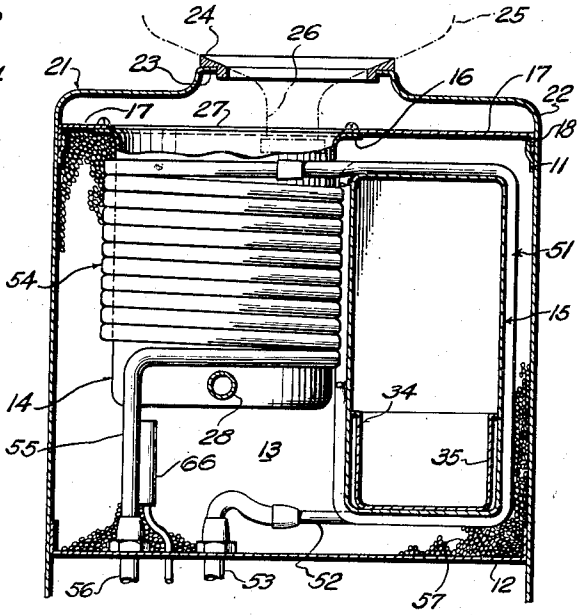



Fig. 3.

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## BEVERAGE DISPENSER

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1 Claim. (Cl. 62—141)

This invention relates to refrigerating apparatus for use in the cooling of liquids.

The invention more particularly relates to means for cooling simultaneously a liquid dispenser of the reservoir type and a storage compartment. The invention will also be found to reside in the novel arrangement of these devices and in a cooperating cabinet structure for housing the same, as more fully desecribed in the accompanying specification and drawing, wherein:

Fig. 1 is a front elevation of a cabinet containing the cooling device of the present invention;

Fig. 2 is an enlarged section on the line 2—2 of Fig. 1; and,

Fig. 3 is a section on the line 3—3 of Fig. 2.

In accordance with the present invention, a rectangular cabinet 10 is provided to house the apparatus and it is formed with an open top bordered by an internal flange member 11. A partition 12 is spaced from the open top, and it is secured to the walls of the cabinet to form an enlarged chamber 13. A vertical compartment member 14 and a horizontal compartment member 15 are mounted within the chamber 13 in spaced relation to the walls of the cabinet, the member 14 comprising a cylindrical tank, having an annular flange 16 at its upper edge serving as a connecting means to a cover member 17, which, in turn, is provided with a depending flange 18 which is supported in the flange 11 of the cabinet.

A bottle support or auxiliary top 21 is mounted over the cover member 17, and it is provided with a depending portion 22 which abuts the top edge of the cabinet and is retained against lateral movement by engagement with the flange portion 18 of the cover member 17. This member is formed with a central opening defined by a circular flanged portion 23 upon which a gasket member 24 is mounted. The gasket member serves to receive the body portion of an inverted bottle 25 of the usual type, and the neck of the bottle, as indicated by the numeral 26 (Fig. 3), protrudes through the opening in the support 21 and through a second opening 27 formed in the cover 17, and terminates in the tank 14 thereby supplying the same. The liquid in the tank 14 may be withdrawn through a draft arm or pipe 28 which extends through the wall of the cabinet and terminates in a valve 29.

It will be noted that the openings in the auxiliary top 21 and cover 17 are not in concentricity, but rather the tank 14 is offset laterally relative to the vertical axis of the cabinet. This provides a relatively large space on the right hand side of the chamber 13 (Fig. 3), which is utilized to contain the chamber member 15, this member being tubular in shape and provided at its rear extremity (Fig. 2) with a back wall 31. The front edge of the compartment member 15 is formed with an annular enlargement 32 which engages over a drawer frame member 33 secured to the interior of the cabinet 10, and this portion of the cabinet is formed with an enlarged opening leading into the compartment member 15.

The compartment member 15 serves as a housing for a drawer 34, comprising a relatively shallow pan or body member 35, slidably mounted on the bottom wall of the compartment member 15 and formed with a rear flange 36 and side flanges 37 and 38 adapted to engage the sides and rear wall of the compartment. The drawer front 40 is formed with a front plate 39, which follows the contours of the cabinet, having at its right hand edge a curved portion 41 which in closed position aligns with the curved corner portion 42 of the exterior of the cabinet 10. The door front 40 is insulated by means of a slab 43 secured to the interior of the drawer plate 41 by a flange member 44, and this structure is covered with a securing member 45 which encloses the slab 43 and is formed with flanged members 46 secured to the drawer plate 41. The securing member 45 is utilized as a connecting member for supporting the tray 35 and further is provided with an annular gasket 47 for abutting the drawer casing member 33.

A cooling coil 51 comprising flattened tubing is wound in the form of a spiral about the outer wall of the compartment member 15, and one of its terminal portions 52 is secured to the delivery end of a refrigerant supply pipe 53 as hereinafter more fully set forth. The opposite end of the coil 51 is connected to a coil 54 which is wound in intimate thermal contact about the liquid compartment 14 as shown in Fig. 3, and the terminal portion 55 of the coil 54 depends through the partition 12 for connection with the output pipe 56 of the refrigeration system.

The interior of the chamber 13 is completely packed with insulating material, such as granular cork, as indicated by the numeral 57, so that the spaced walls of the containers 14 and 15 are separated from the walls of the cabinet 10 by masses of insulating material. The cover 17 in this instance serves to retain the loose insulating material within the chamber 13.

It is preferred that the cabinet 10 be utilized to contain also the refrigerant apparatus above referred to, and it is shown diagrammatically in Fig. 1 as comprising the usual motor-com-

pressor unit 61, having an outlet pipe 62 leading through a condenser 63 and thence upwardly through a conduit 64 to a control device 65, such as a thermostatic expansion valve, and finally the refrigerant is delivered to the coil 51 through the connecting pipe 53. The exhaust refrigerant from the coil 54 is delivered through the pipe 56 back to the compressor, and a thermostatic bulb 66 is secured to a suitable portion of the outlet section of the conduit circuit, and it operates the control device 65 in the usual manner.

The embodiment of the invention herein disclosed constitutes a preferred form; however, it is to be understood that other forms may be adopted, all coming within the scope of the following claim.

I claim:

A cooling device comprising a cabinet having a portion formed to provide a rectilinear chamber having an enlarged opening through a side wall thereof, an annular drawer frame secured to the interior face of said wall and extending around the opening, said frame having an axially extending annular flange, a tube closed on one end and having its open end engaged over said flange and secured thereto, a drawer slidably mounted in said tube, an insulated drawer front secured to said drawer and adapted to engage said frame, a cooling coil disposed about said tube, and insulation means between the walls of the tube and the walls of the chamber.

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