F. R. LEWIS.
Water-Cooler.

No. 217,738. Patented July 22, 1879.

Fig. 1.

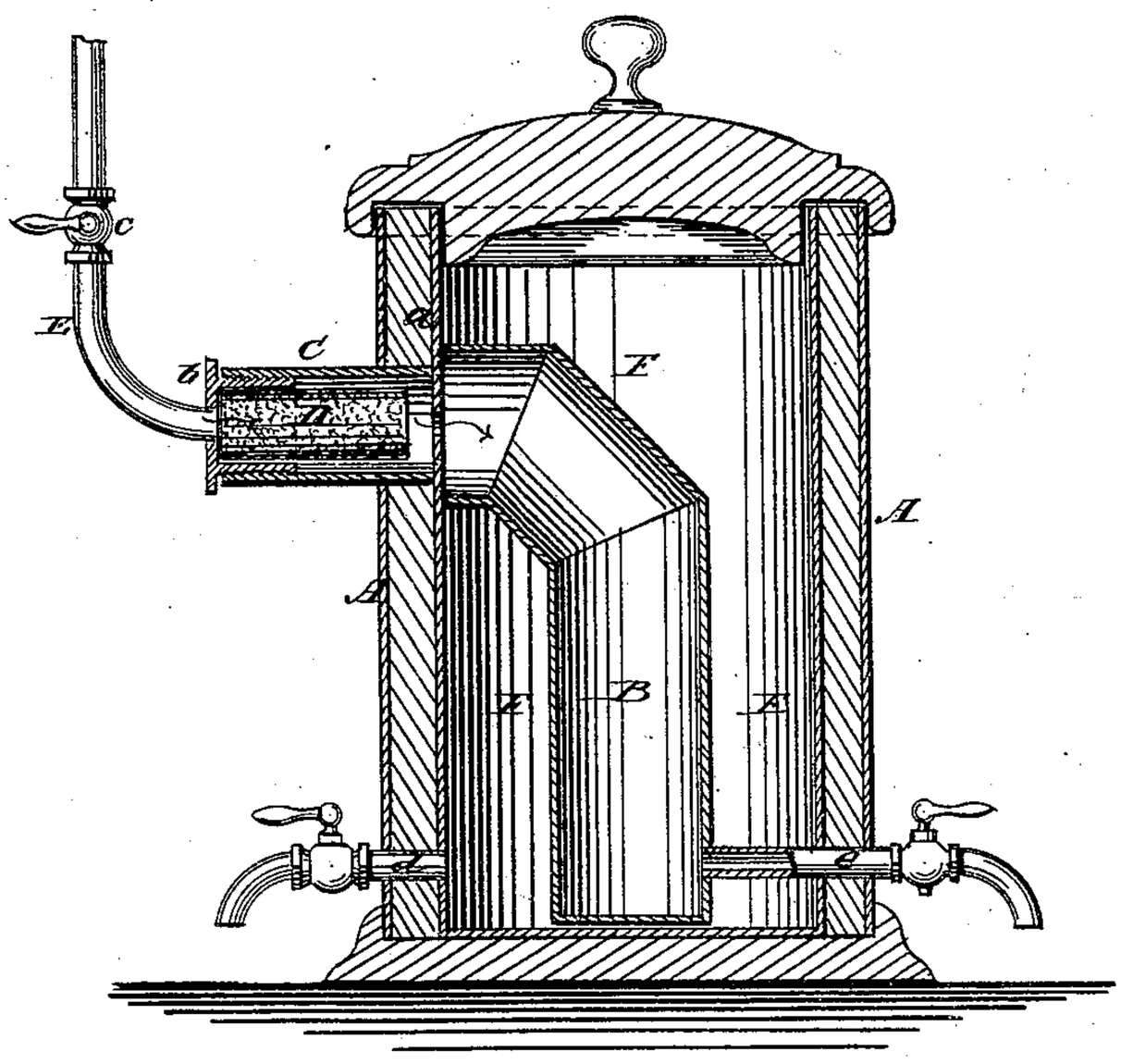
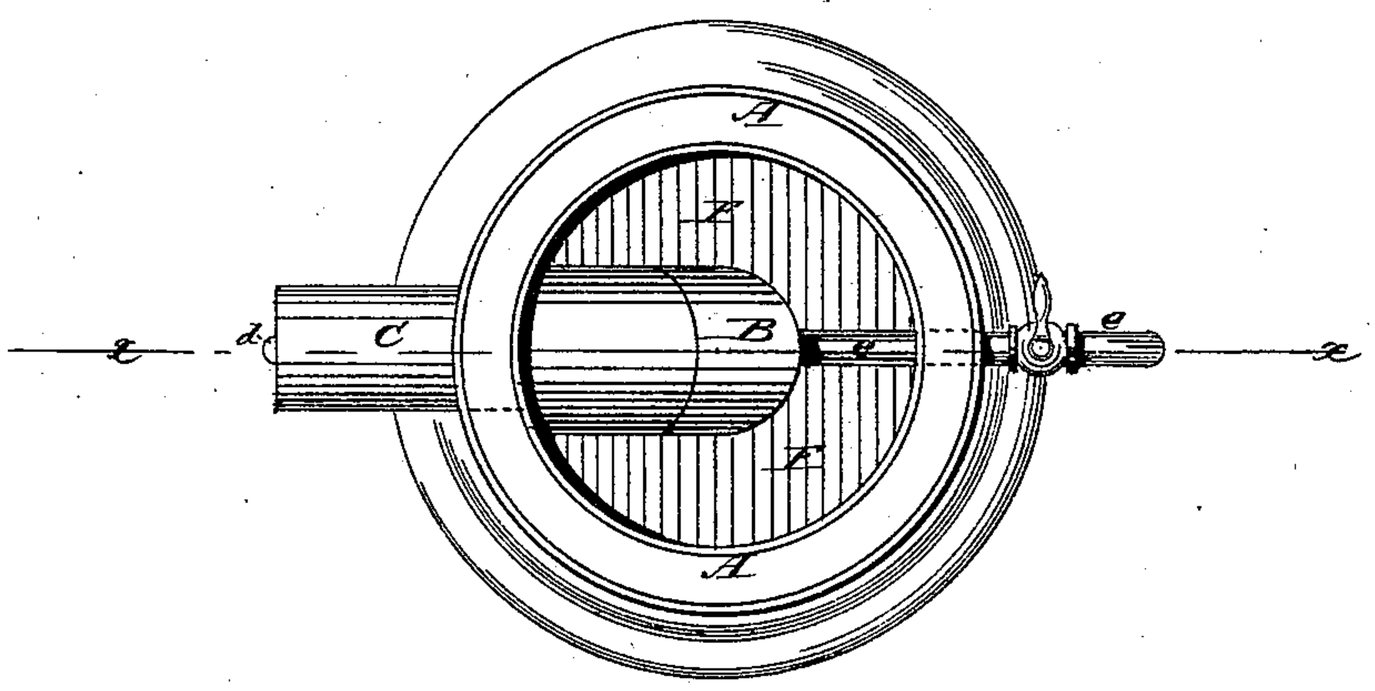


Fig. 2.



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UNITED STATES PATENT OFFICE.

FREDRIQUE R. LEWIS, OF TROY, NEW YORK.

IMPROVEMENT IN WATER-COOLERS.

Specification forming part of Letters Patent No. **217,738**, dated July 22, 1879; application filed May 17, 1879.

To all whom it may concern:

Be it known that I, FREDRIQUE R. LEWIS, of Troy, in the county of Rensselaer and State of New York, have invented a new and Improved Water-Cooler, of which the following is a specification.

The object of this invention is to economize ice and furnish a continuous supply of pure, fresh, and cold water from the cooler.

It consists in furnishing a water-cooler with a central water tube or chamber, the upper end whereof is carried to the side wall of the cooler, and communicates through an aperture in the inside lining with a box provided with a filter and connected with a water-supply pipe. The space between the walls of the cooler and the water-chamber receives the ice which surrounds the water-chamber. The water passes from the supply-pipe through the filter to the water-chamber, is cooled by the surrounding ice, and drawn off through a faucet in the bottom.

In the accompanying drawings, Figure 1 is a vertical section of my improved cooler on line *x x* of Fig. 2, and Fig. 2 is a top view of the same with the cover removed.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, the walls A of the cooler are made of suitable non-conducting material, lined on the inside with galvanized iron or other non-corroding metal.

B is the central tube, forming a water-chamber, made of galvanized iron. The top of this tube is bent over and joined to the inner lining, *a*, preferably at the back of the cooler.

C is a box, cylindrical or of other suitable form, passing through the outer wall of the cooler and against the inner lining, directly opposite the end of the water-tube B, as shown in Fig. 1. One or more perforations are made in the lining between the box and tube, so as to give communication from the box into the tube.

In the box is placed a filter, D, made of silicated carbon or other suitable material, and over the end of the tube is placed a screw-cap, *b*.

E is the water-supply pipe leading from the pipes from the main, where there is a water-supply, or from a reservoir or cistern. The end of this tube is passed through the screw-cap, and the pipe is provided with a stop-cock, *c*.

The chamber F between the water-tube and the walls of the cooler is to receive ice, and a faucet, *d*, leads through the walls at the back or side, near the bottom, to draw off the waste. Another faucet, *e*, has its stem passed through the walls in front, near the bottom, and to the water-tube. Through this the fresh cold water is drawn.

The operation of my improvement is as follows: The space F around and over tube B is packed with ice. The water supplied through pipe E is filtered in box C, and passes thence through the perforations in the lining *a* into the central water-tube, B, where it is cooled by the surrounding ice, and can be drawn off through faucet *e*.

This arrangement enables a constant supply of pure fresh water to be obtained cooled to a proper temperature without coming in contact with the ice, and thus does away with the refilling of the cooler. In addition, the arrangement prevents the ice from wasting, and thus greatly economizes its use, as it does not melt so rapidly when not in contact with the water.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

As an improvement in water-coolers, the central tube or water-chamber, B, extending nearly to the bottom of the cooler, and having its upper end bent over and joined to the inside lining, *a*, of the cooler, in combination with the filtering-box C, communicating therewith through perforations in the lining, the water-supply pipe E, and ice-chamber F between the said tube and the walls of the cooler, substantially as described.

FREDRIQUE ROOD LEWIS.

Witnesses:
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