

(No Model.)

F. R. BEAL.
WATER COOLER AND REFRIGERATOR.

No. 511,834.

Patented Jan. 2, 1894.

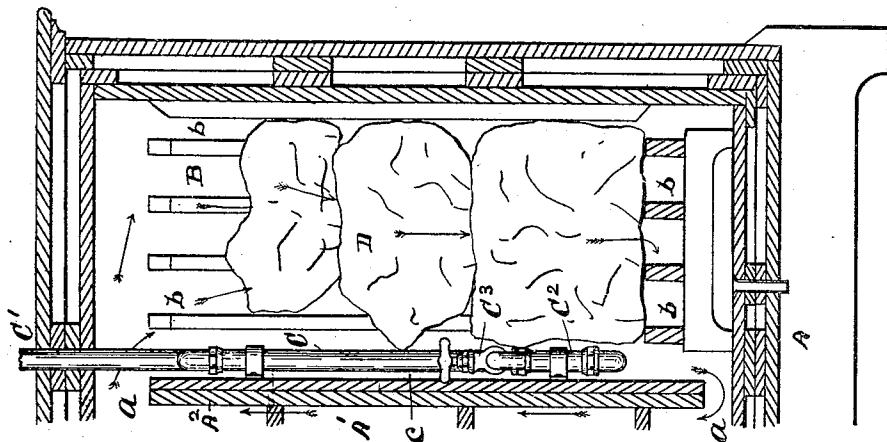


Fig. 2-

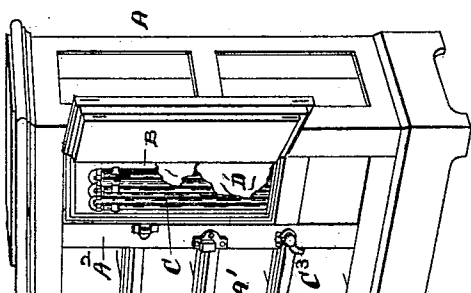


Fig. 3-



Fig. 4-

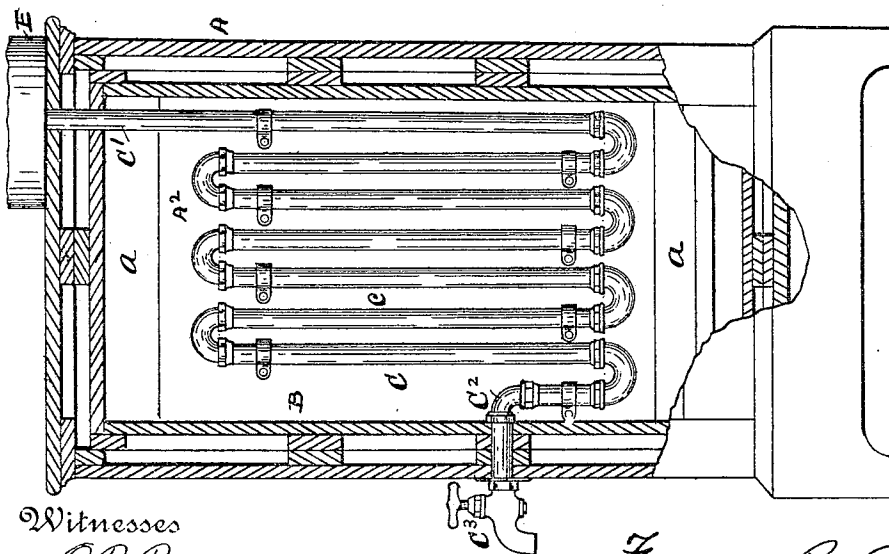


Fig. 1-

Witnesses

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UNITED STATES PATENT OFFICE.

FRANCIS R. BEAL, OF NORTHVILLE, MICHIGAN.

WATER-COOLER AND REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 511,834, dated January 2, 1894.

Application filed March 10, 1893. Serial No. 465,393. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS R. BEAL, a citizen of the United States, residing at Northville, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in a Combined Water-Cooler and Refrigerator; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved water cooler, and more particularly to a combined water cooler and refrigerator, and has for its object a simple, economical and efficient device for this purpose.

To these ends my invention consists in the construction, combination and arrangement of devices and appliances hereinafter specified and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical cross section through the ice chamber of the refrigerator, showing a portion of the case broken away. Fig. 2 is a view in vertical section at right angles to that shown in Fig. 1, and showing a portion of the provision chamber broken away. Fig. 3 is a partial view of the combined refrigerator and water cooler in perspective, having the doors opened, to show portions of the interior. Fig. 4 is a view in cross section, showing a modification of the water cooler within the ice chamber.

The desirability of a convenient, simple and satisfactory water cooler attachment to, or combined with, a refrigerator whereby the temperature of both the refrigerator and of the water cooler can be economically influenced by the same ice supply, and without any appreciable extra expense for the ice supply, is apparent. For this very desirable result it is the aim of my invention to provide.

I carry out my invention as follows:

In the drawings A represents any suitable refrigerator, constructed with a provision chamber A' and with an ice receiving chamber B, preferably, communicating with the interior of the provision chamber A' of the refrigerator, as at the top and bottom, through passages or openings "a," and whereby a cir-

ulation of air will be effected in both the provision chamber and in the ice chamber, as indicated by the arrows in Fig. 2.

I prefer to locate a series of strips "b" about the sides and base of the ice chamber to provide for a more efficient circulation of air through the passages formed thereby. Within the ice chamber, I also locate a water cooler C, preferably, consisting of pipes arranged in loops, as shown in Figs. 1, 2 and 3, or other water receiver. The inlet portion of the pipe, as C', may communicate with a city water system, or with a tank E of suitable size, either located within or without the ice chamber. The outlet portion C² of the water cooler may be provided with a faucet, as shown at C³. Instead of using a series of pipes as a water cooler, a corrugated tank C⁴ may be employed, as shown in cross section in Fig. 4.

It will be obvious that in a water cooler constructed in either of the ways above described, and shown herewith, the pipes or corrugations form air flues therebetween, or passages, through which air may pass, as shown, for example, at "c."

The water cooler may be arranged in any desired manner within the ice chamber, within the scope of my invention, and I do not limit myself to the precise construction thereof herewith shown and described. A desirable form and location thereof, is that shown in Figs. 1, 2 and 3, wherein the water cooler is formed of pipes arranged in loops adjacent to the wall or partition A² between the provision chamber A' and the ice chamber B. Being so located adjacent to said partition, the pipes separate the ice, indicated at D, from the partition, leaving air passages therebetween, said pipes serving the same purpose as the strips "b." The water cooler in this manner serves a double purpose, of conducting the water through the ice chamber and also forming air passages therein, the two purposes mutually contributing to the efficiency of the device.

By providing the tank E, where the water cooler is not attached, to a water system, provision is made whereby the device is adapted for use anywhere. So also, if it is desired to use spring water for drinking purposes, or if it is desired to boil the water, it can readily be done by the use of my invention, with the greatest economy, ease and efficiency. The

use of the tank allows the water to flow freely into the cooler through the connecting pipe.

What I claim as my invention is—

- 5 1. The combination with an ice receiving chamber, of a water cooler, said water cooler constructed to form vertical air passages between the ice chamber and the water cooler, substantially as described.
- 10 2. A combined refrigerator and water cooler, having in combination, a provision chamber, an ice chamber communicating with the provision chamber, at the top and bottom thereof and a water cooler constructed to form a free passage for the air coming into the ice cham-
- 15 ber from the provision chamber to pass be-

tween the ice and the cooler, substantially as described.

3. The combination with an ice receiving chamber, of water pipes located therein, arranged in vertical loops and communicating with a water supply, said loops forming vertical air passages thereabout, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

FRANCIS R. BEAL.

Witnesses:

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