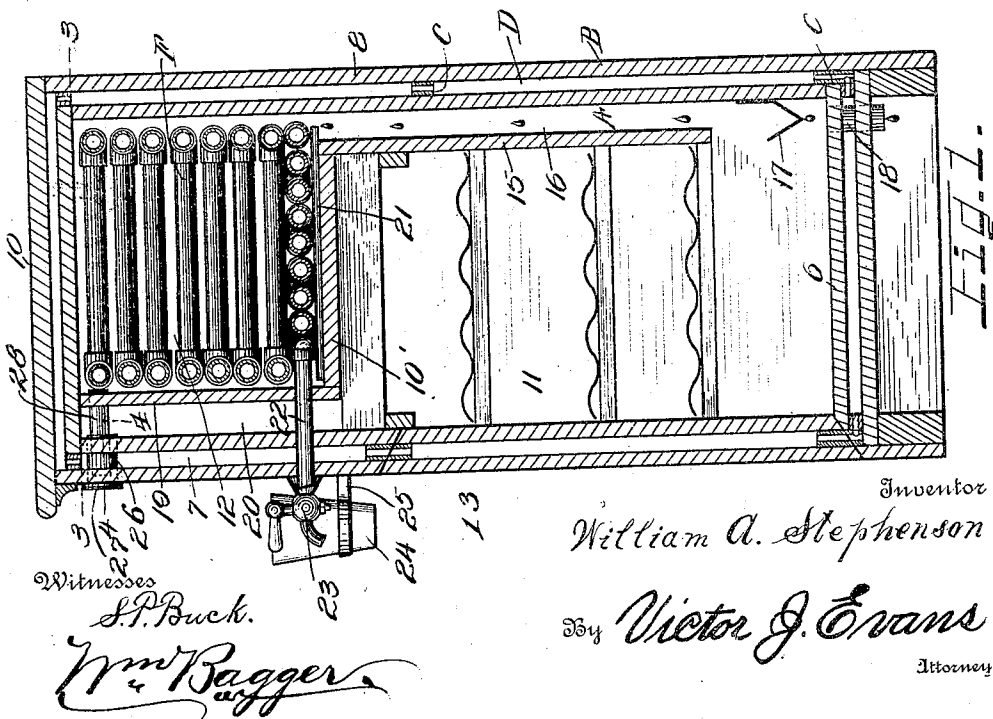
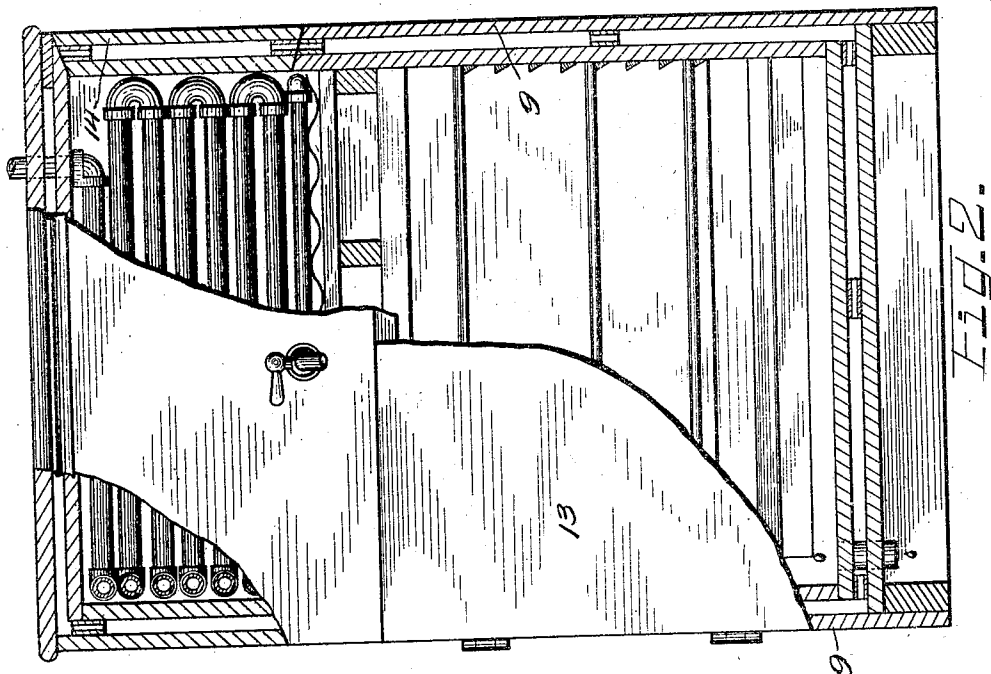


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APPLICATION FILED AUG. 20, 1909.

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2 SHEETS-SHEET 1.



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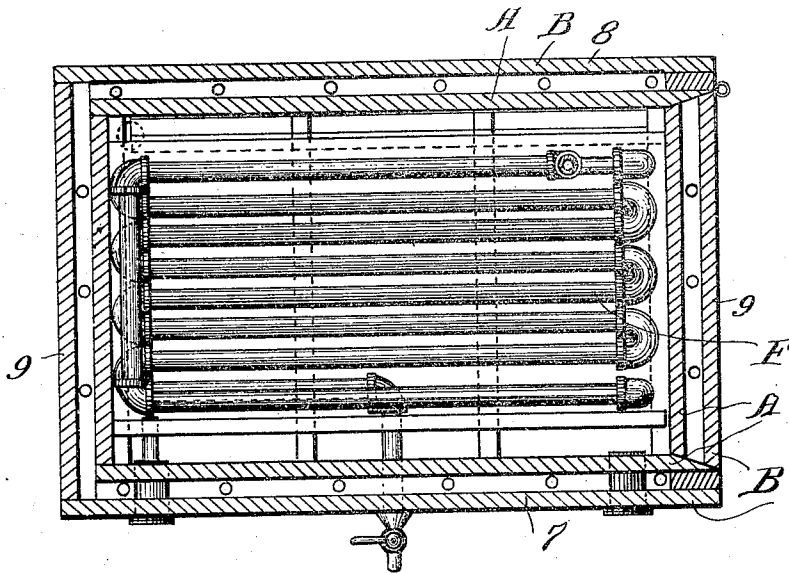


Fig. 3.

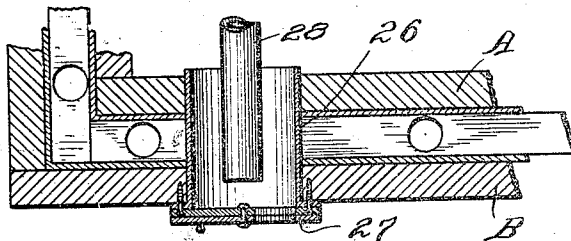


Fig. 4.

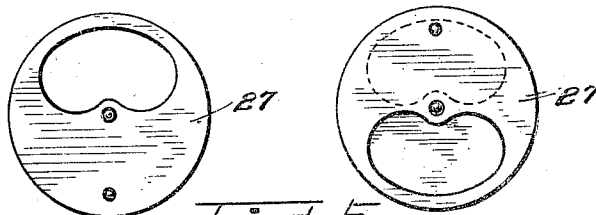


Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM A. STEPHENSON, OF MINDEN, LOUISIANA.

REFRIGERATOR AND WATER-COOLER.

980,697.

Specification of Letters Patent.

Patented Jan. 3, 1911.

Application filed August 20, 1909. Serial No. 513,812.

To all whom it may concern:

Be it known that I, WILLIAM A. STEPHENSON, a citizen of the United States, residing at Minden, in the parish of Webster and State of Louisiana, have invented new and useful Improvements in Refrigerators and Water-Coolers, of which the following is a specification.

This invention relates to a refrigerator equipped with a water cooling compartment, and it has for its object to provide a device of this class in which the ice shall be supported upon a coil of pipe through which water may be conducted for the purpose of cooling the same.

Further objects of the invention are to provide a device of this class which shall possess superior advantages in point of simplicity, durability and general efficiency.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and particularly pointed out in the claim.

In the accompanying drawings has been illustrated a simple and preferred form of the invention; it being however understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawings: Figure 1 is a vertical sectional view of a refrigerator and water cooler constructed in accordance with the invention. Fig. 2 is a vertical transverse sectional view taken on a plane approximately at right angles to Fig. 1. Fig. 3 is a horizontal sectional view taken on the plane indicated by the line 3—3 in Fig. 1. Fig. 4 is a sectional detail view taken on the plane indicated by the line 4—4 in Fig. 1. Fig. 5 is a detail view in elevation of the ventilator showing the same open and closed.

Corresponding parts in the several figures are denoted by like characters of reference.

The box or casing of the improved refrigerator comprises the bottom 6, the front wall 7, the back wall 8, the side walls 9—9 and the top 10 each of which is composed in the usual manner of an inner sheathing A and an outer sheathing B spaced apart by

apertured cleats C to leave an intermediate air space D which however may be filled with packing of any suitable character that is a poor conductor of heat, a horizontal partition 10' divides the interior of the casing into a lower compartment or provision chamber 11 and an upper compartment or ice chamber 12. The provision chamber is accessible through a door 13 in front and the ice compartment is accessible through an end door 14 upon one of the side walls 9.

The back wall of the provision chamber is formed by a partition 15 which is separated from the back wall 8 of the casing by a space 16, open at both ends and communicating at its upper end with the ice compartment 12; secured upon the inner face of the back wall 8, below the partition 15 is a gutter or trough 17 discharging at one end into the drip pipe 18 that extends through the bottom 6 of the casing.

The front wall of the ice compartment is formed by a partition 19 which is separated from the front wall of the casing by a space 20 communicating at its lower end with the provision chamber. The bottom of the ice compartment, which is formed by the partition 10 supports a corrugated sheet metal plate 21 upon which is placed a crate-like structure F consisting of a continuous pipe which is coiled or made up of a plurality of sections to form a lining for the bottom, the front and rear walls and one end of the ice compartment, the end registering with the door 14 being left open for the admission of ice. One end of the coil or crate-like structure F extends through the top wall of the casing for the intake of water from any suitable source, such as the city water supply or a suitably located tank; the opposite end of the coil extends through the front wall of the casing as shown at 22 and is provided with a discharge faucet 23 adjacent to which a drinking cup 24 may be placed upon a suitable support 25.

A vent tube 26 extending through the front wall 7 of the casing connects the space 20, which is an upward extension of the provision chamber, with the outer atmosphere for the escape of stale odors, the front of said vent tube being provided with a cap 27 whereby said tube may be partly or entirely obstructed; a smaller tube 28, extending through the partition 19 connects the ice compartment with the vent tube 26, thus

providing a degree of ventilation sufficient to prevent vapors from condensing interiorly upon the walls of the refrigerator.

From the foregoing description taken in connection with the drawings hereto annexed the operation and advantages of this invention will be readily understood. Ice placed upon the crate-like coil or structure in the ice compartment will serve to lower the temperature in the casing of the refrigerator and also to reduce the temperature of water passing through the coil by means of the faucet 23 thus providing at all times pure and cold water uncontaminated by odors from the provisions within the refrigerator. The air within the latter will be agitated and kept in motion not only by the reduction of temperature in the upper part of the structure but also by the drippings resulting from the melting of the ice which drop through the space 16 into the gutter 17 being from thence discharged through the waste pipe 18.

The general construction is simple and inexpensive, and thoroughly efficient for the purposes for which it is provided.

Having thus described the invention, what is claimed is—

In a refrigerator, a casing having a horizontal partition dividing said casing into a provision chamber and an ice compartment, a vertical partition connected at its upper end with the horizontal partition and separated from the casing by a space communicating with the ice compartment, means for collecting and discharging drippings from the ice compartment through said space, an upright partition connected at its lower end with the horizontal partition and separated from the casing by a space communicating with the provision chamber, a valved vent tube connecting said space with the outer atmosphere, and a smaller tube extending through the upright partition and connecting the ice compartment with the vent tube.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM A. STEPHENSON.

Witnesses:

L. P. WREN,
J. B. SANDEFUR.