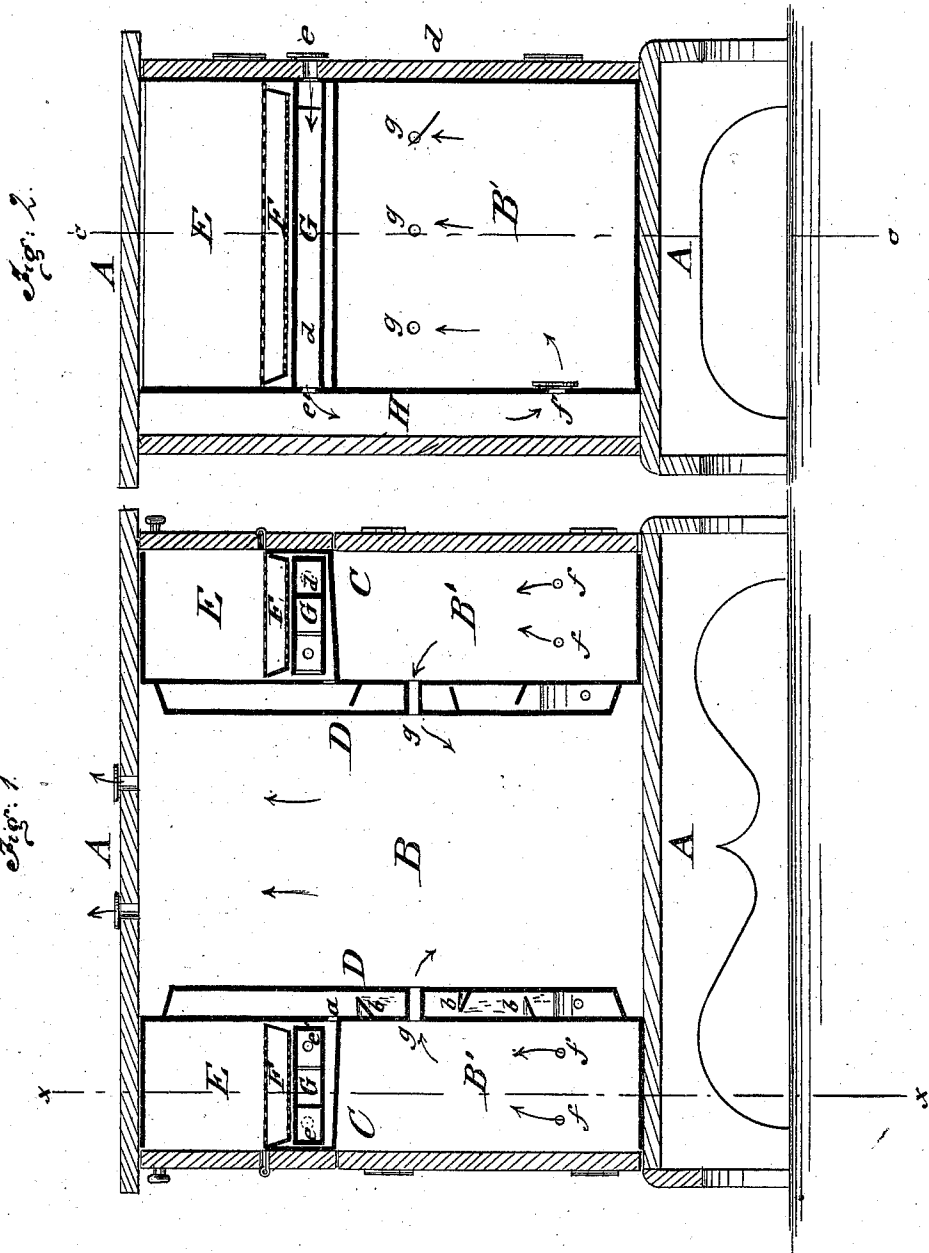


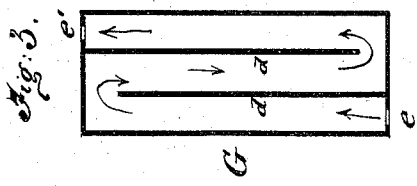
W. M. BAKER.
Refrigerators.

No. 143,607.

Patented Oct. 14, 1873.



Witnesses:
Chas. Nida
Abregio



Inventor:
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 Per *Wm. H. [Signature]*
 Attorneys.

UNITED STATES PATENT OFFICE.

WILLIAM M. BAKER, OF FORTVILLE, INDIANA.

IMPROVEMENT IN REFRIGERATORS.

Specification forming part of Letters Patent No. **143,607**, dated October 14, 1873; application filed June 28, 1873.

To all whom it may concern:

Be it known that I, WILLIAM M. BAKER, of Fortville, in the county of Hancock and State of Indiana, have invented a new and Improved Refrigerator, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section of my improved refrigerator on the line *cc*, Fig. 2; Fig. 2, a vertical transverse section of the same on the line *xx*, Fig. 1; and Fig. 3, a plan view, showing arrangement of cold-air chamber.

Similar letters of reference indicate corresponding parts.

The object of my invention is to construct the refrigerator in such a manner that, besides simplicity and cheapness, economy in the use of ice, large cooling and condensing surfaces, and a dry cool air for ventilation are obtained. My invention relates to certain improvements upon the refrigerators patented by me December 24, 1872, and May 6, 1873; and consists mainly in providing, by a compact arrangement of the ice-chamber, in combination with the cold water and air chambers, a larger space for the provision-chambers, and a complete and uniform ventilation of the same.

In the drawing, A represents the outer frame or casing of the refrigerator, constructed in the usual manner. The body of the refrigerator is divided into three main parts—the central provision-chamber B and the two symmetrically-arranged side chambers C. The central chamber B is separated from the side chambers C by cold-water chambers D, which extend nearly from top to bottom along the same. The cold-water chambers D are constructed of suitable material and width, and connect with the ice-chambers E, which form the upper part of the side chambers C. The melted ice-water, after passing through filter F and around the cold-air chamber G, enters by aperture *a* into the cold-water chamber D, dripping then over slanting projections *b*, arranged alternately at opposite sides of the cold-water chambers D, so as to cool both surfaces of the same. The pure and cold water collects in the lower part of chambers D, and is drawn off for use by suitable faucets. The space B' below the ice-chamber E is used also as provision-chamber, like the central part B, and has a side door, while the door of chamber B opens in front. A vertical space,

H, which extends laterally in the rear of each side chamber C, with the same width and height, serves to connect the cold-air chamber G with the side and central provision-chambers, and produces the ventilation of fresh cold air through the same. To secure the perfect cooling of the air when passing through the air-chamber G, the same is divided by vertical partitions *d*, which are provided at alternate ends with openings, so that the air takes a more circuitous route. The outer air is introduced to chamber G by aperture *e*, passes along the partitions *d*, as indicated by arrows in Fig. 3, and is thoroughly cooled by the ice-water, which passes around it from the ice-chamber E. The cold air passes then through aperture *e'* of air-chamber G into connecting part H, and, by apertures *f*, into side provision-chamber B'. The apertures *f* are arranged in the lower part of provision-chamber B'. Tubular openings *g* conduct the air from the side provision-chamber B', through the cold-water chamber D, into the central part B, and upward through the same, by the top aperture *h*, to the outside, as indicated by the arrows in Figs. 1 and 2.

The advantages of this arrangement of the different chambers are obvious, as the chambers for collecting the ice-water take up a minimum of space and utilize the ice-water, so that additional provision-chambers are gained, which are thoroughly and efficiently cooled and ventilated by forcing the cold air through the refrigerator in the manner described.

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

1. The cold-water chamber D, having aperture *a* for the ice-water, and tubular passages *g* for ventilating provision-chamber B, as set forth.
2. The cold-air chamber G, having partitions *d* to produce perfect cooling of air, as described.
3. The combination of frame A, central provision-chamber B, cold-water chambers D, ice-chambers E, cold-air chambers G, air-spaces H, and side provision-chambers B', arranged and connected substantially as and for the purpose described.

WM. M. BAKER.

Witnesses:

LARKIN W. CROUCH,
JOHN A. SKINNER.