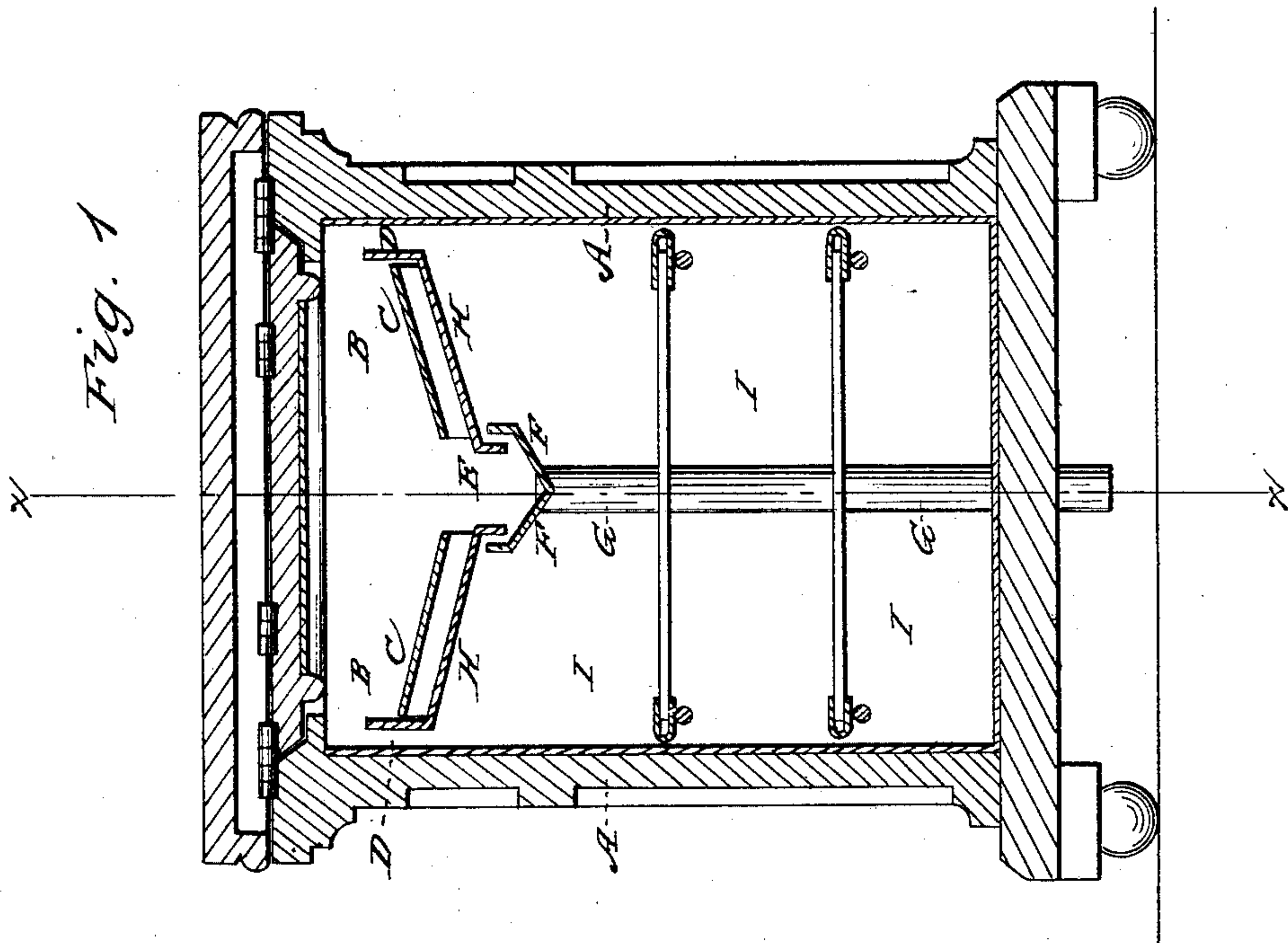
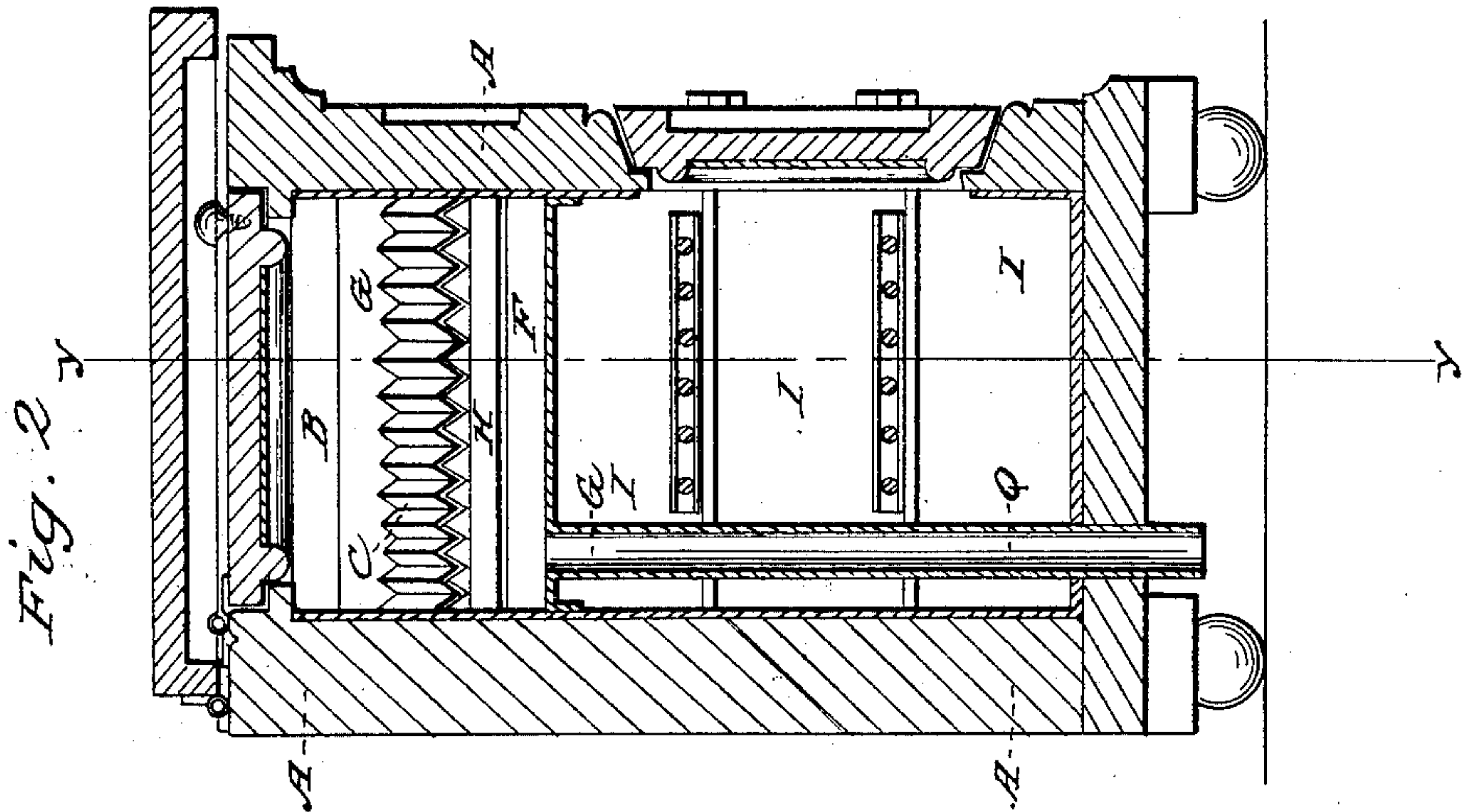


W. LAW.
Refrigerator.

No. 62.643.

Patented March 5, 1867.



Witnesses:
Thos. Tusch
J. A. Service

Inventor:
Wm. Law
Per Munroe & Co.
attorneys

United States Patent Office.

WILLIAM LAW, OF NEW YORK, N. Y.

Letters Patent No. 62,643, dated March 5, 1867; antedated December 31, 1866.

IMPROVED REFRIGERATOR.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM LAW, of the city, county, and State of New York, have invented a new and useful improvement in Refrigerators; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical longitudinal section of my improved refrigerator, taken through the line *y y*, fig. 2.

Figure 2 is a vertical cross-section of the same, taken through the line *x x*, fig. 1.

Similar letters of reference indicate like parts.

My invention has for its object to so improve the construction of refrigerators that the bottom of the ice-chambers may not be liable to be injured by an accidental blow of the ice-pick; and it consists in forming the bottom of the ice-chamber of corrugated cast iron, and in forming the bottom of said ice-chamber double, the whole being constructed as hereinafter more fully described.

The walls A of the refrigerator are made double, the space between them being filled with some non-conducting material in the ordinary manner. B is the ice-chamber, the bottom C of which is formed of plates of corrugated cast iron. At the sides of the chamber B the bottom C extends close up to the walls of the refrigerator, as shown in fig. 2; but at the ends there is a space, D, left, as shown in fig. 1. The plates G are set inclined towards the centre, and a space, E, is left between them, as shown in fig. 1. The plates C may be cast with corrugations upon one or both sides, as may be desired. F is a chamber or trough, crossing the refrigerator from side to side, beneath the space E, in such a position that, as the ice melts, the water may flow from the corrugated bottom C into the trough F, and be carried off through the pipe G. H is a second bottom, placed a short distance beneath the bottom C. This second bottom may be made of zinc, or any other suitable material, and it is designed to prevent the air that rises from the provision-chamber I from having its moisture condensed by coming in contact with the cold under side of the plates that support the ice, and thus dropping back into the said provision-chamber and injuring its contents. By constructing the bottom of the ice-chamber of cast iron in the manner herein described, it will be impossible for it to be injured or perforated by the ice-pick, which so frequently happens in the case of refrigerators constructed in the ordinary manner. In using the refrigerator, the air, cooled by contact with the ice in the ice-chamber B, passes down through the space E, and into the provision-chamber I, through the spaces between the upper edges of the sides of the trough F and the under sides of the second bottom H, where it comes in contact with the contents of said chamber I, abstracting the warmth therefrom. It then rises through the spaces D into the ice-chamber B, to become again cooled, thus keeping up a constant circulation through the interior of the refrigerator.

What I claim as new, and desire to secure by Letters Patent, is—

The construction and arrangement, within the walls A, of the corrugated inclined plates C, and bottom H, in such a manner as to prevent the air that rises from the provision-chamber I from having its moisture condensed by contact with the bottom of the plates C, and dropping back into the said provision-chamber, as herein set forth.

The above specification of my invention signed by me this 24th day of December, 1866.

WM. LAW.

Witnesses:

WM. F. McNAMARA,
JAMES T. GRAHAM.