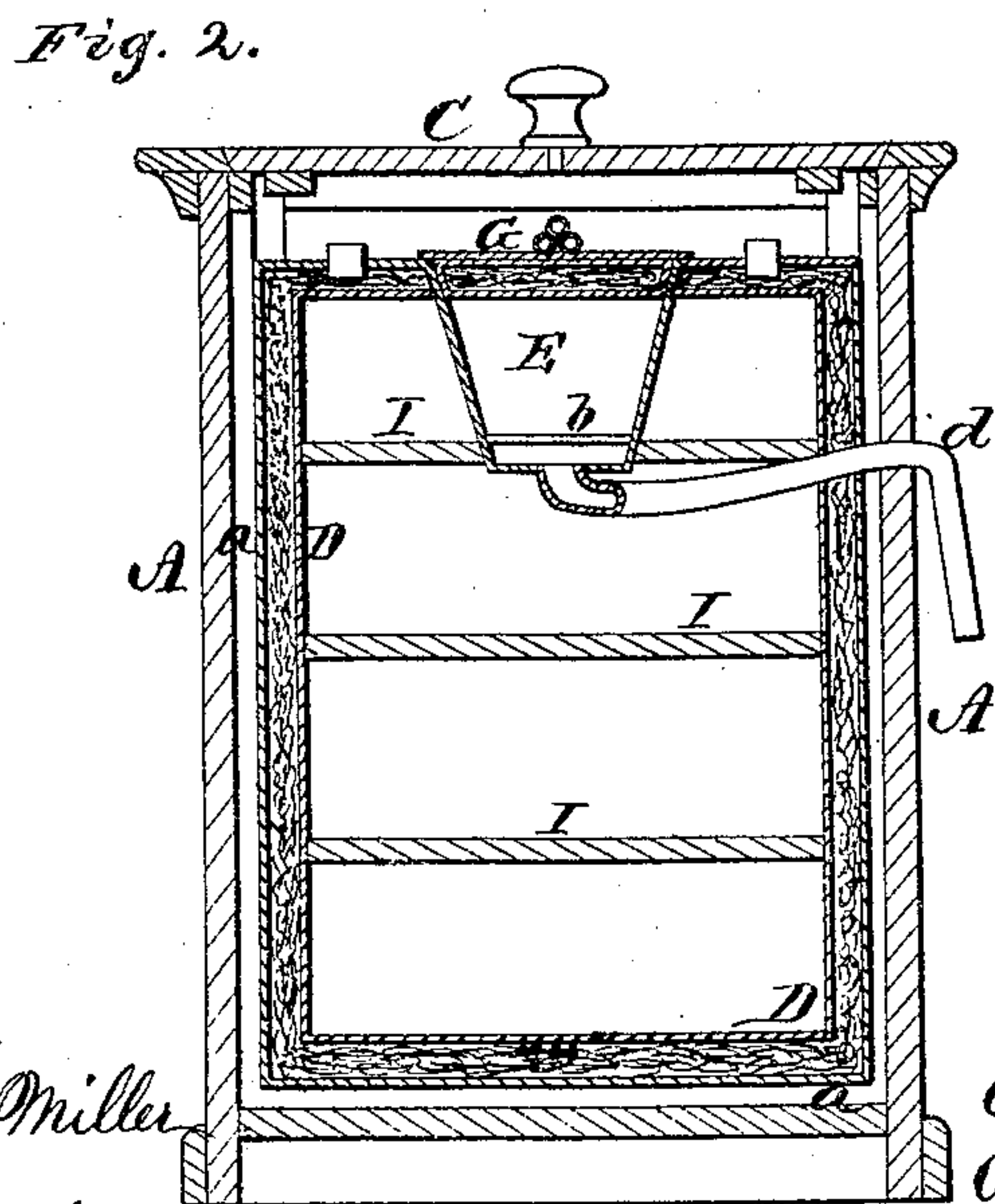
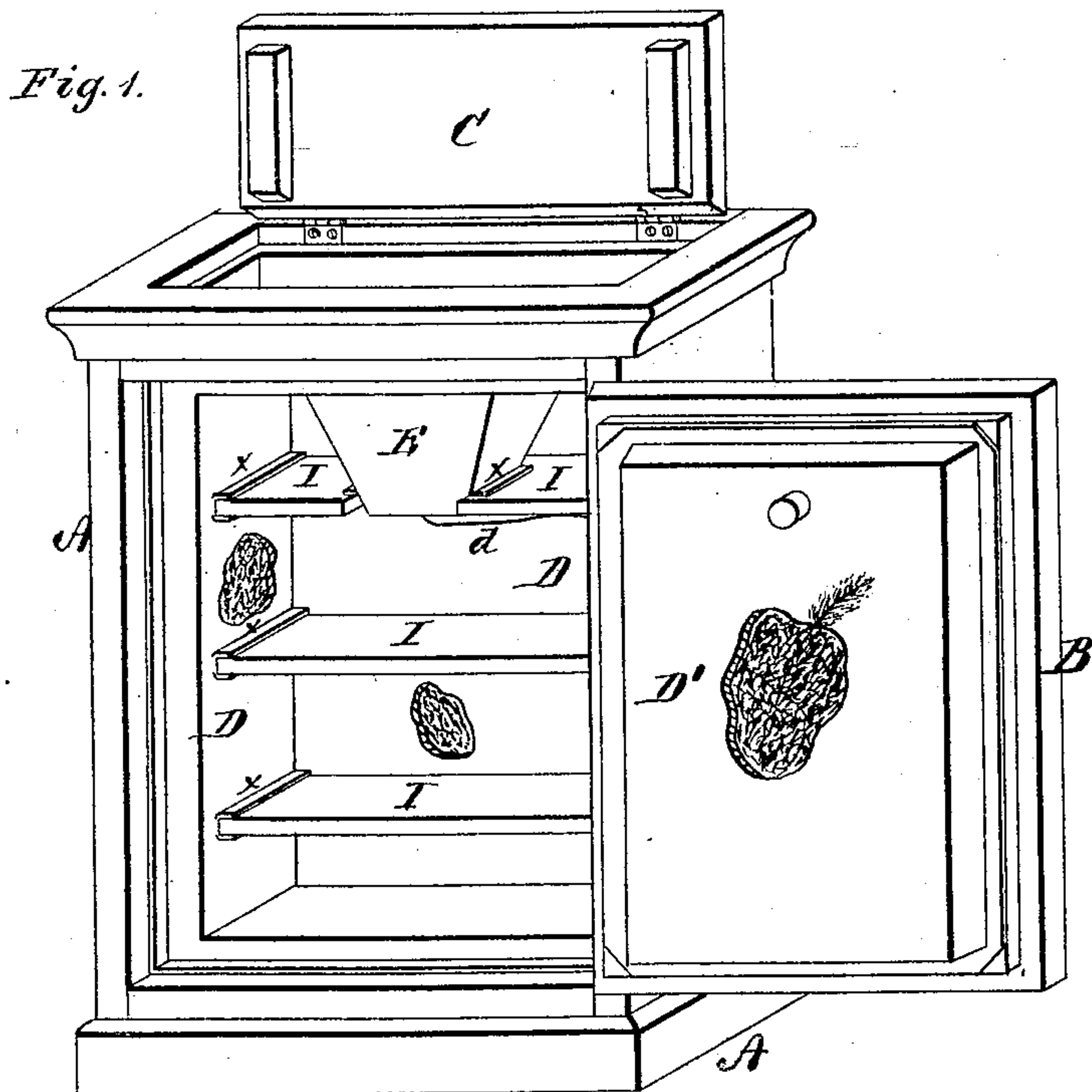


O. & AMANDA HUKILL.
Refrigerators.

No. 149,224.

Patented March 31, 1874.



WITNESSES.

Henry N. Miller
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By

UNITED STATES PATENT OFFICE.

ORLANDO HUKILL AND AMANDA HUKILL, OF FARMER CITY, ILLINOIS.

IMPROVEMENT IN REFRIGERATORS.

Specification forming part of Letters Patent No. **149,224**, dated March 31, 1874; application filed December 22, 1873.

To all whom it may concern:

Be it known that we, ORLANDO HUKILL and AMANDA HUKILL, of Farmer City, in the county of De Witt and in the State of Illinois, have invented certain new and useful Improvement in Refrigerator; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of our invention consists in the construction and arrangement of a refrigerator, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view, and Fig. 2 a longitudinal vertical section, of our refrigerator.

A represents the wooden casing of our refrigerator, constructed in any of the known and usual ways, and provided with a door, B, in front, and a lid, C, on top. Within the wooden casing A is secured a double-walled casing, D, of zinc or other suitable sheet metal, so arranged as to form an air-chamber, *a*, entirely around the metal casing, between it and the wooden casing on the sides, bottom, and back. The metal casing D is open in front, and to the inner side of the door B is attached a metal casing, D', to close the front of the casing D. In the top of the casing D is inserted the ice-chamber or ice-receptacle E, the top of which is closed by a double lid, G. The ice being in this chamber E, and the lid G closed over the same, the hot air is kept from the ice so that it will not quickly melt, but be retained for use a great length of time without the necessity of replenishing it. In the bottom of the ice-chamber E is a perforated metal plate, *b*, upon which the ice rests, and which allows the drip-water to pass through, but re-

tains all the dirt so as to prevent the clogging of the waste-pipe. *d* is the waste-pipe leading from the bottom of the ice-chamber. This pipe leads to the side, and slightly upward through the sides of the two casings D and A, after which it is bent downward, as shown in Fig. 2.

By the inclination of the waste-pipe *d*, as described, sufficient amount of water is always retained in the pipe and bottom of the ice-chamber below the perforated plate *b* to prevent the ingress of air to the ice.

Within the casing D are a series of shelves, I I, which slide out and in between flanges *x* *x* at their ends, as shown in Fig. 1, so that they can be easily removed and inserted again, when desired.

The double-walled casing D, the casing D', and the ice-chamber lid G, are all packed with feathers, which form a cheap, durable, and effective non-conducting packing.

In the use of this packing, we do not confine ourselves to the particular refrigerator herein described, as that may, of course, be used to pack refrigerators of any desired construction.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

A refrigerator consisting of an exterior wooden casing with a front and a top door, and inclosing a metallic double-walled casing filled with a non-conductor, and separated from the inner walls of the outer casing, and having a depending ice-chamber at its top, which is covered by a non-conducting lid, all as and for the purposes set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 22d day of November, 1873.

ORLANDO HUKILL.
AMANDA HUKILL.

Witnesses:

J. D. McMURRY,
R. A. LEMON.