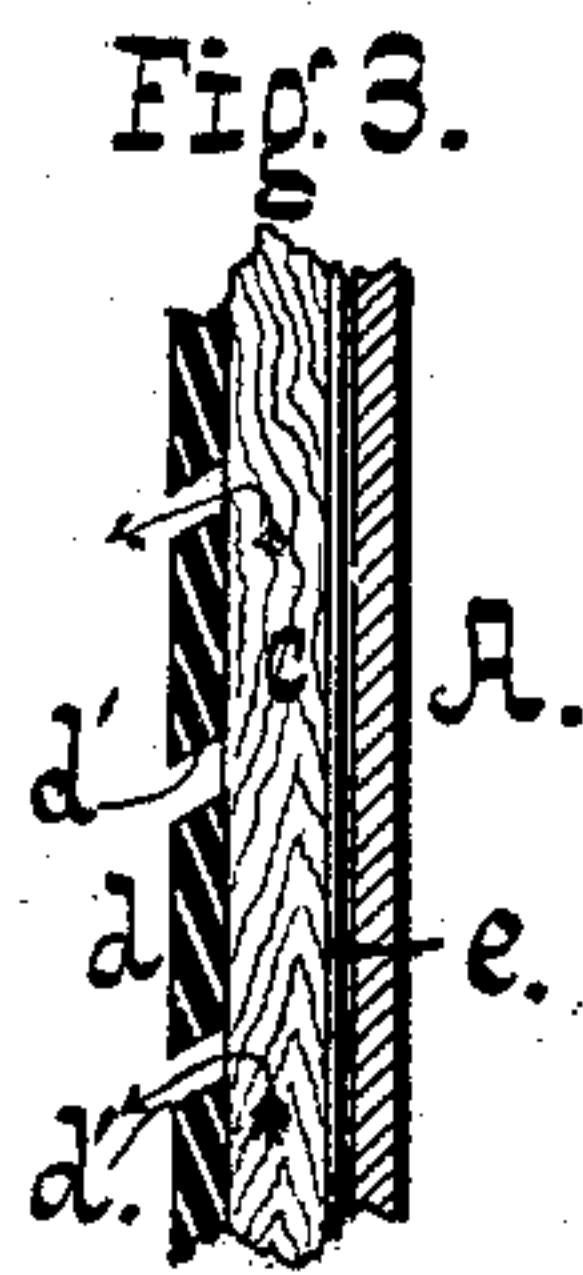
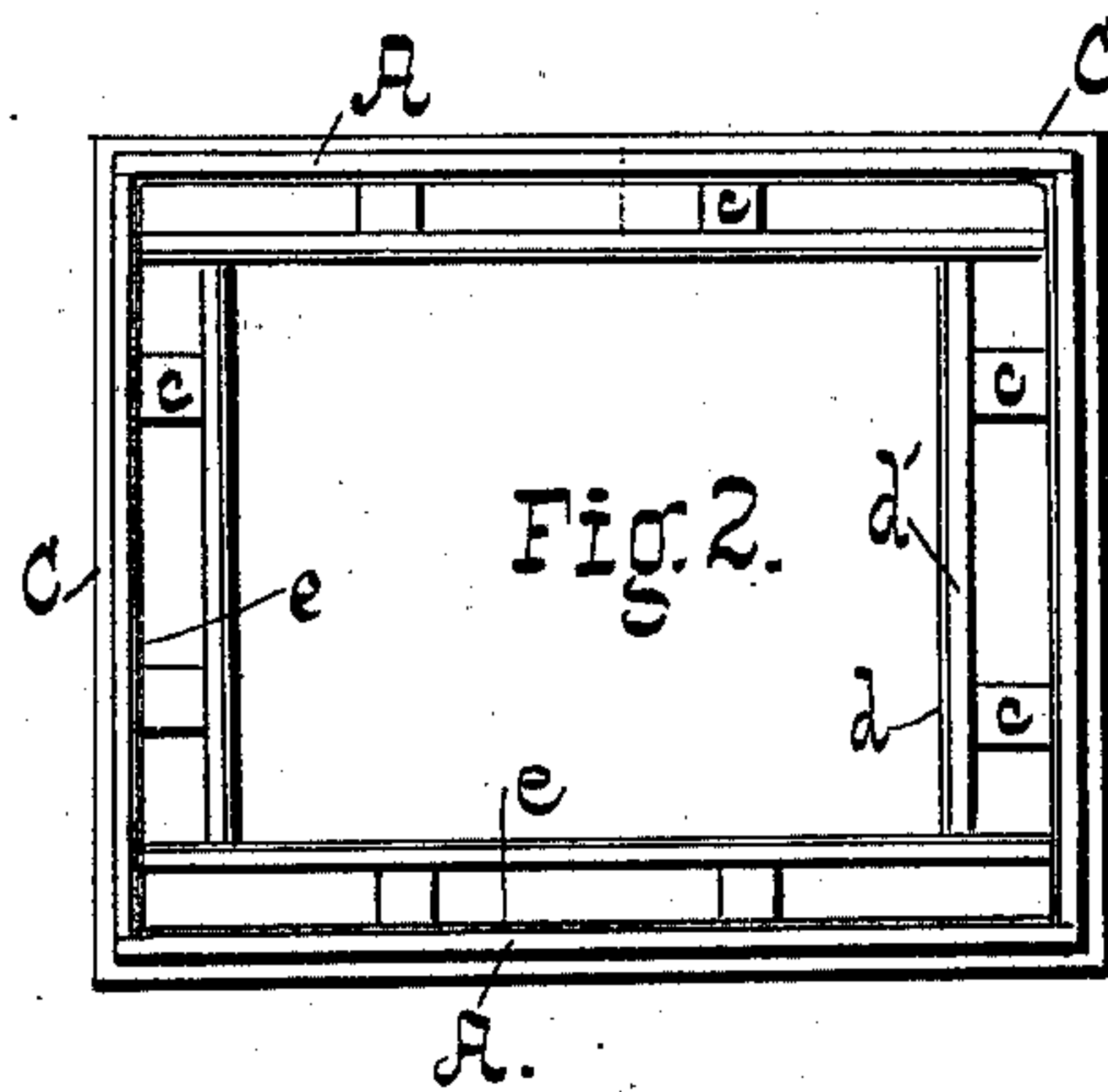
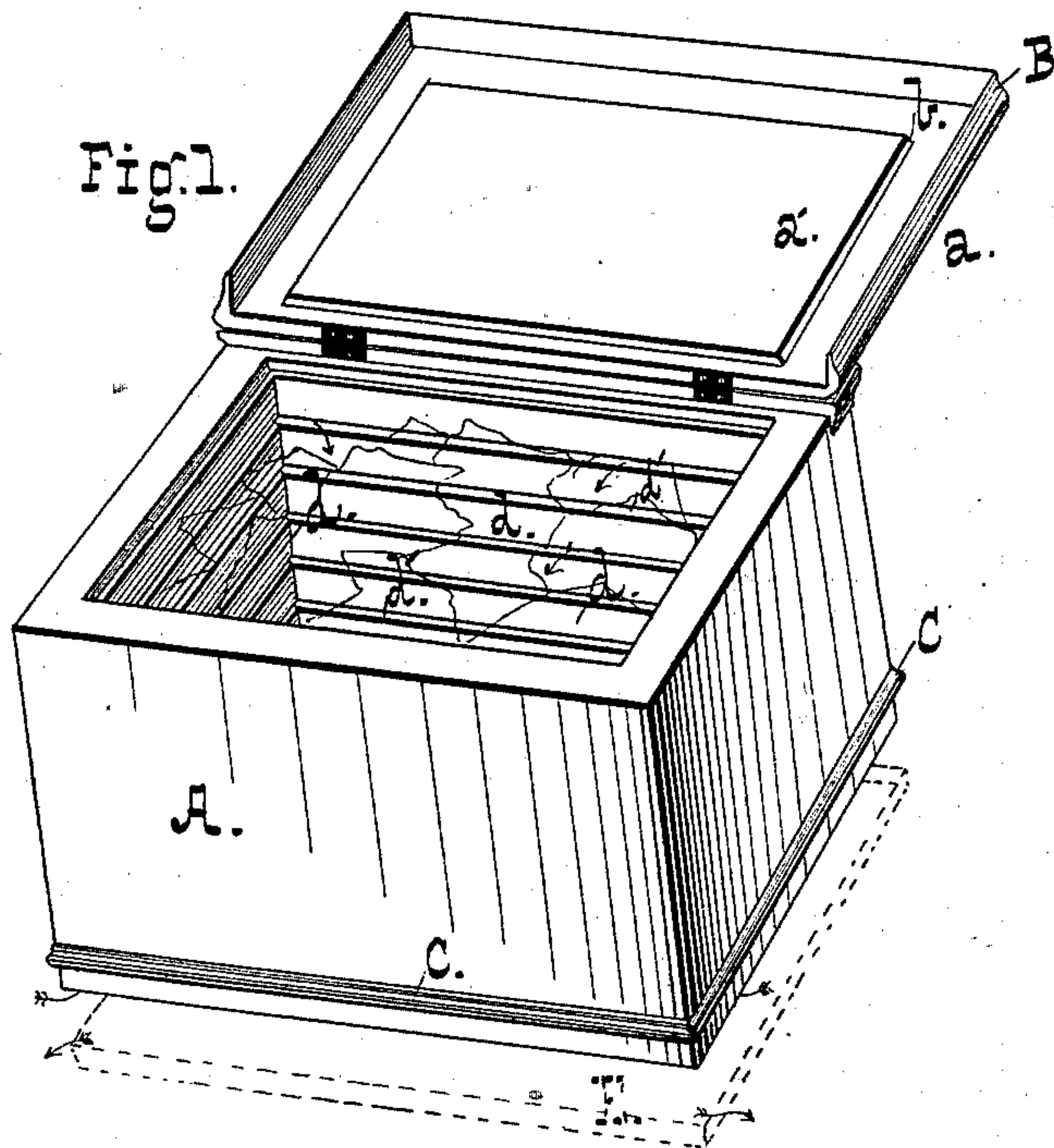


F. ROLOSON.
Condenser for Refrigerating-Chambers.
No. 216,761. .Patented June 24, 1879.



Witnesses,
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UNITED STATES PATENT OFFICE.

FREDERICK ROLOSON, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN CONDENSERS FOR REFRIGERATING-CHAMBERS.

Specification forming part of Letters Patent No. **216,761**, dated June 24, 1879; application filed April 22, 1879.

To all whom it may concern:

Be it known that I, FREDERICK ROLOSON, of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Condensers for Refrigerating-Chambers; and I hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the device. Fig. 2 is a bottom plan of the same; Fig. 3, a vertical sectional view of one of the walls, illustrating its internal construction.

My invention has reference to that class of refrigerating-chambers in which the convective currents of air are caused and maintained by the cooling of the air contiguous to the ice without recourse to mechanism, such as blowers or fans, for causing a circulation of the same; and it consists in a condenser having a central ice-box provided with perforated walls and a surrounding air-chamber serving as induction-passage for the air, the whole being closed at the top, whereby the circulation is made practically independent of the quantity of ice, as will be understood from the following description of the apparatus.

The device about to be described is adapted for use in connection with any of the well-known forms of refrigerating-chambers, such as refrigerator buildings or ships, household refrigerators, meat-counters, cars, or corpse-coolers, as will be readily understood, its adaptation, functions, and operation being identical in all of them.

In the accompanying drawings, A represents the outer casing of the condenser, constructed in any suitable shape, and preferably of wood, and provided with a lid, *a*, having a bead, B, on its edge, and a raised center, *a'*, having beveled edge *b*. The latter is adapted to fit closely against the beveled inner edges of the walls A, forming, with the bead B, a practically air-tight joint. C is a bead on the outside of the walls A, near the bottom, upon which the condenser rests, being fitted into an orifice in the top of the refrigerating-chamber. Within the latter, and just below the condenser, is the drip-pan E, between which and the condenser is a free open space all around, as shown. The walls A are lined with straw-

board or equivalent non-conducting material *e*, and at a short distance from the walls are secured upon uprights *c c* the horizontal slats *d*. These are beveled inwardly and downwardly upon their upper and lower sides, as at *d'*, and are arranged, as shown, a short distance apart, leaving open spaces, whose functions will be hereinafter referred to.

In operation the condenser is placed over an orifice in the top of the refrigerating-chamber, and under it is placed a drip-pan, E, the condenser being filled with ice, or, if a very low temperature is desired, with ice and salt, or equivalent frigorific mixture. The air within the condenser is cooled and descends therefrom to the bottom of the refrigerating-chamber. The warm moist air of the latter is thereby carried up through the spaces between the slats and walls, and enters at the top of the ice between the slats *d*. Encountering a frozen surface the air parts with all its moisture and impurities, and descends, as before described, until convection practically ceases as the air reaches the ultimate point of cold. The ice rests upon a grating about flush with the bottom of the walls, so that the space under the ice is perfectly free and open, allowing the cold air to drop directly without impeding the ingress of warmer air to the spaces surrounding the ice.

Being slatted on its whole interior, the ice-chamber furnishes inlets for the warmer air at the level of the top of the ice, greatly facilitating the convection of the air. When desired, the condenser may readily be removed to be cleaned.

What I claim is—

1. A condenser for refrigerating-chambers, consisting of a casing closed at the top, provided with a series of horizontal slats having beveled edges, as shown, and a circumjacent air-space, substantially as described.

2. A condenser for refrigerating-chambers adapted to be secured over an orifice in the top of said chamber, and having an interior air-space surrounding its inner walls, which latter are provided with air-inlets at various levels, as and for the purpose set forth.

3. In combination with a refrigerating-chamber, a condenser surmounting the same and closed at the top, and having an open bottom,

interior walls having air-inlets at various levels, and a surrounding air-space, substantially as described.

4. In combination with a refrigerating-chamber, a condenser removable therefrom and surmounting the same, and having an open bottom at or about the level of the top of the refrigerating-chamber, a closed top, interior walls having air-inlets, as described, and a circumjacent air-space, substantially as set forth.

5. The condenser herein described, consisting of the casing *A*, lining *c*, slats *d*, having beveled edges *d'*, and supports *e*, substantially as described.

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Witnesses:

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