(No Model.)

B. L. HERINGTON.

REFRIGERATOR.

No. 343,536. Patented June 8, 1886.

Fig. 1.

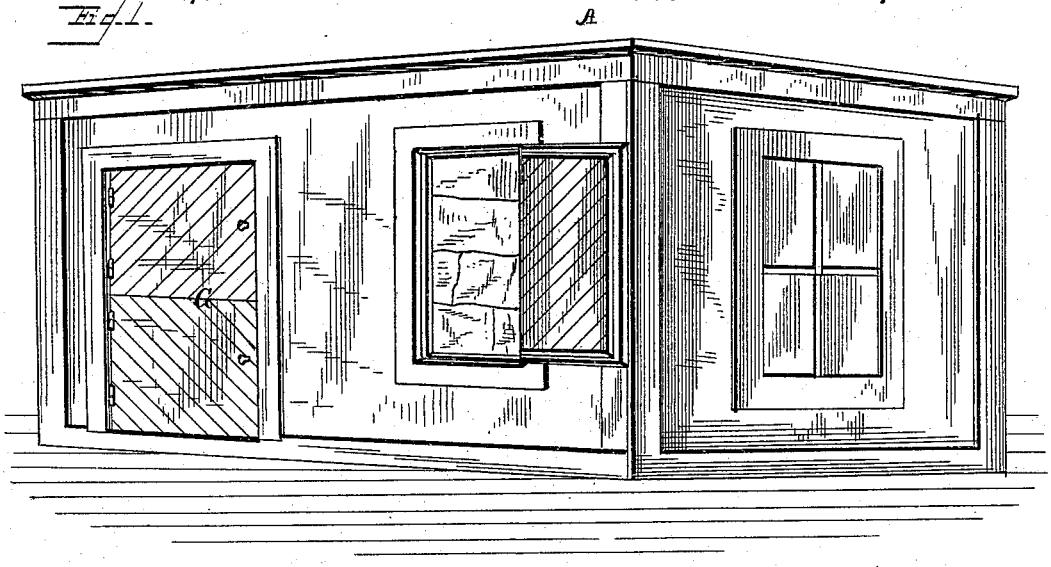


Fig. 2.

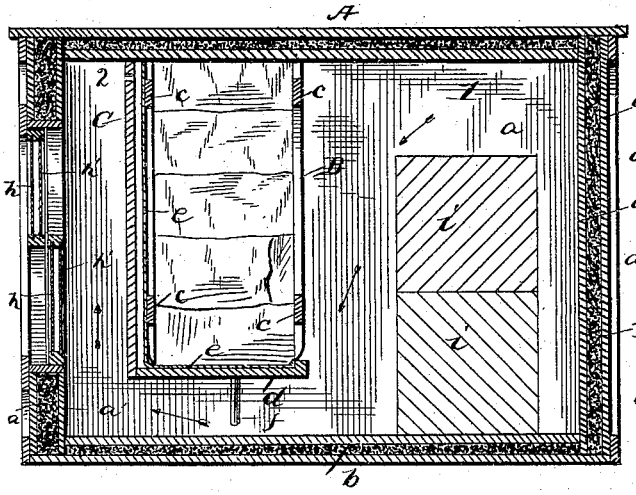
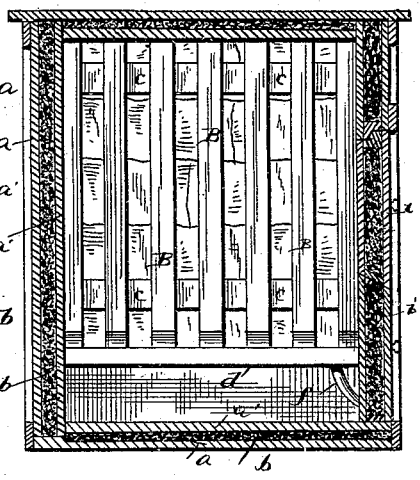


Fig. 3.



WITNESSES

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BYRON L. HERINGTON, OF NORMAL, ILLINOIS.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 343,536, dated June 8, 1886.

Application filed March 3, 1885. Serial No. 157,646. (No model.)

To all whom it may concern:

Be it known that I, BYRON L. HERINGTON, of Normal, in the county of McLean, and in the State of Illinois, have invented certain new and useful Improvements in Refrigerators; and I 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.

My improvements relate to that class of inventions known as "refrigerator-buildings," in which a constant circulation of air is maintained in the interior for the purpose of preserving meats, vegetables, and the like in a sweet and fresh condition.

The invention consists, substantially, in a refrigerator or building as constructed, and in such other details as will hereinafter be distinctly described, and pointed out in the claims.

In constructing a refrigerator or building in accordance with my invention I provide the same of any proper size or dimensions, and form the top, bottom, and sides thereof with double walls all around, leaving a dead-air space between, which is filled with any suitable packing, as sawdust, charcoal, asbestus, or the like. Within the house or building thus constructed, at near one end, I suspend or locate an ice box or receptacle, which extends down not quite to the bottom of the building, and is separated at one of its sides from the main interior by a solid wall or partition, the same extending only to the bottom of the ice box or receptacle. The remaining portion or side of this ice box or receptacle is constructed of slat-work extending between the front and rear walls of the building, and it will be seen that all direct communication of the ice-box and main interior is from the open or slatted sides of the former. In the bottom of the ice-box is located a pan, from which a tube extends to any suitable point for discharging the drippings. From this general description it will be seen that the refrigerator house or building is approximately divided into a large or main chamber and a smaller or adjacent chamber, the two being communicating one with the other by the space which exists between the bottom of the ice-box and the floor of the house or building.

Further details of construction will be explained hereinafter.

Referring to the annexed drawings, Figure 1 represents in perspective a refrigerator house or building constructed in accordance with my invention. Fig. 2 is a longitudinal sectional side elevation taken through the center of the building from the rear thereof. Fig. 3 is a vertical sectional end elevation to more clearly indicate the construction of ice box or receptacle.

Reference being had to the several parts by the letters marked thereon, A represents the refrigerator house or building proper, constructed all around and at both top and bottom with double walls *a a'*, having the space between filled or packed with any suitable non-conductor, *b*. Suspended within this house, at near one end, is an ice box or receptacle, B, constructed of open slats *c*, and having at one side thereof a solid wall, C, dividing it from the main interior, as shown. The bottom *d* of this receptacle is likewise solid, and supports a pan, *e*, from which extends a tube, *f*, for carrying off the drippings. In the construction thus far explained it will be seen that the interior of the building is divided into compartments 1 and 2, the former being for the reception of whole beef, quarters, hogs, and the like, and the latter being intended for the reception of beef or meat of any kind that has been cut up into small quantities to be dealt out from time to time, suitable hooks or racks being provided in both the chambers 1 and 2 by which the meat is held.

In the side of the house or building A adjacent to and communicating with one end of the ice-box is a door, E, constructed of double walls and packed the same as the main walls. This door is to facilitate the supply to or removal of ice from the box.

At the end of the house A adjacent to the chamber 2 is provided a window, F, through which the smaller or cut meat may be placed in or removed from the said chamber 2. This window is formed of an upper sash, *g*, and a lower sash, *g'*, the former adapted to be lowered and the latter to be raised, and each being constructed of a frame in which is supported an outer and inner pane of glass, *h h* and *h' h'*, as shown, forming between them a

dead-air space. It is obvious that instead of employing glass this space could be formed between partitions of any suitable nature; but in the use of glass an inspection of the interior of the chamber is permitted without having to open the window.

Access to the main chamber 1 is had through the door G, which is divided into upper and lower sections, *i i*, each being double and packed with any suitable non-conductor. When it is simply desired to inspect the interior of chamber 1, it is only necessary to open the upper section of this door, thus preventing in a great measure the escape of cold air from said chamber. An opening or openings, *m*, is formed at the top of the partition C, through which the warmer air from the whole interior of the house is caused by natural laws to pass, thereby maintaining the proper circulation.

The operation is as follows: When the ice-box is suitably filled, and the meats properly placed within the chambers, and the house securely closed, the air naturally contained within the chambers 1 and 2 will begin to circulate from the main chamber up through the sub-chamber, the warmer or lighter air passing through the opening or openings *m* in the partition C and down upon the ice, whereupon it is immediately cooled and sinks to the bottom of the house, displacing the remaining warmer particles, and so on. In this way a constant and perfect circulation is maintained. The frequent opening and closing of the window in the cut-meat chamber aids somewhat in maintaining this course of circulation, as much of the vitiated air contained therein is permitted to escape and its place supplied with fresh air.

By my construction of refrigerator-building meats and vegetables can be preserved perfectly with but slight trouble and expense, and it should be remarked that refrigerator-cars and refrigerators themselves could be formed of like construction with equally good effects.

I am aware that it is not new, broadly, to provide a refrigerator of a large wholesale compartment and a smaller or retail compartment, and to locate an ice holder or receptacle intermediate thereof, but I am not aware that the specific form herein claimed has ever before been devised.

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

1. The combination, with the chamber A, of the suspended chamber B, having a solid wall, C, and solid bottom *d*, the remaining portions of said chamber B being constructed of open slats *c*, substantially as and for the purposes specified.

2. In a double-wall chamber, a suspended ice-box located on one side of the middle of the length thereof, and constructed with the vertical wall C, the bottom floor, *d*, and the metal ice-receptacle having a front lattice-work, a drip-pan, *e*, and a drip-outlet, the said metal structure being isolated from the back wall C, and the said back wall having a passage, *m*, near its upper end, whereby there is not only a rotary current of air, but also an impingement of warm air against the back of the metal ice-casing, as described.

In testimony that I claim the foregoing I have hereunto set my hand this 31st day of January, 1885.

BYRON L. HERINGTON.

Witnesses:
THOS. SLADE,
J. A. BAILEY.