J. M. SLOSSON.

Refrigerator.

No. 219,535. Patented Sept. 9, 1879.

Fig. 1.

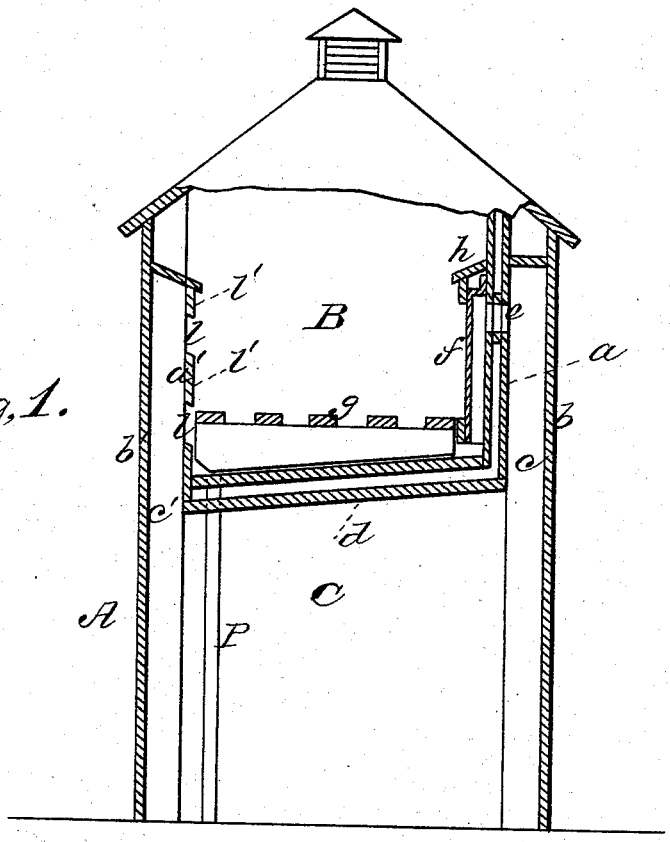


Fig. 2.

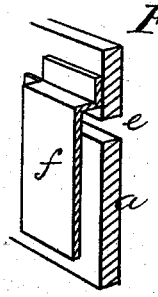
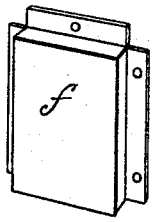


Fig. 3.

Fig. 4



WITNESSES

Villette Anderson

F. J. Masi.

INVENTOR

J. M. Slosson,

by E. W. Anderson.

ATTORNEY

UNITED STATES PATENT OFFICE.

JOHN M. SLOSSON, OF MINNEAPOLIS, MINNESOTA.

IMPROVEMENT IN REFRIGERATORS.

Specification forming part of Letters Patent No. **219,535**, dated September 9, 1879; application filed December 21, 1878.

To all whom it may concern:

Be it known that I, JOHN M. SLOSSON, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented a new and valuable Improvement in Refrigerating Structures; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a vertical transverse section of my improved refrigerator, and Figs. 2, 3, and 4 are details.

This invention has relation to improvements in refrigerating-houses for preserving meats and other perishable articles of food; and the nature of the invention consists in the combination, with a flue, of an overhanging ledge protecting said flue, as hereinafter shown and described.

In the annexed drawings, the letter A designates an ordinary close structure having at its upper part an ice-box, B, formed by the longitudinal walls *a a'*, arranged at suitable distances from the contiguous walls *b b'* of the structure, and forming therewith the ascending and descending passages, lettered *c c'*, respectively, and of an inclined bottom, *d*. The side wall, *a*, and bottom *d* are double, a dead-air space being thus formed, the object of which will hereinafter appear.

In the double side wall, *a*, near the upper part of the ice-chamber, are formed a number of perforations, *e*, each of which communicates with an independent metallic flue, *f*, extending down nearly to the floor and below a grating, *g*, upon which the ice is placed. These flues are closed everywhere except at bottom, and are protected from injury by an overhanging ledge, *h*, that prevents them from being battered at their upper portions by falling blocks of ice.

The wall *a'* of chamber B is provided with a number of horizontal openings, *l*, formed between the slats *l'*, and leading into the descending flue *c'*. Below chamber B is the preserving-chamber C, in which the meats or other articles are placed.

The operation is as follows: The ice being placed in the chamber B, the air therein is reduced to a low temperature and passes through openings *l* down the descending flue into the chamber C, where its temperature rises, being protected from the direct action of the ice by means of the double bottom *d*. It then passes up the ascending flue *c*, and, being protected from the direct action of the ice in the ice-box by its double side wall, *a*, reaches the openings *e* without loss of temperature, and passes into the descending flues *f*. Here the currents of air are for the first time under the refrigerating influence, and they rapidly descend and issue therefrom under the grating at a low temperature. Upon issuing from the flues *f*, which, being metallic, are very cold, the temperature of the air-currents is so lowered that they exercise but little influence in melting the ice, and thus a great saving of ice is made.

Such water as may result from the wasting away of the ice is carried off by a drain-pipe, P, out of the structure.

It is clear that the double side wall and the dead-air space between its parts are very beneficial. It prevents the refrigerating action of the ice from reaching the ascending air-passage *c*, and, by lowering the temperature of the upward currents, checking their ascent. The effect of this is to cause the currents to move rapidly from the chamber C to the chamber B in a circuit.

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

In combination with the flues *f*, the overhanging ledge *h*, for protecting said flues, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN M. SLOSSON.

Witnesses:

ALBERT A. KEITH,

THEODORE M. SLOSSON.