(No Model.)

L. H. FRINK.

REFRIGERATOR.

No. 577,293. Patented Feb. 16, 1897.

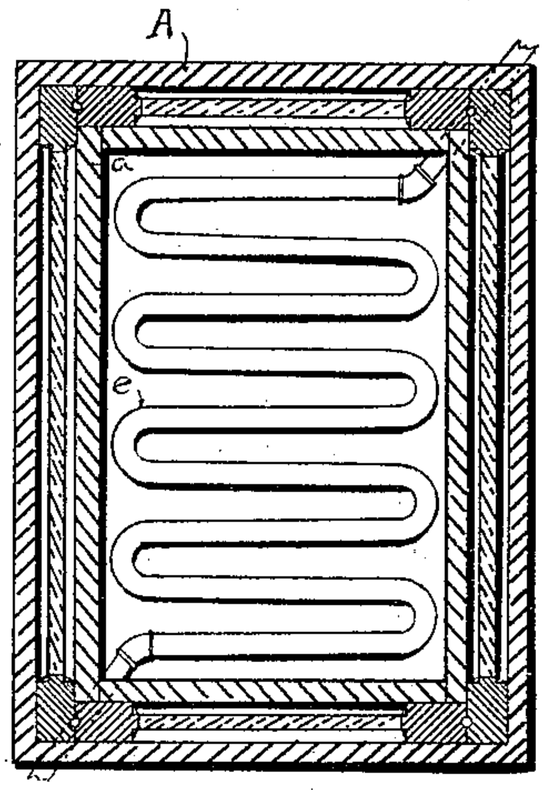

Fig. 1.

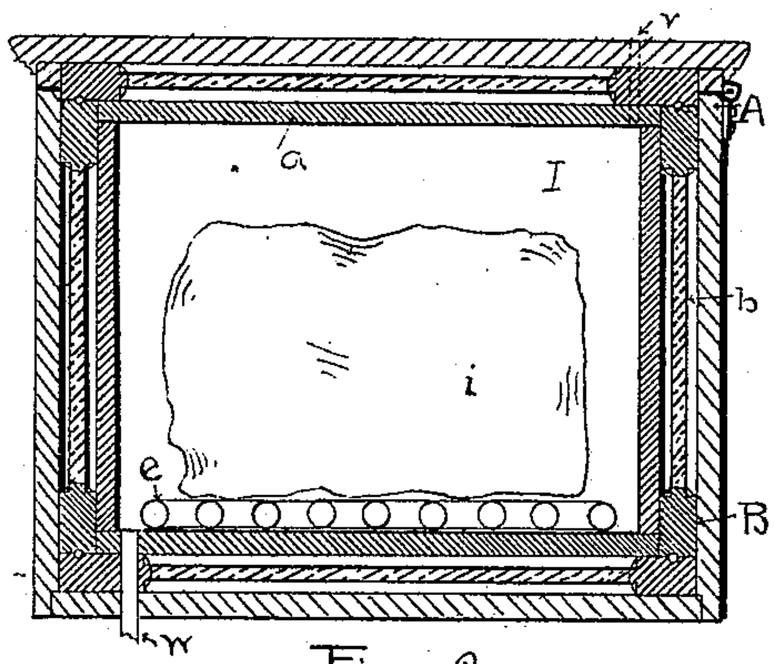

Fig. 2.

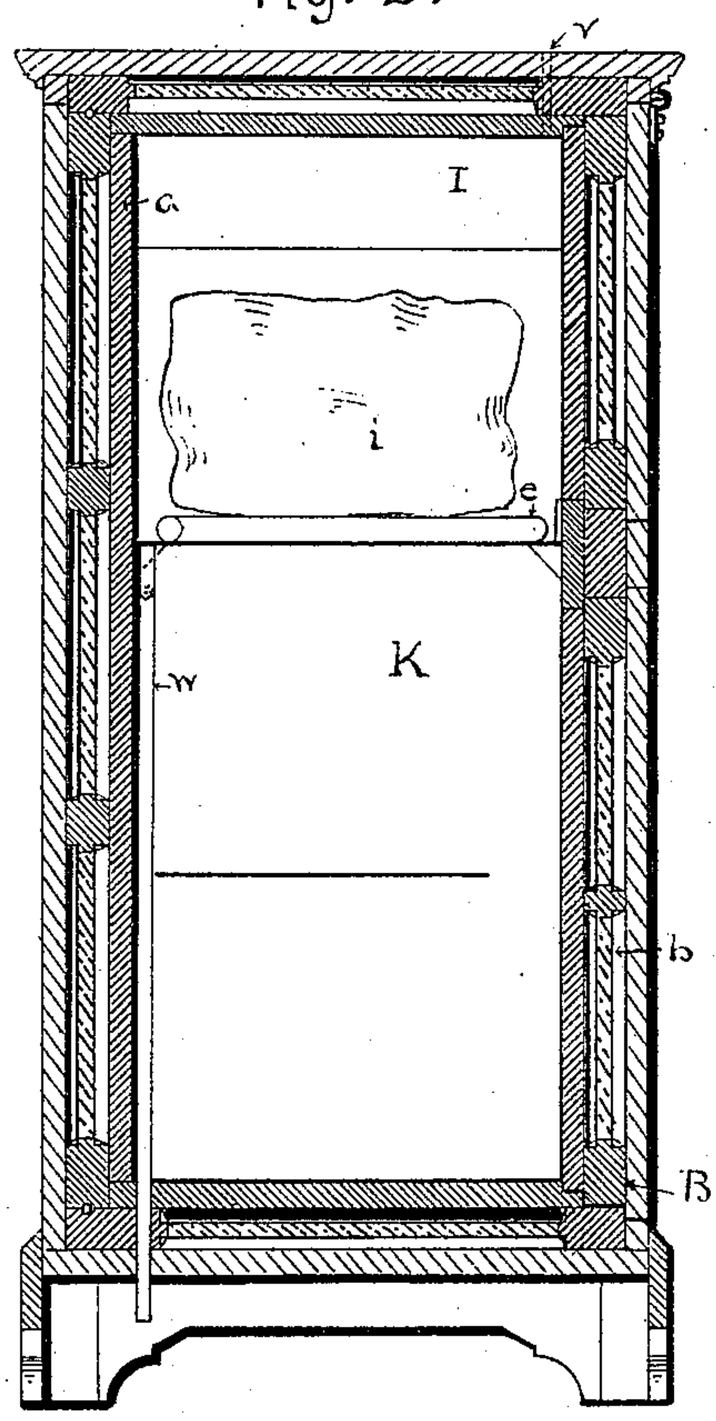

Fig 3.

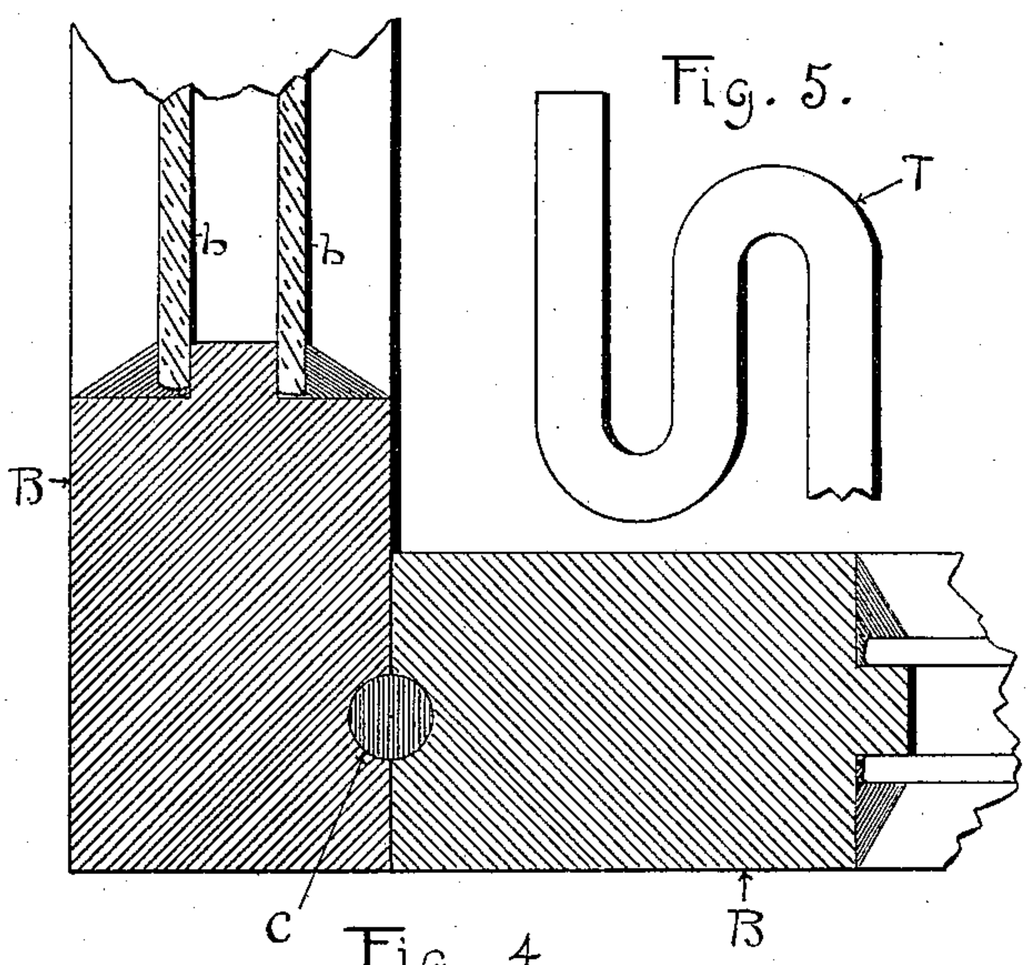

Fig. 4.

Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

LUCIUS H. FRINK, OF ROCK ISLAND, ILLINOIS.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 577,293, dated February 16, 1897.

Application filed March 24, 1896. Serial No. 584,624. (No model.)

To all whom it may concern:

Be it known that I, LUCIUS H. FRINK, a citizen of the United States, residing at Rock Island, in the county of Rock Island and State of Illinois, have invented certain new and useful Improvements in Refrigerators, of which the following is such a full, clear, and exact description as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to refrigerators or ice-boxes; and the invention includes the details of construction as will be hereinafter described, and particularly pointed out in the claims.

My invention may be embodied in a single ice-box having but one chamber wherein is kept the ice, or in a refrigerator having two or more chambers, one of which is adapted to contain the ice and the other, whose temperature is lowered by the ice in the ice-chamber, to contain articles desired to be refrigerated.

In the drawings, Figure 1 is a top plan view of the bottom of the ice-chamber, showing the cooling-coil in position and the walls of the refrigerator in section. Fig. 2 is a vertical cross-section of a single-chambered refrigerator embodying my invention. Fig. 3 is a vertical cross-section of a two-chambered refrigerator embodying my invention. Fig. 4 is a detail view showing the air-tight construction of the partition. Fig. 5 shows the waste-trap.

Referring more specifically to the drawings, I is the ice-chamber, *i* the ice therein, and K the lower chamber of the two-chambered refrigerator shown in Fig. 2.

A is the outer wall of the refrigerator, and *a* an inner wall, both preferably of wood. Between the outer and inner walls are introduced sash B B, similar to window-sash. Each is rabbeted so as to hold two panes of glass *b b*, which are separated far enough to allow an air-space between them and are held in place in the sash by putty or other convenient means. The sash-rails are grooved on their contiguous faces, and a rubber band C is interposed in the groove, forming a packing, so that the joints are rendered air-tight. The sash are easily removable for the purpose of cleansing or in case of breakage, it being necessary only to slide them out.

The refrigerator may have a lift or hinged cover, or it may be provided with a side door or doors. A hinged cover is shown in the accompanying drawings, and when this cover is thrown back the edges of the side sashes are exposed and may be grasped to radially raise the sashes in removing the same. The sash in that case fits into and forms a part of such cover or door in the same manner as in the side of the refrigerator.

On the bottom of the ice-box is laid a coil of pipe *e*, of galvanized iron or other non-corroding metal, its ends being coupled to pipes leading out through the walls of the refrigerator and the sash. One of these pipes is fitted with a faucet and the other is connected with a reservoir of water. The coil is thus kept full of water, which is cooled by the ice resting on the coil, so that a supply of cool water is ready at all times to be drawn off as needed.

The inner wall of the refrigerator is lined with galvanized iron or other suitable non-corroding metal or material. The waste water from the melting ice is drawn off through a waste-pipe *w*. A vent hole or pipe *v* leads up through the cover of the box and is kept open to allow the escape of warm air, steam, and odors from food in the refrigerator. In order to prevent a draft of air through the interior of the refrigerator by way of the waste-pipe at the bottom and the vent at the top, a trap T, Fig. 5, is introduced into the waste-pipe.

The specific advantages of the construction shown are mainly that the partitions in the walls are air-tight, so that the air-spaces in the walls are filled with "dead" air; they are of glass, which is absolutely non-corroding and non-absorptive and therefore most cleanly, and they are easily and quickly removable when it is necessary or desirable that they be removed. Furthermore, a supply of iced water is always ready for use, and that without containing the impurities of melting ice, and the ventilation of the refrigerator is accomplished without unnecessary waste of ice.

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

1. The combination in a refrigerator hav-

ing solid inner and outer walls, of the sash fitted between said walls and the glass panels carried by said sash, substantially as described.

2. The combination in a refrigerator having solid inner and outer side walls, a hinged top carrying a sash fitted with a glass panel, a corresponding sash fitted in the bottom thereof and the removable sash interposed between said side walls, substantially as described.

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