

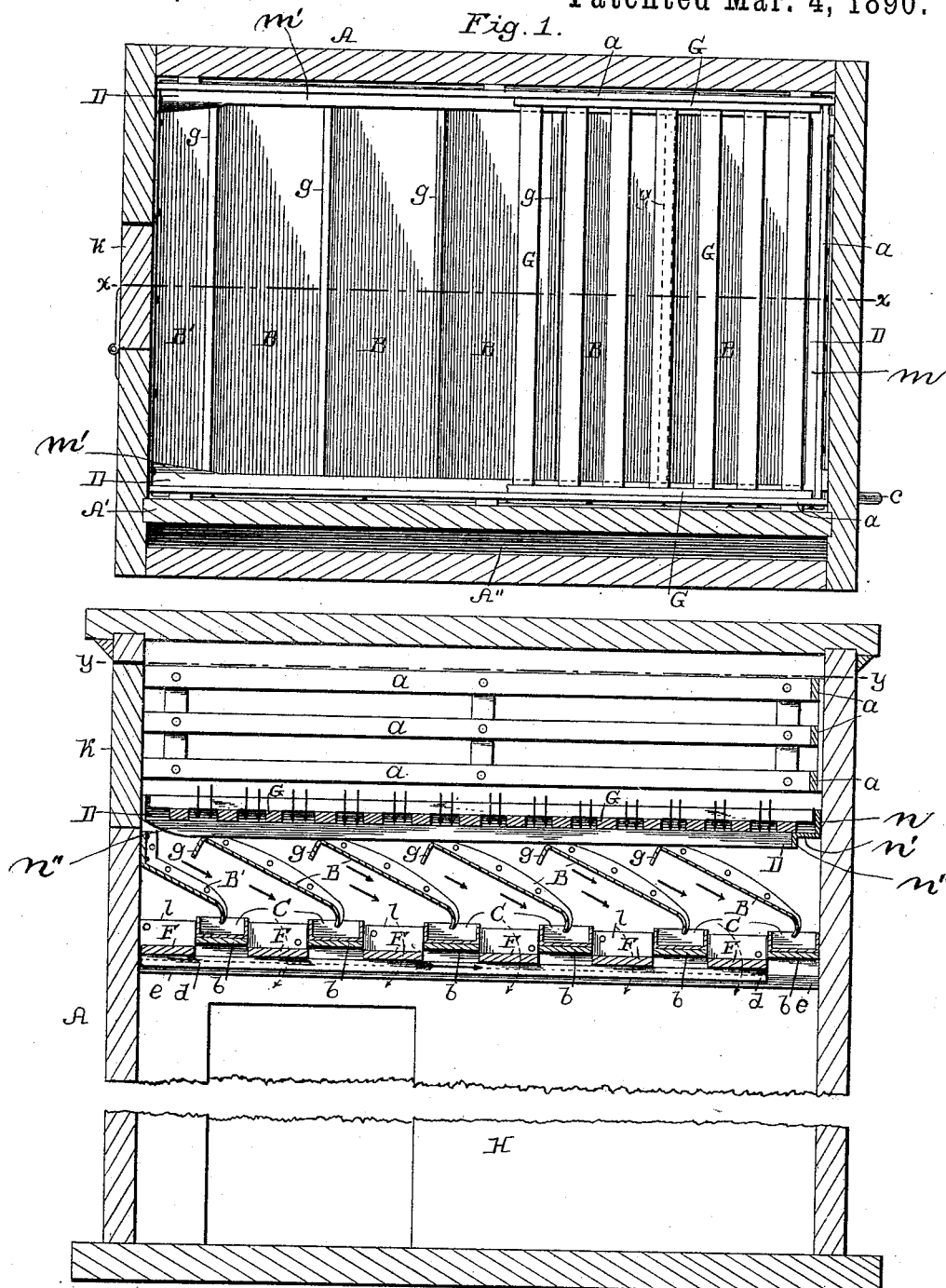
(No Model.)

2 Sheets—Sheet 1.

J. SCHNEIDER & J. MILLER.
REFRIGERATOR.

No. 422,637.

Patented Mar. 4, 1890.



WITNESSES:

Fig. 2.

INVENTORS

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By *J. C. Higdon*
their Attorney.

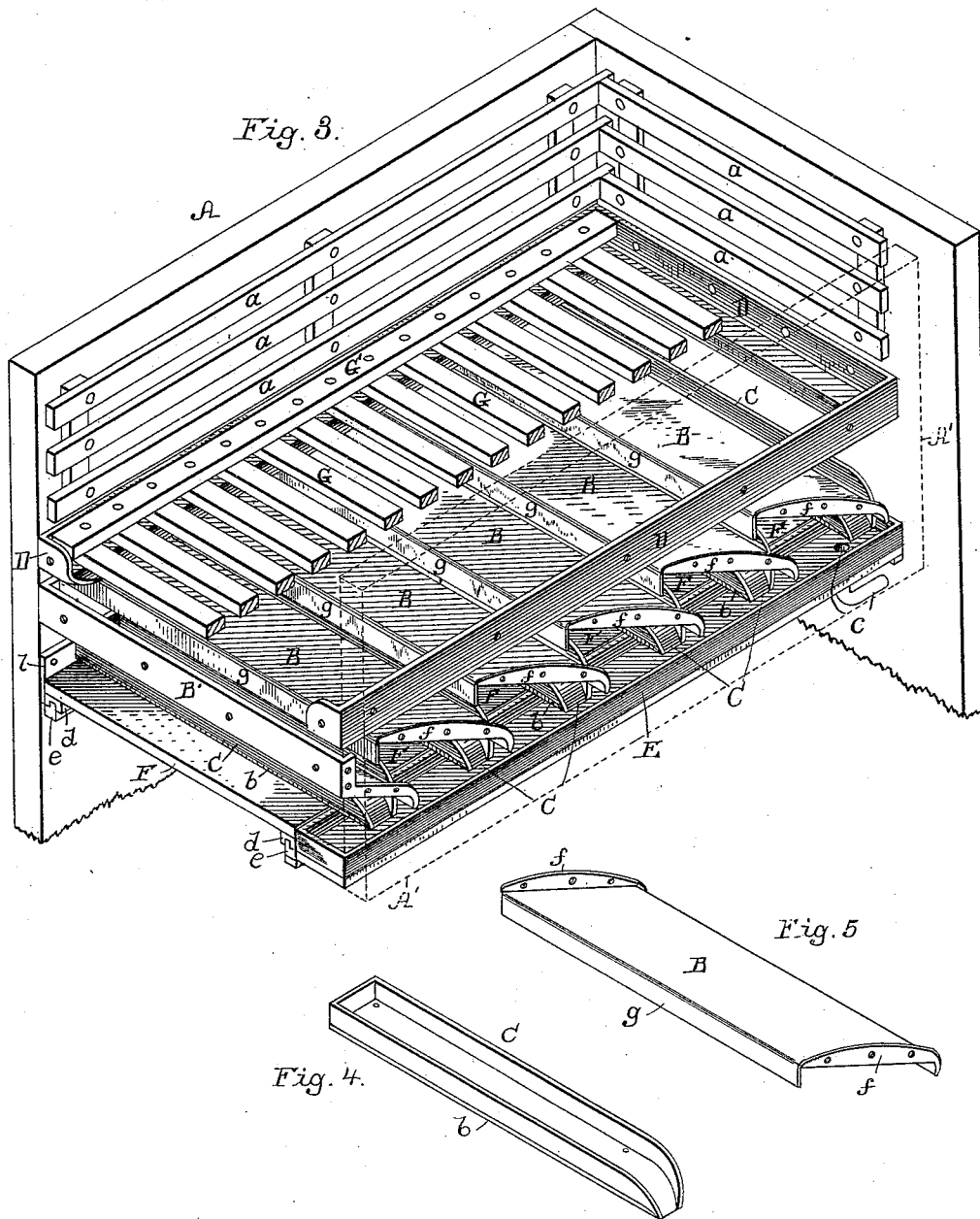
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UNITED STATES PATENT OFFICE.

JOSEPH SCHNEIDER AND JOSEPH MILLER, OF KANSAS CITY, MISSOURI.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 422,637, dated March 4, 1890.

Application filed April 24, 1889. Serial No. 308,419. (No model.)

To all whom it may concern:

Be it known that we, JOSEPH SCHNEIDER and JOSEPH MILLER, of Kansas City, Jackson county, Missouri, have invented certain new and useful Improvements in Refrigerators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

10 This invention relates to certain improvements in refrigerators; and it consists of the novel combination of parts and their construction, as will fully appear from the following description and accompanying illustration, in which—

15 Figure 1 is a horizontal section of our improved refrigerator, taken on the line *y y* of Fig. 2. Fig. 2 is a sectional elevation thereof, taken on the line *x x* of Fig. 1, a portion of the refrigerator being removed or broken away. Fig. 3 is a perspective view of the same having certain parts removed and others broken away, while the partition at the rear of the refrigerator is shown in dotted lines. 25 Figs. 4 and 5 are detailed perspective views of one of the drip-water troughs and one of the water-sheds, respectively.

In the embodiment of our invention we employ, as usual, a slotted frame *G G* to support the ice, which frame is supported in an open frame-like trough *D*, secured or bolted to one end and one side of the refrigerator *A* and to a supplemental wall or partition *A'* therein. This trough is provided with an end *m* and the parallel sides *m' m'*, and it is right-angular in shape and consists of the vertical flange *n*, which is secured to the sides and partitions of the refrigerator, the horizontal flange *n'*, upon which the frame *G* rests, and the depending drip-flange *n''*, the lower edge of which inclines downward toward one end of the frame in order to cause the drippings from the ice above to run toward one end and drip off. This is to prevent the water from accumulating in drops along the entire length of the frame. To the sides and one end—the rear end—of the ice-chamber, or the chamber above the ice-supporting frame *G*, are applied the skeleton 50 walls or framing *a a* to prevent the ice coming

in contact or resting against the walls of the refrigerator.

Below the ice chamber or trough *D* is arranged a series of inclined plates *B*, of any suitable metal, as tin, sheet-iron, &c., 55 which form water-sheds for the dripping water, turning or conducting the latter into troughs *C C*, arranged immediately below, and so as to receive the water as it falls from the lower edges of the sheds or plates *B*. The 60 plates or water-sheds have their ends turned up and fastened to one side of the refrigerator and to the partition or supplemental wall *A'*. The upper rear edges of the plates or sheds *B* are provided with depending flanges *g* 65 about at right angles to the plates or sheds to aid in directing the air-currents as desired. The extreme forward or lower edges of the plates or sheds *B* are curved downward to readily shed the water. 70

The troughs *C C* are let into and supported by means of a strip or cleat *l*, secured to one side of the refrigerator, and by the trough *E*, supported by the partition or supplemental wall *A'*, and these troughs are adapted to 75 discharge the water in a direction at right angles to that in which it leaves the sheds or plates *B* into the common or general trough *E*. This trough, in turn, conducts its contained water in a direction at right angles to 80 that in which the water is conducted by the troughs *C C*, discharging its water through an outlet or drain-pipe *c* at its rear lower end.

The troughs *C* have their bottoms armed with wooden strips or slats *b* to prevent water 85 of condensation forming thereon and dripping upon the contents of the storage-chamber of the refrigerator.

F is a series of slats or bars arranged below the plane of the troughs *C C*, and adapted to 90 move in and out of alignment with and open and close the spaces between the said troughs, as occasion may require. These slats or bars are fastened at the required intervals apart upon strips or cleats *d*, having in their under 95 sides grooves which receive projections or elevations upon tracks or ways *e e*, fastened to the inner side edges of wooden bottom pieces of the trough *E* and to the opposite side of the refrigerator. Thus, by the adjust- 100

ment or movement of the series of slats or bars F, as aforesaid, the cold air from the ice-chamber above can be admitted to or shut off from the storage-chamber, as may be desired.

It will be observed that the cold-air currents or circulation set in motion by the melting ice in the upper chamber of the refrigerator pass down through the spaces between the slotted support G G, are then deflected through the spaces between the plates or sheds B, and pass into the storage-chamber, imparting their refrigerant effect to the contents thereof. When freed of a portion of their cold the said air-currents will ascend, passing up *via* the air-space A'', formed between the partition or supplemental wall A' and that side or wall of the refrigerator. Becoming again cold, said air-currents will again descend, making the same circuit as before, the current or circulation thus being rendered continuous or kept up as long as the ice-supply holds out.

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

1. In a refrigerator, the combination, with a right-angled trough provided with a depending drip-lip having an inclined lower edge, of the slatted frame resting at its edges on said trough, substantially as specified.

2. The herein-described refrigerator, having a vertical air-passage at one side, communicating at its upper and lower ends, respectively, with the ice-chamber and the storage-chamber, a trough D, extending around three sides of the refrigerator, a slatted frame resting on said trough, inclined plates or water-sheds arranged below said frame, transverse troughs arranged below the lower edges of said plates or water-sheds, and sliding slats arranged beneath said transverse troughs and adapted to close the spaces between the same, substantially as specified.

In testimony whereof we affix our signatures in presence of two witnesses.

JOSEPH SCHNEIDER.
JOSEPH MILLER.

Witnesses:

F. G. FISCHER,
A. A. HIGDON.