J. C. CLARK.

Refrigerator.

No. 160,050 Patented Feb. 23, 1875.

Fig. 2

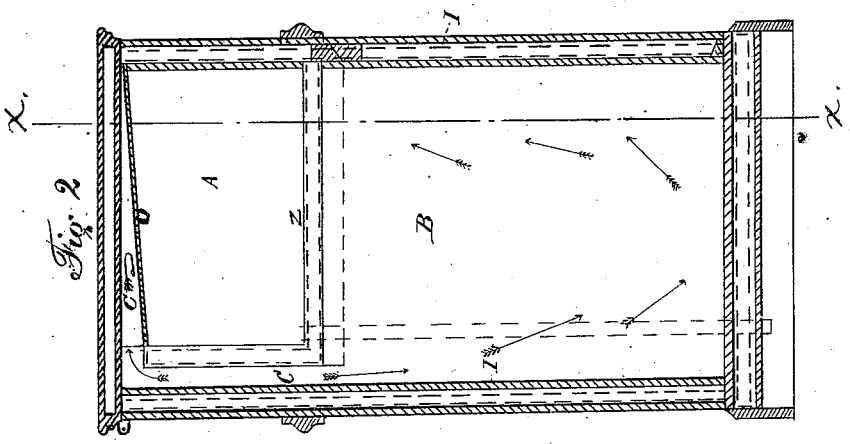
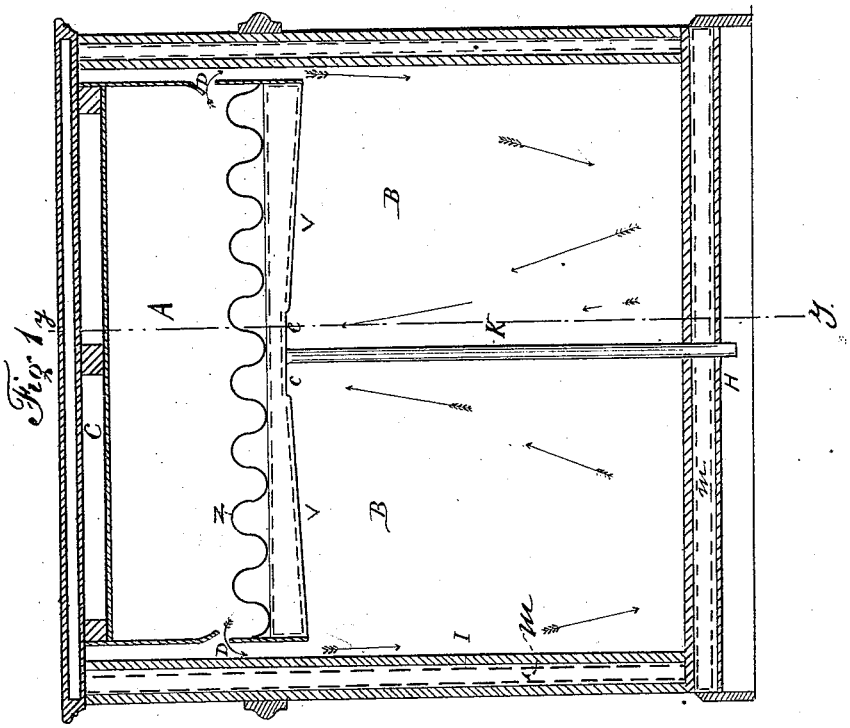


Fig. 1



Witnesses;
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THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

JAMES C. CLARK, OF SOUTH BEND, INDIANA.

IMPROVEMENT IN REFRIGERATORS.

Specification forming part of Letters Patent No. **160,050**, dated February 23, 1875; application filed December 14, 1874.

To all whom it may concern:

Be it known that I, JAMES C. CLARK, of South Bend, in the county of St. Joseph and State of Indiana, have invented an Improvement in Ice-Boxes or Refrigerators, of which the following is a specification:

My invention relates to the class of refrigerators where the ice-box is placed at or near the top of the refrigerator, and where it is the design to obtain a circulation of the air confined to the interior of the refrigerator without communication with the exterior air. My invention consists in a particular construction and arrangement of such refrigerators by which the warm air contained therein is separated and kept from contact with the cold air; and whereby the moisture contained in the warm air is condensed without being brought in immediate contact with the ice.

Figure 1 is a vertical longitudinal section of the refrigerator, taken on the line *x x* of Fig. 2. Fig. 2 is a vertical cross-section of Fig. 1, taken on the line *y y* of Fig. 1.

The ice-box is placed at or near the top of the refrigerator, and is provided with a false bottom of corrugated zinc, *z*. The top of the ice-box consists of a condenser, *o*, made of zinc, or other suitable metallic condenser, and may be attached to and lift with the top or lid of the refrigerator, sufficient space being left between the lid and condenser for the passage of the warm air from the flue C to the upper side of the condenser, as shown in Fig. 2. Near the bottom of the ice-box are openings D D for the passage of the cold air from the ice-box into the preserving-chambers. The bottom of the ice-box is arranged in inclined planes, as shown at *v v* in Fig. 1. The warm-air flue C is placed at the back of the refrigerator, behind the ice-box, and brings the warm air in direct contact with the upper side of the condenser, as shown in Fig. 2. The walls or sides of the refrigerator are constructed with vacuums I. The walls forming the vacuums are lined with paper, as shown at *m* in the drawings, which acts as a non-conductor. The arrows show the course of the air as it circulates through the refrigerator. The course of the cold air is seen in Fig. 1 as it issues from the ice-box at the openings D D, and descends to the bottom of the preserving-chamber, displacing the air of a higher degree of temperature, which ascends to the bottom of the ice-box of the inclined planes *c c*, which serve to separate the warm and cold air, and passes thence to the warm-air flue, which conducts it to the condenser, where it is condensed. Thus a continuous circulation of air is kept up and the preserving-chamber kept dry. K denotes a small water-conductor, running from the ice-chamber A between the chambers B B, and connecting with the tray H.

What I claim, and desire to secure by Letters Patent, is—

The ice-box A, having its bottom arranged in incline planes, and provided with a condenser, *o*, and flues D, in combination with the preserving-chambers B and warm-air flue C, as shown and described, for the purposes specified.

JAS. C. CLARK.

Attest:
J. F. KIRBY,
W. H. HANFORD.