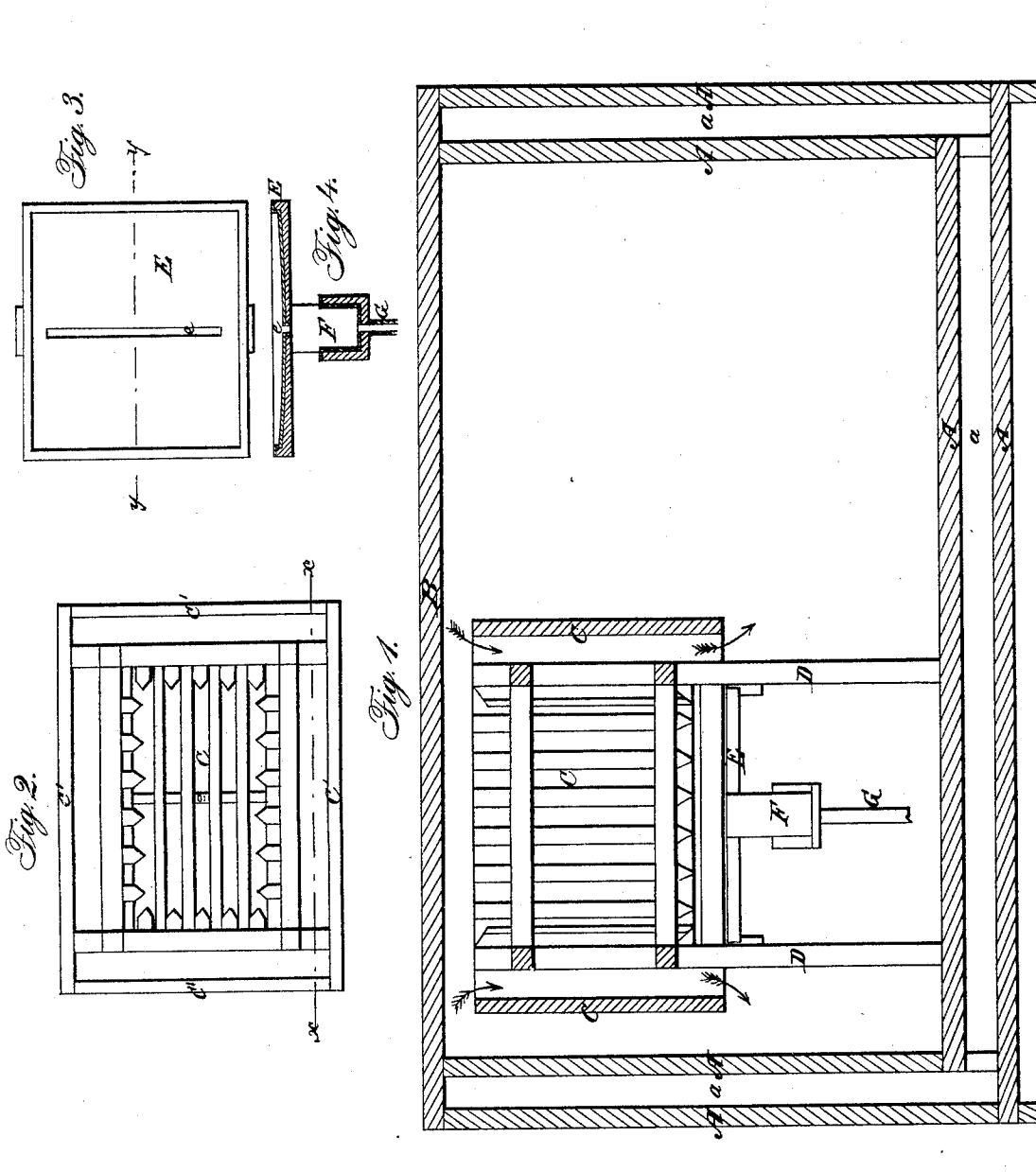


J. J. BARRETT.

Refrigerator.

No. 35,208.

Patented May 13, 1862.



Witnesses:

*H. King*  
*J. W. Smith.*

Inventor:

*James J. Barrett.*

# UNITED STATES PATENT OFFICE.

JAMES J. BARRETT, OF GEORGETOWN, DISTRICT OF COLUMBIA.

## IMPROVED REFRIGERATOR.

Specification forming part of Letters Patent No. 35,208, dated May 13, 1862.

*To all whom it may concern:*

Be it known that I, JAMES J. BARRETT, of Georgetown, in the county of Washington, District of Columbia, have invented a new and useful Improvement in Refrigerators and Meat-Chests; 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, in which—

Figure 1 is a vertical section through the box or chest and cutting the crib, Fig. 2, through the line *x x*. Fig. 2 is a horizontal or vertical view of the crib which receives the refrigerating material. Fig. 3 is a vertical view of the dripping-plate; and Fig. 4 is a vertical section of the same through *y y*, Fig. 3, with the box and pipe below for receiving the water and conducting it out of the apparatus.

This refrigerator, like most others in common use, has its exterior walls double, with an intervening space filled with charcoal, sawdust, or other non-conducting materials. They are marked on the drawings with the letter A and the intervening space by *a*. The top or lid B, though not shown so, may be made in the same manner. Within this box or chest is placed a crib, Fig. 2, with its appendages, supported upon four legs or uprights, and is movable into any part of the chest that may be desirable, neither the legs nor any part of the crib being fixed to the chest. The inner portion of the crib C is the receptacle for the ice, snow, or other refrigerating material, and is made by a suitable number of vertical bars or slats secured together at top and bottom, leaving a free or open space between them severally, and a bottom of similar bars or slats running horizontally across from end to end or side to side. The top of this crib may be left open, or closed with a lid or cover. Around this crib, and attached to it, as shown, is a case, C', entirely closed on all sides, but open at top and bottom, and setting so far away from the sides of the crib as to give room for the free circulation of air between the two. Below the bottom of the crib a few inches, supported on cleats or slats attached to the legs D D, is a dripping-plate, E, Figs. 1, 3, and 4,

slightly inclined from the sides toward the center, where there is an opening or slot, *e*, Figs. 3 and 4. Immediately below this opening or slot in the dripping-plate, and at least as long, is a box or vessel, F, to the lower part of which is attached a pipe, G, extending from it to and through the main or outer walls of the chest or into some receiving-vessel within the chest.

The upper edges of the crib C and the case C' on a level with each other, or nearly so, should not reach up to the inner surface of the lid B, but only so near as to leave a sufficient space between to allow of the free access of the air to the spaces between the crib and its case, as shown in Fig. 1. Access is to be had to the interior of the chest by doors on the side or a lid letting down upon the top. Where the chest is very large, as is often required by butchers and others who require provision for the entire carcass of an animal, the lid may be divided into two, three, or more parts for convenience and lightness; or one or two smaller doors may be made in the lid. In all cases, however, these doors or lids should fit perfectly air-tight, or as nearly so as possible, as it is an essential element for the perfect operation of this chest that it should be, when closed, thoroughly air-tight.

Shelves may be arranged within the chest at any suitable height or in any desired number by means of cleats or slats secured to the inside. It will be best to make these shelves with perforations or of thin slats, so as to allow the air to reach the under side of whatever may be placed upon them. When the crib has been properly filled with ice, snow, or other refrigerating material, and the meat, vegetables, butter, or other articles placed in their proper position in the chest, the door or lid is closed, so as to prevent the access of any further air from without. The air existing in the spaces between the crib and its case then becomes cooled by its contact with or contiguity to the mass of ice, snow, &c., contained in the former, and descends, necessarily, from its increase of gravity toward the floor of the chest, while another portion, entering this space at the top, takes its place, to be in like manner refrigerated and carried down. Thus a circulation of the air is set up and continues until the whole of this fluid is re-

duced to a temperature very nearly the same throughout the chest, or about the freezing-point of common water.

I have described the crib and its case as standing upon the legs D; but this is not absolutely necessary, as cleats or slats attached to the side of the chest may be substituted for these legs without affecting the principle of this invention.

Having thus fully described my invention

and its operation, what I claim, and desire to secure by Letters Patent, is—

The arrangement of the movable crib C and its case C', in combination with the dripping-plate E and receiving-box F, substantially as described.

JAS. J. BARRETT.

Witnesses:

H. KING,

A. THO. SMITH.