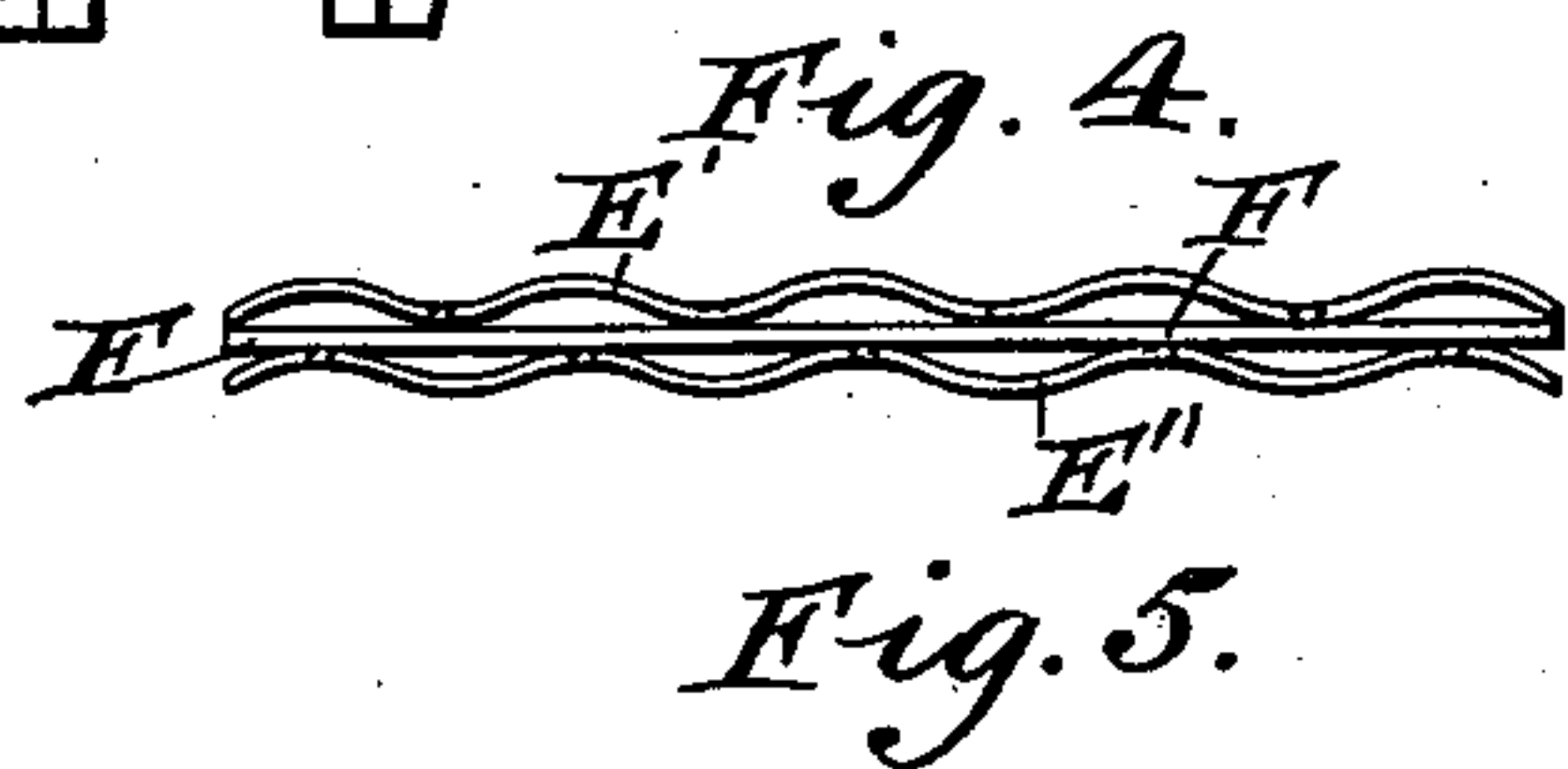
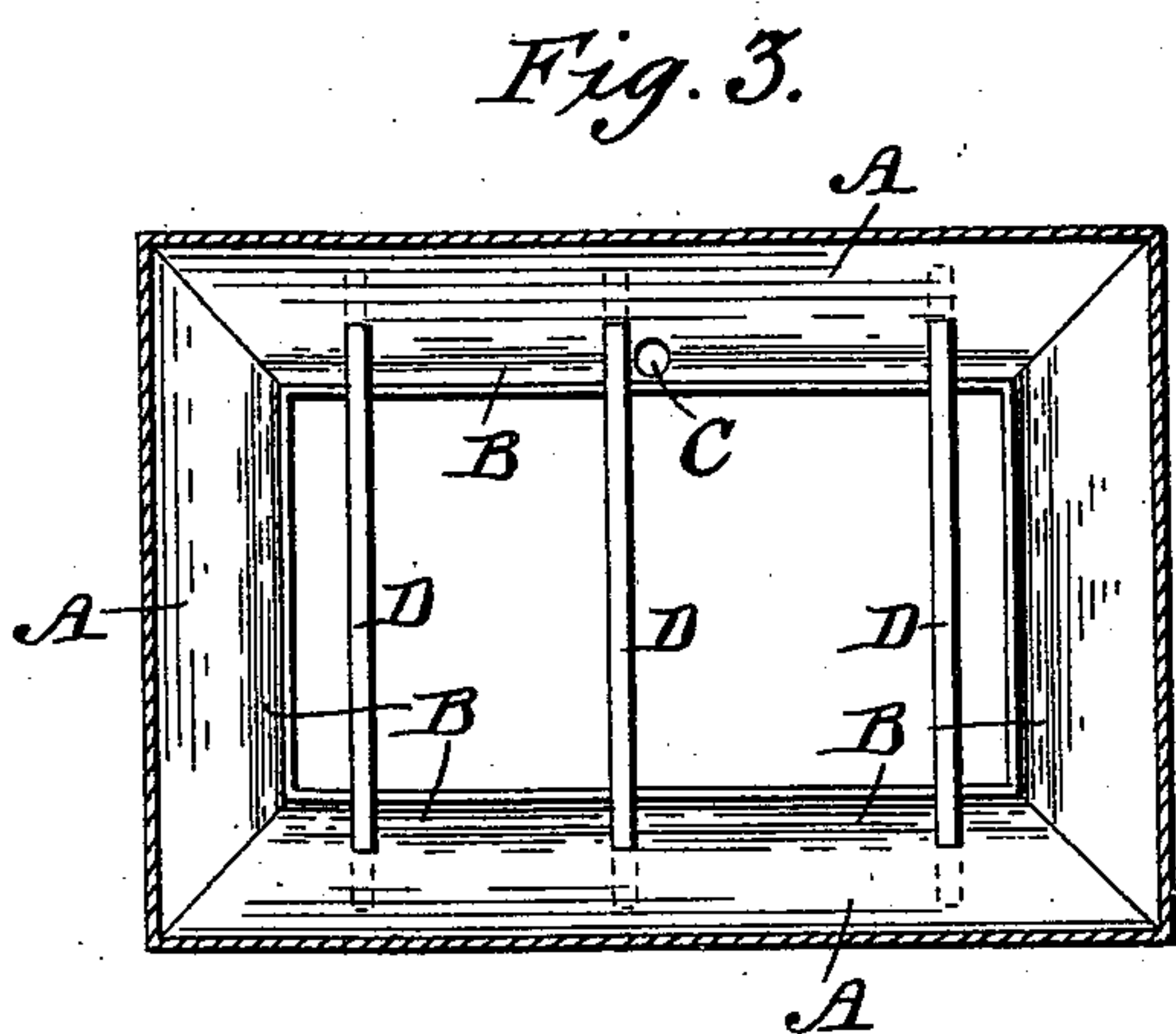
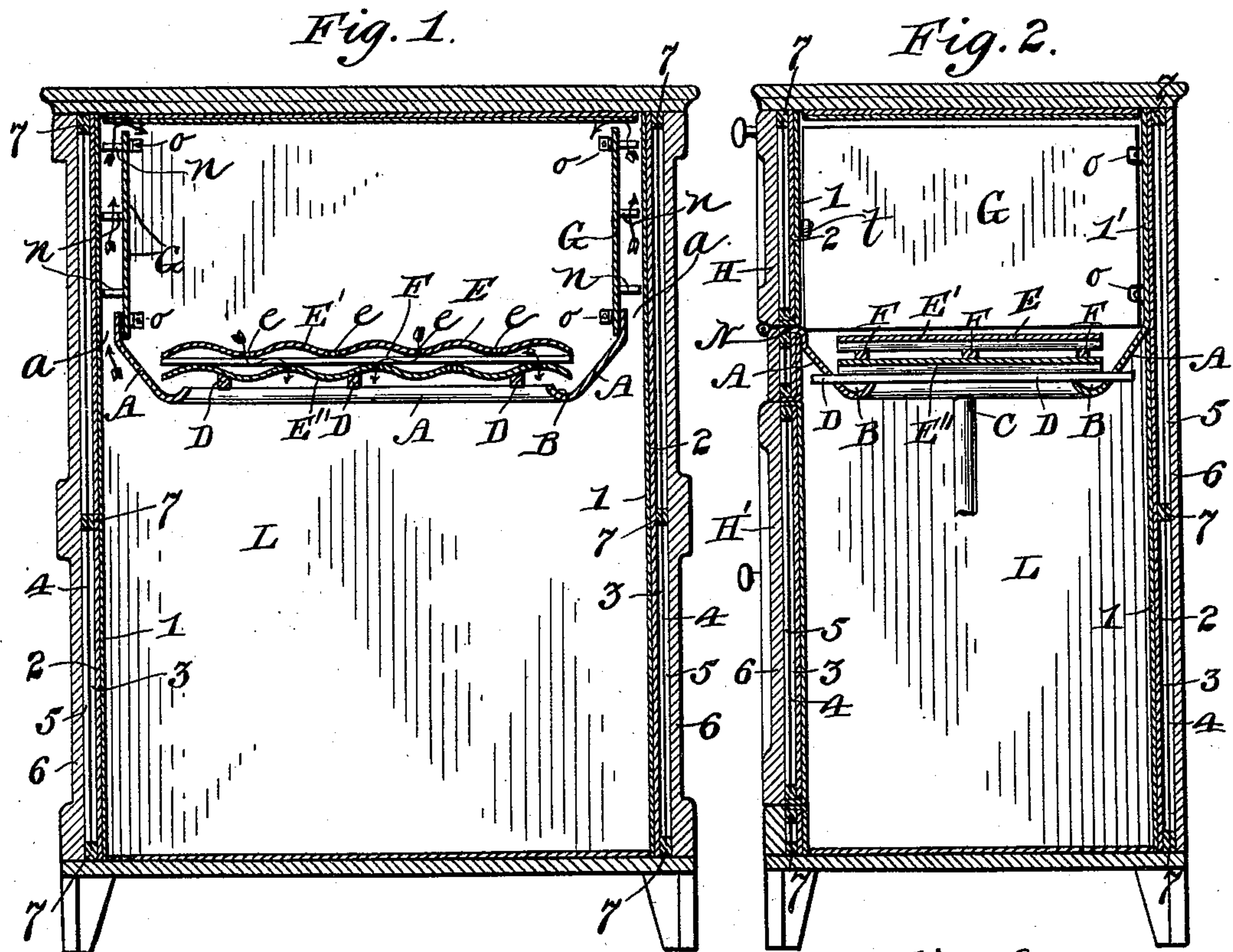


(No Model.)

J. BANDEROB.  
REFRIGERATOR.

No. 542,915.

Patented July 16, 1895.



WITNESSES

*E. J. Everance.*  
*W. Harvey Shippy.*

INVENTOR

*John Banderob*  
*By his Atty*  
*Wm. F. F. F. F.*



# UNITED STATES PATENT OFFICE.

JOHN BANDEROB, OF OSHKOSH, WISCONSIN.

## REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 542,915, dated July 16, 1895.

Application filed November 23, 1894. Serial No. 529,721. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BANDEROB, a citizen of the United States, residing at Oshkosh, in the county of Winnebago and State of Wisconsin, have invented certain new and useful Improvements in Refrigerators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in refrigerators; and the objects of my invention are, first, to simplify the construction; second, to facilitate circulation of air, and, third, to provide thorough cleanliness.

In the accompanying drawings, Figure 1 is a vertical section lengthwise of the box. Fig. 2 is a vertical section crosswise of the box. Fig. 3 is a plan view of the tray. Fig. 4 is a side view, and Fig. 5 a plan view, of the grate.

Similar letters and figures refer to similar parts in each view.

L is the box provided with doors H H'.

A is the tray permanently attached and inclining to the gutter B, which extends entirely around the tray and leads to the outlet for the drip C.

The grate E rests upon the bars D D D, is removable, and is composed of two corrugated sheets of metal parallel with each other and attached together by the bars F F F. The top sheet E' is provided with perforations *e e e* in the trough of each corrugation, and the bottom sheet E'' is provided with similar perforations along the crest of each corrugation, thus providing a means of downward circulation of the air, as shown by the arrows, Fig. 2, and also a means of conducting the drip to the gutter below—that is to say, the drip first passes into the troughs of the upper sheet E' and through the perforations *e e e*, drops to the troughs of the lower corrugated

sheet E, which conduct it to the gutter B. The grate may be set at an incline for this purpose; but I provide a gutter entirely around the grate, so that if the box should at any time be tipped or inclined in any direction the drip cannot possibly be spilled upon the contents of the box below.

The walls of the box provide a double air-space and consist of the inside metallic lining 1, the inside wall 2, the inner air-space 3, the partition 4, dividing the air-space and supported by the cross-pieces 7 7 7, the outer air-space 5, and the outside wall 6.

The partition 4 is preferably of paper or pasteboard, and I also line the whole air-space with paper. The inside metal lining at the back 1', Fig. 2, is integral with the tray A, and the front portion of the tray extends over and attaches to the bottom of the door opening at N, thus forming a strong and permanent support for the tray. The sides of the tray do not extend to the side of the box; but an opening *a*, Fig. 1, is provided along each side of the box between the tray and the side, and a plate G, provided at each side closing over the tray and extending up nearly to the top, thus providing a space on each side for the circulation of air, as indicated by the arrows. Each of the plates G G is provided with spacing-pins *n n n n*, which are adapted when said plates are in position in the refrigerator to hold them a predetermined distance from the side walls of the latter, and thus form a conducting-space for the warm air to pass upward.

The plates G G are removable for cleaning and the like and rest, when in position, upon the tray A, and are held in such position at the rear by the lugs *o o o o*, attached to the back wall of the refrigerator, and at the front by cam-buttons *t t t*, which are attached to the front of the refrigerator.

For cleansing purposes the plates G G are readily removable. The grate E E' simply rests upon the tray and is easily removable. All can be removed and the tray cleaned

through the upper door H without interfering with the contents of the lower portion of the box.

Therefore what I claim as my invention,  
5 and desire to secure by Letters Patent, is—

In a refrigerator, the combination with a box of an ice chamber comprising a permanently attached tray forming a drip receiving gutter, a removable ice supporting tray  
10 supported upon the same, removable side

walls provided with spacing pins to hold them away from the side of the refrigerator, and means for fastening said walls rigidly in position, substantially as described.

In testimony whereof I affix my signature 15  
in presence of two witnesses.

JOHN BANDEROB.

Witnesses:

H. A. HENKEL,

CHARLES J. SCHMITT.