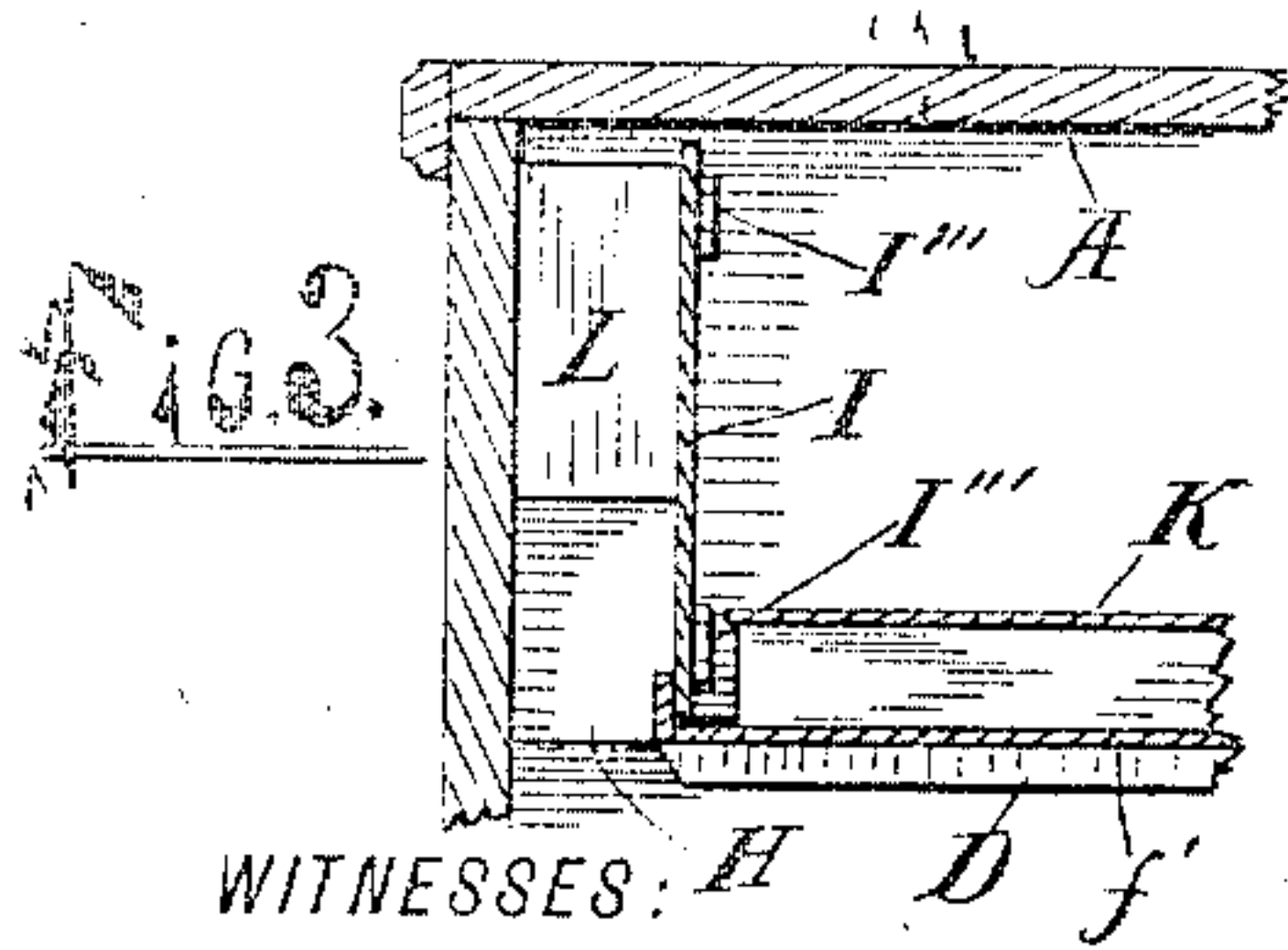
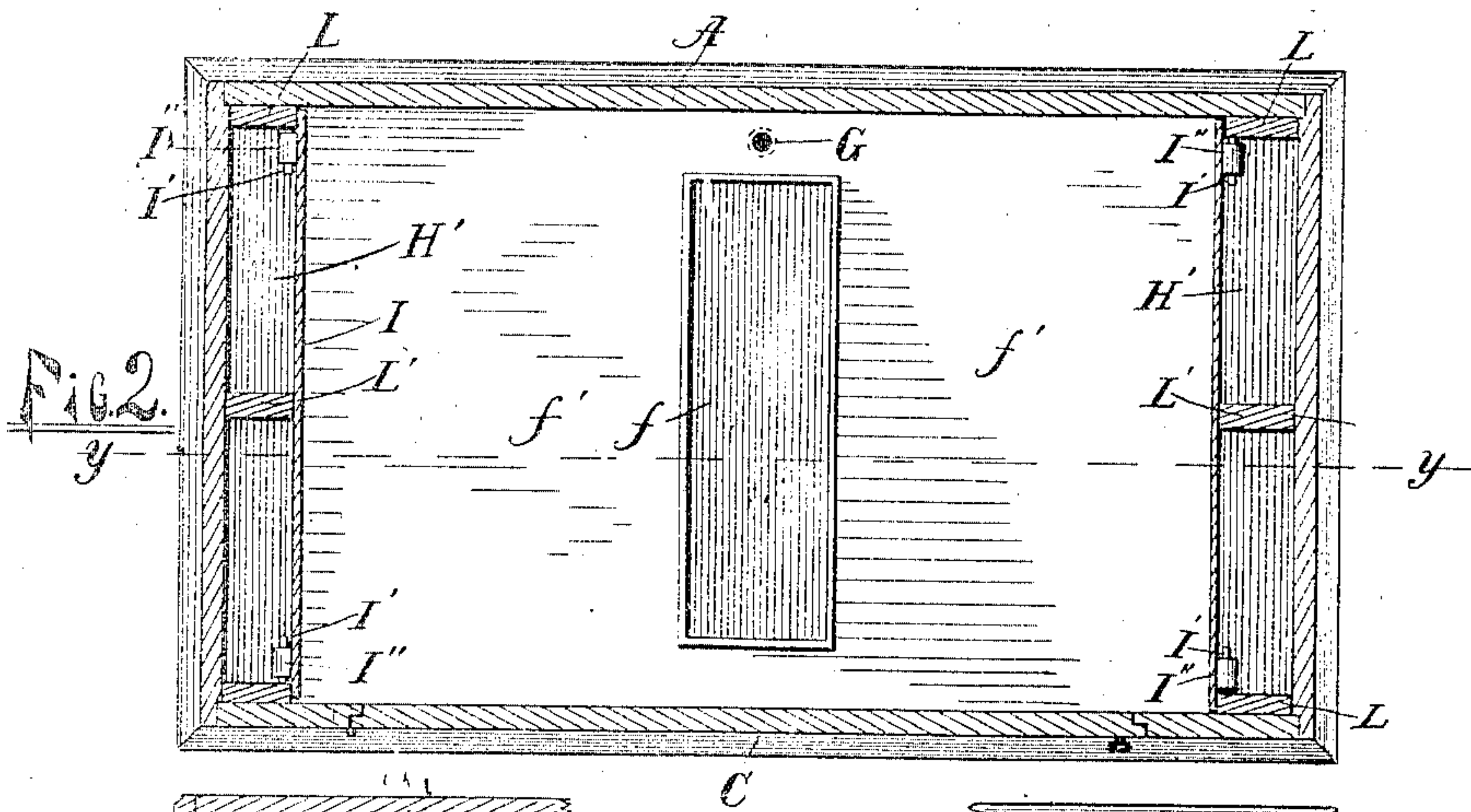
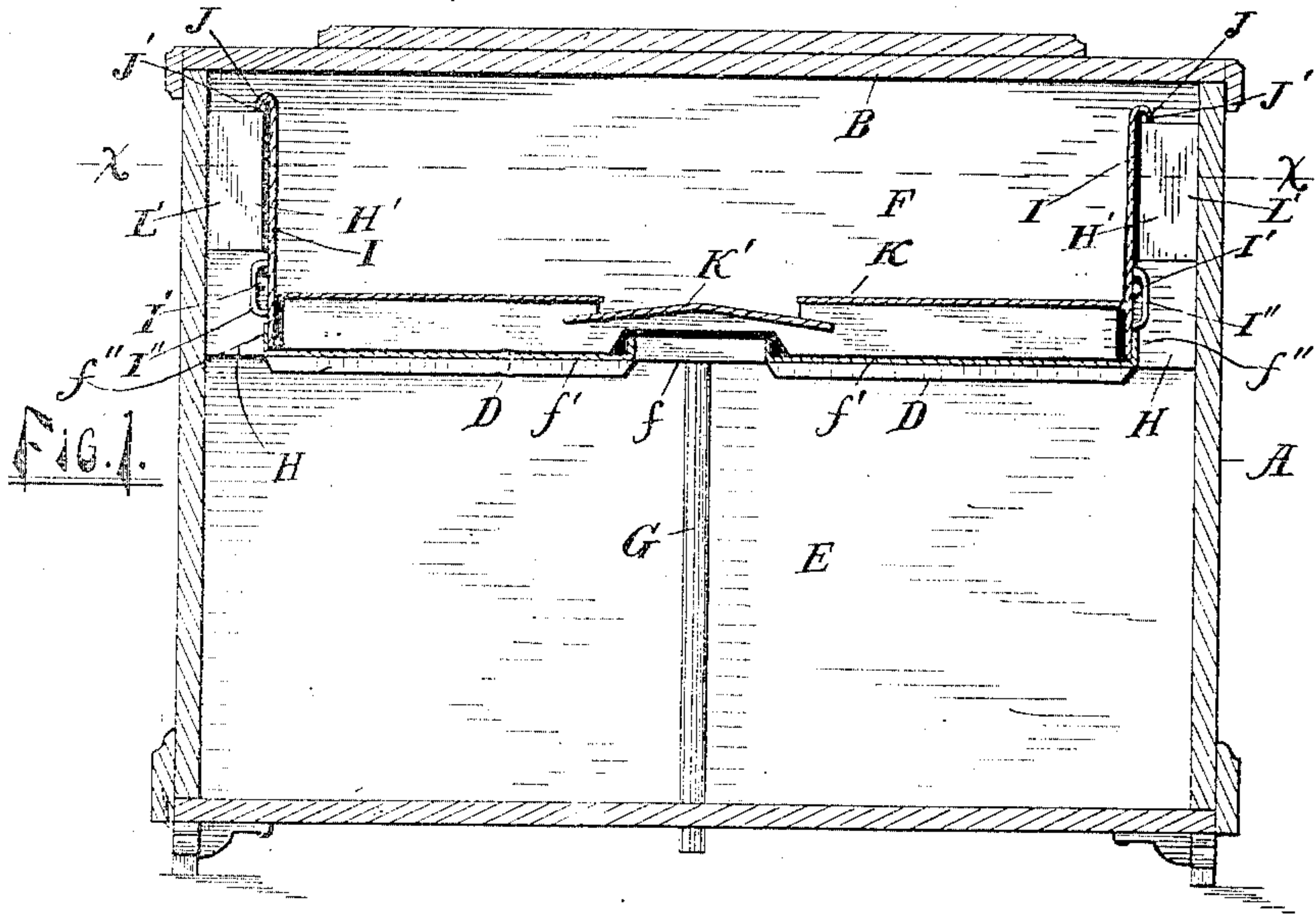


(No Model.)

J. H. BARRETT.  
REFRIGERATOR.

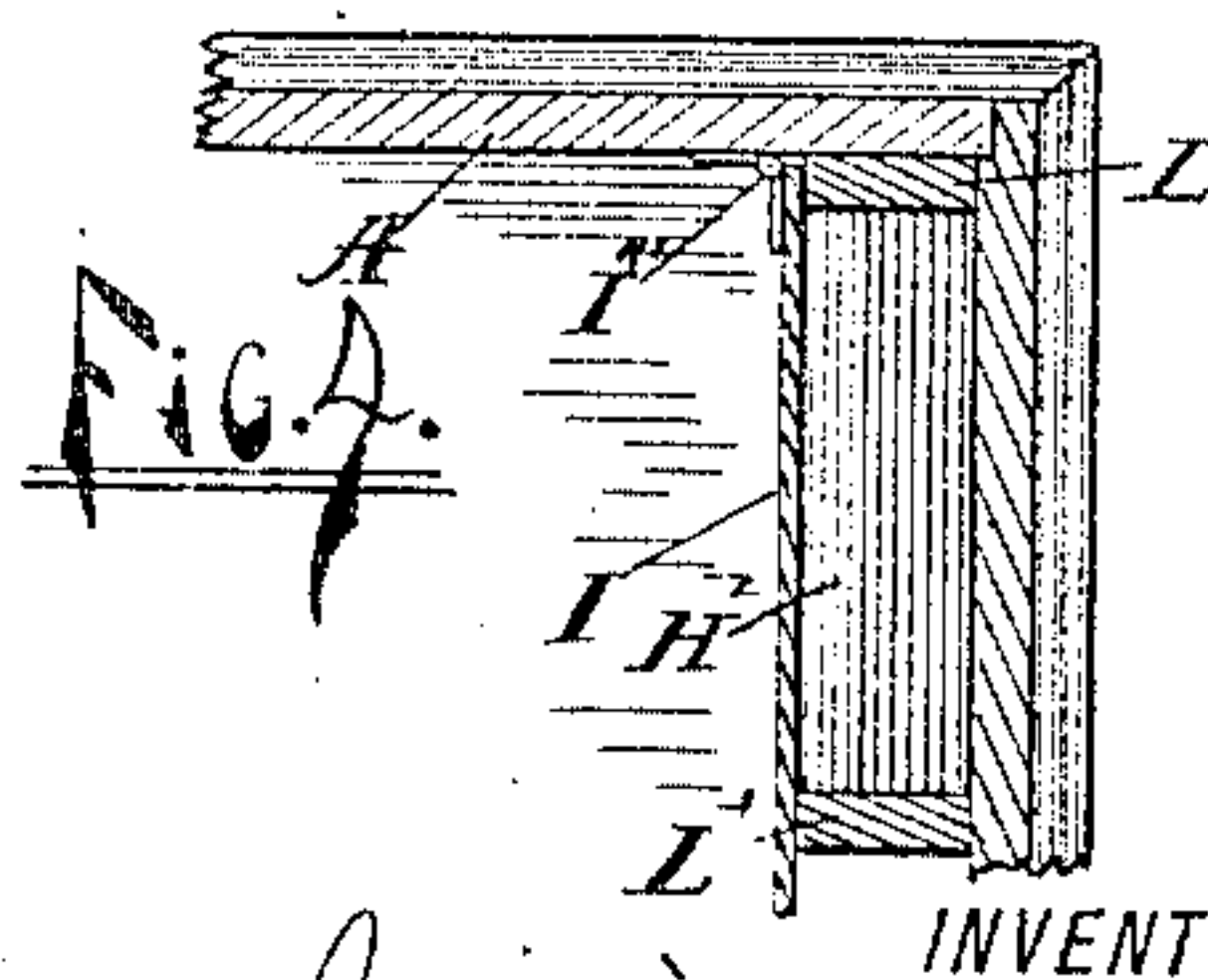
No. 467,904.

Patented Jan. 26, 1892.



WITNESSES: *H D J'*

Florence E. Gyer.  
Lois Moulton.



INVENTOR

INVENTOR  
James H. Barrett  
BY  
Dennis L. Rogers  
his ATTORNEY



# UNITED STATES PATENT OFFICE.

JAMES H. BARRETT, OF GRAND RAPIDS, MICHIGAN, ASSIGNOR OF ONE-HALF  
TO CHARLES H. LEONARD, OF SAME PLACE.

## REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 467,904, dated January 26, 1892.

Application filed June 29, 1891. Serial No. 397,894. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES H. BARRETT, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Refrigerators; and I do hereby 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.

My invention relates to refrigerators, and more especially to that class of refrigerators which are divided horizontally into an upper and lower chamber, the upper of the two for containing the ice and the lower for the material to be refrigerated; and the special object of my invention is to provide a flue or air-passage leading from the lower to the top of the upper chamber with a hinged side wall, which may be opened whenever it is desirable to clean the flue; and my invention consists in the certain special construction and arrangement of parts hereinafter described, and pointed out in the claims, reference being had to the accompanying drawings, wherein—

Figure 1 is a vertical section of a refrigerator on the line *yy* of Fig. 2, embodying my invention; Fig. 2, a top or plan view of the refrigerator, with the cover open and the ice-rack removed; and Figs. 3 and 4 are details showing modifications in construction.

Like letters of reference indicate like parts in each of the figures.

The letter A indicates the refrigerator-box, which has a cover B, and a door C at the front.

The interior of the box is divided by means of a horizontal partition D into two chambers the lower one E being the provision-chamber, and the upper one F being the ice-chamber and adapted to contain a sufficient quantity of ice for refrigerating the air within the lower chamber. The partition D is formed with a central slot or opening *f*, extending nearly from side to side of the box, and is preferably composed of wood having a zinc or other suitable sheet-metal covering *f'*, which is turned up along its outer edges and also along the edges of the central opening, so as to form a shallow pan for the water which drips from the melting ice. A water-pipe G leads from this pan down through the box, so as to carry off the water which collects in the pan. A

space H is left between each of the two opposite walls of the box and the ends of the partition D, so as to allow the upward circulation of air from the provision-chamber into the ice-chamber and which communicates with flues H', formed at each side of the chamber by hinged vertical walls I, preferably of sheet metal galvanized, having their upper margins J turned over to form a firm upper edge and for engaging the pin J' on the block L' to keep them vertical and arranged at a suitable distance from the walls of F to afford a free circulation of air. Said walls do not extend up to the top of the box, so that a space is left between the top edge of each wall and the lid, thereby establishing communication between the two chambers. At the opposite lower corners of the walls I are secured the loops I'', adapted to engage the inwardly-projecting pins I' and form a loose hinge, whereby the walls I can be lifted vertically clear of the ice-rack K and swung to a horizontal position, thereby exposing the whole interior of said flue. To facilitate access to the interior surfaces thereof for cleansing purposes, three or more blocks L, L', L are arranged between the walls I and the sides of the chamber for staying or strengthening the same and preventing the indentation thereof by ice falling against it, upon one or more of which is placed a pin J' for engaging the edge J and keeping the wall I in its vertical position.

K indicates a removable ice-rack for supporting the ice within the ice-box, and may be of any suitable design, having a central portion K', adapted to turn the water and prevent it from passing through the slot. It is quite obvious that the walls I may be provided with side hinges I''', as shown in Figs. 3 and 4, to swing horizontally; but I prefer the construction shown in Figs. 1 and 2, for the reason that they may be opened and the flues cleaned without the removal of the ice-rack, if desired. It is quite evident that ice being placed upon the rack, cold air descends through the slot in the partition into the provision-chamber, causing the warm air from said chamber to ascend through the flues, and that this circulation carries, in the form of vapor, more or less grease and vegetable substances, which, being by condensation de-



posited upon the inside walls of the flues, soon becomes rancid and odorous and requires frequent cleaning, which it is the object of my invention to facilitate by providing said walls I with hinges, whereby said flues may be readily opened.

I am aware that it is not broadly new to provide flues with removable walls. Therefore I do not claim them, broadly.

10 What I claim is—

1. In a refrigerator divided horizontally by a partition into an ice-chamber and a provision-chamber, the former arranged above the latter and having an opening II at each end of said partition communicating between the two chambers, and in combination therewith, the vertical walls I, arranged at each end of said ice-chamber above said partition, of such height as to leave a space between the tops thereof and the refrigerator-cover when said cover is closed, arranged parallel to the end walls of said ice-chamber and at such distance therefrom as therewith to form an air-flue connecting said opening II with the top of said ice-chamber when said cover is closed and pivoted to the side walls of said ice-chamber at opposite lower corners to swing downward and rest upon the bottom of said ice-chamber for exposing the interior surfaces of said air-flues, substantially as and for the purposes set forth.

2. In a refrigerator divided horizontally by a partition D into an ice-chamber and a provision-chamber, the former arranged above the latter and having an opening II at each end of said partition communicating between said chambers, and in combination therewith, the vertical walls I, preferably of sheet metal,

galvanized, and having the upper edge J turned over to form a means of suspension, as shown, and of such height as to leave a space between the said top or upper edge of said wall and the refrigerator-cover when said cover is closed and arranged parallel to the end walls of said ice-chamber and at such distance therefrom as therewith to form an air-flue connecting said opening II with the top of said ice-chamber when said cover is closed and pivoted to the side walls of said ice-chamber at opposite lower corners to swing downward, for the purpose set forth, and the block L', adapted to engage the said turned-over edge J, arranged between said wall I and said wall of said ice-chamber for keeping said wall I vertical, substantially as set forth.

3. The combination, in a refrigerator divided by a slotted horizontal partition into an ice-chamber and a provision-chamber, of the metallic walls I, located above the partition, having their upper margins J turned over, the blocks L L' L', arranged between said wall and the sides of the chamber, the pin J' on the block L' for engaging the edge J, the loop I'', arranged at the bottom of the walls I upon opposite lower corners, and the pins I', loosely engaging said loops, whereby said walls may be lifted vertically out of engagement with pins I', and swung clear of ice-rack K into a horizontal position for opening said flues, substantially as set forth.

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

JAMES H. BARRETT.

Witnesses:

DENNIS L. ROGERS,  
LOIS MOULTON.