

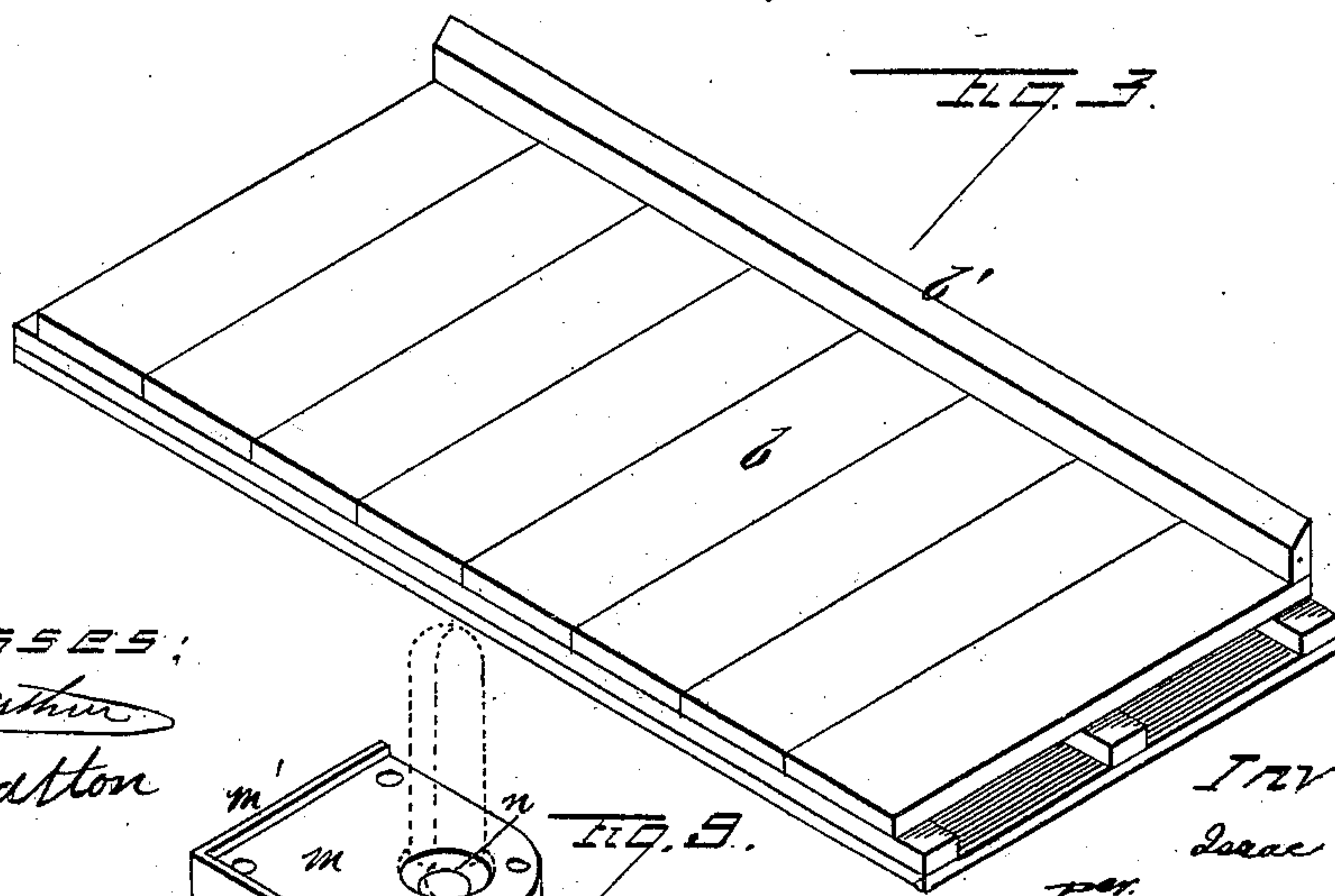
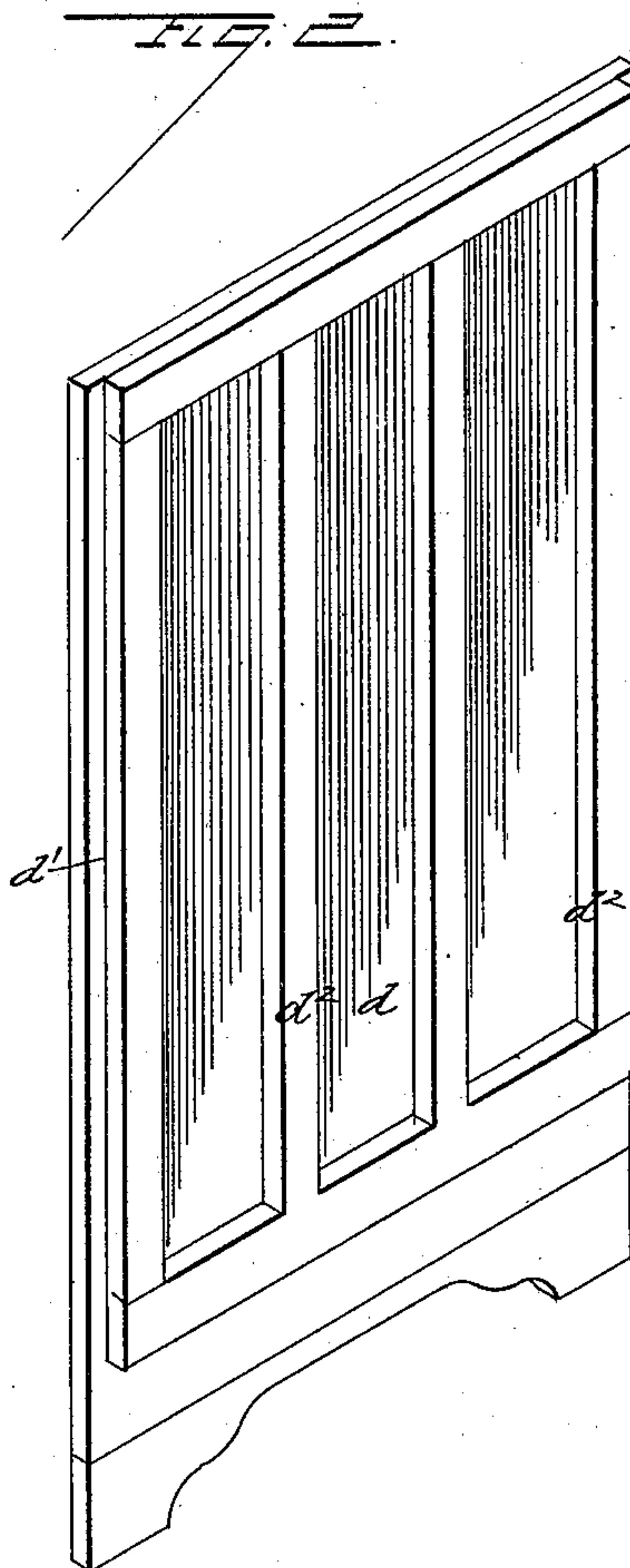
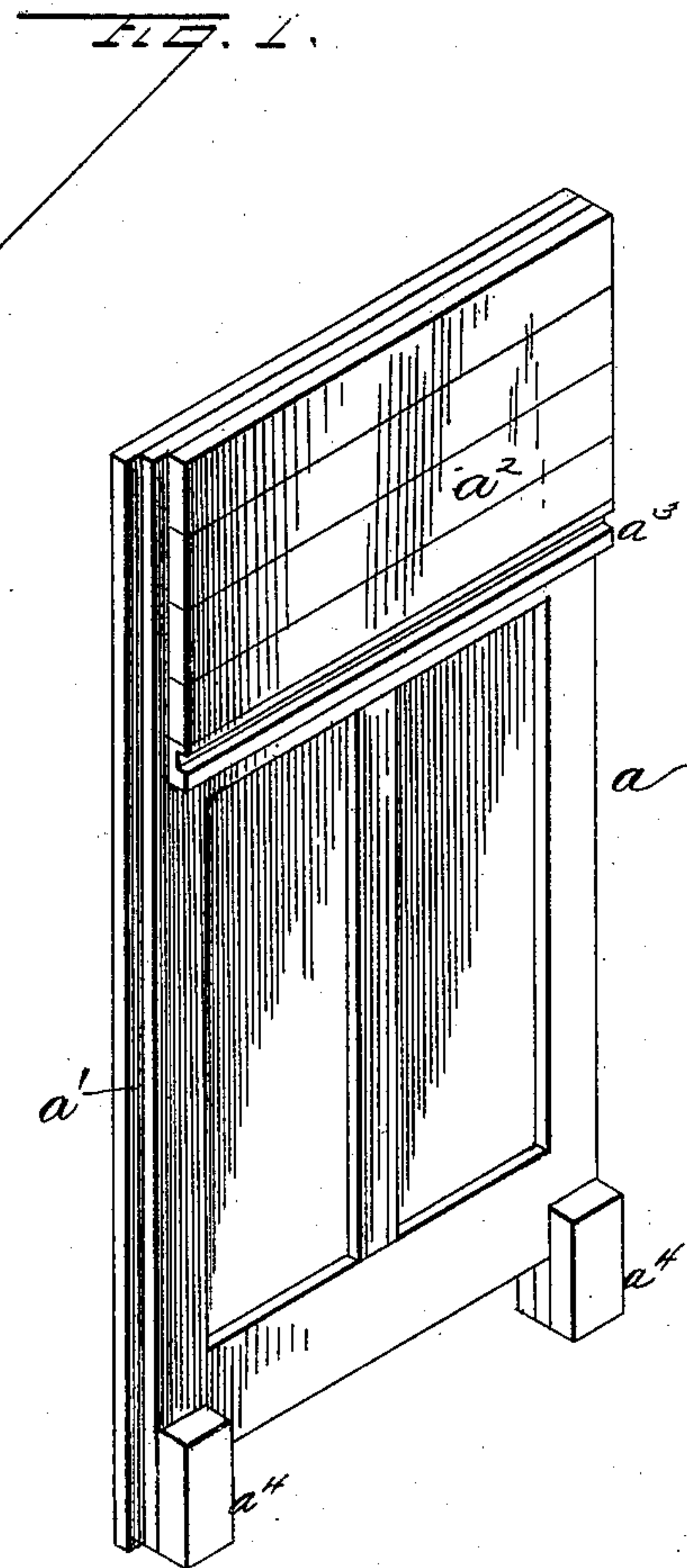
(No Model.)

4 Sheets—Sheet 1.

I. OSGOOD.
REFRIGERATOR.

No. 343,336.

Patented June 8, 1886.



WITNESSES:

H. C. Weather

F. Stratton

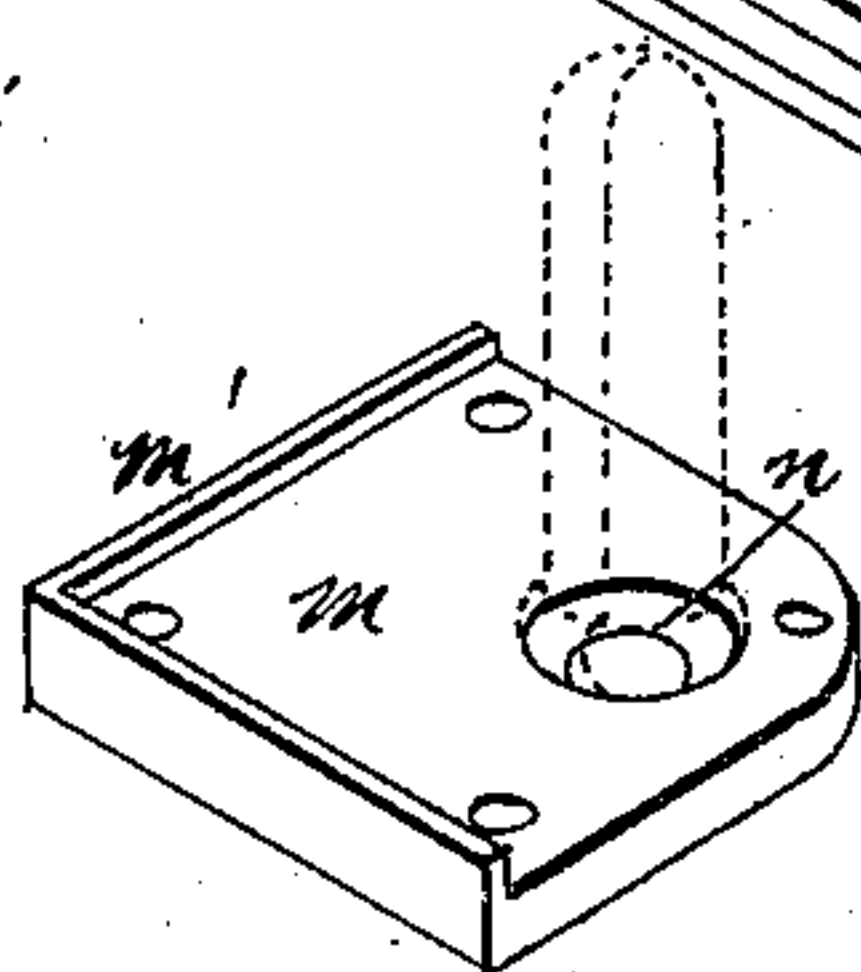


FIG. 4.

INVENTOR

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per.

H. Harrison

ATTORNEY

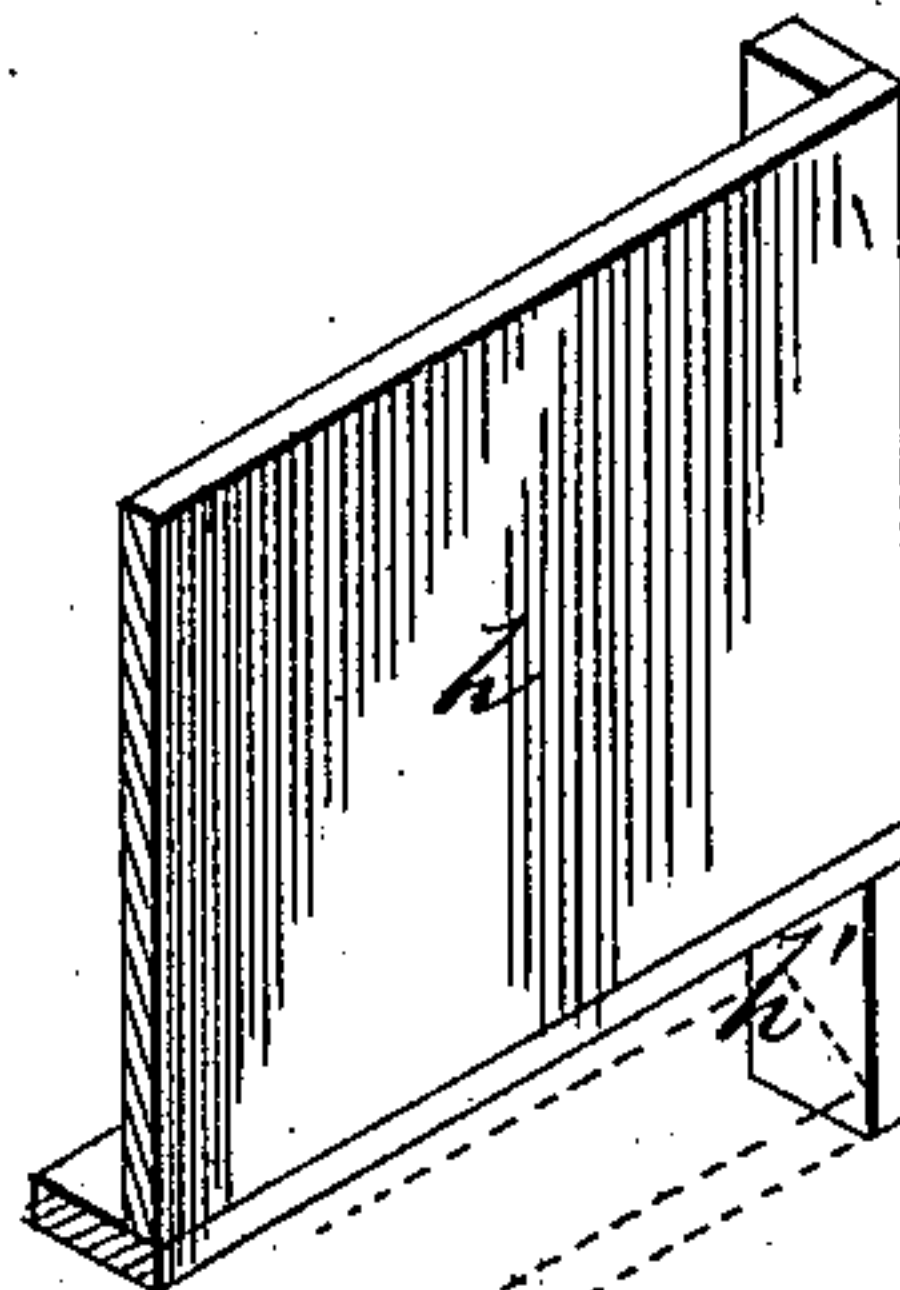
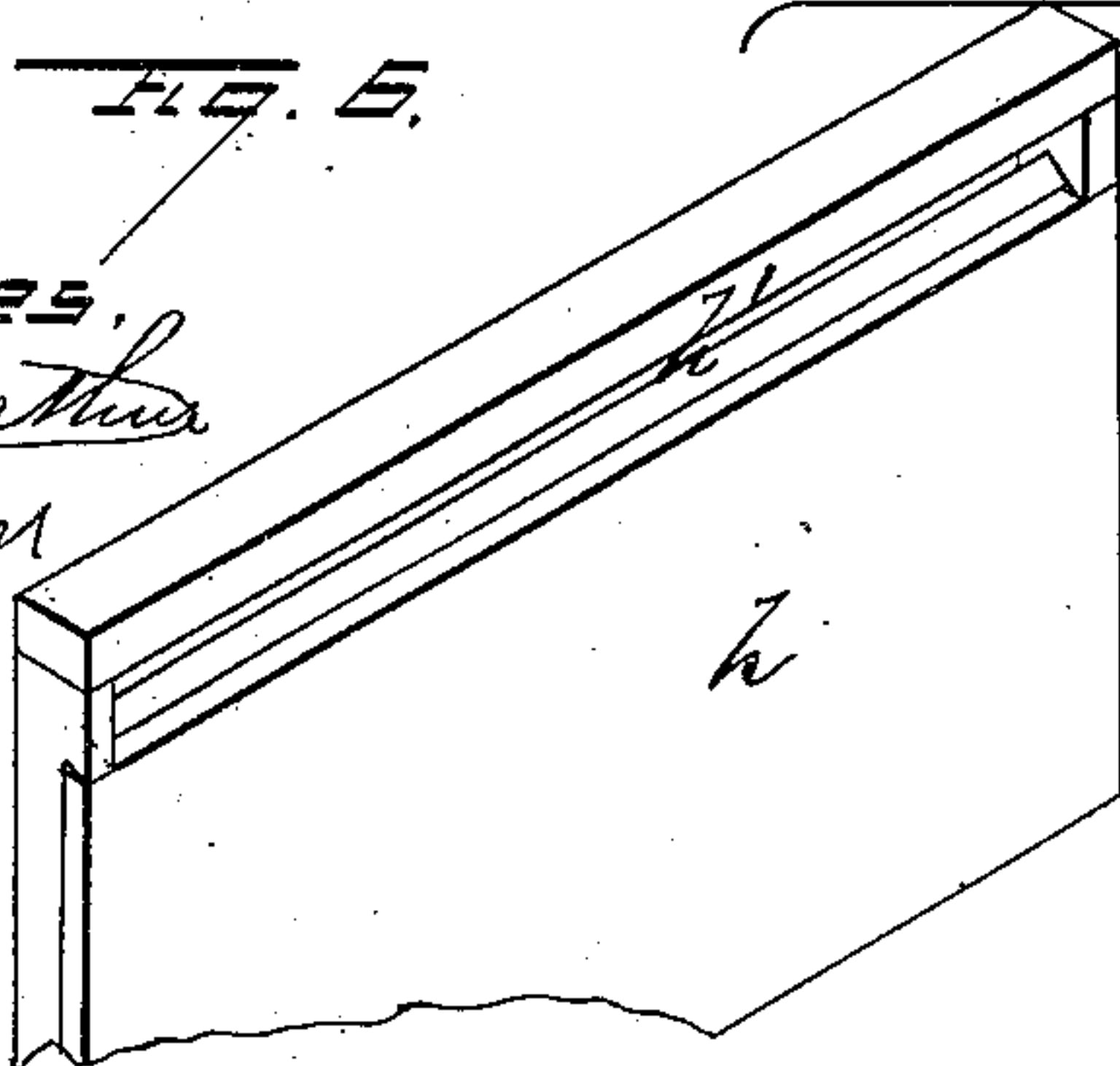
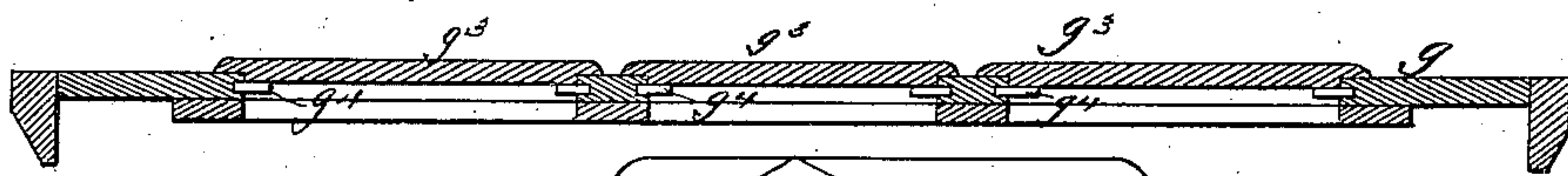
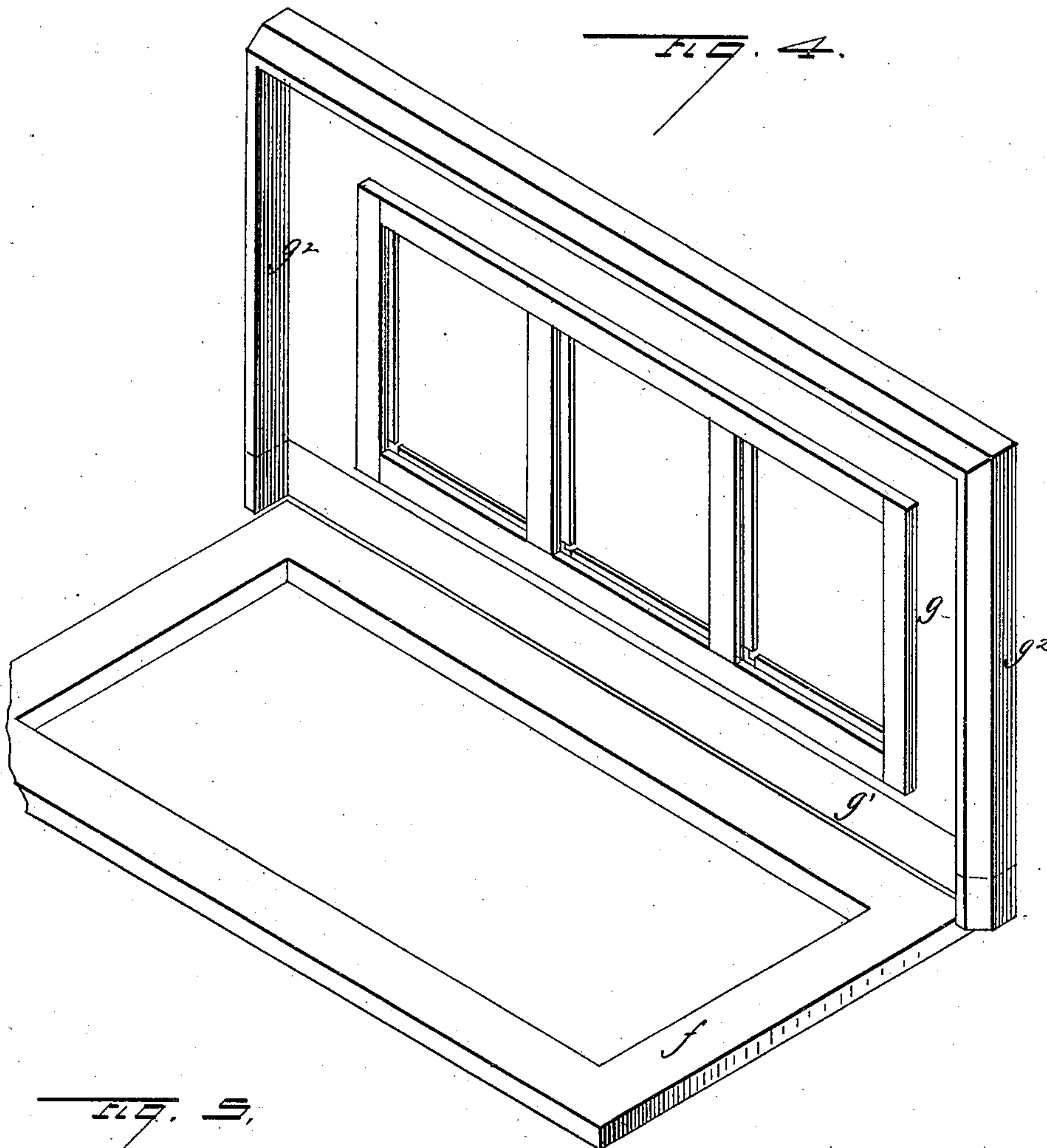
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4 Sheets—Sheet 2.

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No. 343,336.

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Witnesses,
H. C. McArthur
J. Stratton

Inventor,
Isaac Osgood

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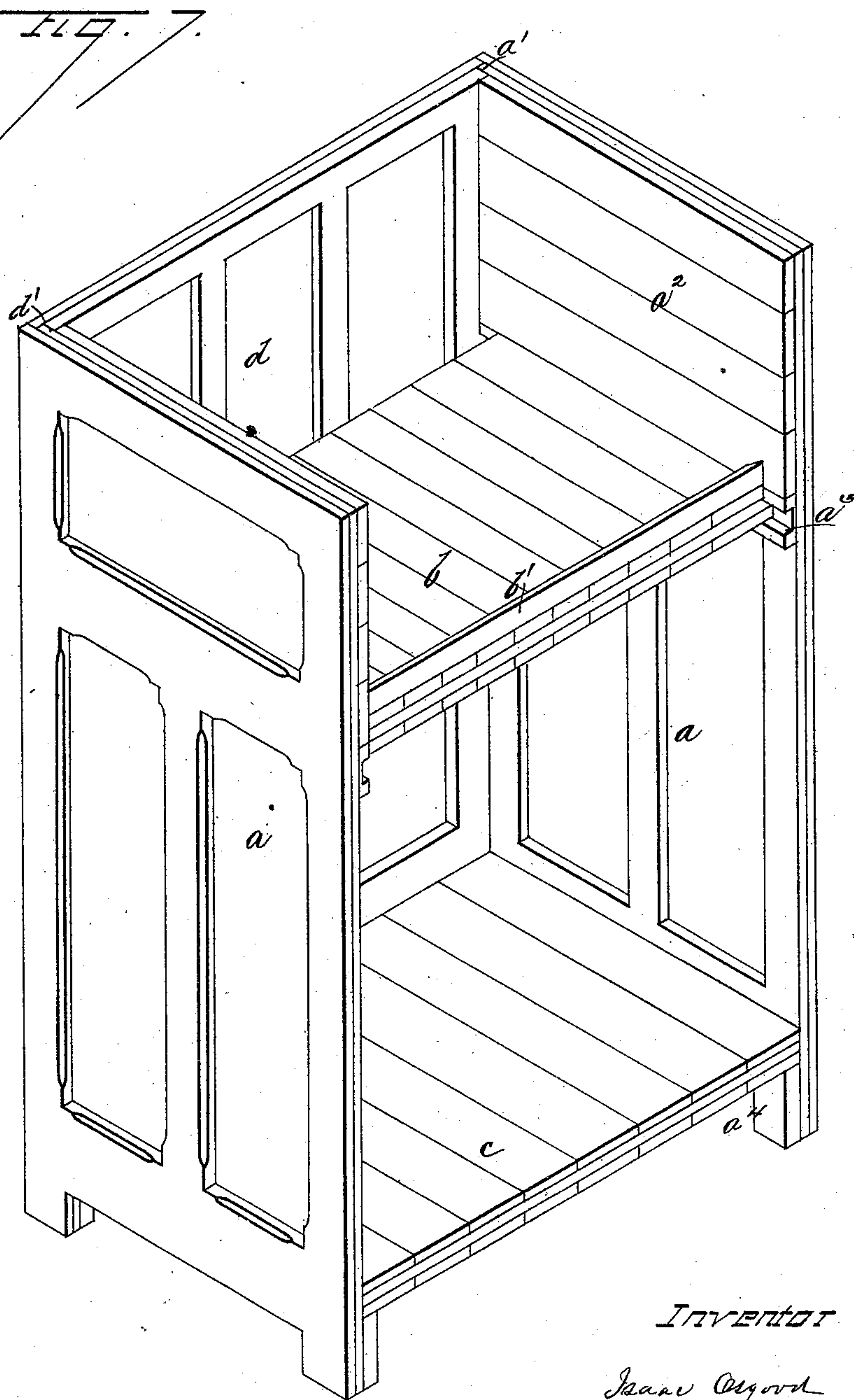
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I. OSGOOD.
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INVENTOR

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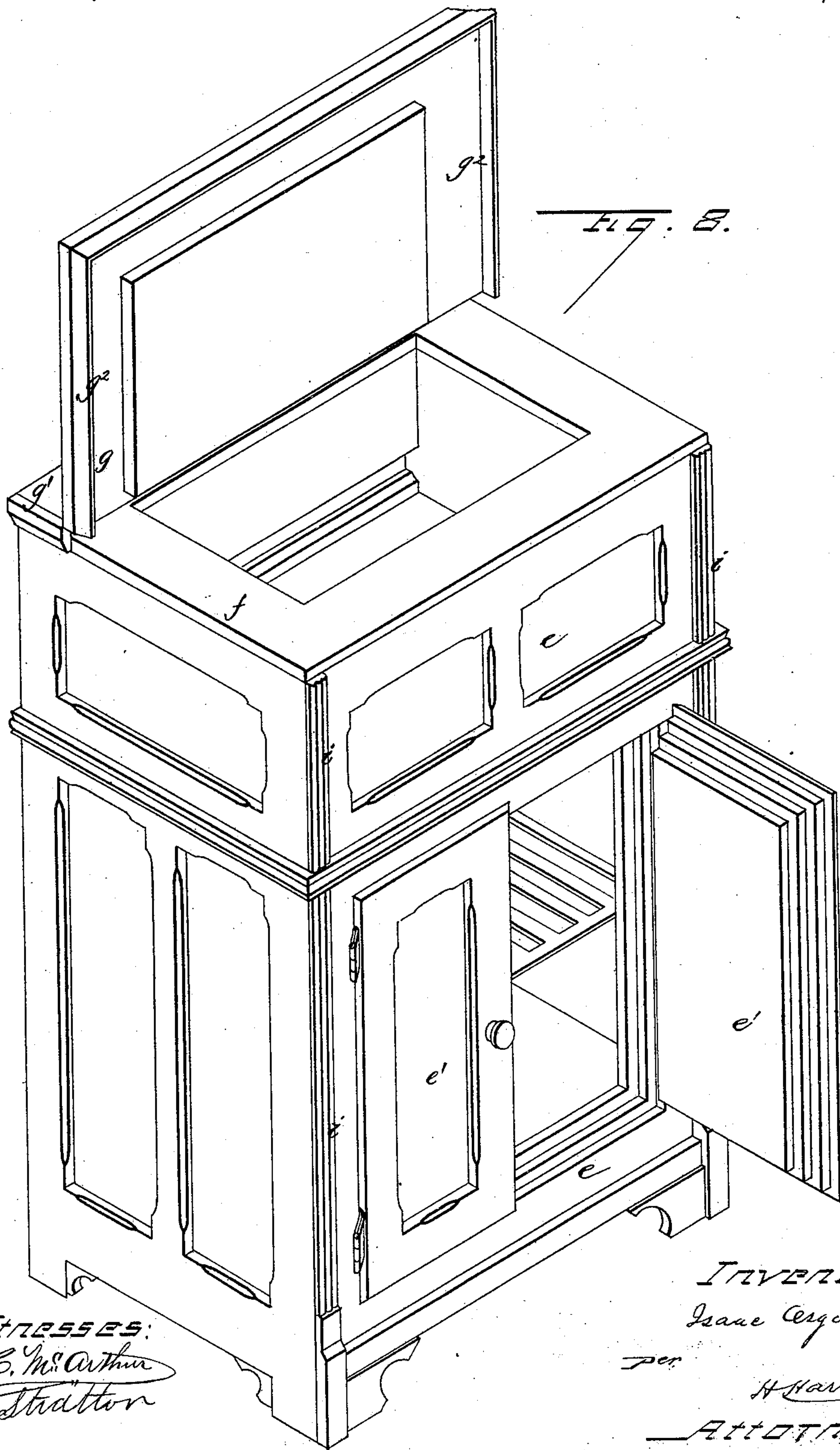
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4 Sheets—Sheet 4.

I. OSGOOD.
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WITNESSES:
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UNITED STATES PATENT OFFICE.

ISAAC OSGOOD, OF CHICAGO, ILLINOIS.

REFRIGERATOR.

SPECIFICATION forming part of Letters Patent No. 343,336, dated June 8, 1886.

Application filed August 22, 1885. Serial No. 175,076. (No model.)

To all whom it may concern:

Be it known that I, ISAAC OSGOOD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have
5 invented certain new and useful Improvements in Refrigerators, of which the following is a specification, to wit:

This invention relates to an improvement in refrigerators; and it consists in the peculiar
10 construction of the same, whereby the article is simplified and cheapened, substantially as will be hereinafter more fully set forth and claimed.

In order to enable others skilled in the art
15 to which my invention appertains to make and use the same, I will now proceed to describe it, referring to the accompanying drawings, in which—

Figure 1 is a perspective view of one of the
20 end pieces of my refrigerator, as fully prepared before putting any portion together. Fig. 2 is a view of the back, Fig. 3 of the bottom, of the ice-box. Fig. 4 represents the cover as made and the top frame over which
25 it is secured. Fig. 5 is a cross-section of the cover, showing the manner of securing the raised panels in place. Fig. 6 represents a portion of the two end pieces which line the ice-box. Fig. 7 represents the shell of the re-
30 frigerator partly put together; and Fig. 8 is a view of the completed article, made as herein described. Fig. 9 is a detail view of the finishing-plates which are secured to the bottom corners of the refrigerator.

35 In the manufacture of refrigerators heretofore one of two modes of procedure has generally been followed. First, the outer shell has first been built complete, and the inner shell then built into it, and afterward lined
40 with metal, and finished as dictated by taste or cost; second, the reverse was done—that is, the inner shell was first built and the outer shell then built around it, and lined and finished as before. In either case it required a
45 heavier frame, and considerably more labor and time to make the article, as the workman could not work to advantage, and much time was wasted by the workman in working in a confined space, which of course added greatly
50 to the cost of the machine.

In my improvement I form each main part

of the device complete and independent in itself, and afterward put them rapidly together, as indicated in the drawings.

a represents one of the end pieces, which is
55 formed complete, ready for use, except the metal lining, and has the rear side rabbeted, as at *a'*, to receive the back, and has formed with it at the same time the part *a''*, which forms the end wall of the ice-box. These ends
60 have also secured to them a grooved bar, *a'''*, to receive and hold the bottom of the ice-box.

b is the ice-box bottom, which is formed hollow, as in Fig. 3, and has a projecting flange, *b'*, on its upper rear side, to prevent any wa-
65 ter from overflowing into the lower portion of the refrigerator. The main bottom *c* is of the same form, without the flange, and when in place rests upon blocks *a''*, secured upon the lower ends of the end pieces, *a*, as in Figs. 1
70 and 7. The back, *d*, is also formed separate, with a rabbeted edge, *d'*, to fit the ends and the strips *d''*, which support the lining and form the hollow shell. The front *e*, of proper size, is made in the same manner, as also the doors
75 *e'*, each separate and independent, and a frame, *f*, to cover the upper ends of the walls and to receive the cover. This latter part, *g*, is secured with hinges to a back piece, *g'*, and the front and the ends of both the cover and its
80 attached piece are provided with a flange or molding, *g''*, which, being put on the ends in one piece, as in Fig. 4, is used to retain the cover and piece *g'* rigid till all are in place, when this flange is cut at the points indicated
85 by dotted lines, and the cover left free to move. It will be seen in Fig. 6 that the raised panels *g'''* of this cover are rabbeted out to fit the frame and secured in place by means of small strips or tongues *g''''*, which are slipped into the
90 grooved edges of the frame, and then secured to the panels, thus firmly fastening these in place, while forming a cheap and strong connection that insures the retention of the panel under all conditions of temperature, and is
95 very quickly and easily done. In Fig. 6 are shown the front and back pieces, *h*, of the inner wall of the ice-box, which, while they may be previously attached to the front and rear walls of the refrigerator, are preferably left
100 separate to obtain a more accurate and an easier insertion of the bottom of the ice-box.

These parts *h* are formed with an opening, *h'*, one for the inward passage of warm air and the other for the outward passage of cold air, as usual, to create a circulation through the ice-box and provision-chamber. These parts are all made separate, as herein described, each being preferably cut and made to proper forms by a separate workman or gang of workmen, and by thus systematizing the work more is accomplished. Another workman then receives the parts in the condition shown, and setting up the ends unites the back to them, as in Fig. 7. The bottom is then slipped into place, resting on the blocks placed on the ends to receive it, and the ice-box bottom placed in the grooves prepared for it, and the front is nailed in place, holding the whole securely together. The doors are placed in position either before or after the front is in place, as desired. The front and rear inner walls, *h*, of the ice-box are next secured, and the whole top of the shell covered by the frame *f*, after which the top is laid on, the back piece, *g'*, secured to the frame *f*, and the flanges or strips *g''* having been cut, this is then in proper shape, and the ornamental moldings *i* and any other desired ornamentation is put on, finishing the box, as in Fig. 8, and covering nail-holes and other defects. The refrigerator is then lined with zinc, and painted, varnished, or finished in any desired manner.

Each part being made from previously sawed and planed material by separate persons, and each part being made with both the inner and outer shells together, no time is lost either in making the parts or in setting up the refrigerator, and the workman is not compelled to work at a disadvantage in cramped corners, but has all his work outside in easy access, thus enabling much more work to be performed in a given time, and a corresponding reduction in the price or cost of the article, while making its manufacture considerably better and more perfect than before.

The main idea I have in view is to form the device in any desired number of parts, each complete in itself, and of such a nature that they may be put together by the workman without the necessity of working in a cramped and confined space, but to bring as much as possible of the work into plain and free space on the outside where there is room to work to the best advantage. To accomplish this I prefer to form the article in the manner herein described; but nearly the same advantage may be had by forming the inner and outer shells each separate and complete in itself, and then drop the one inside the other, secure it, and put on the top frame, and finish, as before.

This I regard as substantially the same as what I have previously described, as I do not desire to confine myself to any stated number of parts finished separately, or to the described manner of dividing them up.

The manner of inserting the panels described enables me to finish the frame in a sanding-machine before the panels are dropped into place and secured, and thus leave no imperfect hand-work to be done on the cover after the panels are in.

It will be especially observed that the circulating-openings *h* are formed with beveled edges, inclined inward to prevent any drip from above from getting into the provision-chamber below.

I consider a ledge or projection an equivalent of the groove for supporting the ice-box bottom, and will sometimes form it in that manner.

In Fig. 9 is shown a metal plate, *m*, which is formed on two sides with a small flange, *m'*, and is intended to be secured upon the bottom of the feet or corners of the refrigerator. This plate is formed with a hole for the passage of the shank of the caster, which hole is reamed out on its upper side, as in the drawings, to form a socket, which lies over the lower end of the two-part metal casing in which the shank is held in the wood, and prevent any part of this casing from dropping out should it become broken, as often occurs. The parts being held in place work equally well and serve the purpose whether broken or not without any necessity of repairs.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a refrigerator or analogous article, the combination, with a frame formed with grooved inner edges, of a raised panel rabbeted to fit said frame, and secured in place by a strip of material inserted in the grooves, and secured to the under side of the panel, substantially as and for the purpose set forth.

2. The combination, with the bottom corners or legs of a refrigerator, of plates for making smooth the under surface of the same, said plates having one or more rabbeted edges, a countersunk depression in the top of plate, and holes for the attaching-screws, substantially as shown and described.

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

ISAAC OSGOOD.

Witnesses:

W. C. McARTHUR,
F. STRATTON.