

(No Model.)

2 Sheets—Sheet 1.

D. O. PAIGE.

SAFE.

No. 350,764.

Patented Oct. 12, 1886.

Fig. 1.

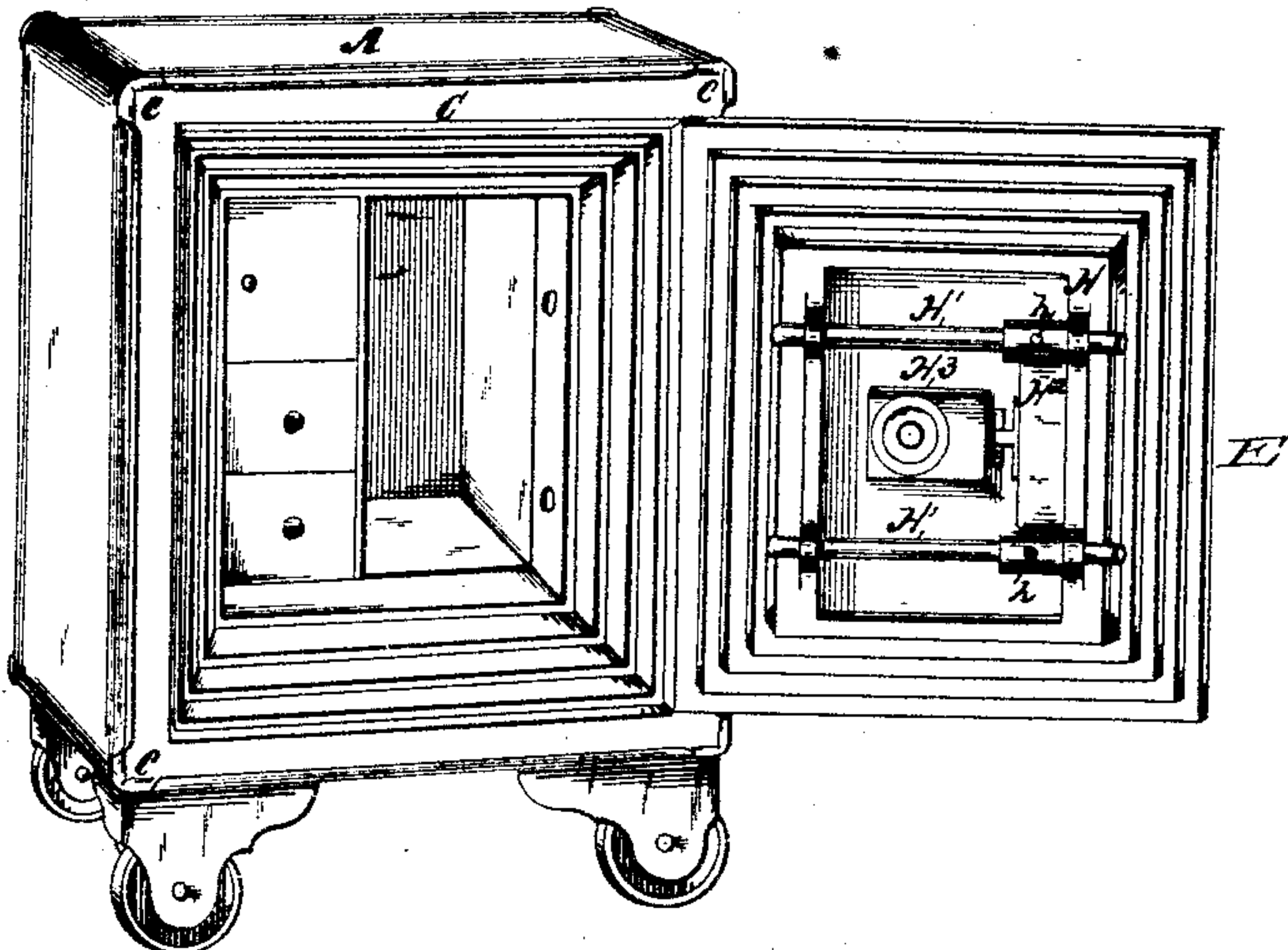


Fig. 2.

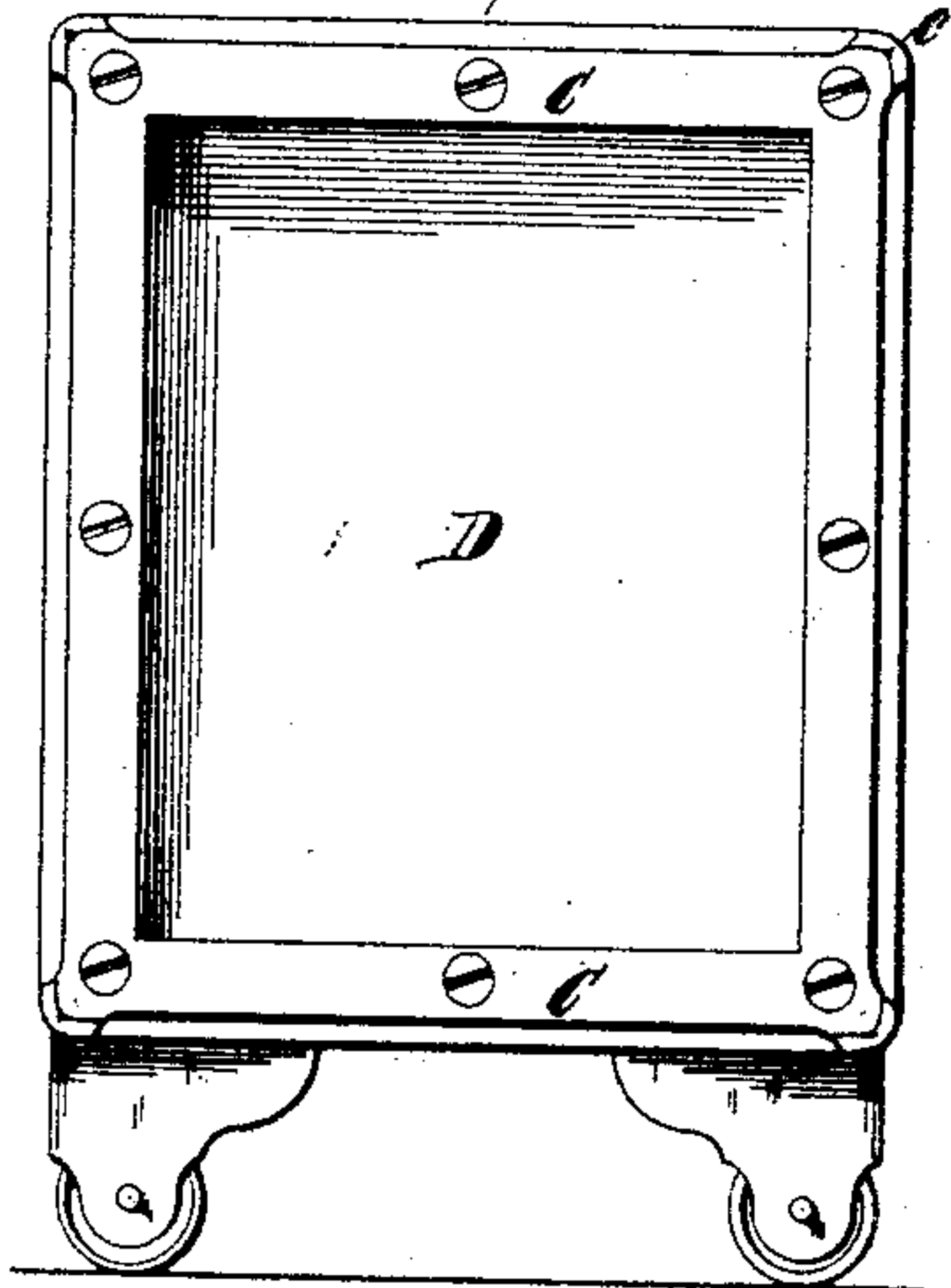
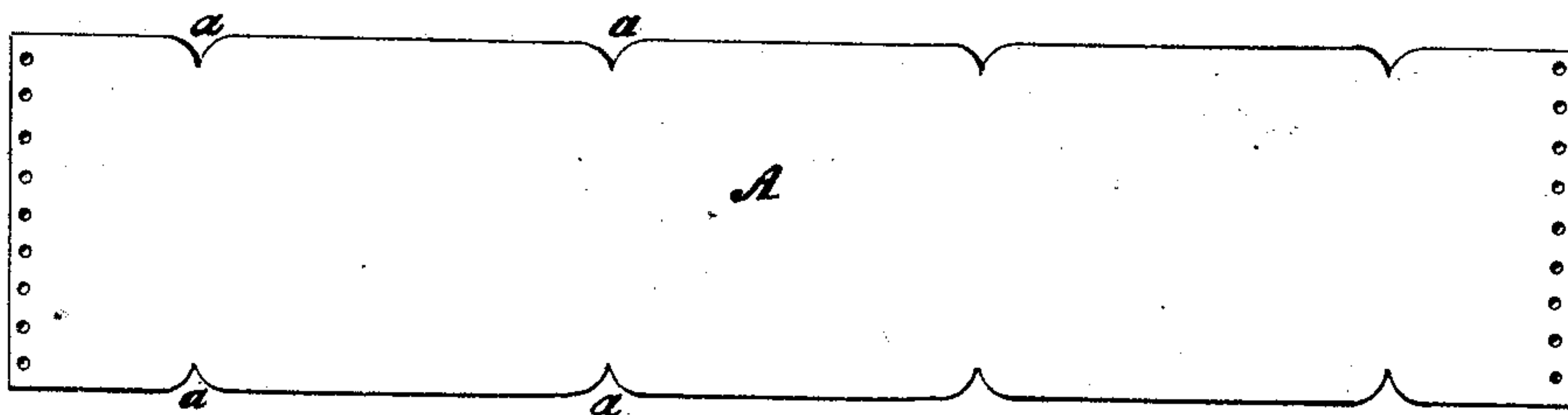
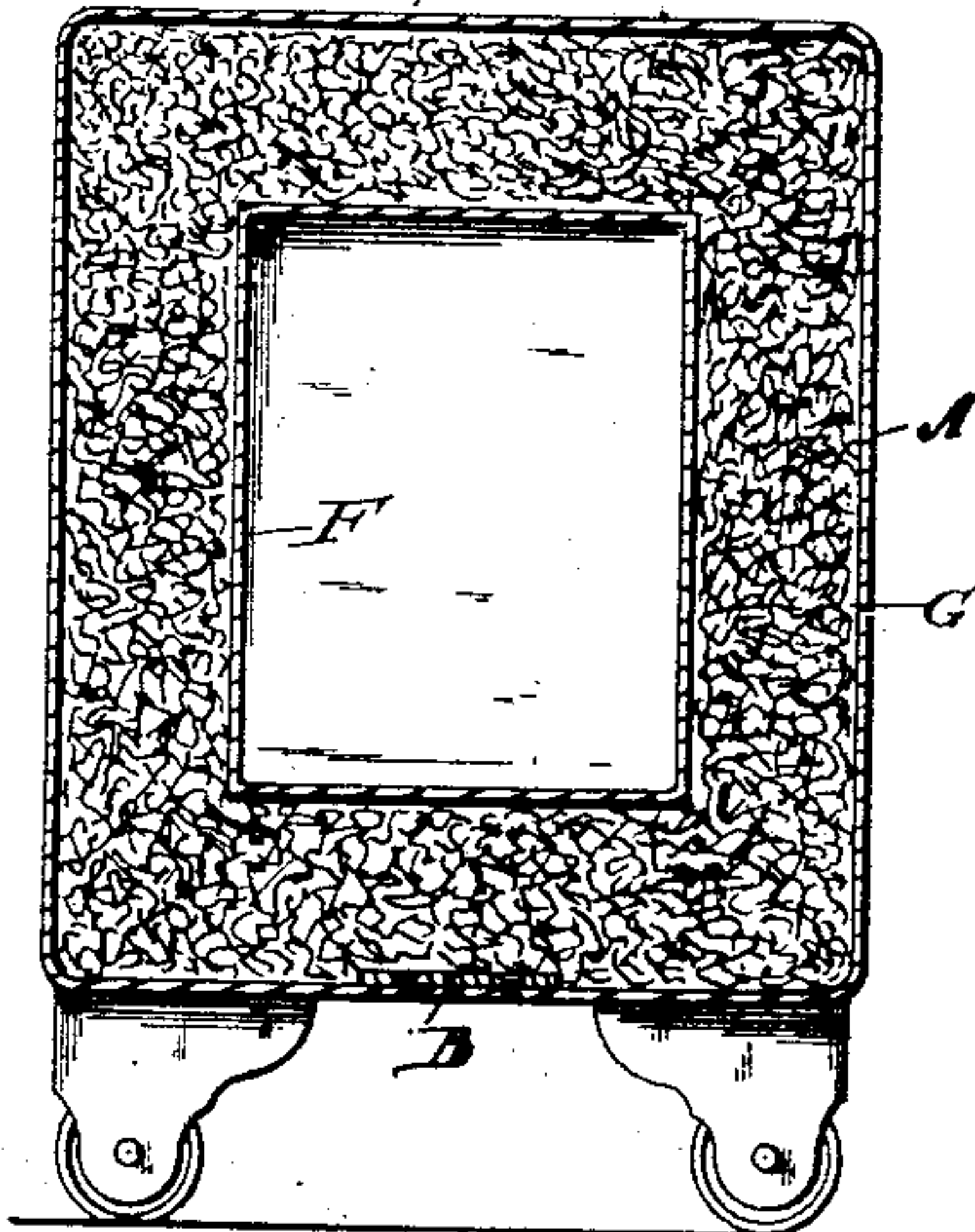


Fig. 3.



WITNESSES

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Fig. 4.

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 4.

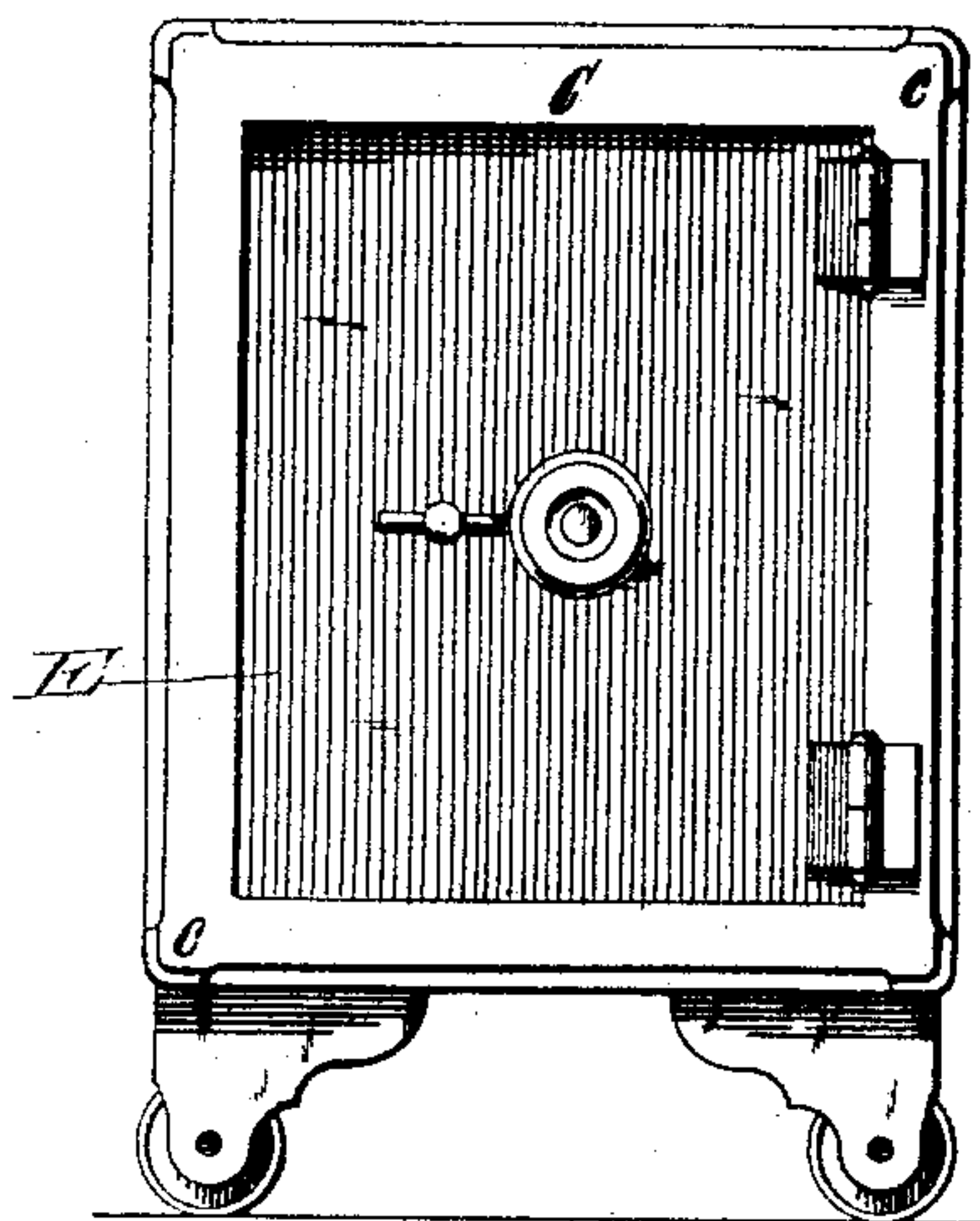


Fig. 5.

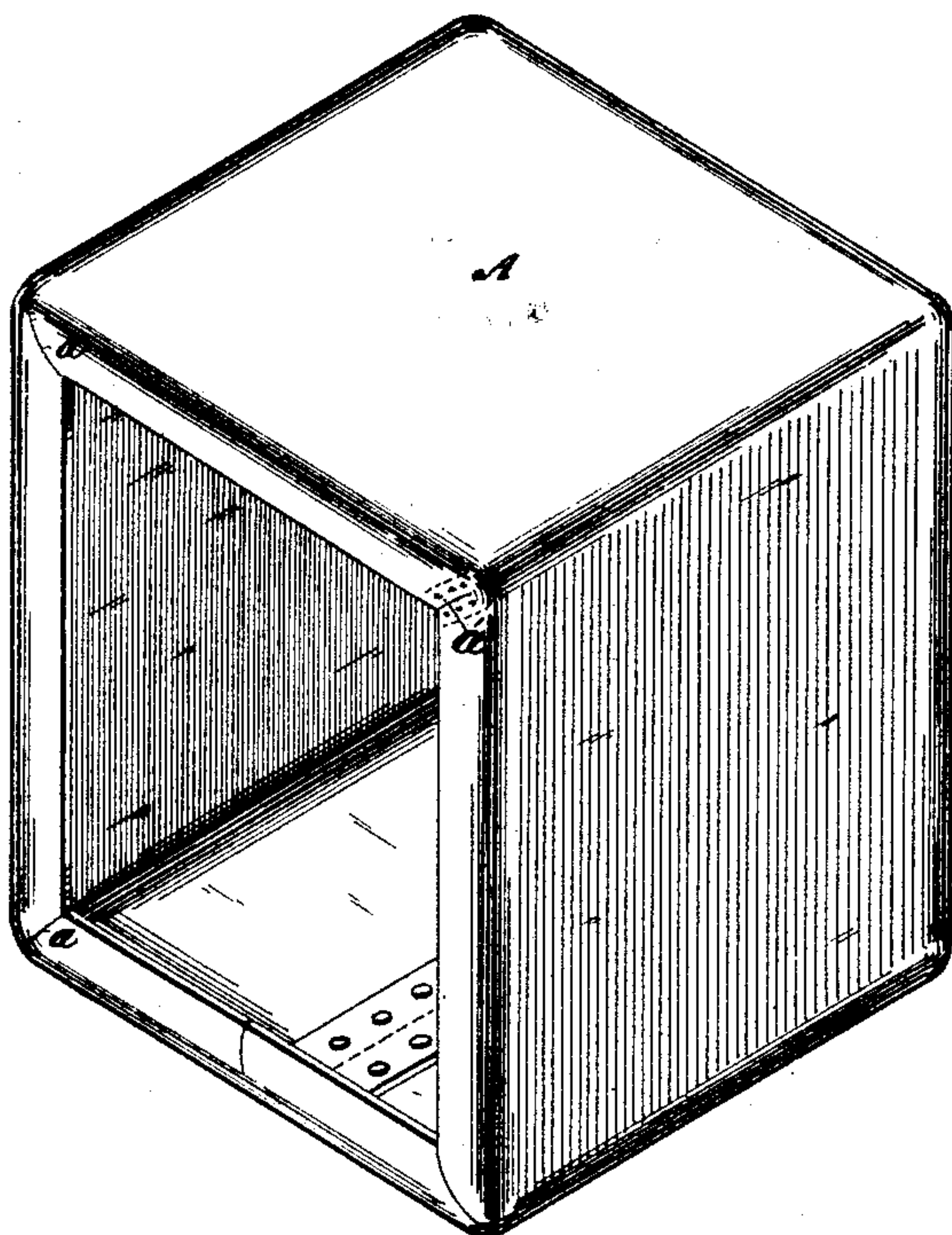
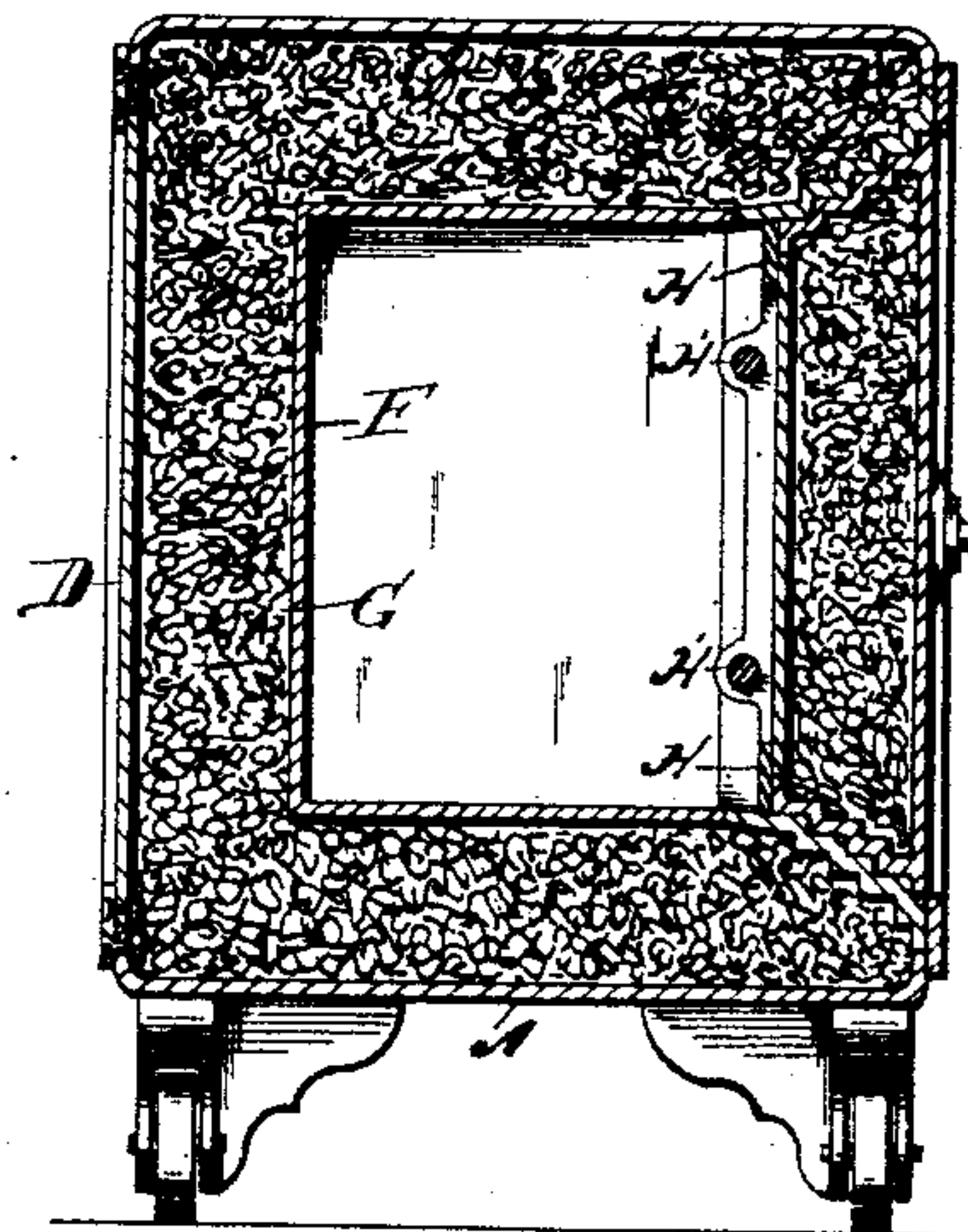


Fig. 7.

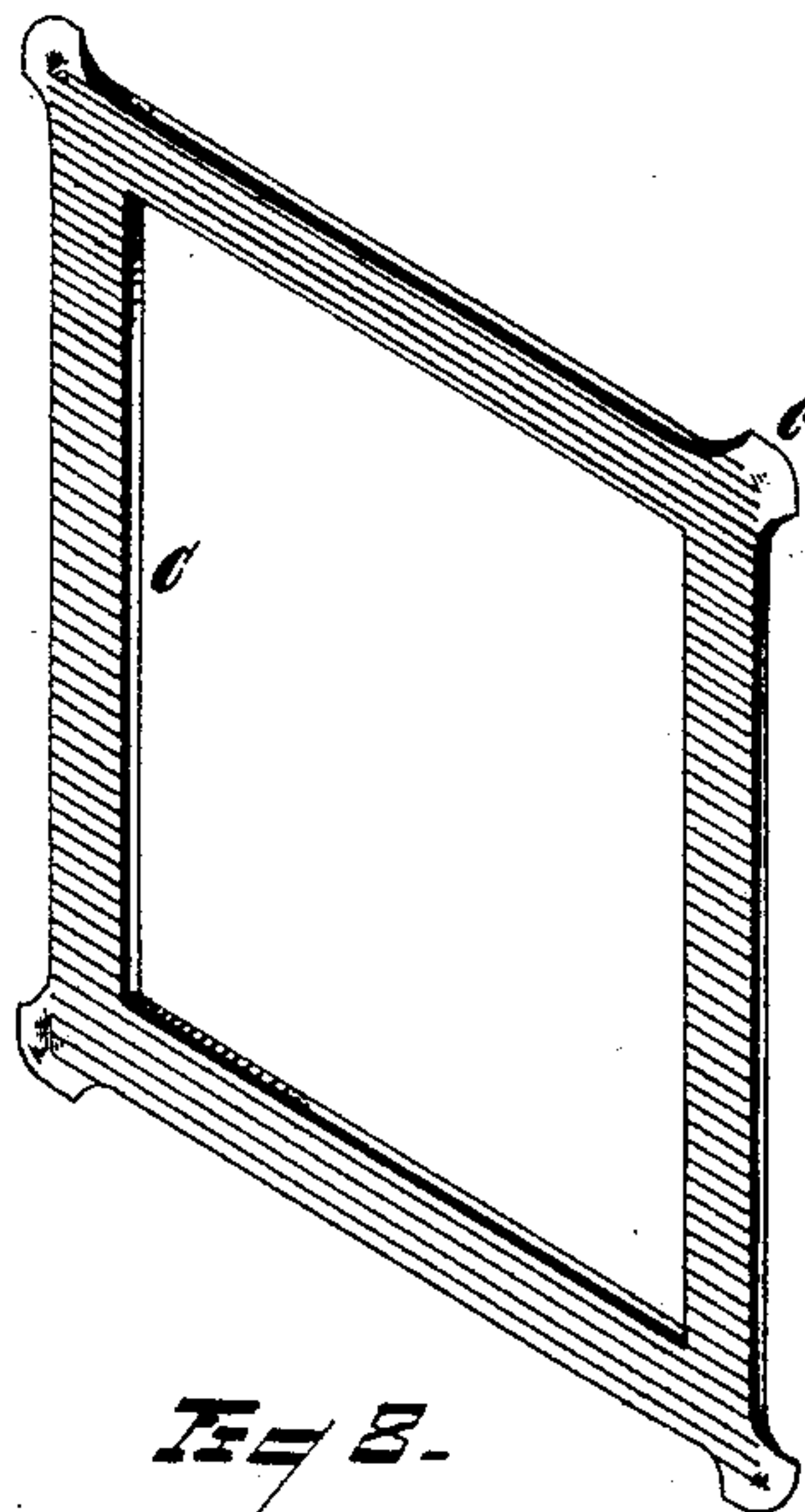


Fig. 8.

WITNESSES

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# UNITED STATES PATENT OFFICE.

DAVID O. PAIGE, OF DETROIT, MICHIGAN.

## SAFE.

SPECIFICATION forming part of Letters Patent No. 350,764, dated October 12, 1886.

Application filed August 10, 1886. Serial No. 210,562. (No model.)

*To all whom it may concern:*

Be it known that I, DAVID O. PAIGE, of Detroit, county of Wayne, State of Michigan, have invented a new and useful Improvement in Safes; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification.

My invention consists of the combinations of devices and appliances hereinafter specified, and more particularly pointed out in the claims.

In the drawings, Figure 1 represents a perspective view of a safe embodying my invention. Fig. 2 is a view in elevation of the back of the safe. Fig. 3 is a sectional view from side to side. Fig. 4 represents an elevation of the front of the safe with the door closed. Fig. 5 represents a vertical section from front to rear. Fig. 6 represents the sheet which is to form the top, bottom, and two sides of the safe as the same appears before it is applied. Fig. 7 represents the said sheet after it has been curled at its edges and bent to form the two sides and top and bottom of the safe. Fig. 8 is a separate view of one of the face-plates employed at the front and at the back of the safe.

It is the purpose of this invention to produce a small, cheap, and substantial safe, which by reason of its inexpensive character is well adapted for the use of farmers and others desiring a substantial fire-proof safe.

The particular features of my improved safe are, first, the construction of the top, bottom, and two sides from a single piece of metal, the same bent at its forward and rear edges and suitably mitered at its corners, the construction being such that all the twelve edges of the safe are made round and formed upon this single sheet of metal, leaving the front and rear to be each supplied with a wrought or malleable iron frame, the rear to be closed by a plate and the front to be closed by a door; second, in the employment, with the continuous sheet of metal, as above described, of a wrought or malleable iron frame adapted to form a substantial finish.

In carrying out my invention, A represents a continuous sheet or plate of metal. This

sheet I prepare with mitered openings *a* at the portions which are to constitute the corners of the safe. I also curl or bend the edges of the sheet, substantially as shown. Then upon a suitable form or in any other convenient way I bend the sheet so as to constitute the sides, top, and bottom of the safe, and in so doing the mitered openings *a* are closed together on the curved line at each corner, substantially as shown in Figs. 6 and 7. The extremities of the plate are butted together and riveted to a reinforcing plate, B, placed back of the plate A, as shown in Fig. 3.

C is an open or skeleton frame of wrought or malleable iron. This frame is applied to the plate A, so that the ears *c* shall project out, covering the miter openings at the corners, and form a substantial and neat finish for the corners of the safe. To this frame the edges of the plate A are substantially riveted. A similar open or skeleton frame, C, is applied also to the back of the safe in like manner. The back of the safe is then formed of a single plate, D, of metal, while the front of the safe is provided with a door, E. The interior shell, F, having been placed in position, the space G between it and the outer shell is filled with fire-proof filling. It is thus seen that there is produced a safe exceedingly simple in construction, yet strong and durable, and that it possesses the advantage of round corners throughout. I prefer generally to provide the corners with a retaining-strip or reinforcing piece of metal underneath the mitered openings, as shown in dotted lines at *a'* in Fig. 7.

The frame C and the plate D at the back of the safe may be applied in any convenient manner. I have found the following plan to be convenient and practicable: The plate is first riveted to the frame, and the frame is provided with bolt-holes corresponding with similar bolt-holes in the adjacent edges of the sheet A, whereby the two may be bolted together. I then lay the safe upon the floor with the door-side downward, and having removed the frame and its plate I put the bolts and packing into their places in the sheet A, and run the nuts upon their inner ends. I then pour in the fire-proof material until the same has flowed up around the nuts and has filled the safe. Now, when the same has hard-



ened, I unscrew the bolts from the nuts, place the frame and its plate in position, replace the bolts, and screw them again into place, thus securely closing the back of the safe.

5 In order that the finish may be flush with the surface of the frame C, I prefer generally to employ round flat-headed bolts and counter-sink them flush with the surface of the frame, so that the finish will practically obscure  
10 them. I would also have it understood that while the frames C are made with the ear-pieces *c* projecting from them to cover the mitered openings at the corners, yet the ear-pieces may be dispensed with without depart-  
15 ing from my invention, which contemplates the frame either with or without the ear-pieces. If the ear-pieces are dispensed with the miter openings might be finished in any suitable way—as, for instance, carefully putting them  
20 edge to edge and riveting to an angle-plate beneath, or in any other convenient manner.

I have described the invention and have illustrated the same in the drawings in connection with a safe having rounded corners  
25 and rounded front and rear edges. I would also have it understood, however, that the invention is equally applicable in case it is desired to make the four edges of the safe, which run from front to rear, squared instead  
30 of rounded, for the sheet can with equal facility be bent to a square angle. So, also, instead of making the front and rear edges rounded, they may in like manner be bent to a square angle, so that the inwardly-turned  
35 portion at the edges shall be flat and provided with the square miter at the corners. So, also, the edges which run from the front to rear and the rear edge of the safe might all be bent to a square angle and the forward edges  
40 be curved in the manner illustrated in the drawings.

H represents the bolt-frame; H', the train-bolts; H<sup>2</sup>, their connecting-bar; H<sup>3</sup>, any usual lock, and *h* represents screws by which the con-  
45 necting-bar is fastened to train-bolts.

The bolt-frame H, I propose to make in a single piece of malleable iron, the same being at once very simple and cheap in construction, yet amply strong for all practical purposes. I  
50 of course do not limit myself to the employment of any particular bolt-frame or locking mechanism, for any suitable mechanism may be employed; but I believe the malleable-iron bolt-frame above described to be new with me.

55 What I claim is—

1. A safe in which the top, bottom, and two sides are formed of a single sheet of metal with its front and rear edges mitered and bent inward into or substantially into the plane of  
60 the front and back of the safe, substantially as and for the purpose described.

2. In a safe, a single sheet of metal having front and rear mitered edges and bent to form the two sides, top, and bottom of the safe, and with its front and rear edges bent inwardly, 65 the extremities of the plate riveted together or to a re-enforcing plate, thus constituting the top, bottom, two sides, and all the twelve edges of the safe, substantially as described.

3. In a safe, a single sheet of metal having 70 front and rear mitered edges and bent to form the two sides, top, and bottom of the safe, and with its front and rear edges bent inwardly, in combination with skeleton frames at the front and rear secured to the inwardly-turned edges, 75 a plate adapted to close the opening in the frame at the rear of the safe, and a door adapted to close the opening in the frame at the front of the safe, substantially as described.

4. In a safe, a single sheet of metal bent to 80 constitute the two sides, top, and bottom of the safe, with its front and rear edges mitered at the corners and bent inward, and re-enforcing plates riveted thereto beneath the mitered opening, substantially as and for the purpose 85 described.

5. In a safe, a single sheet of metal having front and rear mitered edges and bent to form the two sides, top, and bottom of the safe, its front and rear edges bent inward, as described, 90 in combination with skeleton frames C, having ears *c*, projecting out and covering the miter joints at the corners, substantially as and for the purpose described.

6. A fire-proof safe consisting of a single 95 sheet of metal having front and rear mitered edges and bent to form the two sides, top, and bottom of the safe, skeleton frames C at the front and rear, an interior shell, a door-jamb, with the usual filling of fire-proof material, a 100 closing-plate, D, at the back, to which the rear skeleton frame is attached, and a fire-proof door in front, substantially as and for the purpose described.

7. A fire-proof safe consisting of a single 105 sheet of metal having front and rear mitered edges and bent to form the two sides, top, and bottom of the safe, and with its front and rear edges bent inwardly, said bends being all rounded so as to form twelve rounded edges to 110 the safe, in connection with front and rear skeleton frames, C, an interior shell, and fire-proof filling, and provided with a closing-plate at the rear and a door in front, substantially as described. 115

In testimony whereof I sign this specification in the presence of two witnesses.

DAVID O. PAIGE.

Witnesses:

N. S. WRIGHT,

M. B. O'DOHERTY.