

No. 644,300.

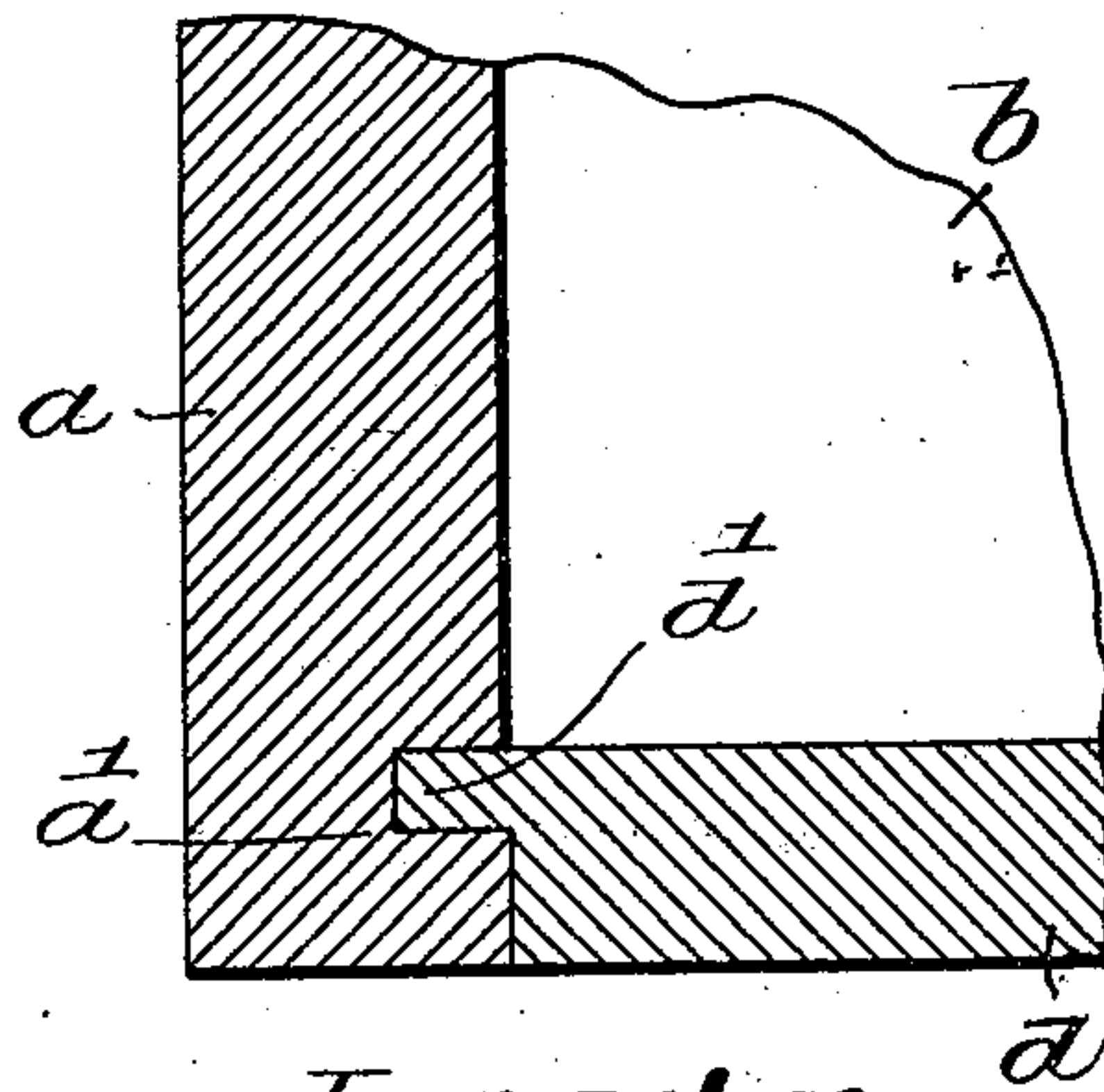
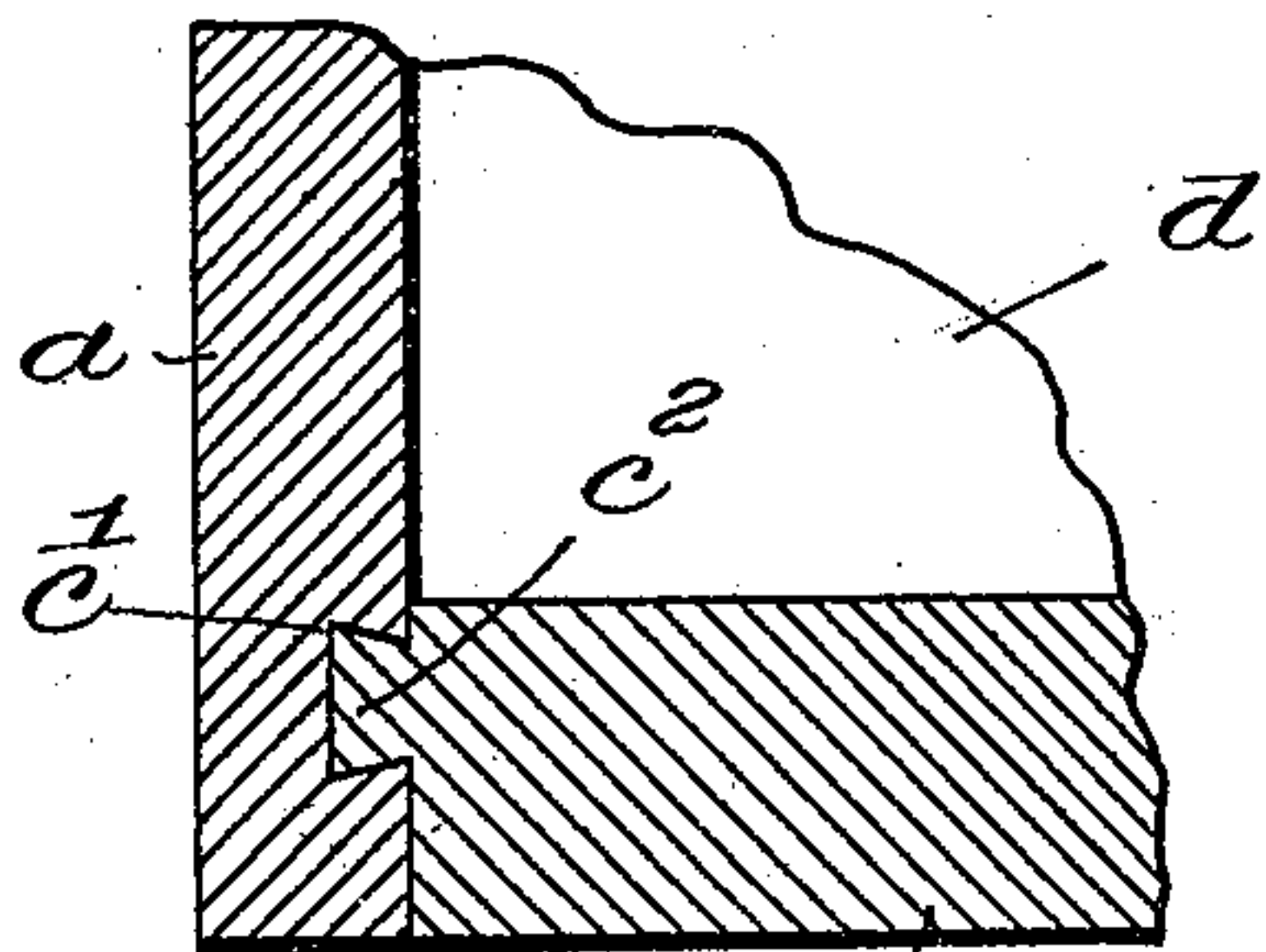
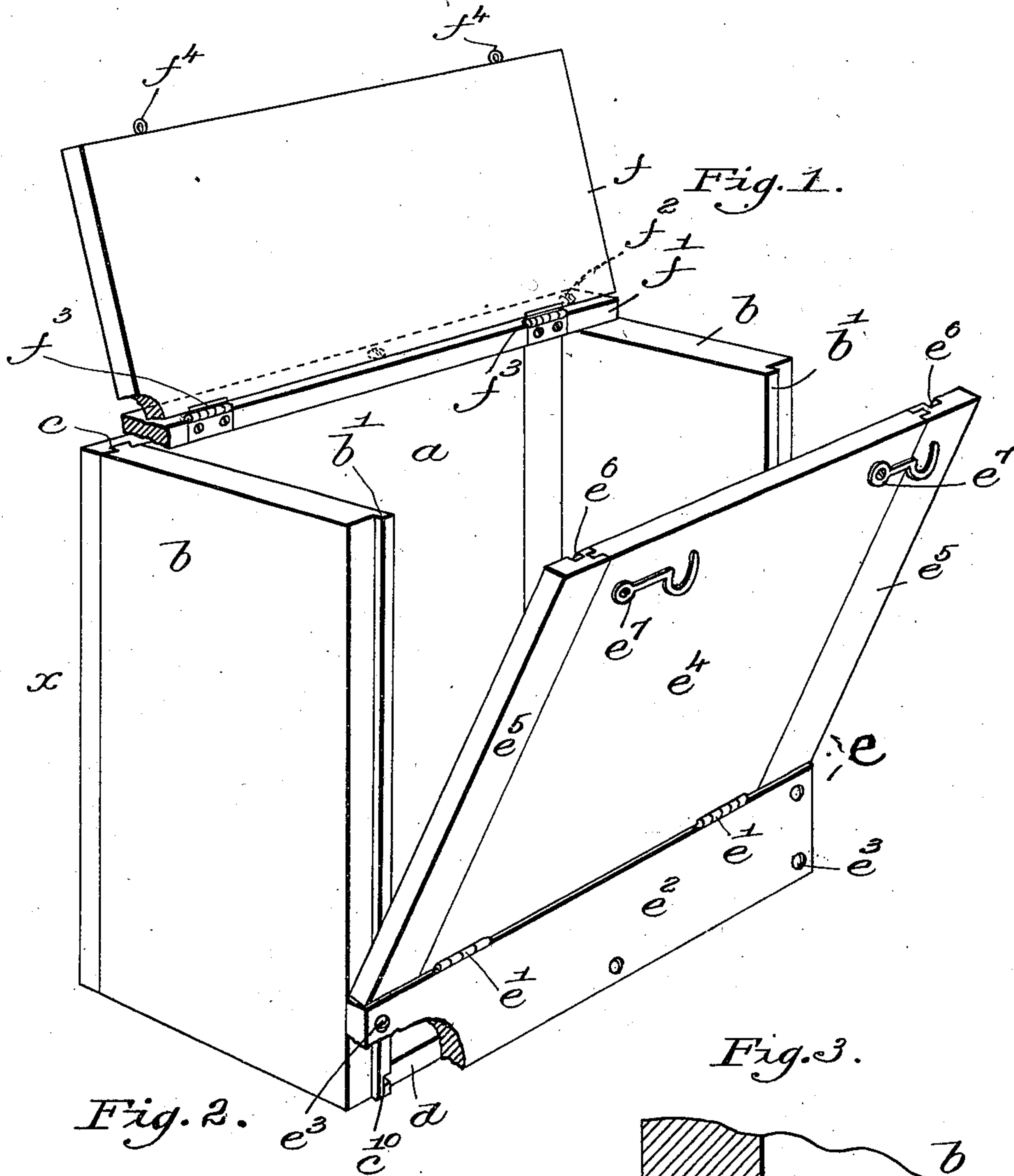
Patented Feb. 27, 1900.

D. B. MCPHERSON.

BOX.

(Application filed Nov. 8, 1899.)

(No Model.)



Witnesses:
Gustave F. Magnitzky
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UNITED STATES PATENT OFFICE.

DAVID B. MCPHERSON, OF BOSTON, MASSACHUSETTS.

BOX.

SPECIFICATION forming part of Letters Patent No. 644,300, dated February 27, 1900.

Application filed November 8, 1899. Serial No. 736,236. (No model.)

To all whom it may concern:

Be it known that I, DAVID B. MCPHERSON, a citizen of the United States, residing at Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Boxes, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to knockdown boxes, and has for its object more particularly the production of such a box suitable to contain electric batteries for telephone and other purposes where a strong box is required, and a box which it is desirable to keep on hand in quantities. Such boxes when assembled necessarily take up a great deal of room, and there is a peculiar need for a box which can readily be assembled and when so assembled will be very strong, but when knocked down will occupy a minimum of storage room.

It will be understood that I do not limit my box to use in connection with batteries, but contemplate its utilization in any field where its novel features will render its use of advantage.

The various features of my invention will be fully illustrated and described in the accompanying drawings and description and set forth in the claim.

In the drawings, Figure 1 illustrates in perspective a box in the construction of which my invention has been embodied, the box being shown with the various parts assembled, the lid raised, and the front opened out partially, part being broken away to aid in the clear understanding of the novel construction. Fig. 2 is a sectional view of the left-hand rear corner-joint at the point x , Fig. 3 being a similar sectional view on a vertical plane passing through the back of the box at its joint with the bottom.

In the preferred embodiment of my invention, selected as a convenient form for illustration and description to enable my invention to be understood, a designates the rear member of the box, and b the side members, respectively, which latter are shown as connected to the rear member by a dovetailed joint c , in this instance the tenon being upon the side members, respectively, while the

mortises are on the rear, the joint extending, preferably, throughout the entire region of contact of the rear and side members.

The bottom member d of the box is connected to the side members through the medium of a mortised joint extending horizontally from front to rear of the box. The joint c^{10} between the bottom and side members is shown as a mortise-and-tenon one, with the tenon upon the bottom member, but a dovetailed joint might be substituted at this point, although I do not regard such substitution as of any particular advantage.

The front of the box is shown as a double member e , the parts being hinged together at e' and in this instance of my invention secured to the front of the box by suitable fastenings (shown in Fig. 1 at e^3) of any suitable number and position, screws being illustrated merely by reason of their capacity for being removed, though their substitution by any other removable fastening falls within the scope of my invention.

To enable ready introduction of the batteries or other articles into and their removal from the box, the upper part e^4 of the member e is shown as free from fastening to the side members b , and for strength said part is shown as comprising a middle panel having at its vertical edges reinforcing or strengthening strips e^5 . These strips in Fig. 1 are shown as having vertical grooves e^6 to receive and cooperate with vertical tenons b' , presented by the side members b , the two cooperating to impart lateral strength to the box, the side members being apt to warp under the action of acids which may leak from the telephone-batteries.

The top of the box, in the instance illustrated, is likewise formed as a two-part member $f f'$, being secured by its narrow rear portion f' to the back member of the box by suitable fastenings, as the screws f^2 , or being otherwise suitably secured to the box. The parts of the top may be secured together suitably, as by hinges f^3 .

To hold the front of the box in closed position, suitable fastening means may be provided, and if hooks are utilized, as shown at e^7 , Fig. 1, to cooperate with eyes f^4 upon the lid of the box it will be obvious that not only

will the front be held in place, but the lid will be held down, this feature, however, being already well known and not being essential to my invention.

5 In knocking down the box the front will be removed first by taking out the screws or other fastenings e^3 , after which the bottom member d may be drawn forward and the side members b drawn lengthwise to withdraw
10 their tenons from the mortises in the rear member c . The top member may and preferably will be removed first by withdrawing the screws or other fastenings f^2 , and after dissemblage it will be obvious that the mem-
15 bers of the box may be stacked upon each other, consisting entirely, as they do, of flat pieces of board.

A reversal of the process just described can be readily accomplished to set up the mem-
20 bers of the box in assembled position. It will be seen readily that by this construction the strength is presented at the long rear joint of the box, where it is most needed, and that the members between which this joint is
25 formed are securely locked in place by the tenon upon the bottom member, whereas, as already noted, lateral strength is further secured by the upright tongues b' and grooves e^6 , the ample provision for ready dissemblage

being so obvious as not to require further explanation. 30

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

A box of the class described, comprising a 35 back member; side members united thereto by vertical dovetail joints; a bottom member having a mortised joint with said side members; and top and front members adapted to be secured removably to said assembled mem- 40 bers, to complete said box, said top and front members each comprising a fixed part and a swinging part hinged thereto, said swinging parts fitting against each other when the box is closed; means to hold said swinging parts 45 in fixed position; and a vertical tongue-and-grooved joint intermediate said side and front members to impart lateral strength to said box front, without interfering with the free swinging movement of said upper front part. 50

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

DAVID B. McPHERSON.

Witnesses:

ALEXANDER C. PROUDFIT,
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