

(No Model.)

T. H. BLAIR.

PLATE HOLDER.

No. 294,959.

Patented Mar. 11, 1884.

Fig. 1.

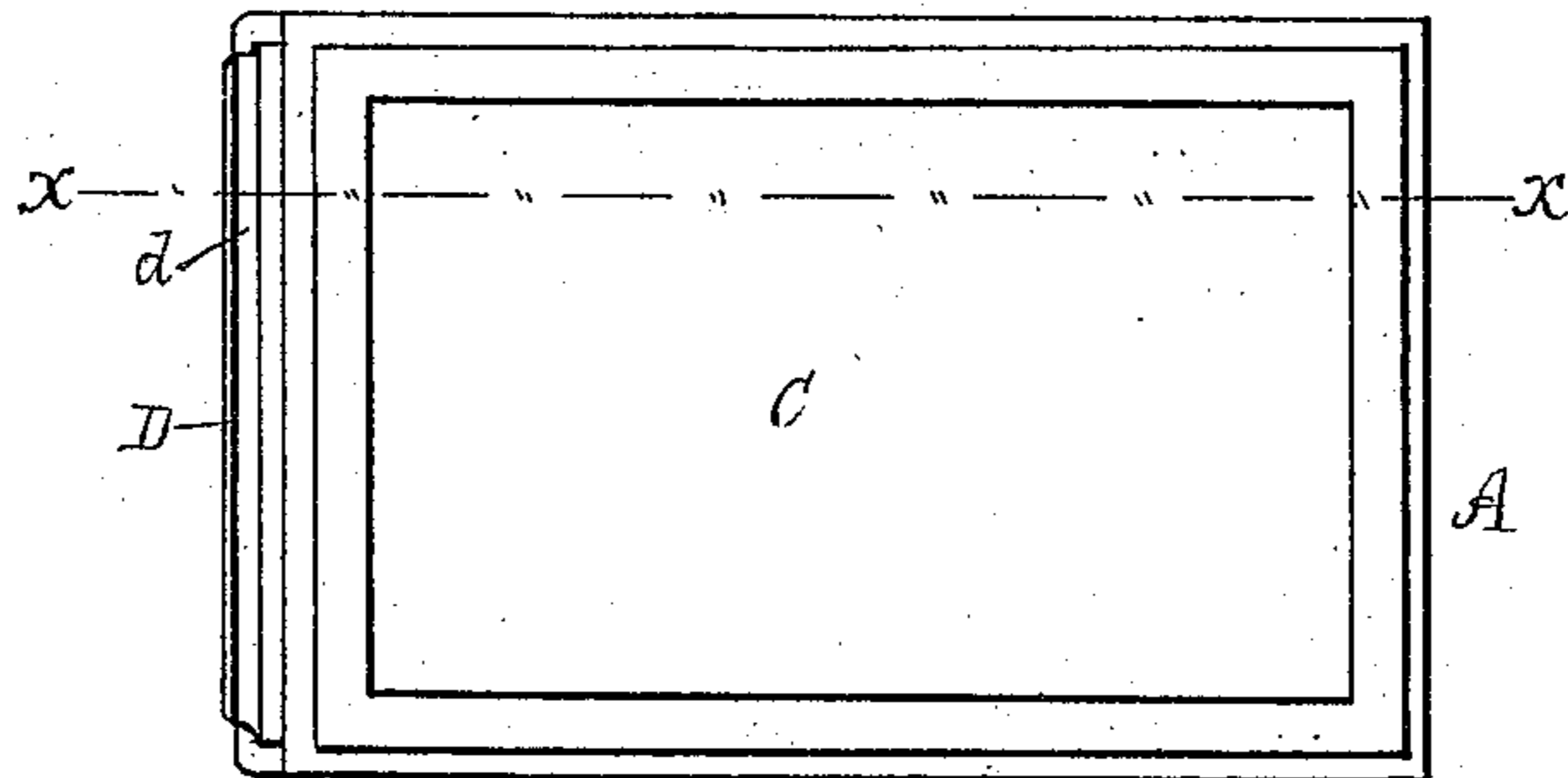


Fig. 2.

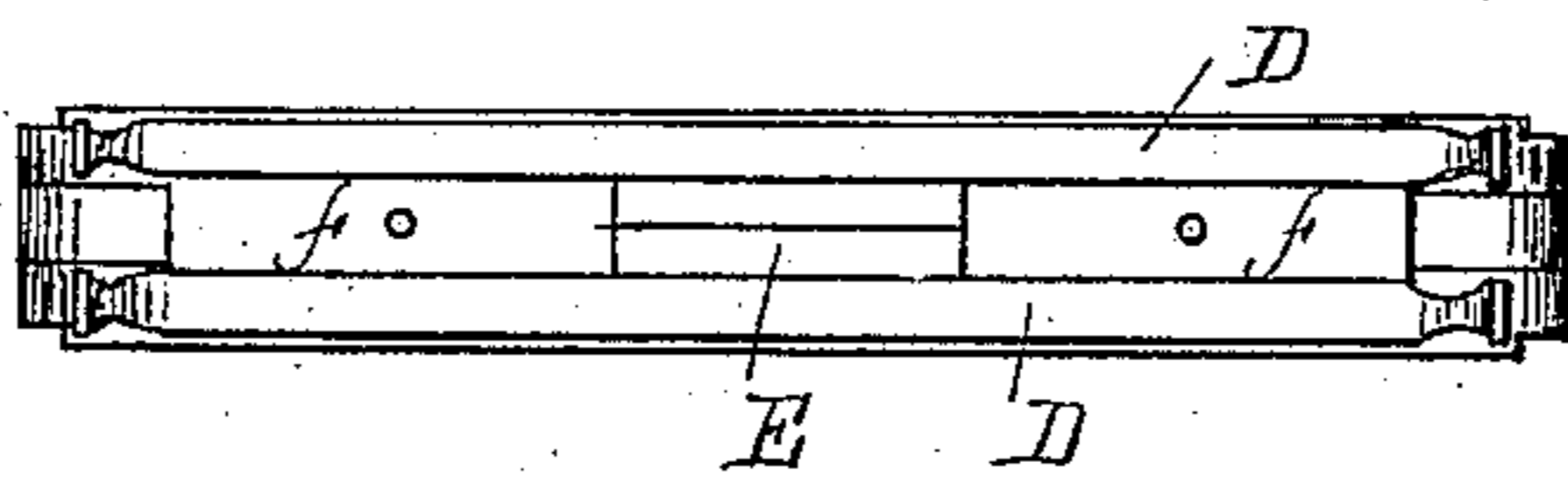


Fig. 3.

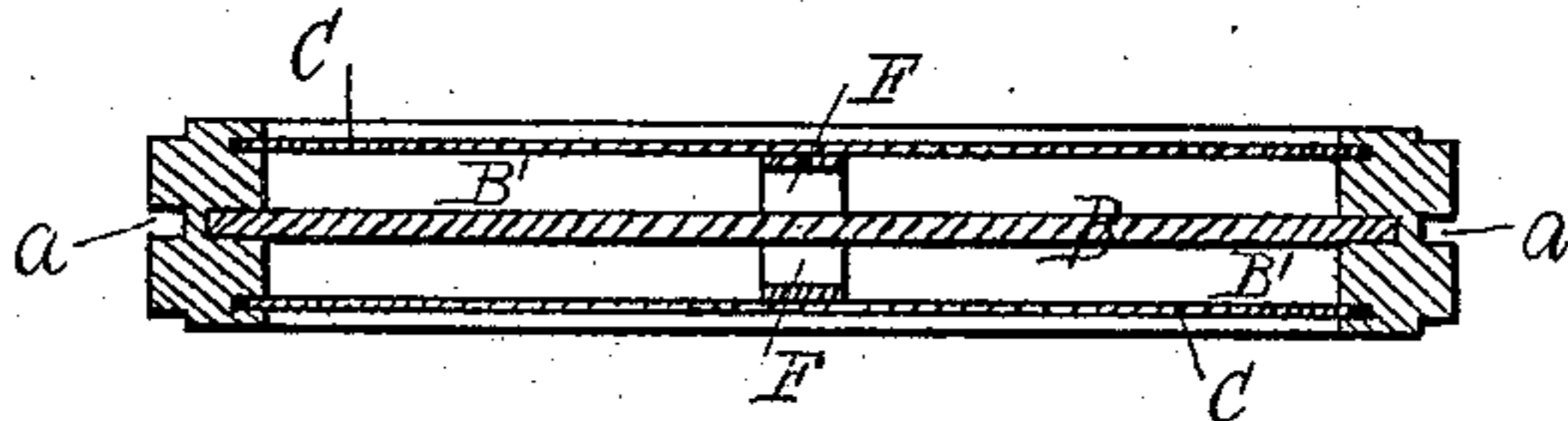


Fig. 4.

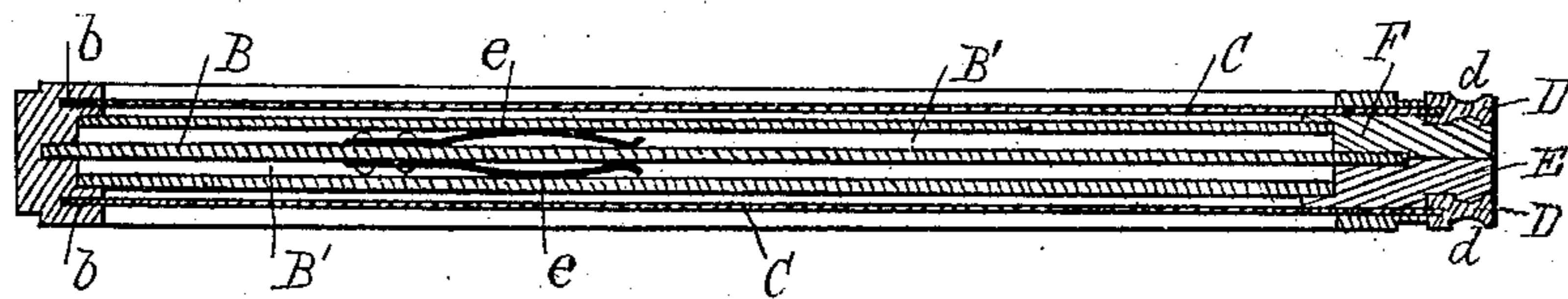


Fig. 6.

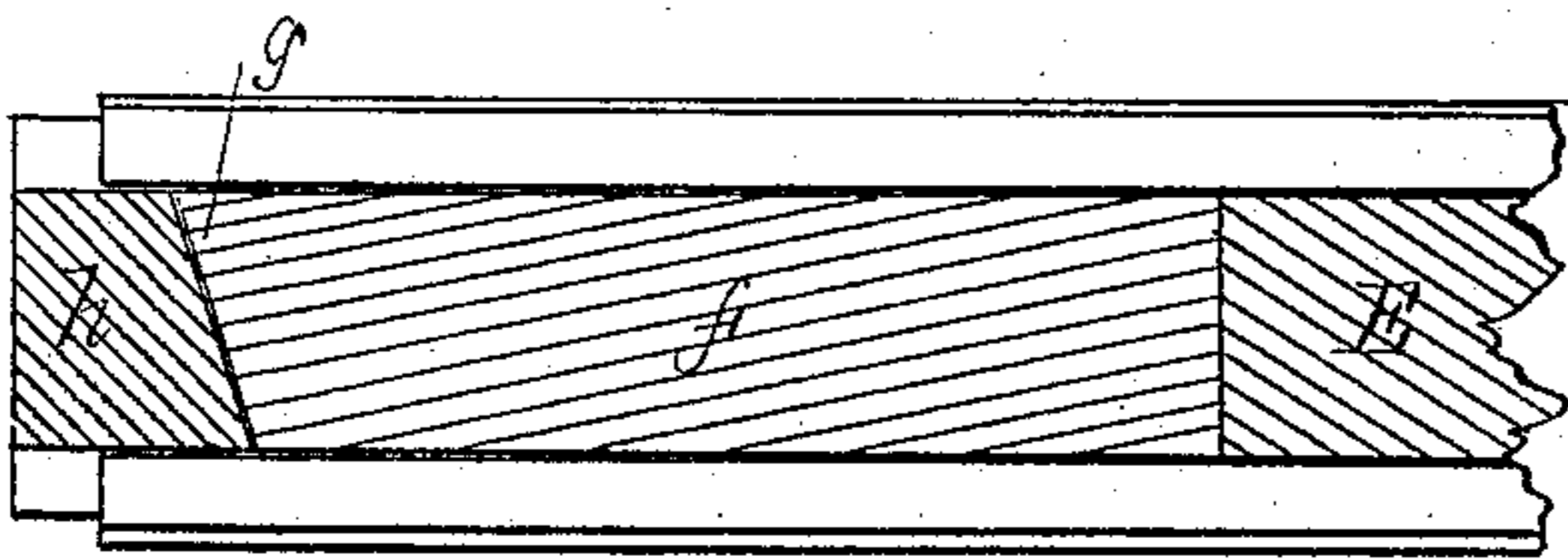
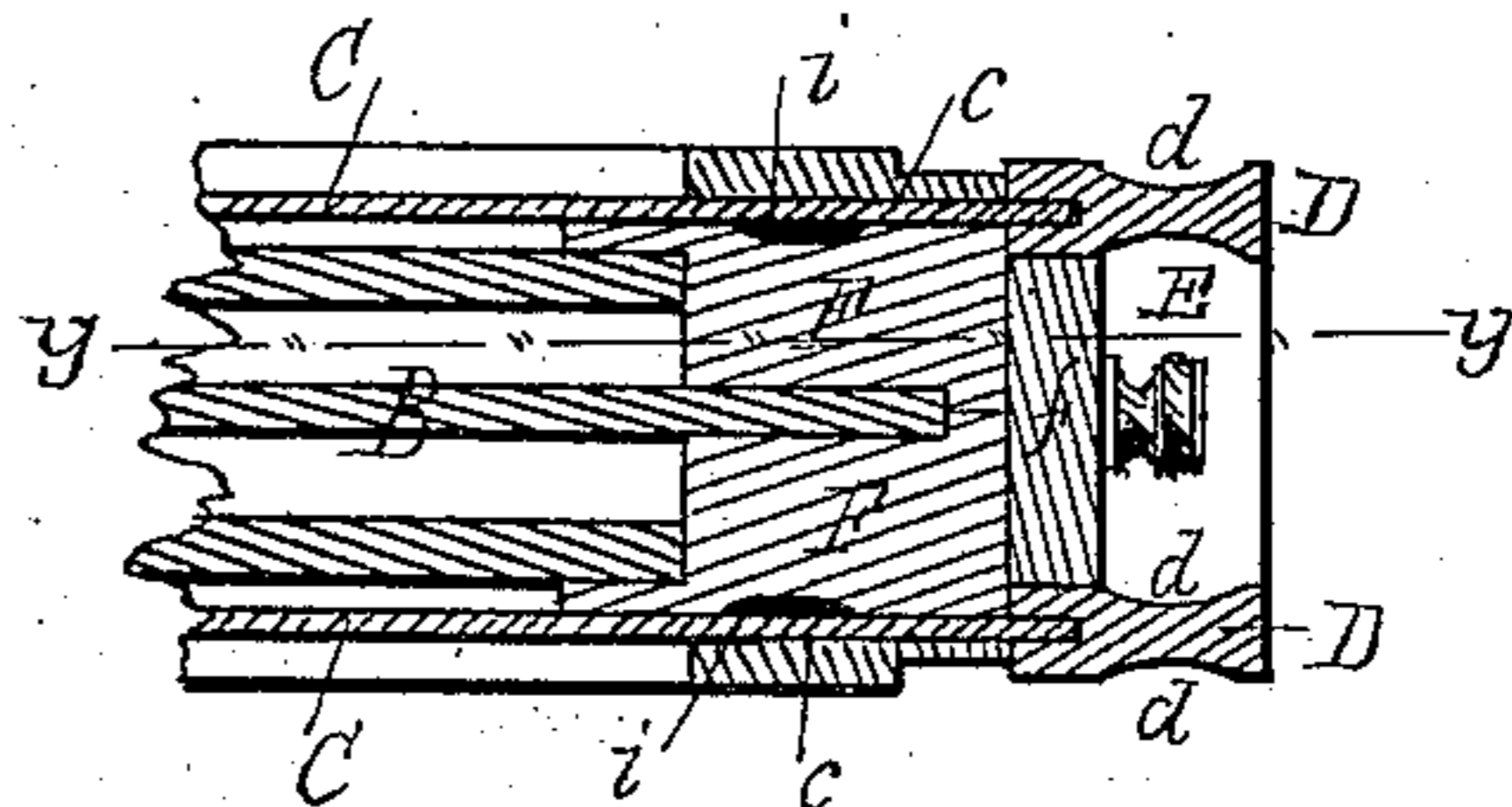


Fig. 5.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## PLATE-HOLDER.

SPECIFICATION forming part of Letters Patent No. 294,959, dated March 11, 1884.

Application filed January 6, 1883. Renewed February 9, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS HENRY BLAIR, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Plate-Holders for Photographic Cameras; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to double plate-holders of photographic cameras; and it consists in certain details of construction, as hereinafter explained.

The drawings accompanying this specification represent in Figure 1 a side elevation, and in Fig. 2 an end view, of a plate-holder embodying my invention. Fig. 3 is a vertical and Fig. 4 a horizontal cross-section. Fig. 5 is a portion of a section of the plate-holder on line *x x* of Fig. 1, and Fig. 6 on line *y y* of Fig. 5.

The body of my plate-holder is composed, first, of an open rectangular frame, A, containing in each of its side edges, and centrally thereof, a longitudinal groove, *a*, these oppositely-disposed grooves being to inclose and slide upon ribs secured to or forming part of the camera-box. Heretofore double plate-holders have been connected with or attached to camera-boxes by fastenings of such nature that the holder must be held in a certain position while being presented to and inserted in the catches which confine it. By the employment of the parallel grooves *a a*, which are disposed midway between the two sides of the holder and the two plates contained in such holder, no precaution is necessary as to which side of such holder shall be uppermost, or which position either end may be in. To complete the body of the plate-holder, I employ a central partition, B, which extends from side to side and end to end of the opening of the frame A, and is secured permanently to such

frame in any suitable manner. Heretofore this centrally-arranged partition B has been attached loosely or removably to the outlying frame A, for which reason it is liable to become misplaced during the insertion and removal of the plates. By securing the partition B permanently or immovably to the frame A these objections are avoided.

The "dark-slides" of the holder are shown at C C as thin sheets of leather-board or other suitable material adapted to slide in grooves *b b*, formed in inner opposite side edges of the frame A, upon each side the central fixed partition, B, the openings in the end of the frame by which such slides C C enter being shown at *c c*, and the chambers between the slides and partition for reception of the plates at B' B'. To prevent accidental misplacement of the dark-slides C C, and at the same time to allow them to be inserted either side outward, I add to the outer end of each a bar, D, of wood or other material, of a thickness considerably greater than that of the slide, the edges of this bar extending an equal distance beyond each face of the slide, in order that the edge of this bar shall overlap the point between each slide C and the opening *c* to prevent entrance of light at this point. A shallow groove, *d*, is formed longitudinally in each side of each bar D, and each of such grooves is adapted to hug the edge of a rib, E, secured to the outer edge of a bar, F, which closes the outer end or mouth of each plate-chamber B'. When either slide is pushed in to its place, the bar D springs over and hugs the rib E, and prevents accidental misplacement of the slide. The slide may also be inserted either side outward, which is a matter of greater convenience. When in a closed position, the inner edge of each bar F extends into the chamber B' a short distance beyond the inner adjacent edge of the frame A, in order to prevent escape of the sensitized plate, while to prevent rattle of such plate a curved plate-spring, *e*, is secured to each side of the partition B. When the bar F is in its innermost position, it prevents, as before stated, the escape of the plate, and to prevent accidental movement of each bar F, I employ two removable plates or keys, *f f*, the inner ends

of which abut against opposite ends of the conjoint ribs E E, before named, while the outer ends of these keys extend behind abutments *g g*, formed by lugs *h h*, secured to the outer corners of one end of the frame A. So long as these keys *f f* are in place the bars F F cannot be retracted, and the sensitized plate cannot escape. When it is desired to remove or insert a plate, the keys *f f* are removed, which permits the bar F to be retracted. It frequently happens that the dark-slides of plate-holders accidentally slip in their receptacles and admit light to the plate-chamber. By employing the bars D D, with their oppositely-disposed grooves *d d*, and the ribs E E to engage such grooves, accidental misplacement or slipping of a plate is prevented. To effectually prevent leakage of light to the interior of each plate-chamber between the outer boundary of each opening, I groove the outer face of each bar or gate F longitudinally, as shown at *i*, and I fill this groove with plush or other material, which bears against the inner face of the dark-slide.

I claim—

1. In combination with the frame A and partition, the adjustable bars F F, these bars closing the mouths of the plate-chamber, re-

spectively, and when in their inmost positions extending into such chamber beyond the inner edge of the frame, substantially as stated.

2. In combination with the frame A and the partition B, dividing such frame centrally of the adjustable bars or gates F F, the central ribs, E E, upon such bars, and the keys *f f*, operating with the said ribs E E, and the abutments *g g*, substantially as and for purposes stated.

3. In combination with each dark-slide C, the bar D, having the grooves *d* in opposite sides, and the rib E, shaped to fit said grooves, substantially as described.

4. In combination with the frame A and partition B, the dark-slides C C with the grooved bars D, the bars D with their ribs E, and adjustable with respect to the said frame and partition, and the keys *f f*, engaging at one end the said rib, and at the other the abutments *g g*, all substantially as explained.

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

THOMAS HENRY BLAIR.

Witnesses:

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