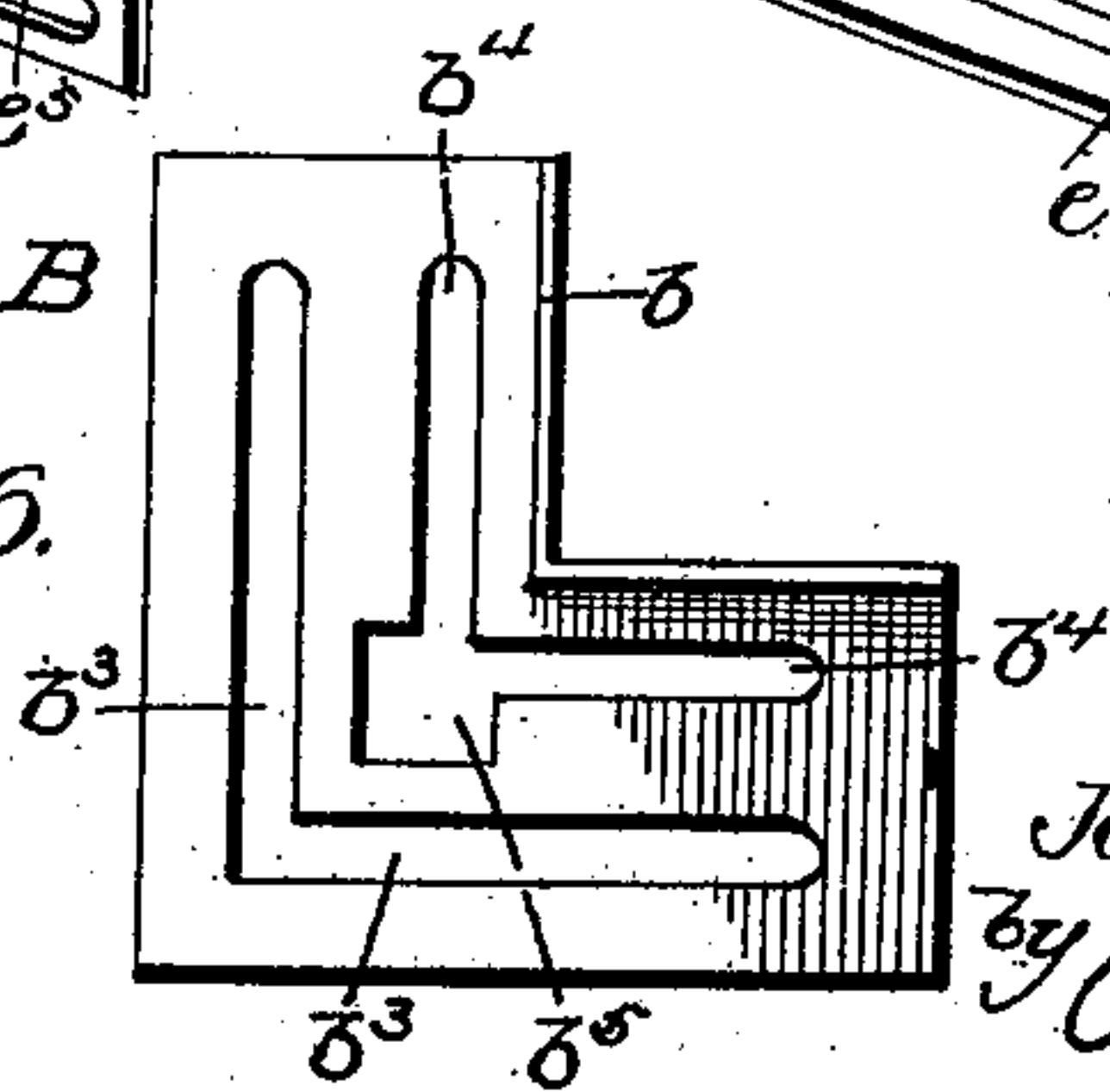
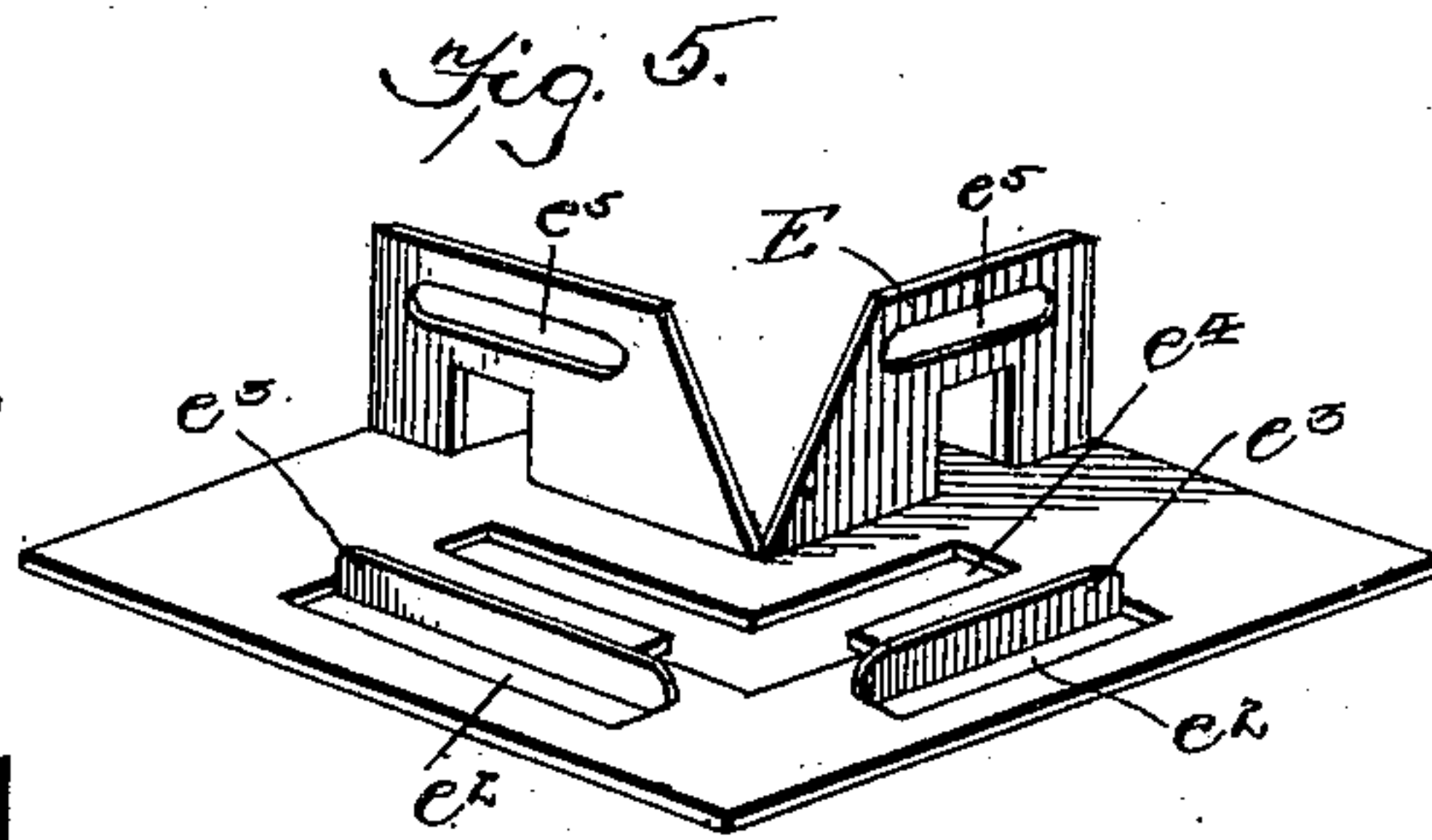
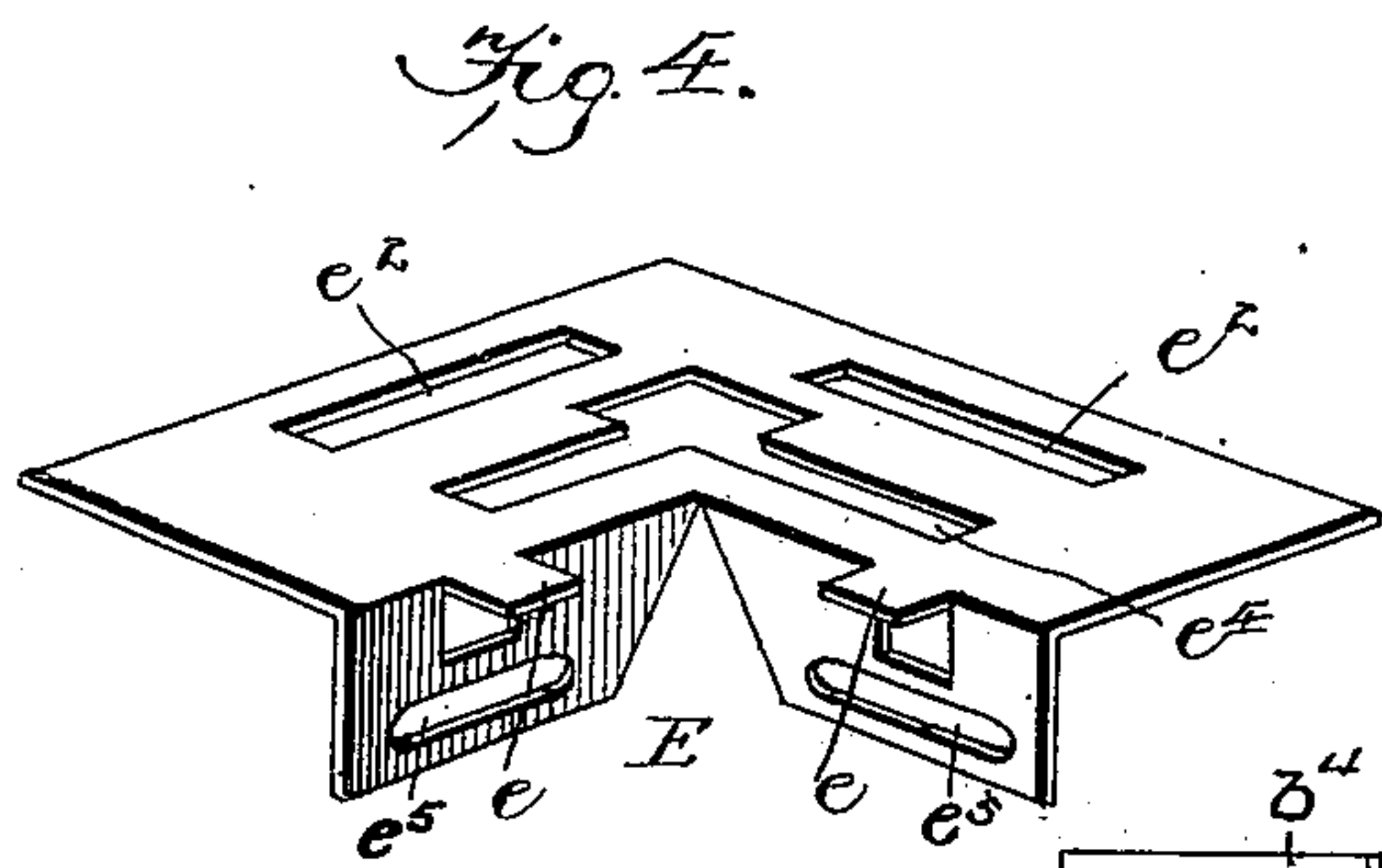
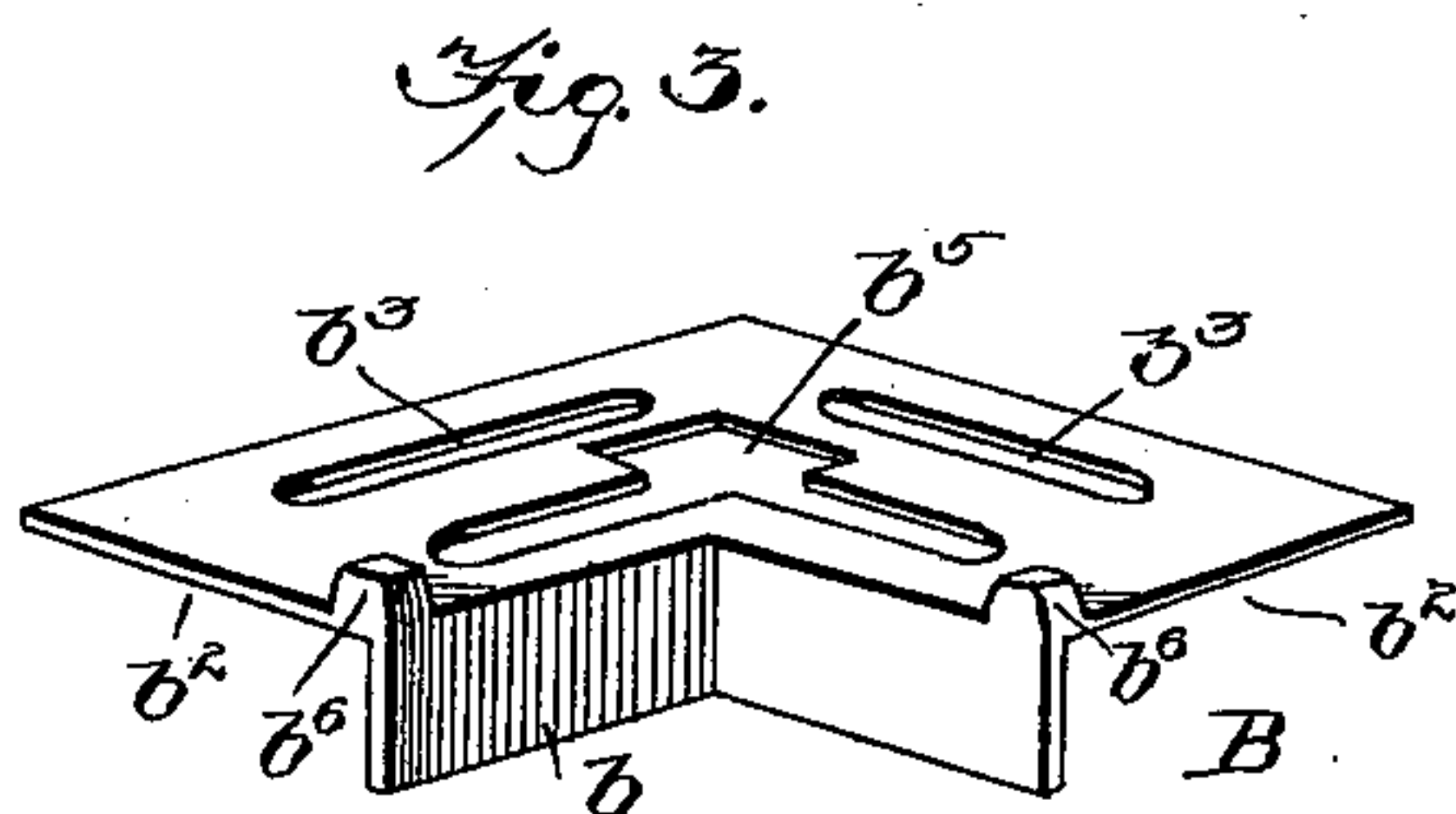
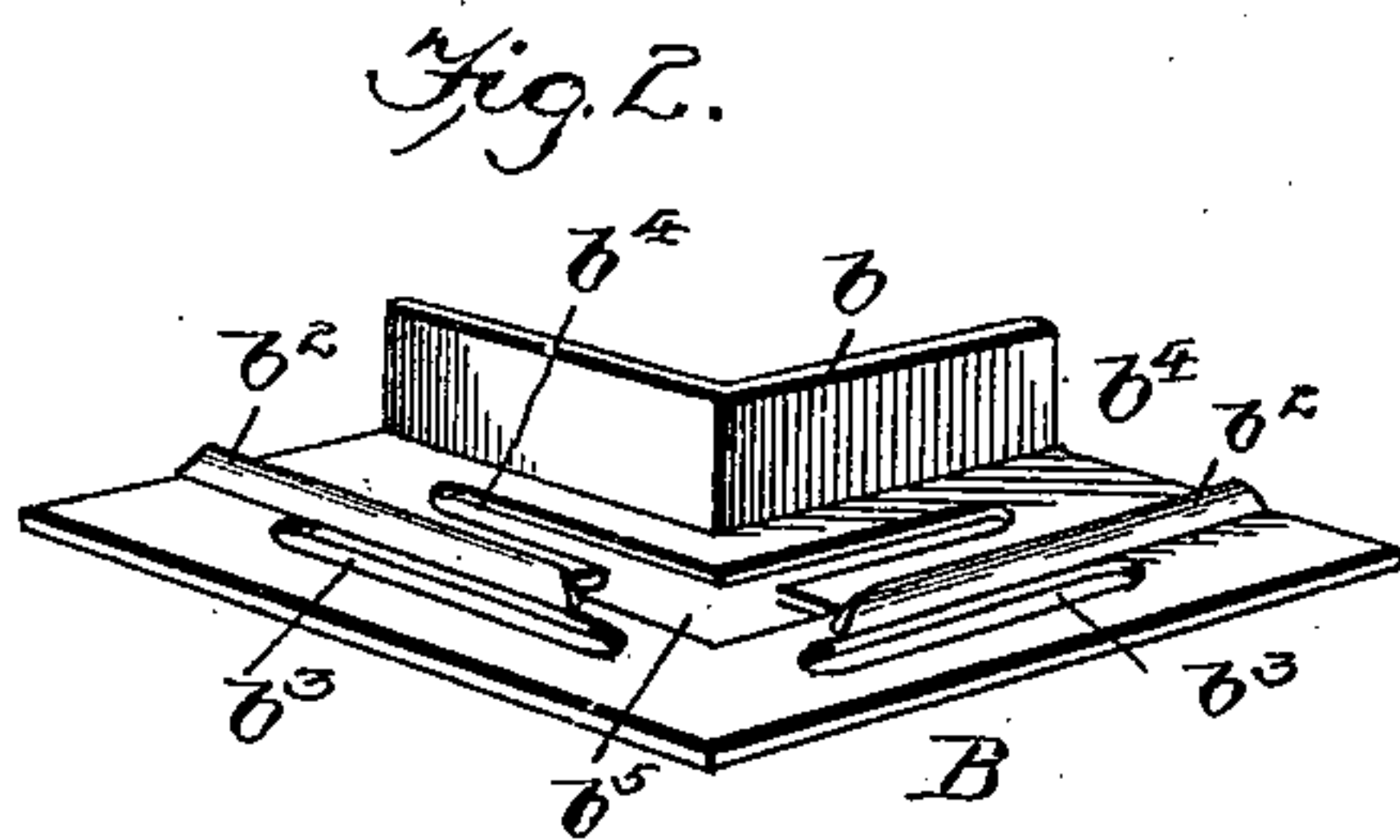
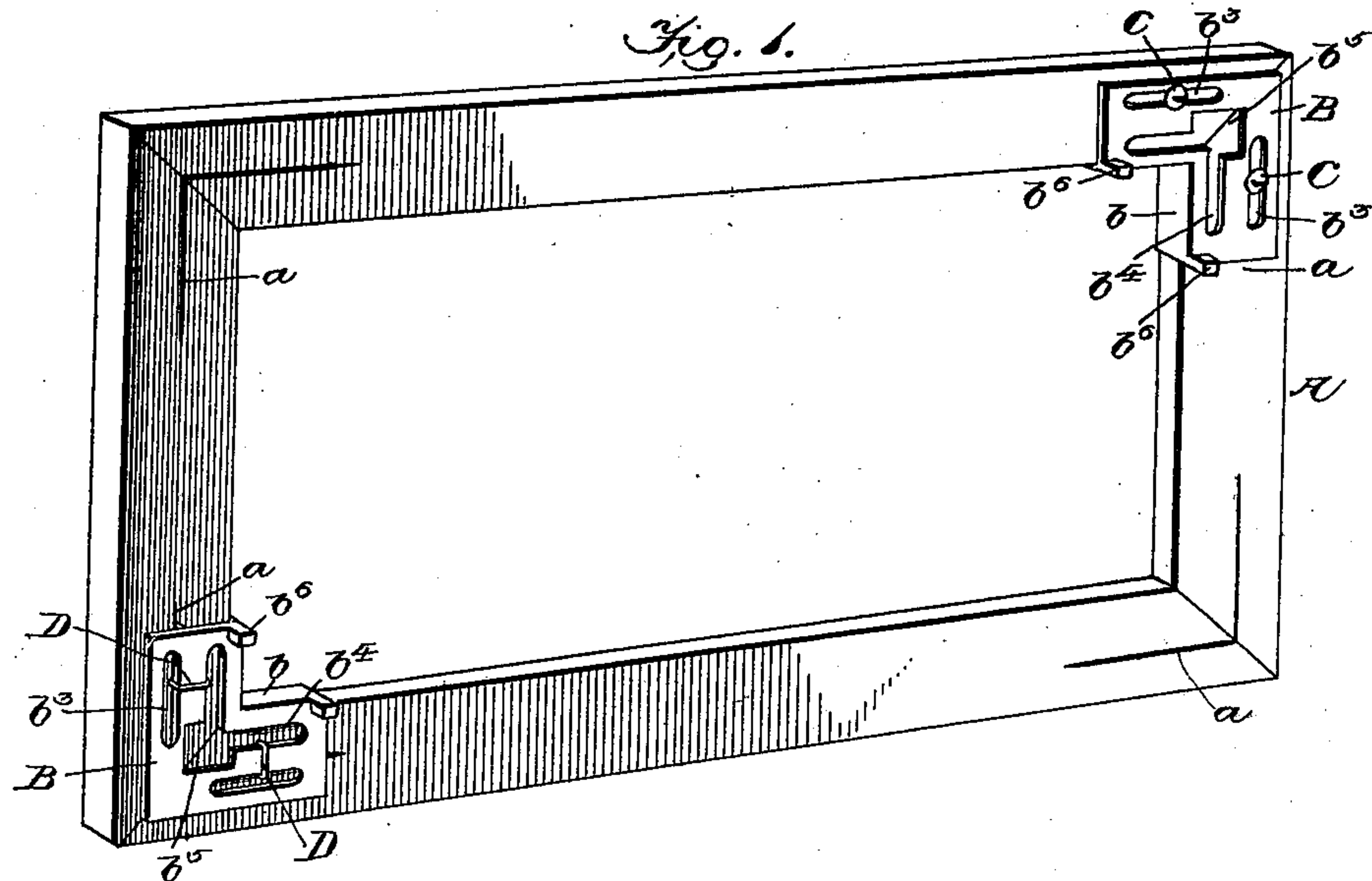


(No Model.)

J. W. NUNNS.
CANVAS STRETCHER.

No. 602,353.

Patented Apr. 12, 1898.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN WILLIAM NUNNS, OF NEW YORK, N. Y.

CANVAS-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 602,353, dated April 12, 1898.

Application filed July 1, 1897. Serial No. 643,162. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIAM NUNNS, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Stretcher-Frames; 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.

This invention relates to stretcher-frames such as are used by artists and others, on which canvas or similar material is stretched to put it under requisite tension for applying oil-colors thereto.

Stretcher-frames as heretofore constructed and such as are now in general use are made either with mortise-and-tenon corner-joints or with miter-joints. The former are keyed with wooden wedges, and the latter are held together by a metallic plate provided with a wedge which is adapted to enter the miter-joint and thus force the sections of the frame apart to put the canvas under tension. Each of these constructions presents objections. In the mortised-and-tenoned frame the wooden wedges shrink and fall out and in the mitered frame the wedges operating in the joints move two parts of the stretcher-frame at the same time, which is often unnecessary and sometimes results in throwing the stretcher-frame out of true.

It is the object of this invention to overcome these objectionable features and to provide a corner-key for a stretcher-frame which will hold the stretcher-frame firmly together and at the same time stretch only one of its sides independently of the others. I attain these objects by the device shown in the accompanying drawings, in which—

Figure 1 is a view in perspective of the rear portion of a frame in which the parts of the frame are provided with miter-joints, showing two of the keys in position thereon and two different ways of securing the same in position and showing, further, the grooves in the two parts of the frame which are adapted to be engaged by tongues on the under side of the key. Fig. 2 is a view in perspective of the bottom or under side of the key. Fig. 3

is a similar view of the top or upper side of the key. Figs. 4 and 5 are perspective views showing, respectively, the upper and under sides of a key struck up from a single piece of metal. Fig. 6 is a view in plan of a modified form of key.

Referring to the drawings, A designates a frame, the corners of which in this instance are assembled with miter-joints, although it is to be understood that mortise-and-tenon joints may be employed, if preferred. Secured at each corner of the rear side of this frame is a key B. This key is constructed in such manner that when operated it moves along in a line parallel with a side and end of the stretcher-frame, and these two movements are attained, first, by providing the key at its under side and along its inner edge with a flange *b*, which laps the inner sides of a stretcher-frame at the corners and parallel thereto, forming a right angle, as shown in Fig. 2, and, second, by two ribs *b*², likewise attached to the under side of the plate approximately midway between its inner and outer edges, one on each side and parallel with the sides of the flange *b* and with the sides of the stretcher-frame, as shown in Fig. 2. These ribs are beveled or wedge-shaped in cross-section, and when the key is adjusted they are pressed into appropriate grooves *a*, Fig. 1, which extend parallel with the sides of two parts of the frame and at right angles to each other and give the key a firm hold on the stretcher-frame.

The key is held to the stretcher-frame by screws C, as shown at the upper right-hand corner of Fig. 1, which pass through slots *b*³ in the key, said slots extending parallel with the ribs *b*², or the key may be held in place upon the frame by staples D, as shown at the lower left-hand corner of Fig. 1. In addition to the slots *b*³ the key is provided with two other slots *b*⁴, which merge into the opening *b*⁵, these openings being designed, primarily, to lighten the key; but they are also intended to be utilized to accommodate additional screws if it should be required to give the key a firmer hold on the frame. At each corner of the flange *b* and on the outer side of the key there are formed two projections *b*⁶, which are designed to present surfaces to be

struck when the key is to be moved in one direction or the other.

The form of key described is cast of a single piece of metal; but in some instances I
5 may prefer to strike the key up from a piece of sheet metal, as shown in Figs. 4 and 5. To accomplish this, a rectangular piece of metal will be employed, and the same is split
10 from one corner inward toward the center to permit of the metal freed by this slit being turned at right angles to the body of the plate, as shown at E, to form a flange corresponding with the flange *b* in Fig. 1, a portion of the
15 metal of each of these flanges being stamped out to form projections *e*, which correspond to the projections *b*⁶ in Figs. 1, 2, and 3. There are also formed the slots *e*², corresponding with the slots *b*³ in Fig. 1, the metal stamped
20 out to provide this opening being formed into a rib *e*³, corresponding with the rib *b*, Fig. 1. There are also provided the supplemental slots *b*³, corresponding to the slots *b*⁴ in Fig. 1, and slots *e*⁵ in the flanges E, these latter
25 slots being adapted to receive screws or nails for holding these flanges close against the frame.

In Fig. 6 I have shown a slightly-modified form of key wherein the ribs *b*² are dispensed with. In all other essentials the key illus-
30 trated in this figure is the same as that shown in Figs. 2 and 3. This key may be used in connection with smaller frames where the canvas will not be so difficult to stretch tight and

therefore obviates the necessity of employing the grooves *a* in the frame. 35

When the frame is assembled with these keys in place and it is desired to tighten the canvas on one side or end, the projection *b*⁶ or the flange *b* is struck with a suitable tool to force the sections of the frame apart, after
40 which by tightening either one of the other screws C the frame will be held in its adjusted position.

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

1. A stretcher-key comprising a metallic plate provided with a right-angled, inturned flange, and with slots extending parallel with the flange, and ribs extending parallel with
50 the slots, substantially as described.

2. The combination with a frame provided, at its corners, with grooves, of a key comprising a metallic plate provided with a right-angled, inturned flange, to bear against the
55 inner walls of a corner of the frame, and with slots extending parallel with the flange, two ribs extending parallel with the slots for engaging the said grooves, and screws passed through the slots, substantially as described. 60

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

JOHN WILLIAM NUNNS.

Witnesses:

HENRY BOHMER,
HARRY M. CHURCH.