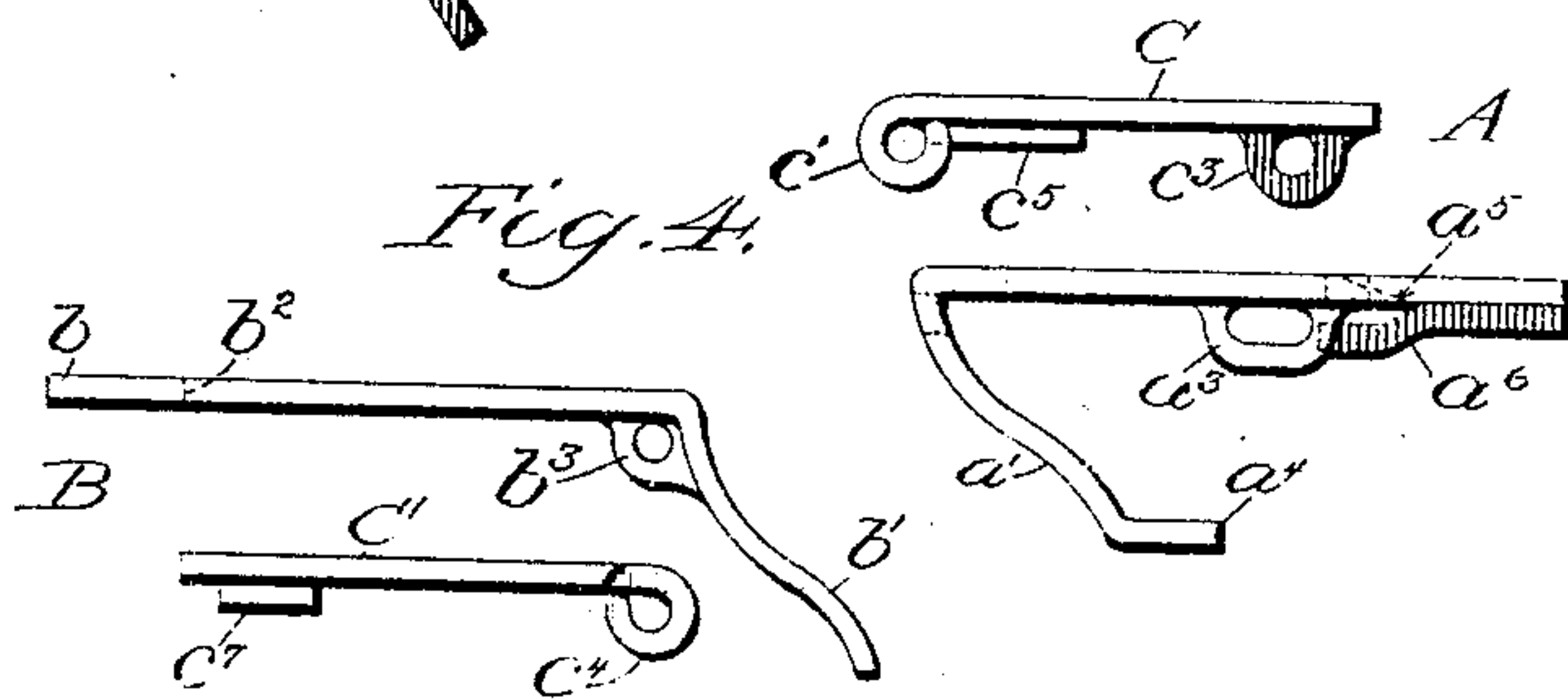
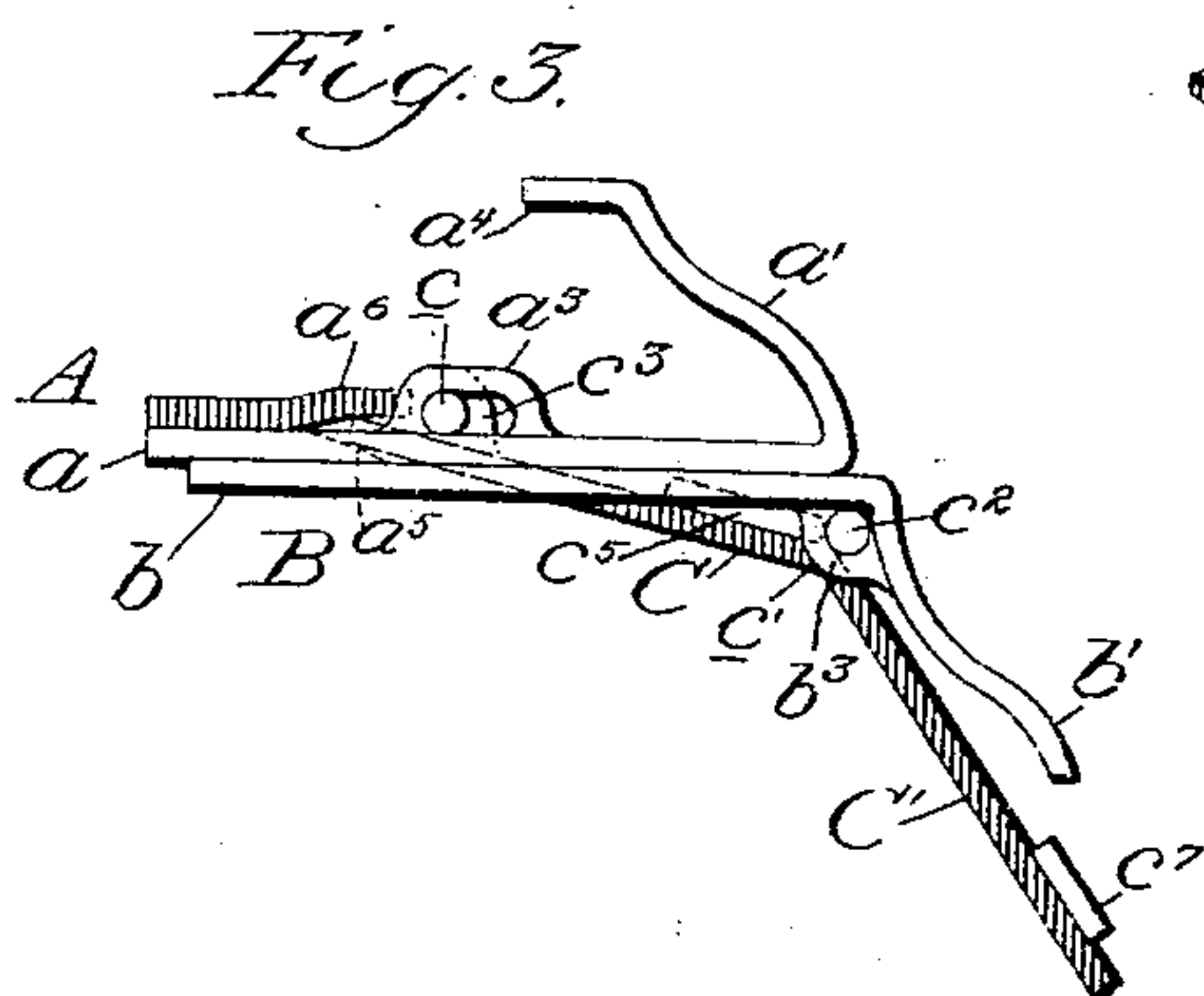
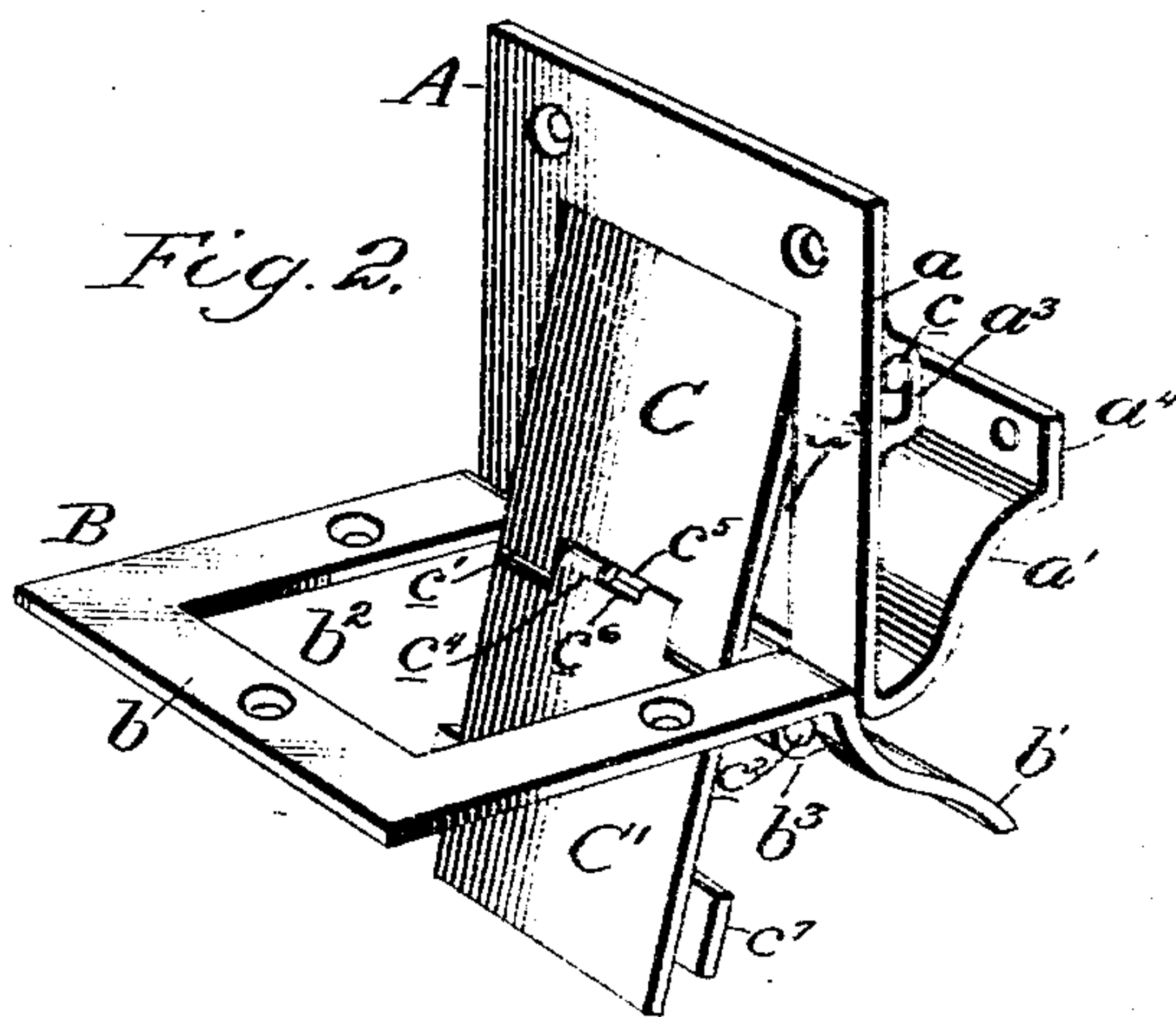
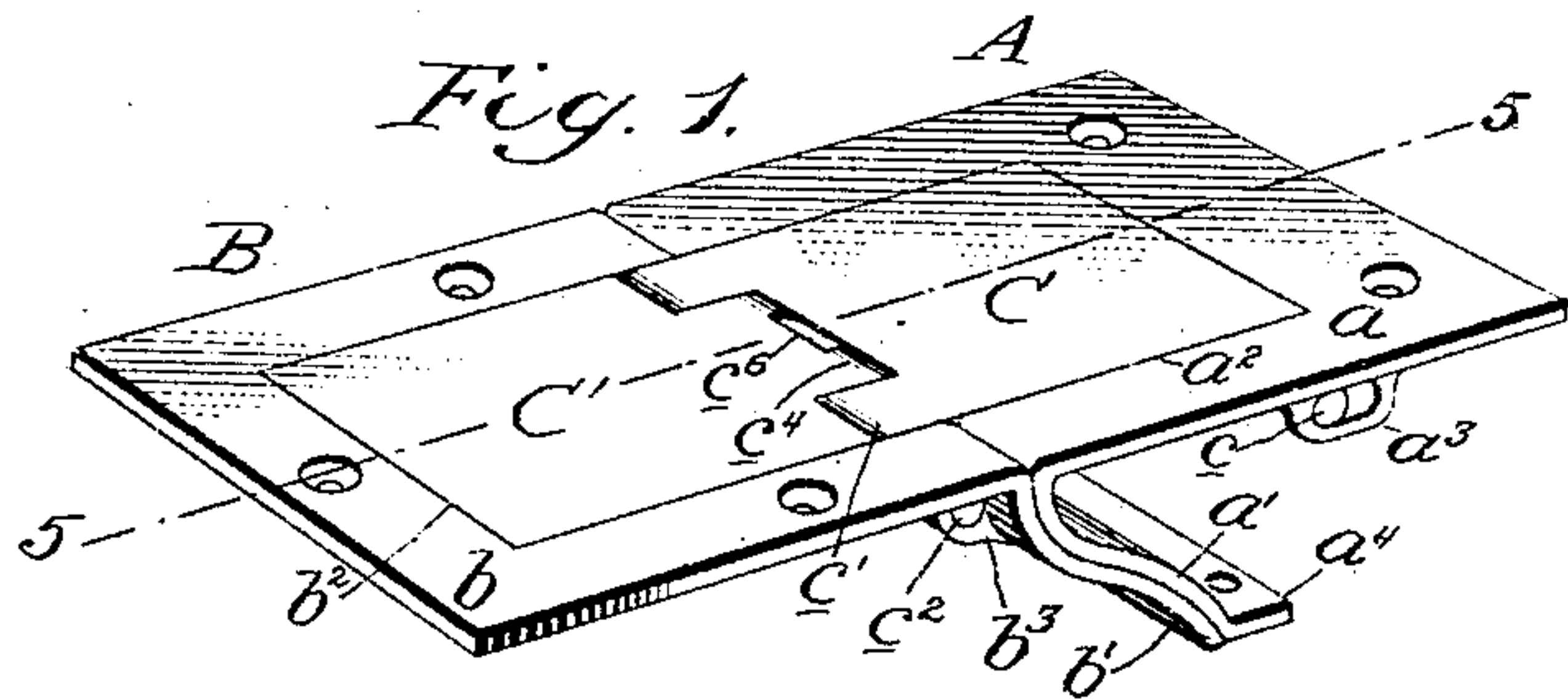


No. 824,367.

PATENTED JUNE 26, 1906.

A. G. LAMB.  
FLUSH BUTT HINGE.  
APPLICATION FILED MAR. 20, 1905.

2 SHEETS—SHEET 1.



*Amherst G. Lamb* Inventor

Witnesses

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357

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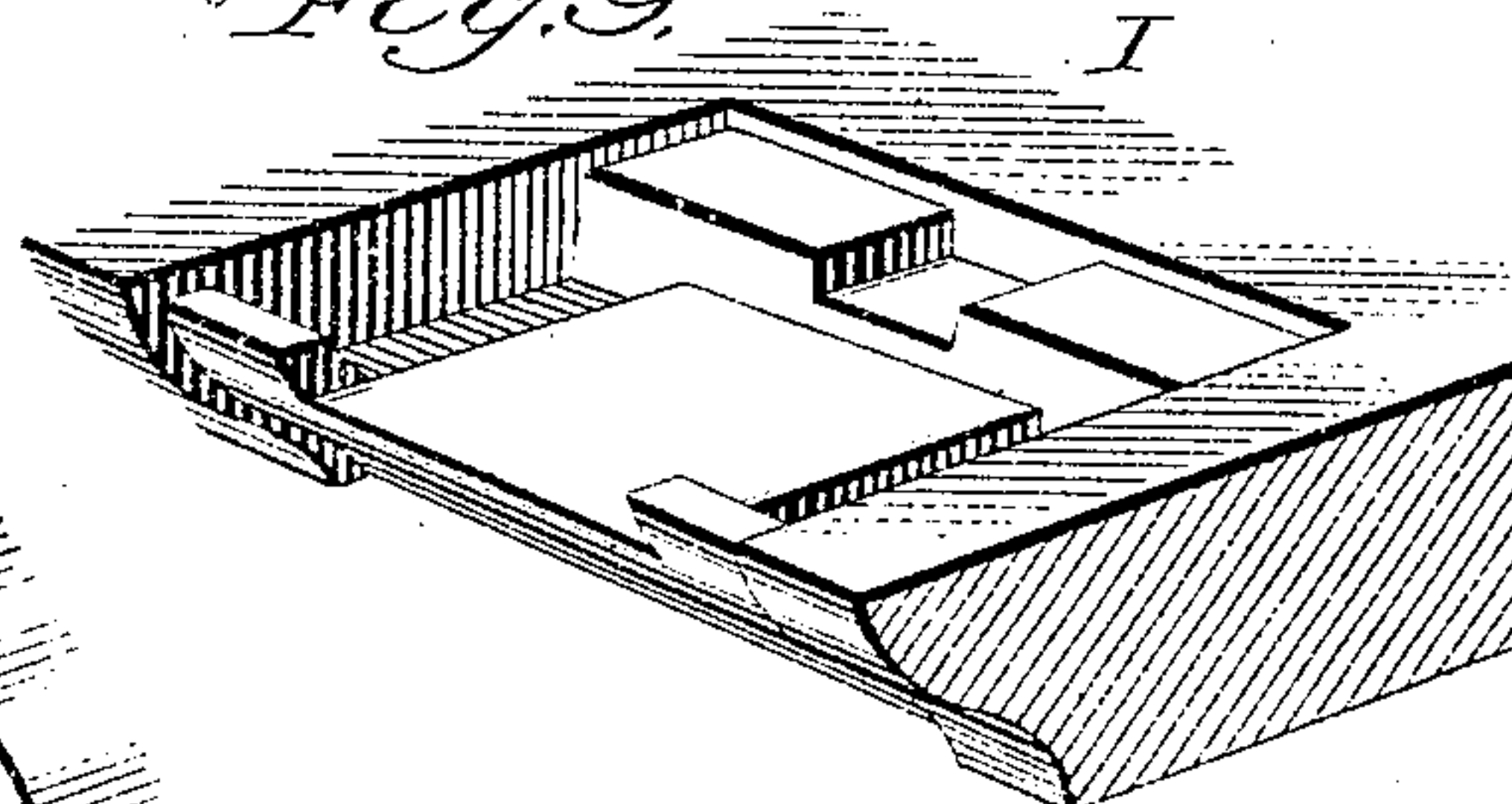
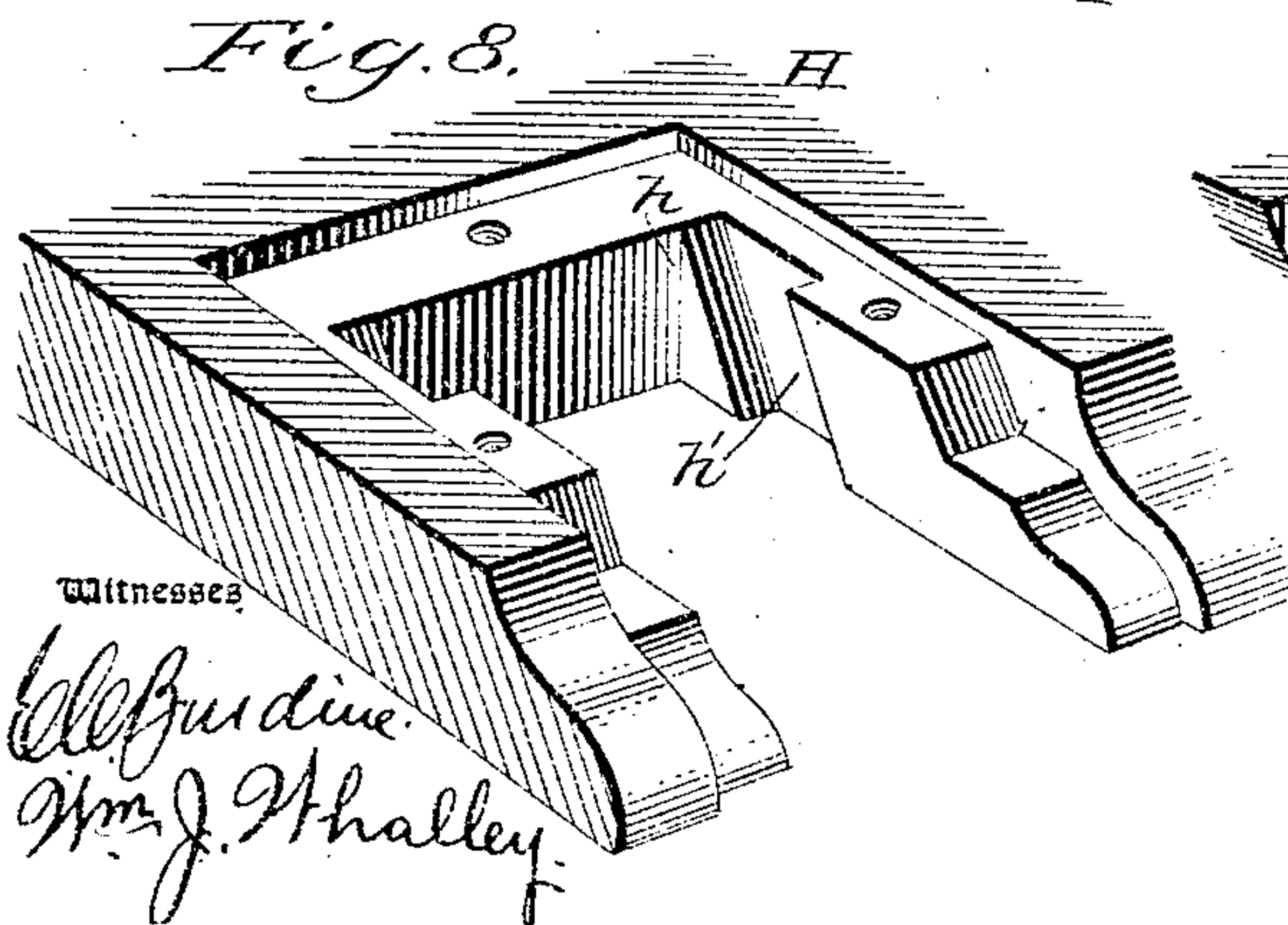
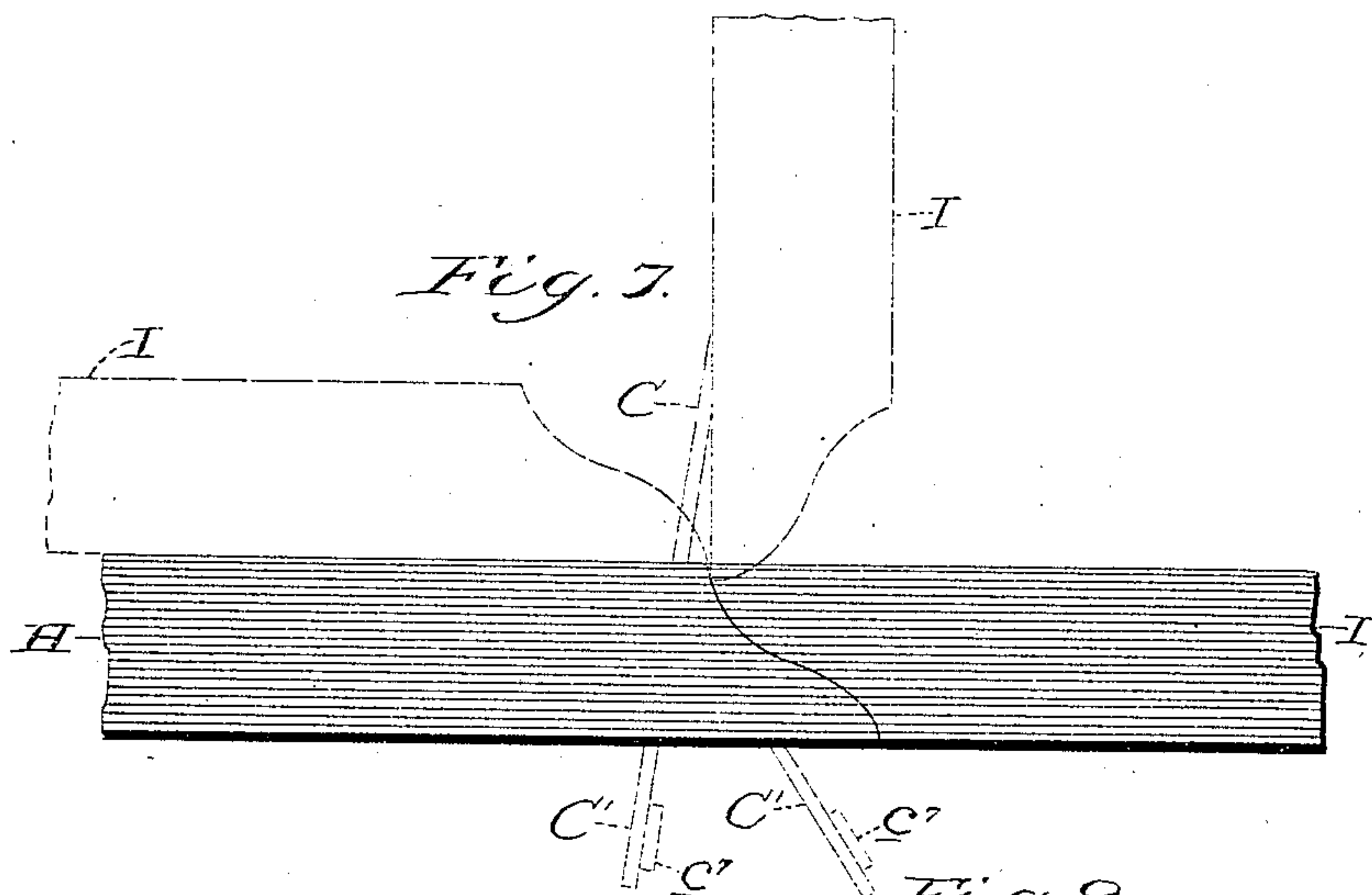
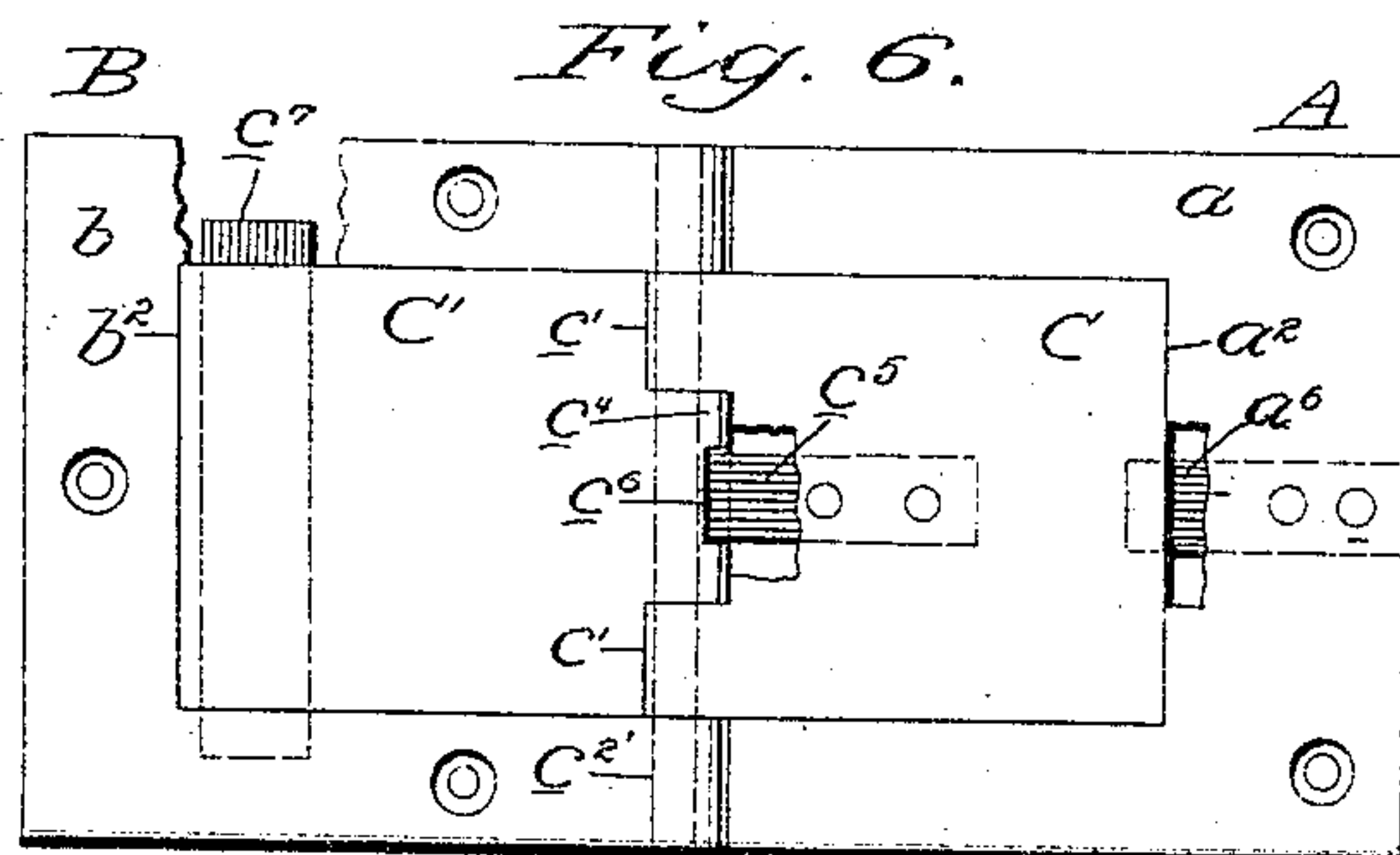
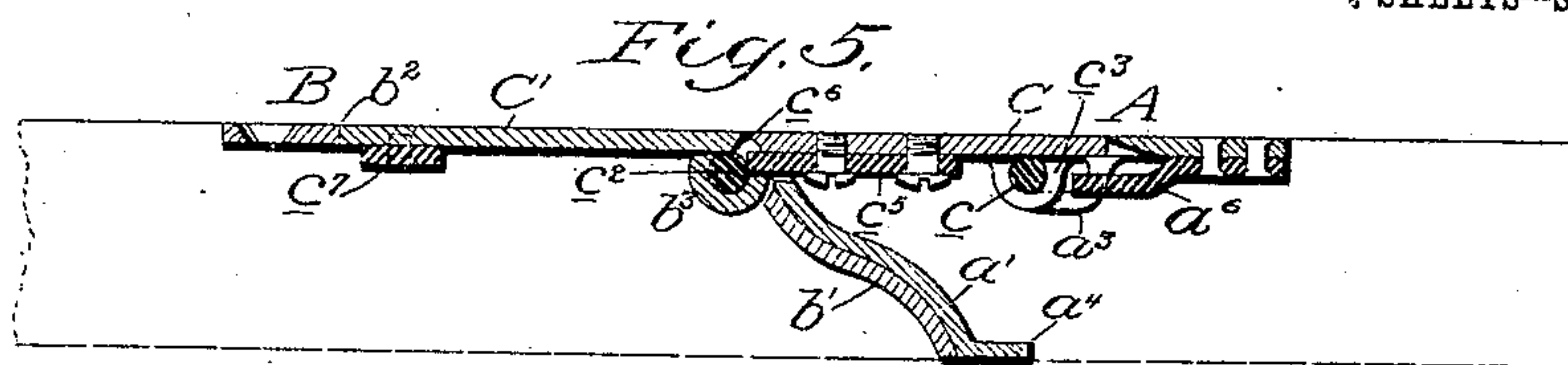
Attorneys

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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE

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## FLUSH-BUTT HINGE.

No. 824,867.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed March 20, 1905. Serial No. 251,067.

*To all whom it may concern:*

Be it known that I, AMHERST G. LAMB, a citizen of the United States, residing at Torrington, in the county of Litchfield, State of Connecticut, have invented certain new and useful Improvements in Flush-Butt Hinges, of which the following is a description, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My invention relates to hinges for the lids or covers of sewing-machines and the like.

The object of the invention is to provide a hinge which will lie flush with the surface of the table-top and its lid-cover when the lid or cover is swung out into horizontal adjustment with said top and when it is swung down upon the upper face of the table-top. This object I accomplish by the construction shown in the accompanying drawings, in which—

Figure 1 is a perspective of the hinge with its leaves in horizontal alinement or fully open. Fig. 2 is a like view with the movable leaf swinging up perpendicular to the stationary leaf. Fig. 3 is a side elevation with the movable leaf swung over upon the stationary leaf. Fig. 4 is a side elevation showing the leaves and their connecting members separated. Fig. 5 is a longitudinal central section on line 5 5, Fig. 1. Fig. 6 is a plan of the hinge fully open, parts being broken away. Fig. 7 is a side elevation of a portion of a machine-top and its lid with the lid fully open in full lines and its other positions in dotted lines; and Figs. 8 and 9 are detail views of the recessed portion of the top and the lid-cover.

A designates the movable leaf and B the stationary leaf of the hinge. The stationary leaf B is formed of a horizontal attaching-plate  $b$ , having at its one edge a depending flange  $b'$ , the width of which is approximately the thickness of the table-top to which it is to be applied, and this flange is shaped to conform to the shape of the edge of the top, which in the present case is an ogee. The members  $b b'$  of the leaf B are let in flush with the upper and end surfaces of the top H, as shown in Fig. 8. The plate  $b$  is formed with a rectangular opening  $b^2$ , coinciding with an opening  $h$ , cut in the end of the top H, and the side walls of the opening  $h$  are provided with vertically-disposed inclined or curved

recesses  $h'$ , for a purpose to be presently described. The under side of the leaf B is provided in the angle formed by the two plates  $b b'$  with knuckles  $b^3$ . The movable member A of the hinge is formed substantially like the leaf B and comprises the attaching-plate  $a$ , formed with a rectangular opening  $a^2$  and a flange  $a'$ , shaped to conform to the shape of flange  $b'$  and with the shape of the end of the swinging lid or cover I. The lower edge of the flange  $a'$  is bent parallel with the plate  $a$ , as shown at  $a^4$ , so as to overlap the surface of the swinging lid or cover I. The said lid or cover is recessed to receive the leaf A flush therewith. The leaf A is formed or provided on its under side with elongated knuckles  $a^3$ , which are midway the ends of plate  $a$ , and the lower side of the plate  $a$  at the edge of the opening  $a^2$  farthest from the flange  $a'$  is beveled, as at  $a^5$ , and across this beveled surface projects a guide lip or tongue  $a^6$ .

C is a connecting-plate closely fitting the opening  $a^2$  and provided on its under side at or near one end with knuckles  $c^3$ , which register with the elongated knuckles  $a^3$  and carry a transverse pintle  $c$ , which slides in said knuckles  $a^3$ . The opposite edge of the connecting-plate is provided with knuckles  $c'$ , which register with the knuckles  $b^3$  on leaf B, to which they are hinged by a transverse pintle  $c^2$ . The two leaves A B are thus held in swinging sliding relation instead of being directly hinged together.

C' is a hinged extension of connecting-plate C and has a knuckle  $c^4$  extending between the knuckles  $c'$  and mounted to swing on the pintle  $c^2$ . The extension C' is of a size to close the opening  $b^2$  in plate  $b$  when the table lid or cover I is swung into horizontal alinement with the table-top H. The extension  $c'$  is actuated from connecting-plate C by means of a tongue  $c^5$ , which projects from plate C into a recess  $c^6$ , formed in the knuckle  $c^4$  of extension C'. The free end of the extension C' is provided on its lower side with a stop or stops  $c^7$ , which projects into the recesses  $h'$  of opening  $h$  and engage the lower side of plate  $b$  when the extension C' is swung up by tongue  $c^5$  to close the opening  $b^2$  in plate  $b$  of leaf B.

When the leaf A is swung up from alinement with leaf B, the extension C' drops down through opening  $b^2$  and the leaf A slides



on the pintle *c* (see Fig. 2) and hangs down, while the leaf A completes its movement to the position shown in Fig. 3. It will be seen that in this position the two leaves A B lie close one upon the other, and so permit the lid or cover I to lie down flat upon the machine-top H. In the opposite movement of the lid or cover, or from the position shown in Fig. 3 to that shown in Figs. 1 and 6 and by full lines in Fig. 7, the tongue *c*<sup>5</sup> will lift the extension C' into the opening *b*<sup>2</sup> until the stops *c*<sup>7</sup> engage the under side of plate *b*. During such movement of the lid its ogee edge will engage and slide along the like edge of top H, and the leaf A will slide on pintle *c* until the lid is in alinement with the top, whereupon plate *a* will be brought perfectly flush with connecting-plate C. The pintled edge of connecting-plate C will during these movements slide between the beveled edge *a*<sup>6</sup> and the tongue *a*<sup>8</sup>. When the hinge is fully open, the lid I will be strongly supported, as then the upper edge of flange *a*<sup>7</sup> will engage the plate C near its pintle *c*<sup>2</sup>, while the opposite pintle *c* will firmly support the middle portion of the leaf A. Moreover, the abutting ogee edges of the lid and table will be forced closely together and so held by the pintle *c*, which then reaches the limit of its movement in the elongated knuckles *a*<sup>3</sup>. The plates *a b* and the flange *a*<sup>4</sup> are apertured for the attaching-screws. It will be seen that any openings in the exposed surfaces of the table-top and lid are fully covered at all times by the leaves of the hinge and that all exposed portions of the hinge are flush with the surfaces to which they are applied.

The improved hinge is designed especially for the lids employed with drop-head sewing-machines; but they may be employed in any other relations without departing from the spirit of my invention.

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

1. A hinge comprising a pair of leaves having registering openings, a connecting-plate slidably hinged at its outer edge to the under side of the movable leaf to close the opening therein and hinged at its inner edge to the adjacent edge of the stationary leaf, a second swinging plate closing the opening in the stationary leaf and means for actuating the said swinging plate from the said connecting-plate.

2. A hinge comprising a pair of leaves having registering openings, a connecting-plate closing the opening in the movable leaf, a swinging plate forming a hinged extension of the connecting-plate to close the opening in the stationary leaf when the two leaves are horizontally alined, a sliding connection between the under side of the movable leaf and the outer end of the connecting-plate and a

pintle connecting the connecting-plate and its hinged extension, to the under side of the fixed leaf adjacent to the abutting edges of the two leaves, and means for actuating said hinged extension.

3. A hinge comprising a pair of leaves having registering openings, a connecting-plate slidably connected at its outer end to the under side of the movable leaf and filling the opening therein when the two leaves are alined; the inner end of the said connecting-plate being hinged to the under side of the adjacent edge of the stationary leaf, a swinging extension actuated from the hinged end of the said connecting-plate to close the opening in the stationary leaf, and a stop on the said extension to engage the under side of the stationary leaf.

4. A hinge comprising a pair of leaves having rectangular registering openings and each having a flange shaped correspondingly to fit each other and the edges of the parts to which they are to be attached, a connecting-plate slidably connected at its outer edge with the under side of the movable leaf and filling the opening therein, the opposite edge of the connecting-plate being hinged to the adjacent portion of the stationary leaf and there provided with a hinged extension filling the opening in said stationary leaf and means for actuating the said extension from the connecting-plate.

5. A hinge comprising two leaves each having a flange correspondingly shaped and each having a rectangular opening, a connecting-plate filling the opening in the movable leaf when the two leaves are horizontally alined, slidably hinged at its outer end to the under side of the movable leaf, and pivotally hinged at its opposite end to the under side of the adjacent flanged edge of the stationary leaf and there provided with a tongue, a swinging extension-plate to close the opening in the stationary leaf and having a recess engaged by said tongue.

6. A hinge comprising a flanged stationary leaf having a rectangular opening and knuckles in the angle of the under side, a flanged movable leaf also having a rectangular opening and provided with elongated knuckles on its under side at the rear end of its opening, a connecting-plate slidably connected at its rear end with said elongated knuckles, and having knuckles on the under side of its opposite end registering with the knuckles on the stationary leaf, a pintle passed through said last-mentioned knuckles, a second plate hinged on said pintle and forming an extension of said connecting-plate, a tongue-and-slot connection between the connecting-plate and said hinged extension to throw the latter up into the opening in the stationary leaf and allow it to drop therefrom when the movable leaf is swung down upon the stationary leaf



7. A hinge comprising a pair of flanged  
leaves having rectangular openings, -elon-  
gated knuckles on the lower side of the mov-  
able leaf, the rear edge of the opening being  
5 beveled, a guide-tongue projecting under  
said beveled surface, the said stationary leaf  
having knuckles in its angle, a connecting-  
plate having a pintle in the knuckles of the  
hinged leaf, a hinged extension on said latter  
10 plate and provided with a stop to engage the

underside of the stationary leaf, and a tongue  
on the connecting-plate engaging a recess in  
the hinged extension.

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

AMHERST G. LAMB.

Witnesses:

C. E. MOREHOUSE,  
D. HILDRETH.