

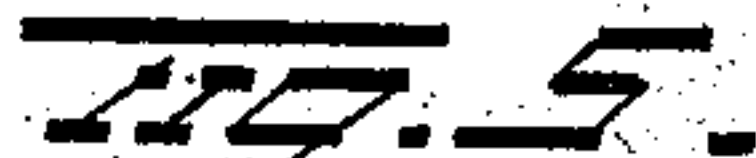
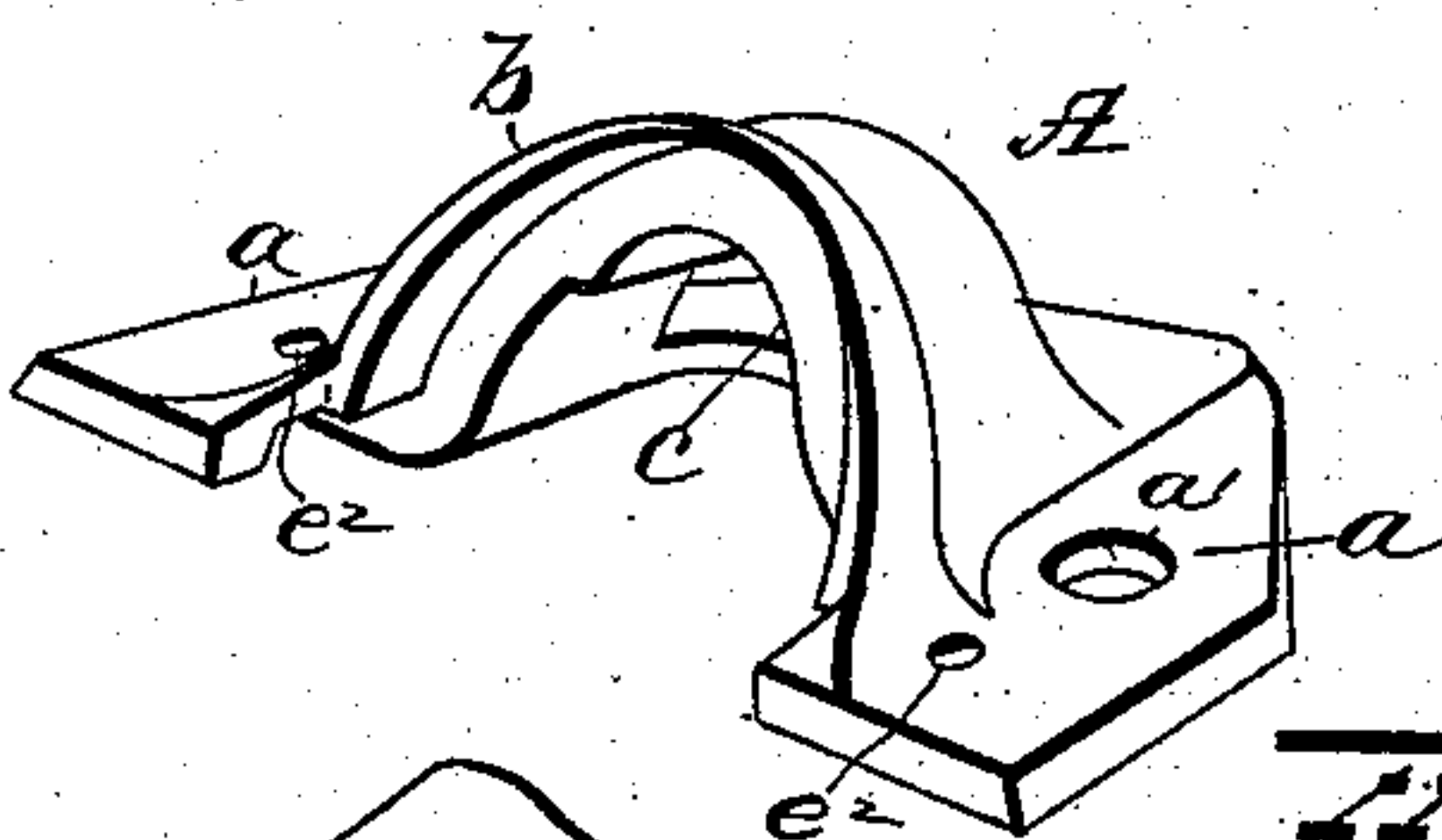
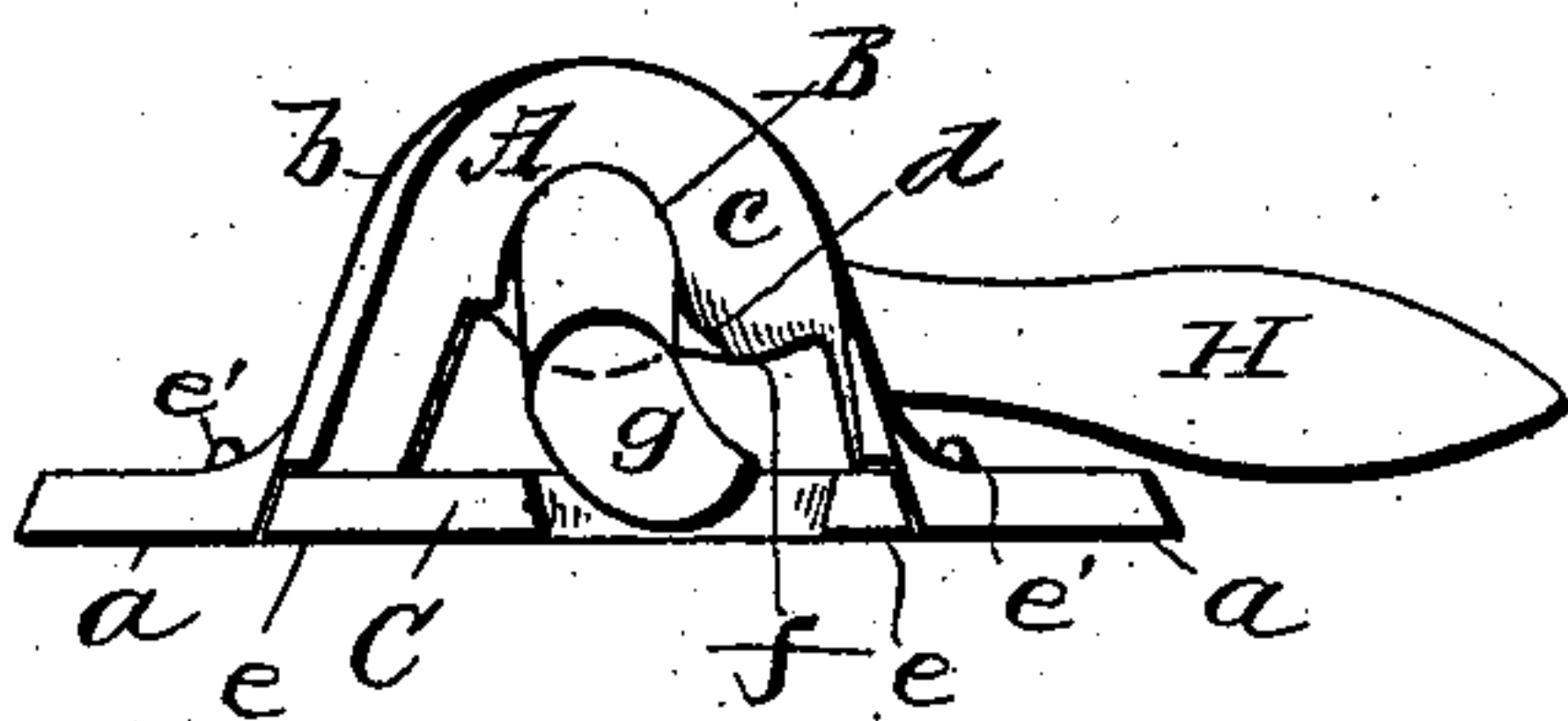
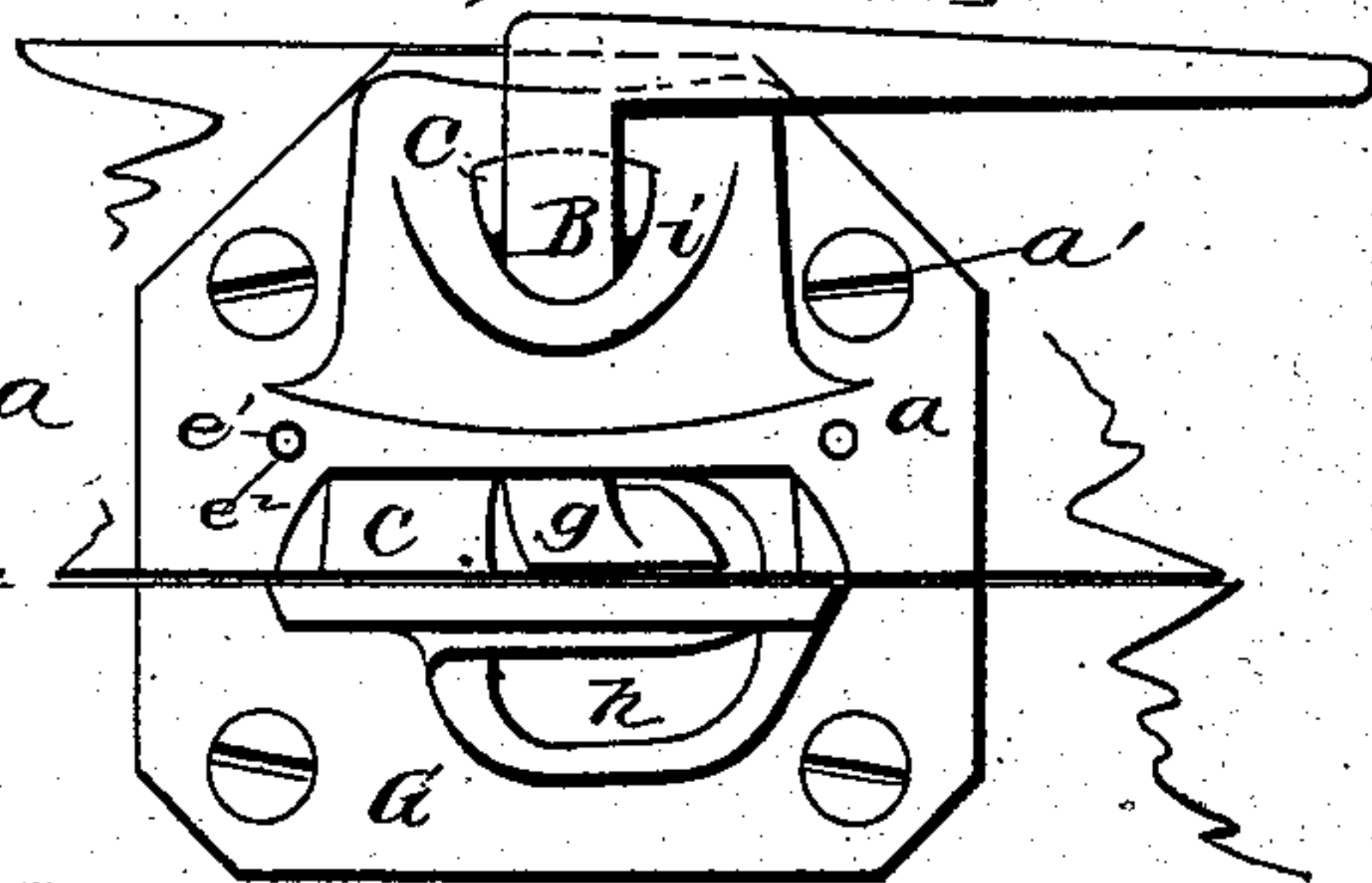
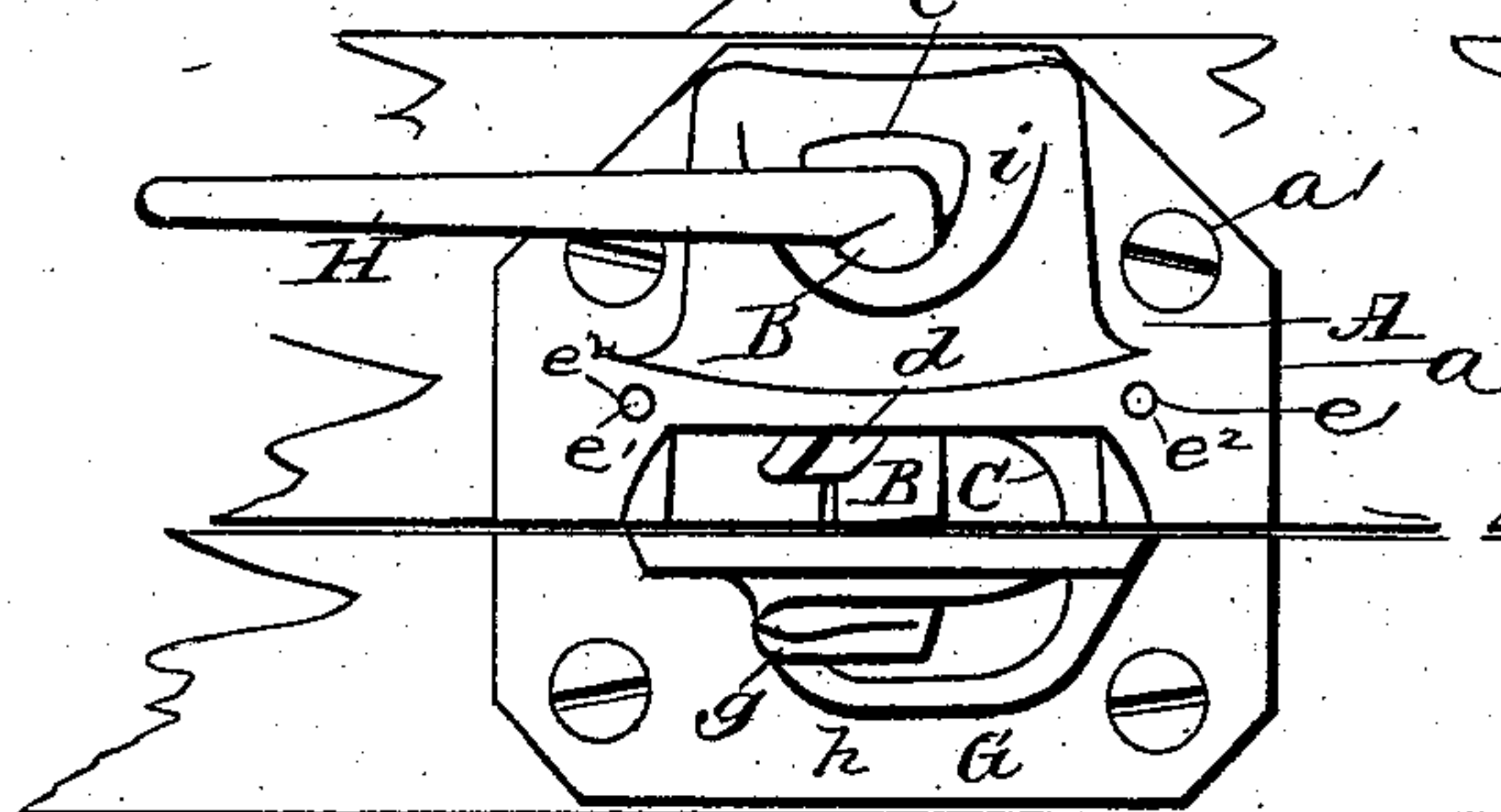
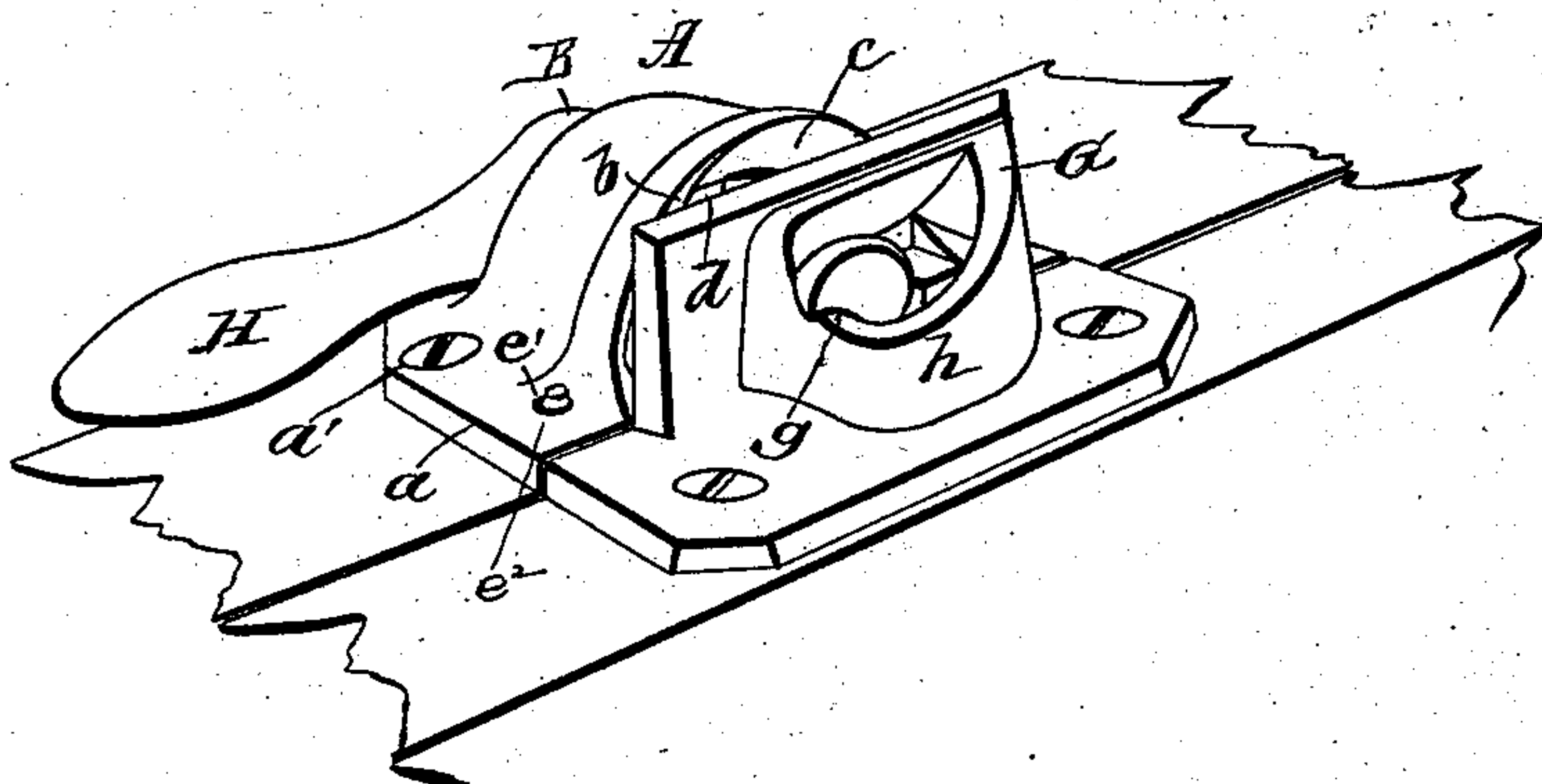
(Model.)

O. R. COOKE.

FASTENER FOR THE MEETING RAILS OF SASHES.

No. 381,113.

Patented Apr. 17, 1888.



Witnesses.

Albert Hopkins.

Wm. P. Patton.

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By his Attorney

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UNITED STATES PATENT OFFICE.

OSBORN R. COOKE, OF SALEM, OHIO.

FASTENER FOR THE MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 381,113, dated April 17, 1888.

Application filed December 23, 1887. Serial No. 258,834⁵ (Model.)

To all whom it may concern:

Be it known that I, OSBORN R. COOKE, of Salem, in the county of Columbiana and State of Ohio, have invented certain new and useful
5 Improvements in Window Fasteners or Buttons; 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
10 the same.

My invention relates to an improvement in sash-fasteners, the object of the same being to provide a sash-fastener that cannot be unlocked by introducing any instrument from the
15 outside between the meeting-rails; that will draw the sashes tightly together; that will bring the sashes into line perpendicularly; that will force the upper sash upward and the lower sash downward in the process of locking, and that will do its work with the utmost
20 ease and convenience, being at the same time simple in construction and made at a minimum cost.

With these ends in view my invention consists in the parts and combinations of parts, as will be more fully described, and pointed
25 out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective of a fastener applied to the meeting-rails of the sashes. Fig. 2 is a
30 plan view showing the two sections locked. Fig. 3 is a similar view showing them unlocked. Fig. 4 is an end view of the fastener, and Fig. 5 shows the several parts of the fastener detached.

A represents an arched plate terminating at its side edges in flat wings or projections *a*, in which are formed screw-holes *a'* for the passage of the screws which secure the plate to
40 the meeting-rail of the lower sash. The plate A is open at its outer end for the passage of the bolt B, and the under surface of the arched portion thereof is concaved to form a half-bearing for the bolt B, which latter, as will be
45 hereinafter explained, has a rotary and a longitudinally-sliding motion.

The inner edges of the projections *a* are squared to abut against the corresponding edges on the locking-plate, and the inner edge, *b*, of
50 the arched portion of the plate A is provided with an inclined surface, *c*, starting from a

point at or to one side of the vertical center of the arched portion and extending downwardly and inwardly and terminating well under said arched portion, and forming a bearing for the
55 lug *d* of the bolt B when the latter is moving in a longitudinal direction to engage the locking-plate attached to the upper sash.

A concave-faced or grooved block, C, is adapted to fit within the arched portion of the plate A and form a half-bearing for the bolt
60 B, the latter fitting snugly between the grooved face of the block and the under surfaces of the arched portion of the plate A. This block is provided on its sides with flanges *e*, which latter
65 rest in recesses formed on the lower face of the plate A and prevent displacement of the block when the plate A is secured to a sash. To still further connect the block to plate A to prevent displacement while assembling the
70 parts and after they have been assembled, I provide the flanges *e* with pins or projections *e'*, which latter pass upwardly through holes *e''*, formed in the projections *a* of the plate A, and are upset at their free ends, thus securely
75 locking the parts together. The block C is also provided with an inclined bearing-face, *f*, which latter, when the block and plate A are in proper relative position, rests under and concentric with the inclined surface *c* of the
80 plate A, the space between the two inclined surfaces forming a cam-groove in which the lug *d* of the bolt B rests while the bolt is being turned and moved longitudinally. The bolt B is provided at its free end with a locking-
85 tongue, *g*, adapted to engage the locking-plate on the upper sash and lock the two parts of the fastener together. The free end of the bolt immediately behind or on the side opposite the tongue *g* is cut away or beveled, and
90 when the bolt is slid longitudinally this beveled portion, which is then uppermost, comes under the top of the locking-plate. This arrangement of parts forms an eccentric or cam-shaped end, and hence when the bolt is turned,
95 if the plate A and locking-plate be slightly out of alignment, the bolt will bear against the top of the locking-plate and force the upper sash upward and the lower sash downward while they are being locked. The locking-
100 plate G on the side facing the plate A is hollowed out for the reception of the end of the

bolt B, and is also provided with a lip or rim, *h*, having an inclined face against which the inclined face of the tongue *g* of the bolt B bears while the bolt is being turned to a position to lock the parts for the purpose of drawing the meeting-rails of the sashes together.

The lug *d* on the bolt is set obliquely to the bolt, and during the first portion of the revolution of the bolt to unlock the parts the lug is outside of the groove formed by the block C and plate A, and hence there is very little longitudinal movement of the bolt. As soon, however, as the tongue *g* leaves or falls below the rim *h* of the locking-plate the lug *d* comes in contact with the inclined face of the block C and the bolt is withdrawn from the locking-plate. By turning the bolt in the opposite direction the lug *d* bears against the inclined face on the under side of the arched portion of the plate and moves the bolt toward and into the locking-plate. The bolt is turned by the lever H, preferably cast integral with the bolt. This lever, when the tongue *g* has entered the cavity or recess in the locking-plate, rests close up to the end of the arched portion of the plate A, and to assist the tongue in drawing the meeting-rails of the sashes together I have formed an incline, *i*, on the end of the arched portion of the plate, against which the lever H bears when the latter is turned in direction to lock the parts.

From the foregoing it will be seen that the entire fastener is made up of four simple parts, which when combined form a neat and compact device that cannot get out of order, or the parts thereof displaced. These parts, which are cast, require but little finishing, and no experience whatever is required to enable them to be properly assembled and applied to a window.

While I have shown the locking-plate as slotted, it is evident that the slot can be dispensed with, as the rim *h* on the under side is all that is required. Again, it is evident that the plate A can be secured to the upper sash and the locking-plate to the lower sash, and that others slight changes and alterations might be resorted to without departing from the spirit of my invention; hence I would have it understood that I do not confine myself to the exact details of construction herein described,

but consider myself at liberty to make such changes and alterations as fairly fall within the spirit of my invention.

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

1. The combination, with an arched plate having an inclined face, and a bearing-block located within the arched portion of said plate and having an inclined face, of a bolt having a lug adapted to rest and move between said inclined faces, substantially as set forth.

2. The combination, with an arched plate having an inclined face, a bearing-block located within the arched portion of said plate and having an inclined face, and a locking-plate provided with a depending rim, the latter having an inclined face, of a bolt having a lug adapted to rest and move between said inclined faces, and a tongue adapted to engage the inclined face of the rim.

3. The combination, with an arched plate, a bearing-block, a locking-plate, and a rotary and longitudinally-sliding bolt located between the arched plate and bearing-block and provided with a lug adapted to engage inclined faces on the plate and block, and with a tongue for engaging a rim on the locking-plate, of a handle secured to the bolt and adapted to engage an inclined surface on the arched plate for drawing the meeting-rails of the sashes together.

4. The combination, with the arched plate and the locking-plate having a depending rim, of the bolt having a cam-shaped end and a tongue, substantially as and for the purpose set forth.

5. The combination, with the arched plate having a cam-face for the lug on the bolt and a cam-face for the handle, and a bearing-block having a cam-face for said lug, of a bolt having a lug and a handle attached to the bolt, substantially as set forth.

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

OSBORN R. COOKE.

Witnesses:

HENRY C. JONES,
ALICE I. COURTNEY.