

No. 774,536.

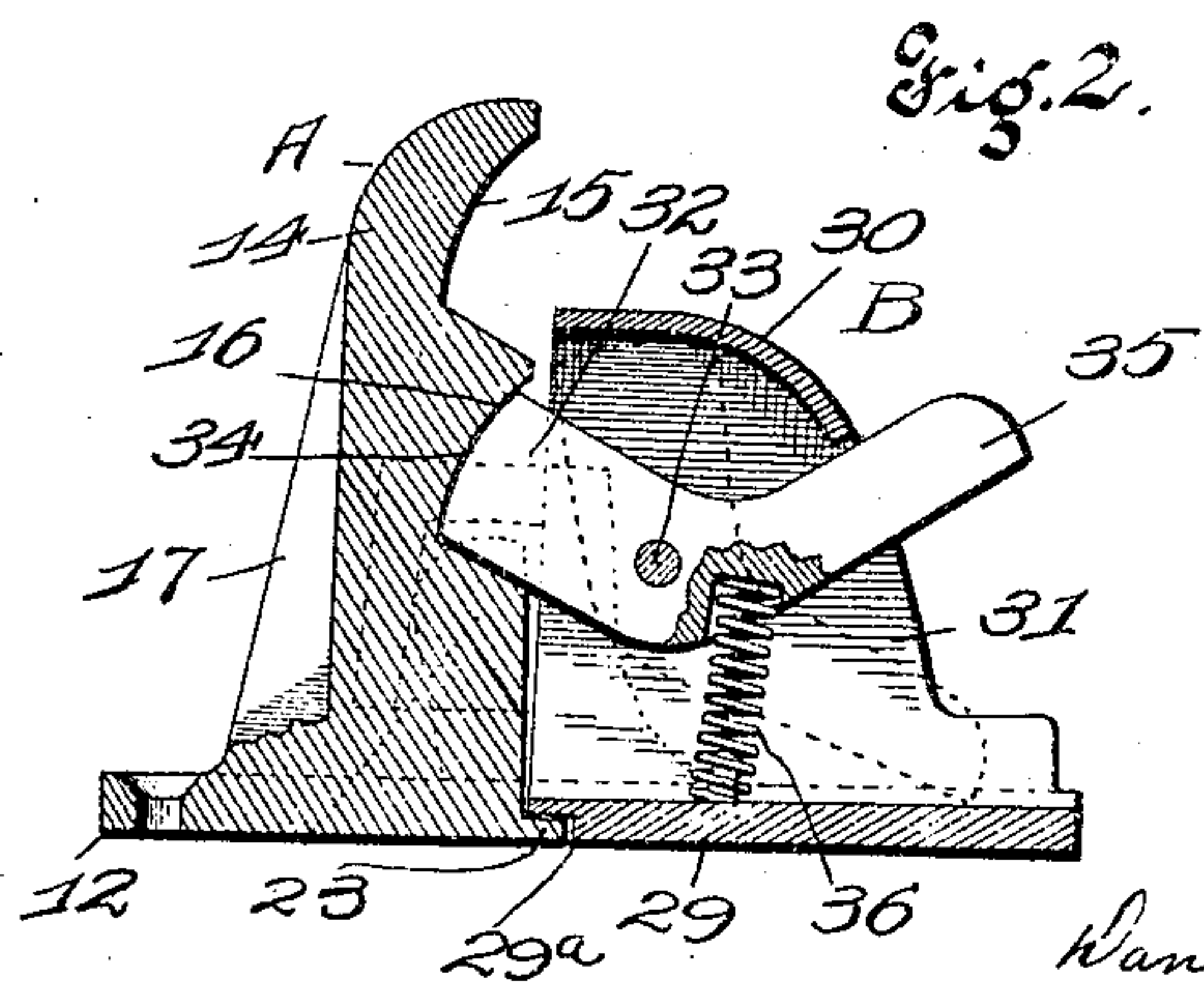
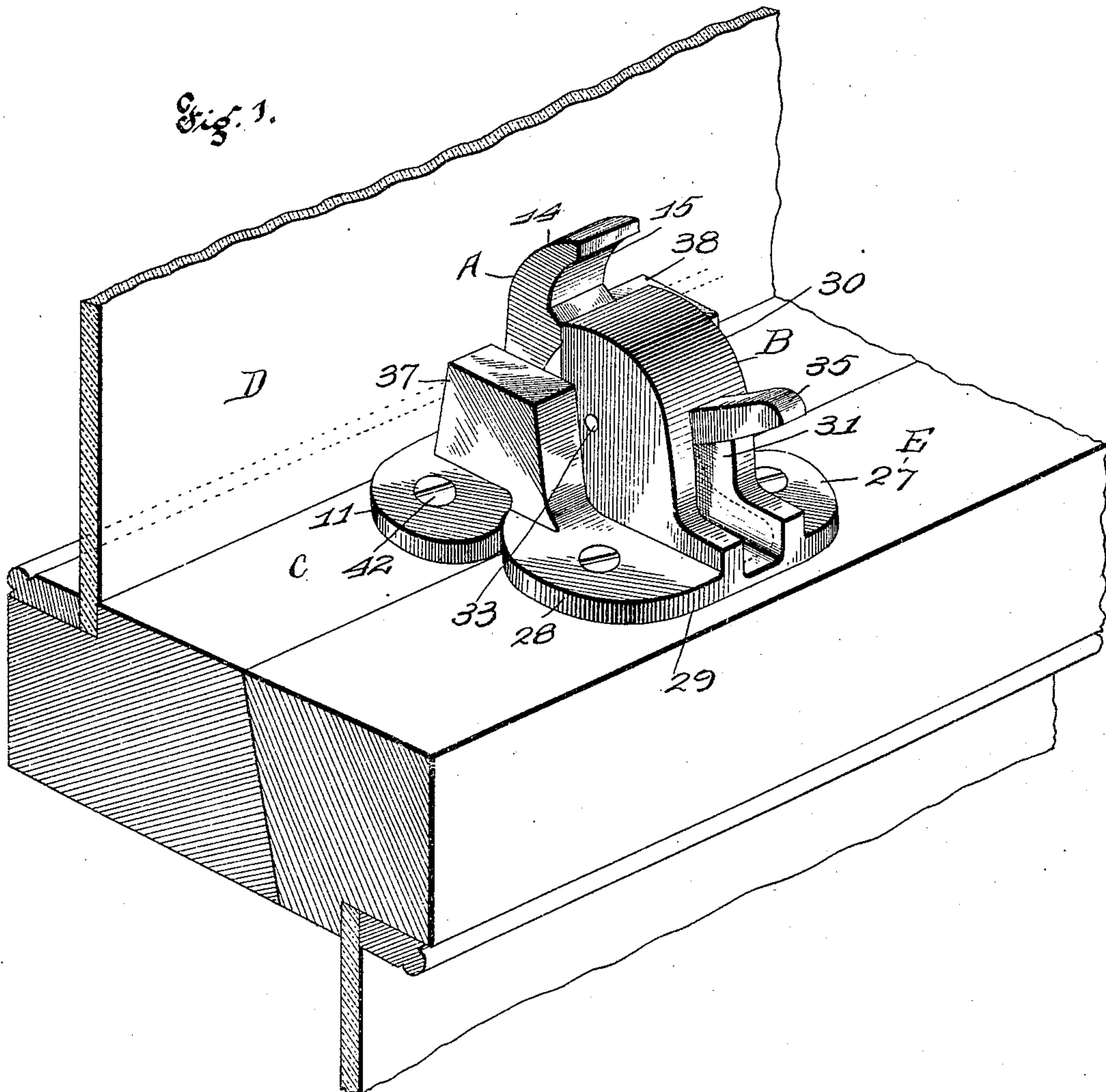
PATENTED NOV. 8, 1904.

D. G. SAUNDERS, JR.
AUTOMATIC SASH FASTENER.


APPLIOATION FILED APR. 25, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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Edw. M. Harrington

 *Inventor*
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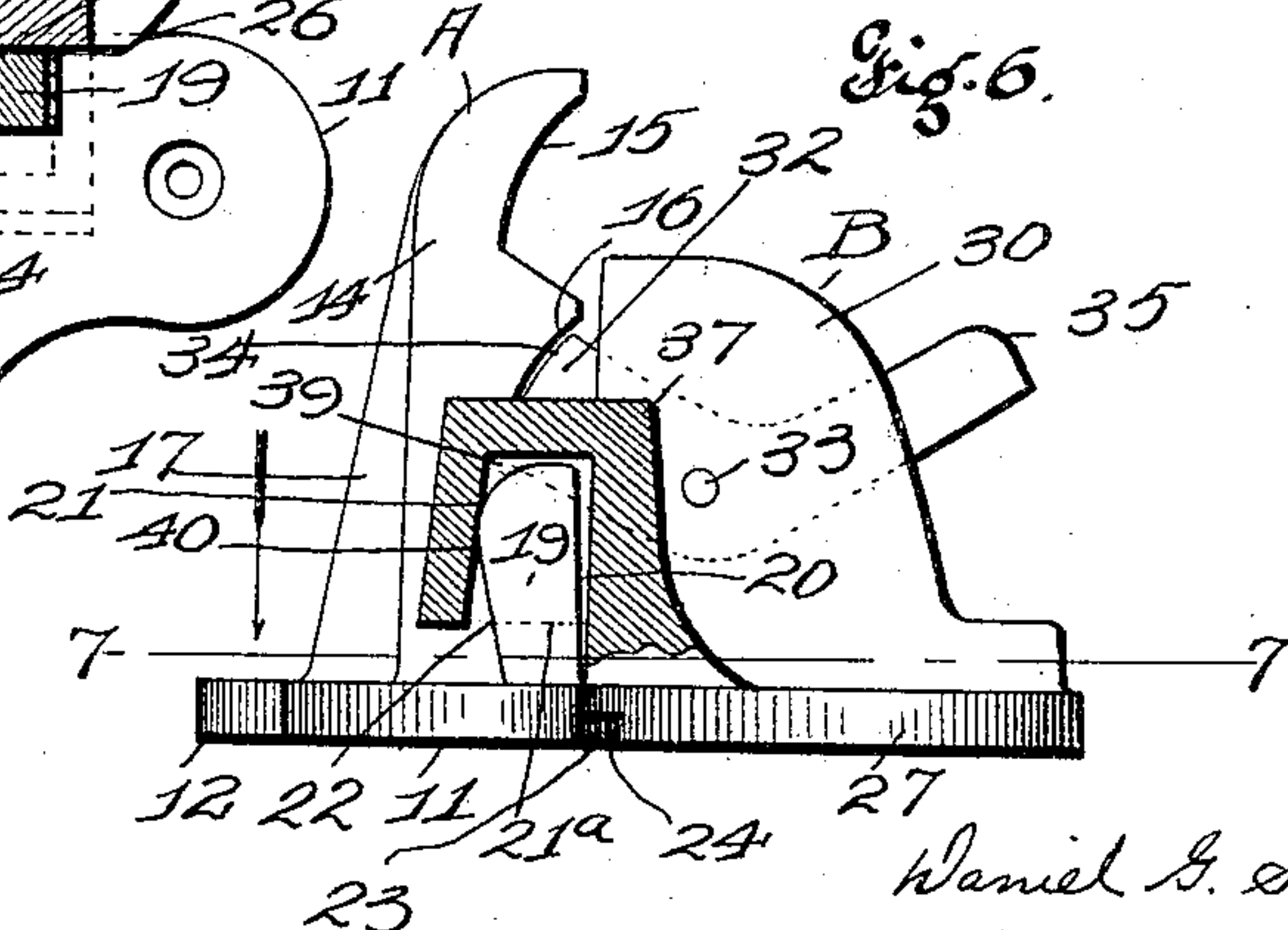
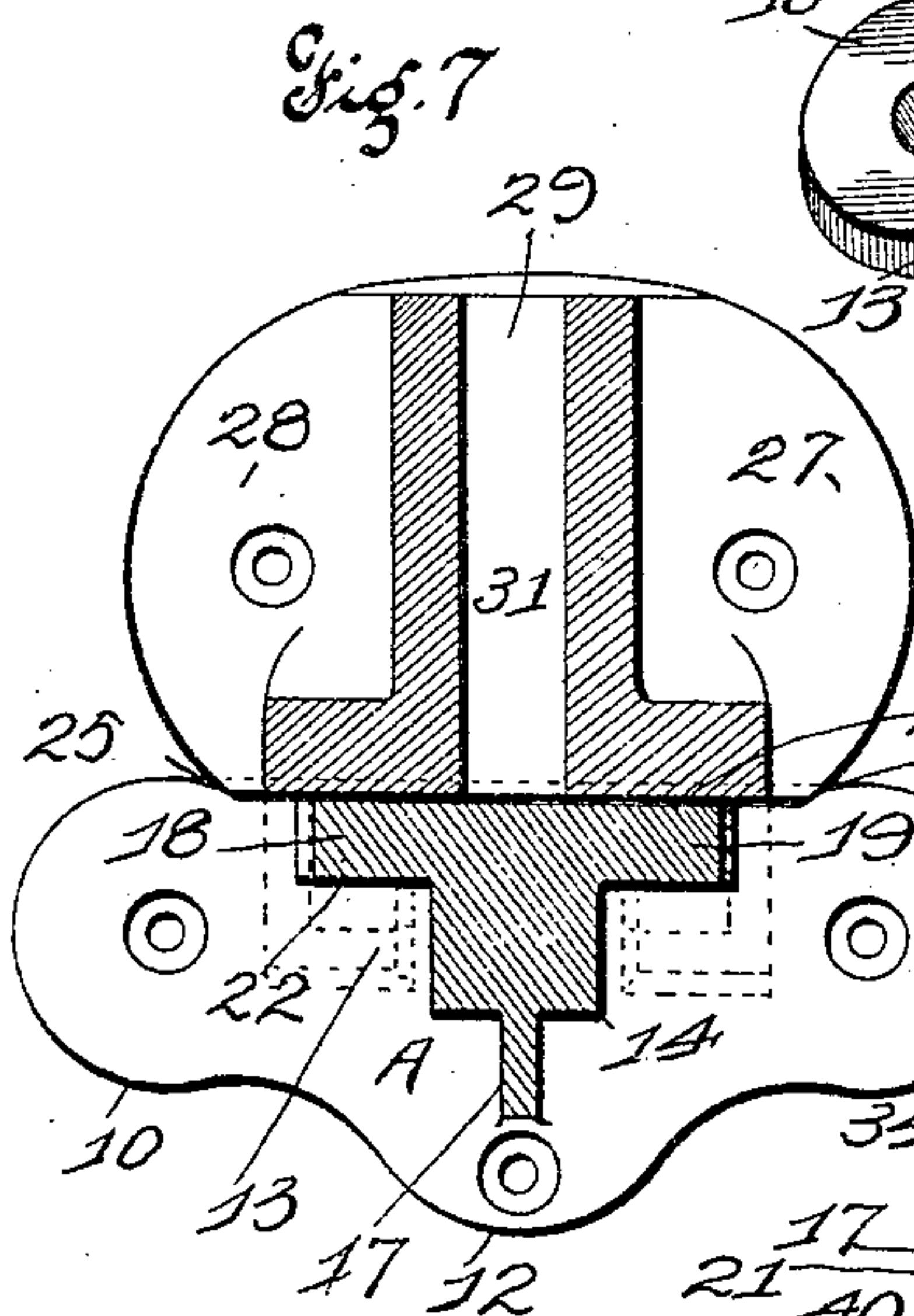
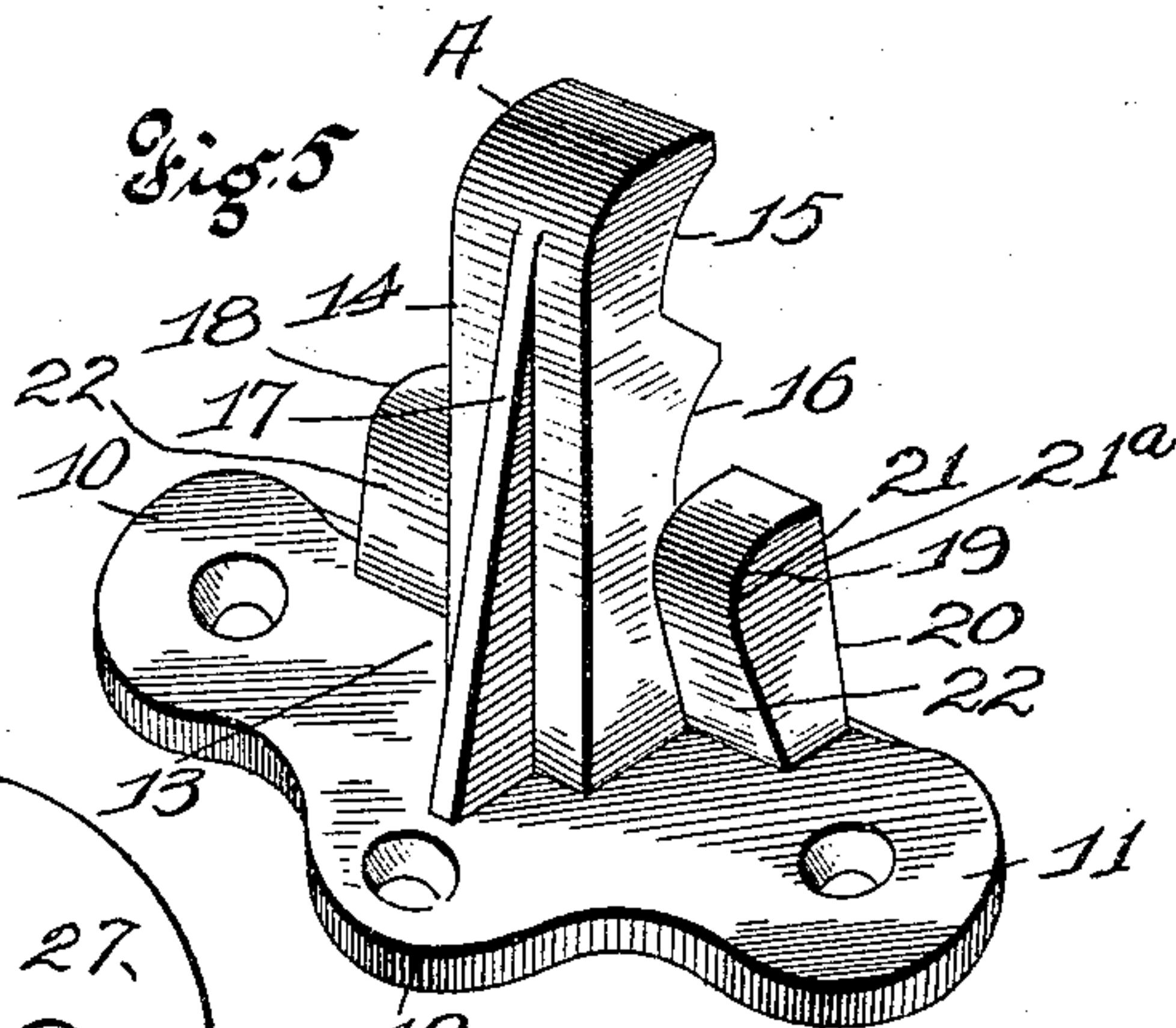
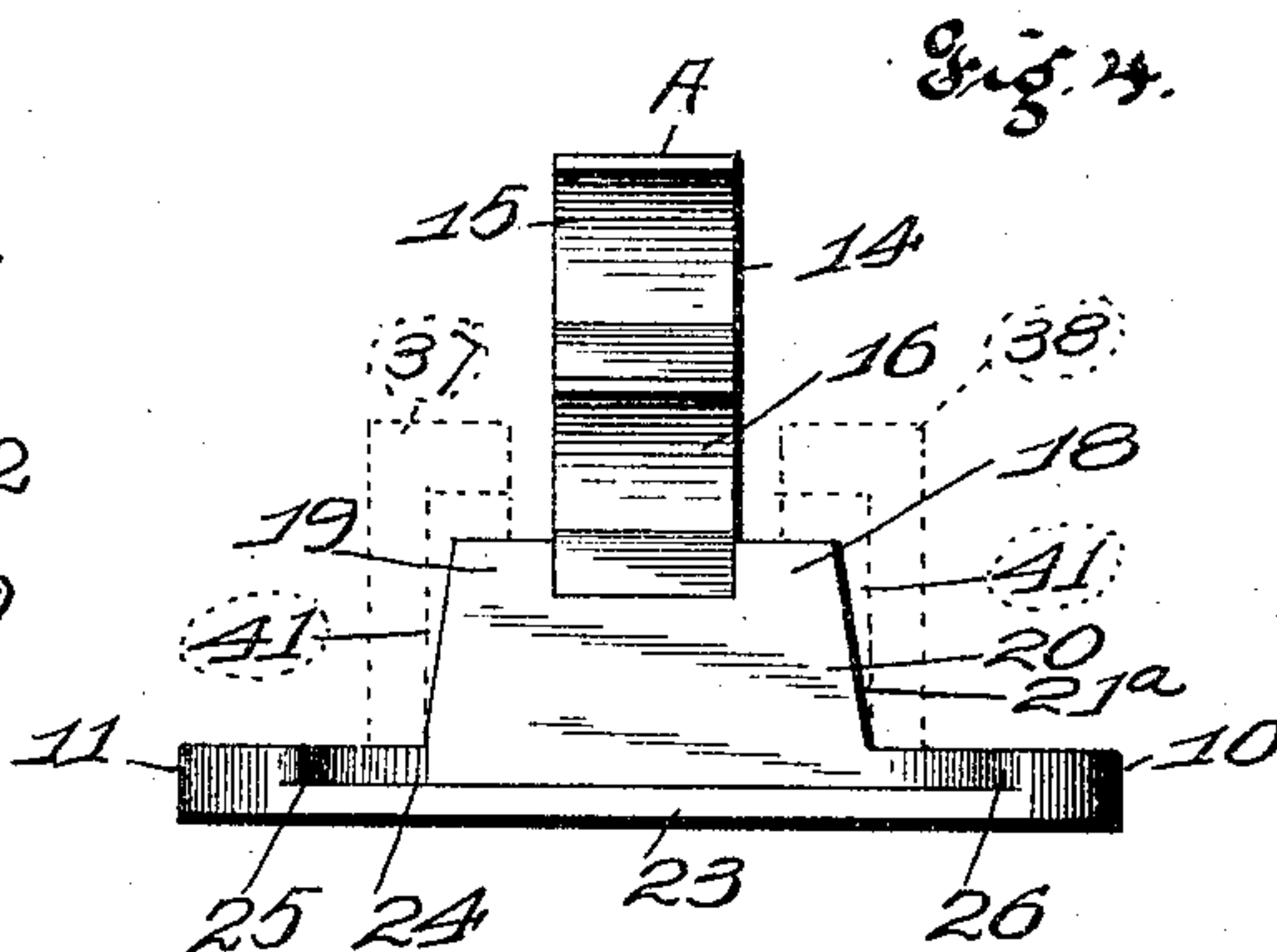
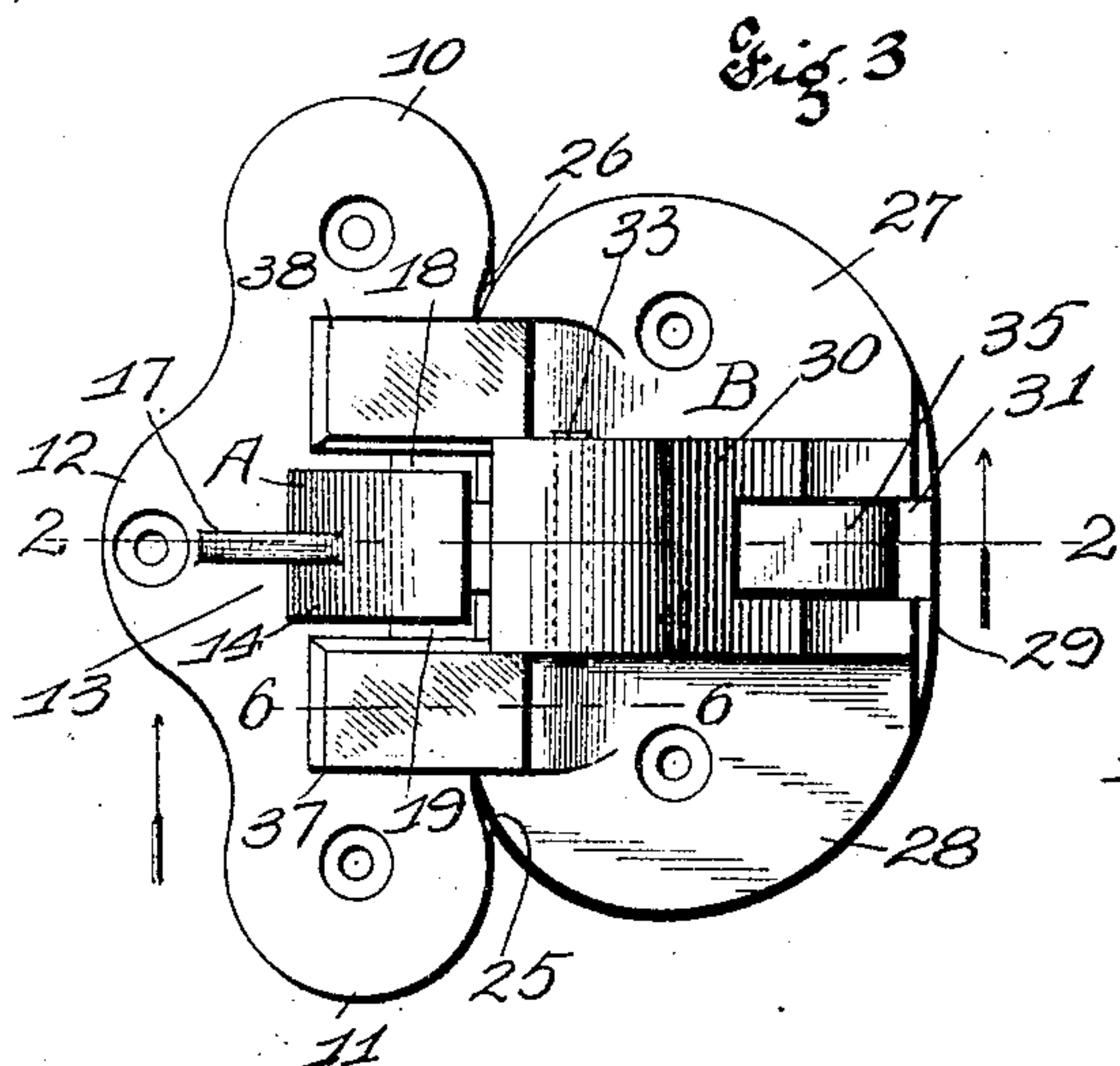
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D. G. SAUNDERS, JR.
AUTOMATIC SASH FASTENER.

APPLICATION FILED APR. 25, 1904.

NO MODEL.

2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

DANIEL GREEN SAUNDERS, JR., OF KANSAS CITY, MISSOURI.

AUTOMATIC SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 774,536, dated November 8, 1904.

Application filed April 25, 1904. Serial No. 204,895. (No model.)

To all whom it may concern:

Be it known that I, DANIEL GREEN SAUNDERS, Jr., a citizen of the United States, and a resident of Kansas City, Missouri, have invented certain new and useful Improvements in Automatic Sash-Fasteners, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to sash-fasteners, my object being to construct a sash-fastener one member of which is adapted to be attached to the meeting-rail of the upper sash and the other member of which is adapted to be attached to the meeting-rail of the lower sash, the upper sash member having a plurality of segmental latching-recesses and the lower sash member having a pivoted spring-actuated segmental latch to automatically engage said recesses, there being a handle for releasing the latch, the upper sash member having inclined tightening-lugs and the lower sash member having housings to receive the tightening-lugs, the housings and tightening-lugs being adapted to tighten up, so as to draw the meeting-rails together and so as to prevent endwise motion of one rail relative to the other, and my improved sash-fastener comprises the novel features herein shown, described, and claimed.

In the drawings, Figure 1 is a perspective of a sash-fastener embodying the principles of my invention applied to the meeting-rails of a window, parts of the window being broken away to economize space. Fig. 2 is a vertical central transverse section on the line 2 2 of Fig. 3 and looking in the direction indicated by the arrow. Fig. 3 is a top plan view. Fig. 4 is a front elevation of the upper sash member, parts of the lower sash member being shown in section to illustrate the operation. Fig. 5 is a rear perspective of the member shown in Fig. 4. Fig. 6 is a vertical transverse section on the line 6 6 of Fig. 3, the bases being shown in elevation. Fig. 7 is a horizontal section on the line 7 7 of Fig. 6 and looking downwardly.

Referring to the drawings in detail, my im-

proved sash-fastener comprises the upper sash member A and the lower sash member B, the upper sash member being applied to the upper face of the meeting-rail C in front of the glass D and the lower sash member being applied to the upper face of the meeting-rail E of the lower sash.

The upper sash member A comprises a base having perforated ears 10, 11, and 12 and having the imperforate central portion 13; the keeper 14, extending vertically from the central portion 13 and having the segmental latching-recesses 15 and 16 in its front face; the strengthening-rib 17, extending from the ear 12 upwardly along the center of the rear face of the bar 14; the tightening-lugs 18 and 19 upon each side of the bar 14, said lugs having the inclined straight front faces 20 and having the inclined or rounded upper rear corners 21 and having the inclined side faces 21^a and having the inwardly-inclined rear faces 22, and the ledge 23, extending forwardly from the base, said ledge being substantially one-half as thick as the base, thus forming the recess 24 above the ledge in front of the parts 14, 18, and 19, said recess being wedge-shaped, the side faces 25 and 26 being inclined inwardly and backwardly, as shown in Fig. 7.

The lower sash member B comprises a base having the perforated ears 27 and 28 and the imperforate central portion 29, there being a recess 29^a in the rear lower face of the base to receive the ledge 23 and the rear corners of the base being adapted to engage the side faces 25 and 26, so as to hold the bases from endwise motion relative to each other; the latch-housing 30, extending upwardly from said central portion 29 and having the transversely-extending latch-opening 31 in transverse alignment with the keeper 14; the latch 32, pivotally mounted in the opening 31 upon the pivot 33, said latch having the segmental latching-face 34 to engage in the latching-recesses 15 or 16; the handle 35, extending forwardly from the latch; the spring 36, inserted between the handle and the imperforate central portion 29 of the base; the tightening-lug housings 37 and 38, extending upwardly and

backwardly from the base and backwardly from the sides of the latch-housing 30, there being recesses 39 extending from the lower ends and inner sides of the housings to receive the tightening-lugs 18 and 19, there being inclined faces 40 at the rear sides of said recesses to engage the corners 21 of the tightening-lugs 18 and 19 and there being end faces 41 at the outer ends of said recesses 39 to engage the inclined side faces 21^a of the lugs 18 and 19, so that when the lower sash is pushed downwardly to its normal position and the upper sash is pushed upwardly to its normal position the latch 32 will spring into the lower recess 16, and the inclined faces 40, sliding downwardly over the corners 21, and the end faces 41, sliding downwardly against the inclined side faces 21^a, will draw the two meeting-rails together, thus forcing the lower-sash base into engagement with the side faces 25 and 26, thereby centralizing one member relative to the other and tightening one member upon the other, so that there will be no rattling of the two members either transversely of the meeting-rails or longitudinally of the meeting-rails.

The base of the upper sash member is secured to the meeting-rail C by screws 42, inserted through the ears 10, 11, and 12, said ears being arranged in the form of a triangle, so as to brace the keeper 14 in all directions. The keeper 14 may be of any desired length and have any desired number of latching-recesses 15 and 16, so as to lock the sashes together at any desired point, as required, to leave the window slightly open at the bottom or the top, or both, and at the same time have the sashes locked together. Of course the meeting-rails are not drawn together except when the window is completely closed both at the top and the bottom. The tightening-lug housings are intended to completely cover the tightening-lugs 18 and 19.

The latch-housing completely covers the latch 32 and the handle 35, except the point of the latch, which extends into the recess 16, and the top of the handle, which extends forwardly into an accessible position.

When the members are fastened together, as in Figs. 1 and 3, the latch is completely covered and cannot be reached from the outside of the window so as to be operated except by operating the handle 35. The ledge 23, passing into the recess 29^a, effectually breaks the joint and prevents the insertion of any thin instrument upwardly between the meeting-rails to engage the latch and open the window.

There is a great advantage in using a pivoted latch instead of a sliding latch, due to the fact that the latch will turn on its pivot a great deal easier than a bolt will slide in a casing. Furthermore, the latch is more reliable in its action and stronger.

The segmental latching-recesses 15 and 16

have bearing-surfaces concentric to the pivot 33 of the latch 32, and the latch has a bearing-surface concentric to the pivot to engage the bearing-surface of the recess. This is of great importance, because it presents a large bearing-surface upon the latch to a correspondingly large bearing-surface upon the keeper, thus preventing wear and breakage, and by such a construction it is possible to make a closer fit, thus reducing the lost motion to a minimum.

I claim—

1. In a sash-fastener: an upper sash member comprising a base having perforated ears and an imperforate central portion; a keeper extending vertically from the central portion and having a segmental latching-recess in its front face; and tightening-lugs upon each side of the keeper; in combination with a lower sash member, comprising a base having perforated ears and an imperforate central portion; a latch-housing extending upwardly from the central portion and having a transverse latch-opening in alinement with the keeper; a latch pivotally mounted in the opening; a handle for operating the latch; a spring for operating the latch; and tightening-lug housings extending upwardly and backwardly from the base and from the latch-housings to engage the tightening-lugs and draw the members together; substantially as specified.

2. In a sash-fastener: an upper sash member comprising a base; and a keeper extending upwardly from the base and having a segmental latching-recess in its front face; in combination with a lower sash member comprising a base; a latch-housing extending upwardly from the base; and a latch pivotally mounted in the latch-housing and adapted to engage in the segmental latching-recess; substantially as specified.

3. In a sash-fastener: an upper sash member comprising a base having perforated ears, and having an imperforate central portion; a ledge extending forwardly from the base; there being a wedge-shaped recess above the ledge; a keeper extending vertically from the central portion of the base, and having a segmental latching-recess in its front face; and tightening-lugs upon each side of the keeper; in combination with a lower sash member comprising: a base having perforated ears, and an imperforate central portion; there being a recess in the rear lower face of the base to receive said ledge from the upper sash member, and the rear upper edge of the base fitting closely in the wedge-shaped recess above said ledge; a latch-housing extending upwardly from the central portion, and having a transversely-extending latch-opening in transverse alinement with the keeper; a latch pivotally mounted in said opening to engage in the latching-recess; and tightening-lug housings extending upwardly and backwardly from the base and backwardly from the latch-

housing, and having recesses to receive the
tightening-lugs, so as to draw the members
together, and form a tight broken joint be-
tween the two bases, and hold said bases from
5 lateral motion relative to each other; sub-
stantially as specified.

In testimony whereof I have signed my name

to this specification in presence of two sub-
scribing witnesses.

DANIEL GREEN SAUNDERS, JR.

Witnesses:

ALFRED A. EICKS,

EDW. M. HARRINGTON.