

(No Model.)

E. R. FERRY & S. HALLIWELL.
FASTENER FOR THE MEETING RAILS OF SASHES.

No. 512,648.

Patented Jan. 9, 1894.

Fig 1

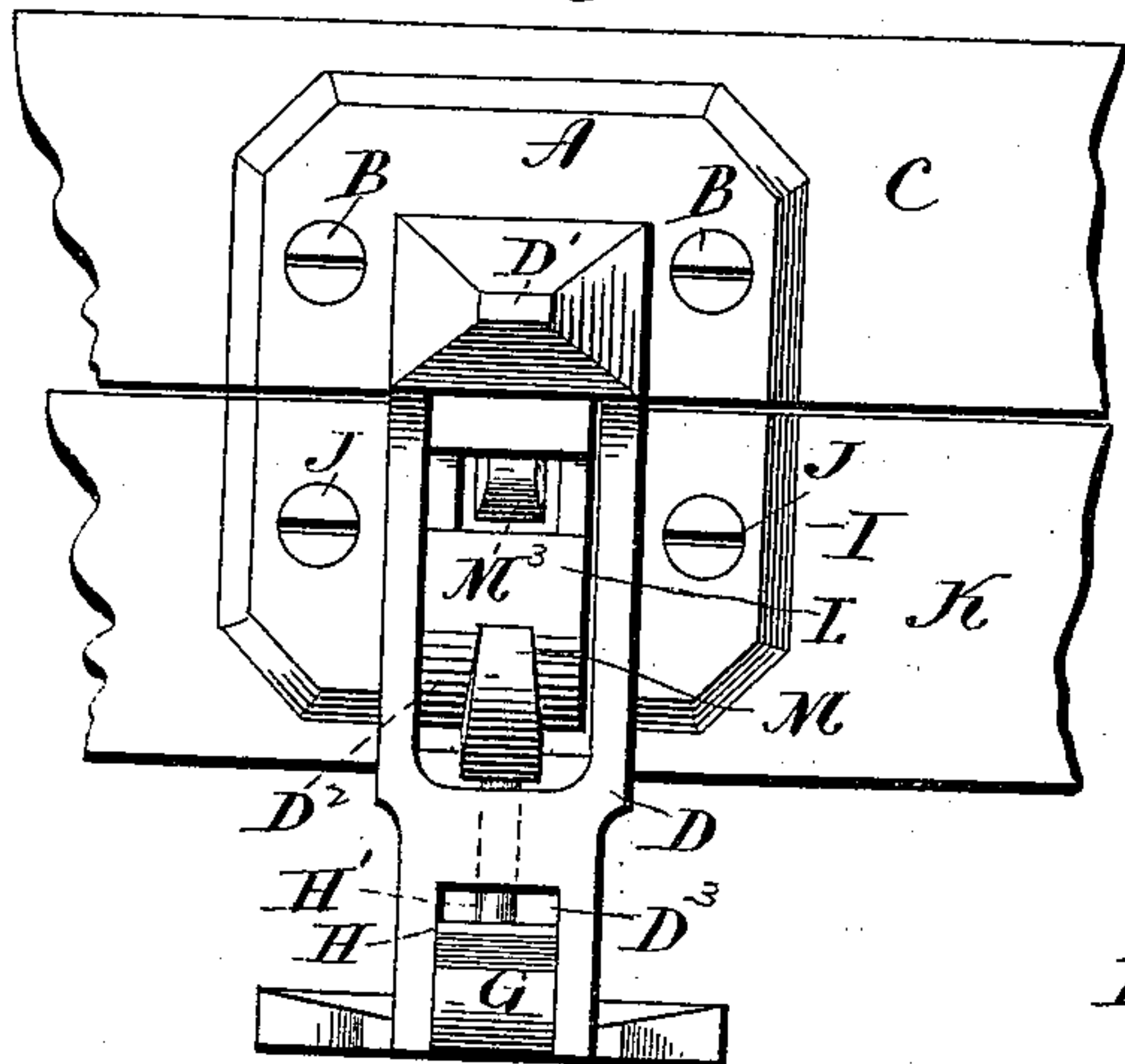


Fig 2

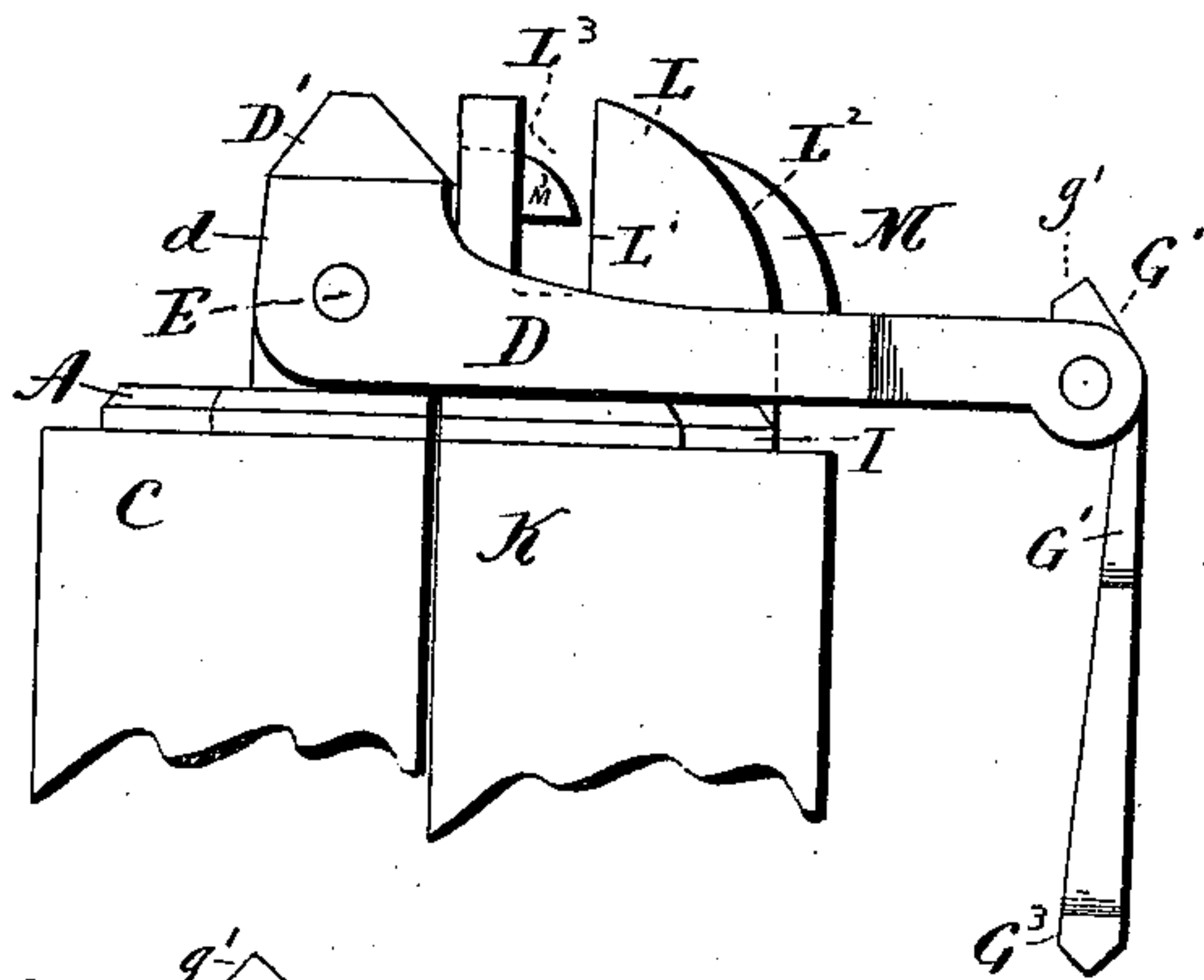


Fig 6

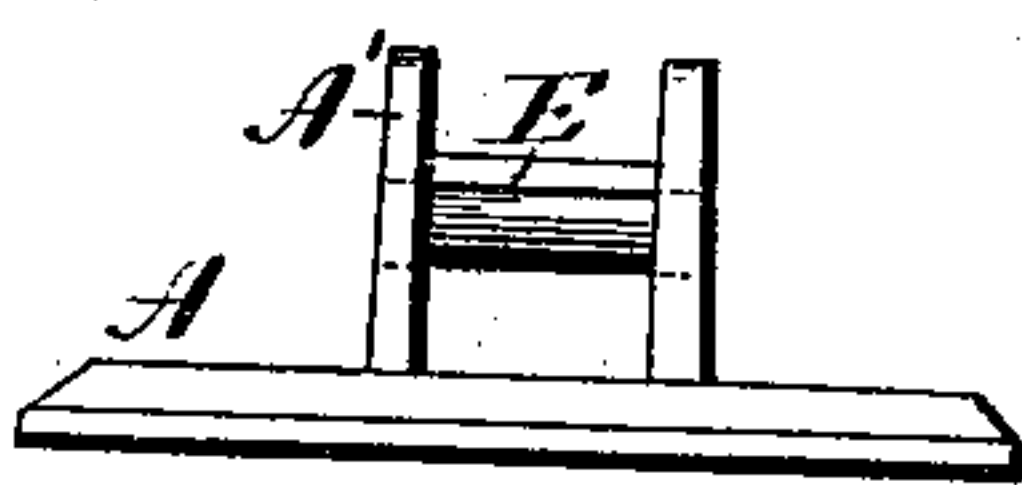


Fig 3

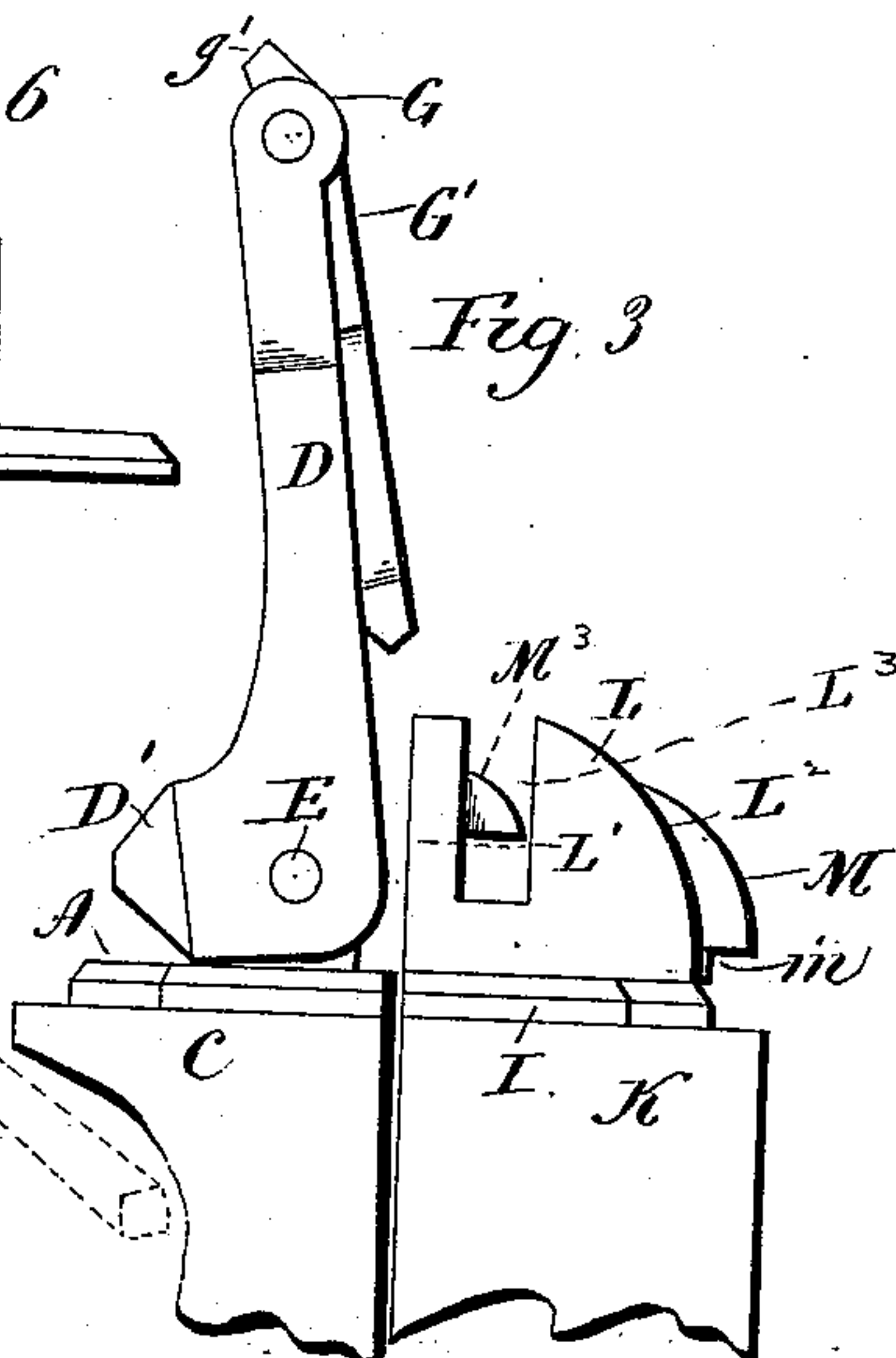


Fig 4

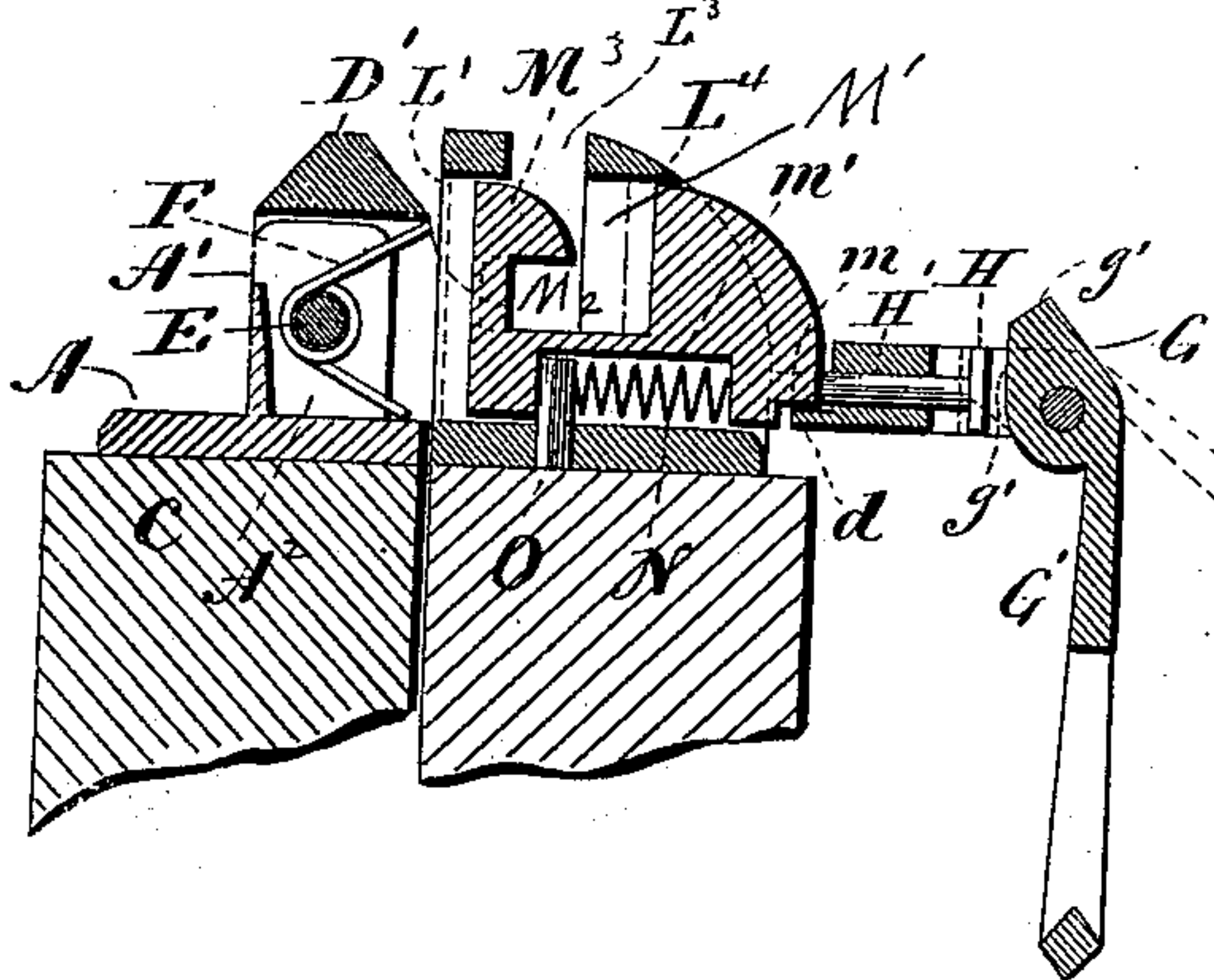


Fig 8

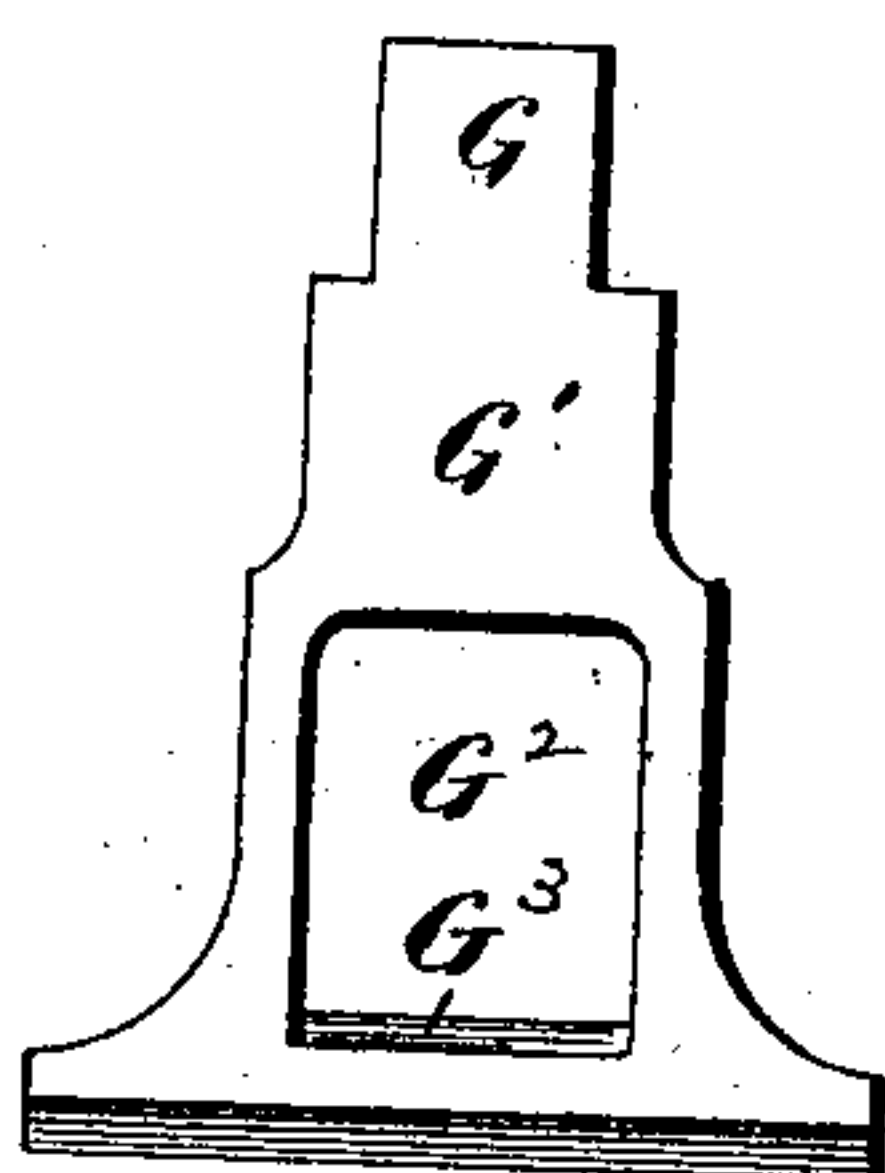


Fig 7

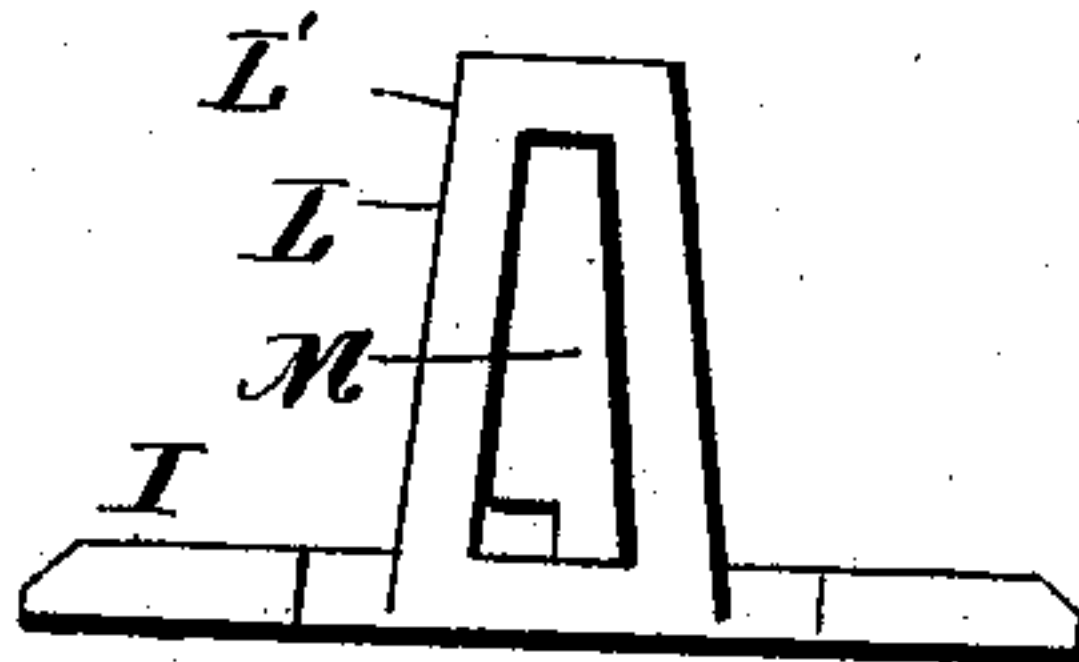
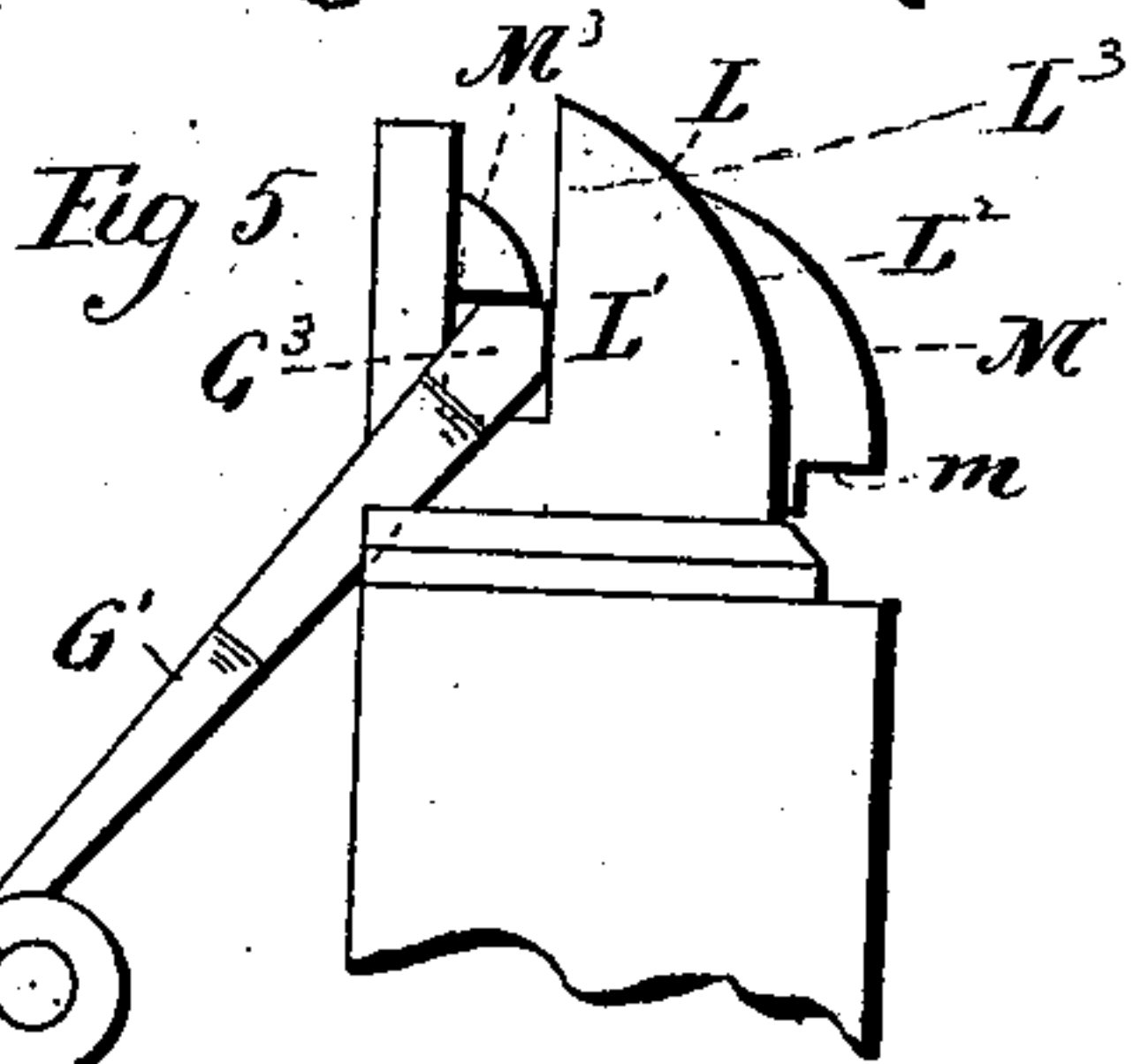


Fig 5



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UNITED STATES PATENT OFFICE.

EDWIN R. FERRY, OF NEW HAVEN, AND SAMUEL HALLIWELL, OF TYLER CITY, CONNECTICUT; SAID FERRY ASSIGNOR TO SAID HALLIWELL.

FASTENER FOR THE MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 512,648, dated January 9, 1894.

Application filed January 26, 1893. Serial No. 459,825. (No model.)

To all whom it may concern:

Be it known that we, EDWIN R. FERRY, of New Haven, and SAMUEL HALLIWELL, of Tyler City, in the county of New Haven, State of Connecticut, have invented a new Improvement in Fasteners for the Meeting-Rails of Sashes; and we do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a plan view of a fastener for the meeting-rails of sashes, constructed in accordance with our invention, the device being shown in its ordinary locked adjustment. Fig. 2, a view thereof in side elevation. Fig. 3, a similar view of the device in its unlocked adjustment. Fig. 4, a view of the device in vertical section on the line *a—b* of Fig. 1, the parts being shown by full lines in their ordinary locked positions, and the finger-piece and bolt being shown by broken lines in the positions due to them when the former is lifted for pushing the bolt back to clear it from the locking-lever preparatory to unlocking the device; Fig. 5, a view of the device in side elevation, when adjusted for supporting and locking the sashes in position for ventilation; Fig. 6, a detached view in inside elevation of the base-plate and post of the upper sash member of the device; Fig. 7, a corresponding view of the base-plate and lug of the lower sash member of the device; Fig. 8, a detached plan view of the finger-piece.

Our invention relates to an improvement in fasteners for the meeting-rails of sashes, and more particularly to an improvement upon the device shown in United States Patent No. 466,821, granted January 12, 1892, to Edwin R. Ferry, the object of the present invention being to produce a convenient and effective device, constructed with particular reference to not only supporting the sashes in a position for ventilation, but to locking them in such position.

With these ends in view, our invention con-

sists in a sash-fastener having certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claims.

Our improved device for fastening the meeting-rails of sashes, consists of two members, respectively adapted to be attached to the meeting-rails of the upper and lower sash of a window. The member designed to be attached to the meeting-rail of the upper sash, comprises a base A, provided at its opposite ends with holes, to receive the screws B B, by means of which it is attached to the meeting-rail C, of the upper sash. The said base-plate is furnished with a post or stud A', located midway of its length, and adjacent to its inner edge and constructed with a chamber A² opening inward. A locking-lever D, adapted at its lower end to be set over the said post, is attached thereto by a horizontal pivot E, on which the said lever swings. A coiled wire spring F, located within the chamber of the post and encircling the said pivot E, is arranged to engage at its lower end with the base-plate A, and at its upper end with the cross-piece D' formed at the lower end of the lever, and made, as herein shown, to have the exterior configuration of a nail-head. The said lever is constructed midway of its ends, with an elongated slot D², at the forward end of which there is a locking ledge *d*. The extreme upper end of the lever is bifurcated, as at D³, to receive the beveled tongue G, of a pivotal finger-piece G', the said tongue being constructed with operating faces *g g'*, which engage with a plate H, located at the bottom of the said bifurcation D³, and secured to the outer end of a reciprocal operating pin H', mounted in the lever, with the length thereof, between the said bifurcation and the forward end of the slot D², so as to move over the locking ledge *d*, of the lever when it is forced inward by the faces *g g'* of the tongue of the pivotal finger-piece. The said finger-piece is constructed at its outer end with an opening G², and with a transverse locking-bar G³, which is substantially square in cross-section. The lower or inner end of

the lever is cut away, as at d' , so that when it is free to be operated by the spring F, it will be inclined from the vertical, sufficiently, as shown by Fig. 3 of the drawings, to cause the finger-piece G' to clear the other member of the fastener, whereby the two members thereof will not interfere with the free operation of the sashes when the fastener is not in use.

The other member of the fastener comprises a base-plate I, constructed at its ends with holes to receive screws J J, by means of which it is secured to the meeting rail K, of the lower sash. The said plate I, is furnished with a large lug L, located midway between its ends, and having a straight inner edge L' , a curved outer edge L^2 , and constructed with a vertical slot L^3 , adapted in width to receive the transverse locking-bar G^3 , formed at the outer end of the finger-piece G' before mentioned. The said lug is also constructed in its dimensions so that it will enter the slot D^2 , formed in the locking-lever when the same is drawn down over it, as shown in Fig. 2 of the drawings, for locking the sashes in their closed positions. The said lug is also constructed with a vertical longitudinal chamber L^4 , which receives a locking-bolt M, having its beveled outer end furnished with a locking-notch m , which co-operates with the locking ledge d , of the locking lever. The said bolt is also constructed with a vertical locking-slot M' , entering it from its upper edge, and under-cut as at M^2 , to form a tooth M^3 , the upper edge of which is beveled, the said slot M' , being situated so that when the bolt is retired, it will register with the vertical slot L^3 , formed in the lug. The lower edge of the said locking-bolt is cut away, as at m' , to receive a spiral spring N, one end of which engages with the bolt, while its other end engages with a vertical pin O, mounted in the base-plate I, whereby the spring exerts a constant effort to push the bolt into its locked position, in which it is shown by full lines in the drawings.

In order to lock the sashes in their closed positions, they are moved into the same, after which the finger-piece G' , is grasped and used to draw the locking-lever, against the tension of its spring, down over the lug L, over which the said lever passes by virtue of its provision with the long slot D^2 . As the said locking lever is drawn downward over the said lug, its locking ledge d , engages with the beveled end of the bolt, and pushes the same inward against the force of the spring N thereof. Then when the ledge d has passed below the edge of the bolt, the same is thrown forward by its spring, to engage its notch m , with the said ledge, whereby the lever is secured by the bolt in its locked position, as shown by full lines in Fig. 2 of the drawings. The sashes are now firmly locked in the closed positions.

It may be here mentioned that in case the

upper sash was not fully lifted at the beginning of this locking operation, it will be lifted into position by the action of the locking lever on the beveled outer edge of the lug L^2 , the construction described securing a very powerful leverage for drawing the sash into position for locking.

When now it is desired to unlock the sashes, the finger-piece is lifted into the position in which it is shown by broken lines in Fig. 4 of the drawings, whereby the faces $g g'$ of its tongue press against the plate H, of the pin H' , causing the said pin to be moved inward and engaged with the bolt, which is thus positively pushed back out of engagement with the locking ledge d . After this, the lever is lifted a little to start it, and is then restored to its elevated position by means of its spring F.

When it is desired to lock the sashes in a position for ventilation, the upper sash is dropped down, say for two inches, and the transverse locking-bar of the finger-piece entered into the slot L^3 , in the lug L, so as to engage with the beveled tooth M^3 of the bolt M. The said bar being now pressed down against the said tooth, the bolt springs back and allows the bar to pass under the tooth, which is then shot over it, as shown by Fig. 5 of the drawings, thus locking the sashes firmly together, although they are slid past each other for a short distance, the said locking-bar being prevented from turning when thus engaged with the locking-tooth of the bolt, by reason of its form, which is square in cross-section, as has been already explained, for the slot L^3 in the lug is only wide enough to permit it to enter the same. The sashes being locked firmly together, may be moved up or down together, so that ventilation may be had at the top or at the bottom of the window, or at both places as desired. To unlock the windows now, it is only necessary to press the thumb against the projecting outer end of the bolt, thus pushing the same back, so that its tooth M^3 , will clear the locking-bar of the finger-piece, and permit the same to be lifted out of the slot L^3 , in the lug. We are thus enabled not only to support the sashes in a position for ventilation, but to securely lock them in such position, so that the window is as much locked against intrusion as it would be if both of the sashes were in their completely closed positions.

It is apparent that our improved spring-actuated locking lever is not limited to use with a sash-fastener adapted to be locked in a position for ventilation, or vice-versa, and we would therefore have it understood that we do not limit ourselves to the exact construction herein shown and described but hold ourselves at liberty to make such changes and alterations therein as fairly fall within the spirit and scope of our invention. We are aware, however, that it is old to provide the locking-

lever of a sash-fastener with a spring to lift the lever into, and hold it in, an elevated position, and we do not therefore claim that construction broadly.

5 Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. A fastener for the meeting rails of sashes, having one of its members furnished with a lug containing a bolt, and its other member furnished with a pivotal locking-lever constructed with an opening adapting to fit over the said lug for locking the sashes in their closed positions, and the said lever being provided at its outer end with a pivotal finger-piece constructed with an opening in its outer end adapting it to be engaged with the said bolt for locking the sashes in position for ventilation, substantially as described.

20 2. A fastener for the meeting-rails of sashes, having one of its two members furnished with a pivotal locking-lever, having a finger-piece pivoted in its outer end, and having its other member furnished with a locking-bolt adapted to be engaged by the locking-lever for locking the sashes in their closed positions, and adapted also by its provision with a slot and locking-tooth to receive the end of the said finger-piece in locking engagement, substantially as described, and whereby the sashes

may be locked both in their closed and ventilating positions.

3. A sash-fastener having one of its members furnished with a pivotal locking-lever constructed with an elongated slot and a locking ledge, and furnished at its outer end with a pivotal finger-piece terminating in a transverse locking bar and constructed at its inner end with a beveled tongue, and the said locking-lever being also provided with an operating-pin arranged to move over its said ledge, and to be acted upon by the said beveled tongue of the finger-piece, and the other member of the device having a chambered lug constructed with a beveled outer edge, and with a vertical slot, and containing a spring-actuated bolt having a locking-notch to engage with the locking ledge of the lever, and with a vertical slot and locking tooth to co-operate with the locking-bar of the said finger-piece which enters the slot in the said lug for that purpose, substantially as set forth.

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

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SAMUEL HALLIWELL.

Witnesses:

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