

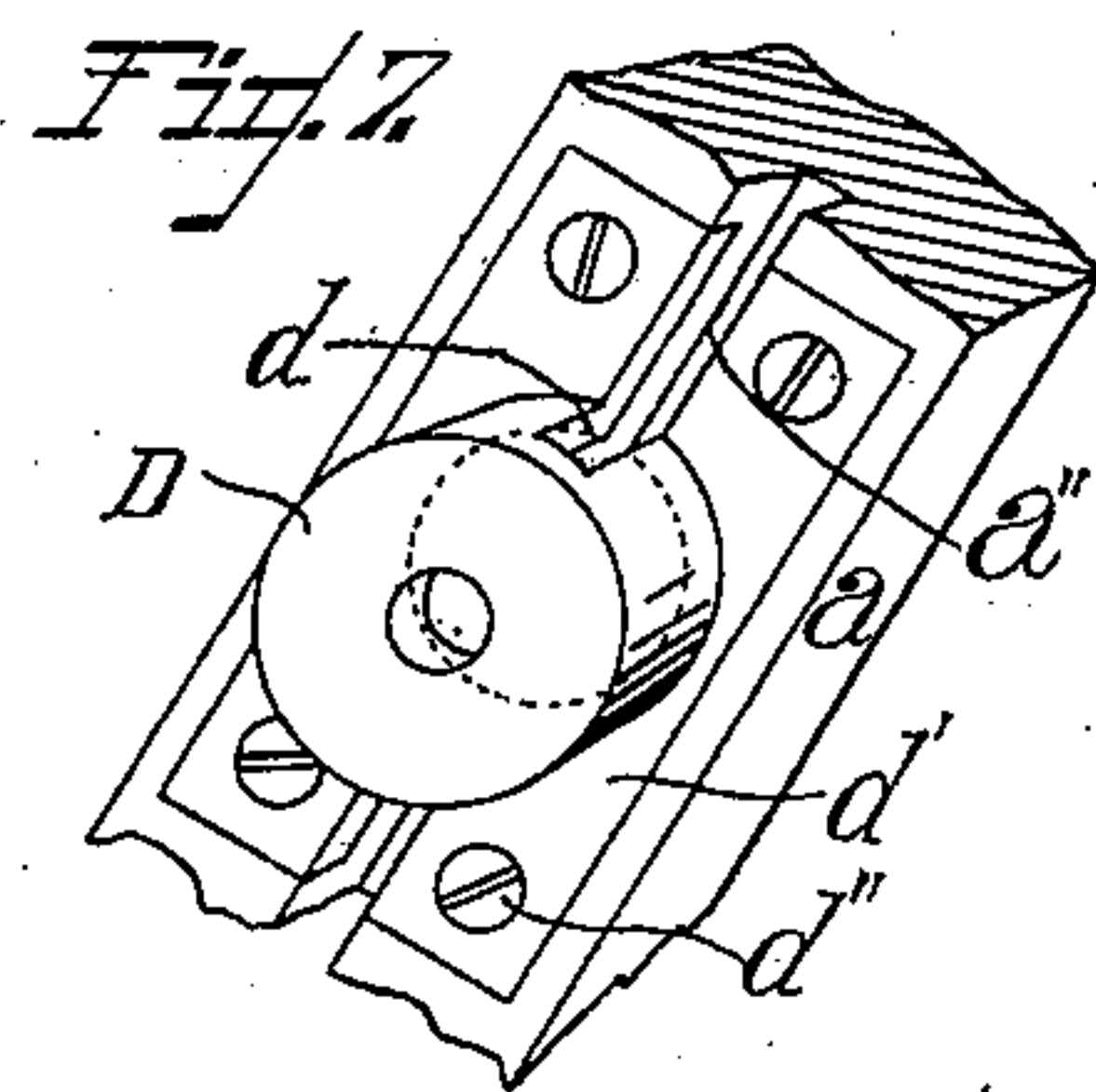
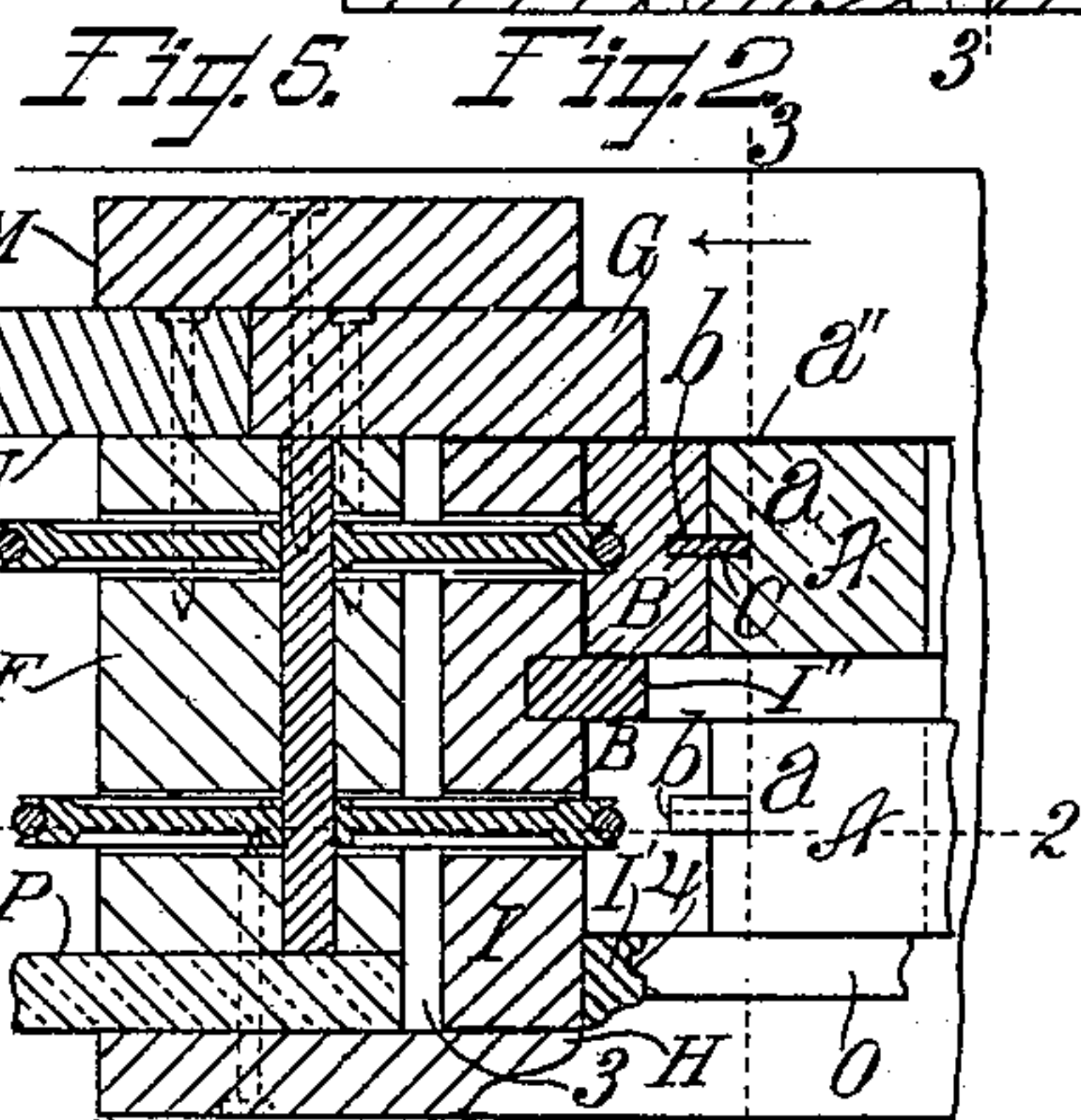
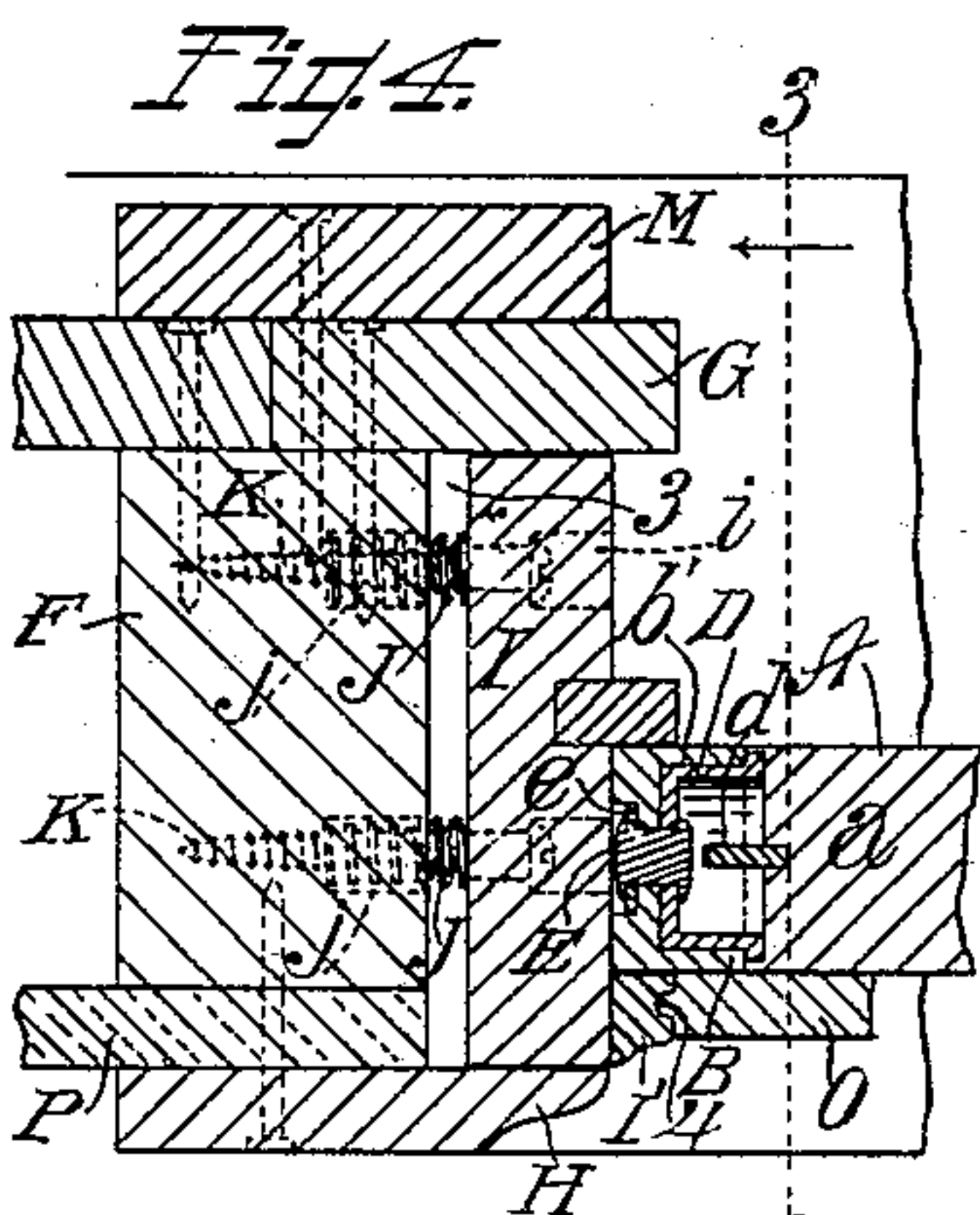
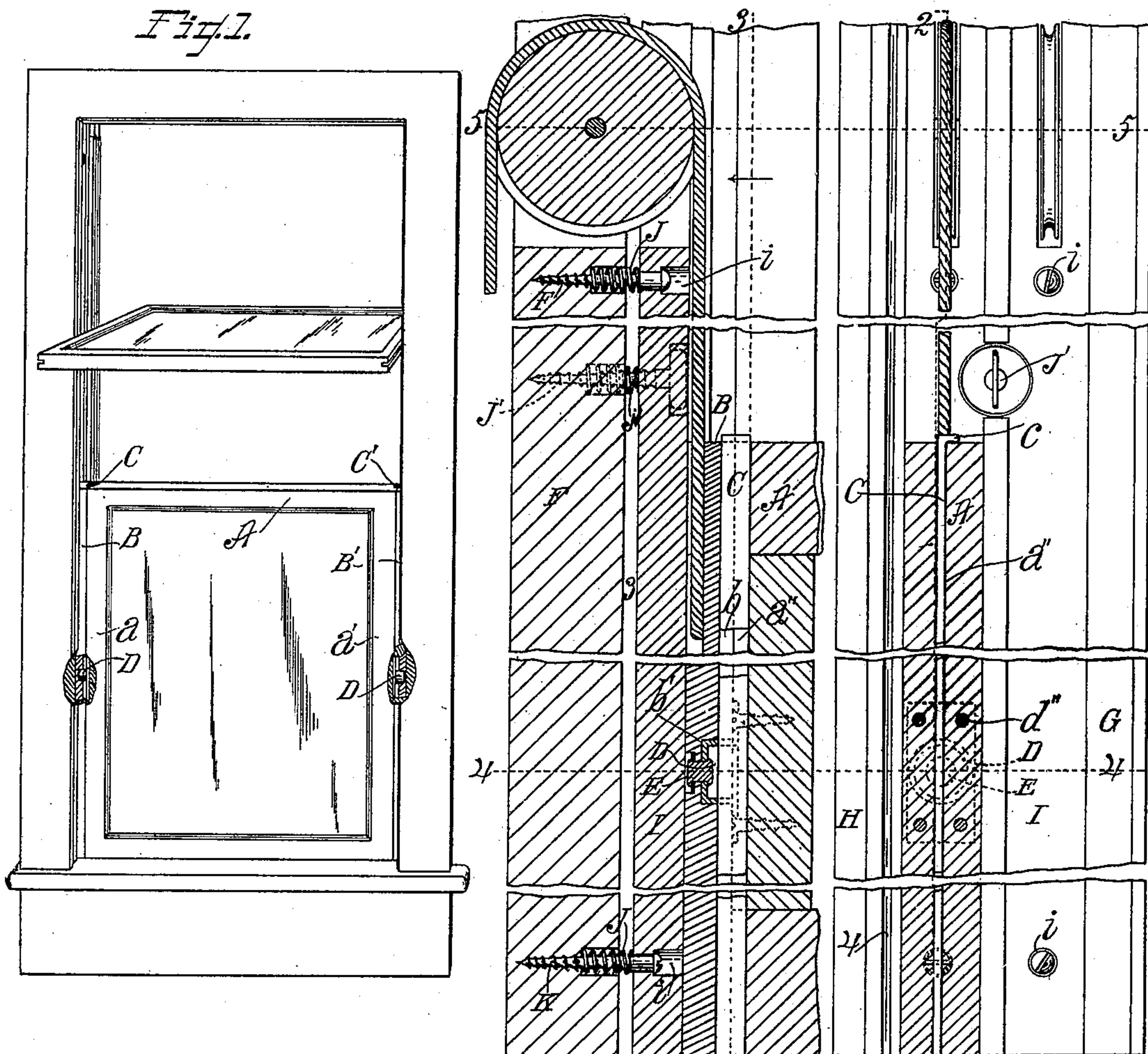
No. 618,462.

Patented Jan. 31, 1899.

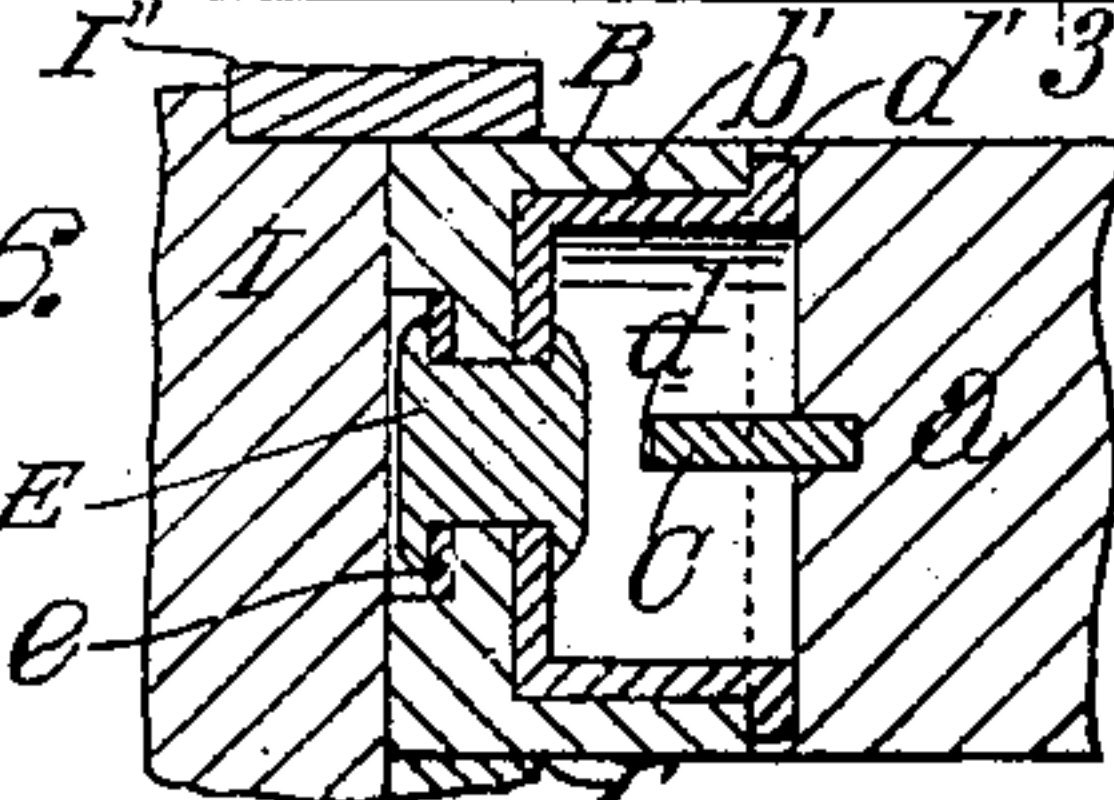
E. HIPOLITO.  
WINDOW.

(Application filed Mar. 12, 1897.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

ESPIRIDION HIPOLITO, OF LOS ANGELES, CALIFORNIA.

## WINDOW.

SPECIFICATION forming part of Letters Patent No. 618,462, dated January 31, 1899.

Application filed March 12, 1897. Serial No. 627,240. (No model.)

*To all whom it may concern:*

Be it known that I, ESPIRIDION HIPOLITO, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Windows, of which the following is a specification.

One object of my invention is to provide greater simplicity of construction for pivoted windows, making such windows cheaper than has heretofore been possible and enabling me to transform the old-style sash into pivoted sash or fan lights with very little expense and to also provide against any cracks or openings and to make the window absolutely tight; also, to provide a cheap, simple, and convenient spring-jamb which will adjust itself to the sash and make a tight fit and will prevent binding and which can be conveniently adjusted to fit the sash.

My invention relates to the sash and also to the window-frame and includes the combinations and parts herein set forth and claimed.

My invention with relation to the window-frame is applicable to windows other than those provided with the pivoted sash herein shown and is particularly desirable with my pivoted window which was patented to me in Letters Patent No. 560,063, dated May 12, 1896.

The accompanying drawings illustrate my invention.

Figure 1 is a perspective view showing my invention applied on an old-style window. Parts are broken away to show the pivots of the lower sash, and the upper sash is shown turned. Fig. 2 is a fragmentary vertical section of my invention applied to a window in which the sash-pulleys are set into the studing and spring-jamb are provided to press against the sash. The section is taken through the center of the pivot of the lower sash on one side of the window. 2 2, Fig. 3, indicates the line of section. Fig. 3 is a fragmental sectional elevation viewed from line 3 3 in Figs. 2, 4, and 5, looking in the direction of the arrow. Fig. 4 is a fragmental plan section on line 4 4, Figs. 2 and 3, and also shows a fragment of a window-screen in place. Fig. 5 is a fragmental plan section on line 5 5, Figs. 2 and 3, also with screen in place. Fig. 6 is an enlarged sectional detail showing the pivotal connection between the sash-stile

and the sliding strip or bar. Fragments of the jamb, parting-bead, and stop are also shown. Fig. 7 is a perspective view of a fragment of the stile with the slotted hollow trunnion which forms a portion of the pivot for connecting the sash-stile with the slide strip or bar.

My invention comprises the combination of a sash A, having grooved stiles  $a a'$ , two slide-bars B B', respectively pivoted to the stiles of the sash and each provided with a groove  $b$  to correspond to the groove  $a''$  in its stile, and two detached removable tongues C C', each substantially equal in dimensions to the socket formed by the conjoined grooves of its stile and slide-bar and fitted in such socket. Each detached removable tongue substantially fits and fills the socket formed by the conjoined grooves of one stile and slide-bar and is bent over at the top, as at  $c$ , or is otherwise provided with means for withdrawing the tongue from the socket formed by the grooves. The pivot D, which pivots the slide-bar and stile together, is a hollow capped trunnion slotted at the base, and thus provided with a hole  $d$  to correspond with the socket formed by the conjoined grooves, so that the detached removable tongue when inserted in the conjoined grooves will pass also through the hole or slot in the base of the pivot.

I am aware that sash have heretofore been provided with a slide-bar pivoted to the stile and grooves in slide-bar and stile to receive a tongue; but my invention differs from such windows in that the joined faces of my stile and slide-bar are straight from end to end of the sash and the groove extends from the ends of stile and slide-bar through the axis of the pivot and the tongue is wholly detached and withdrawable from the groove and fits the groove tightly, being movable endwise only, thus forming a tight joint between stile and slide-rail from top to bottom and makes the sash stronger and tighter than those of the pivoted windows heretofore made.

My invention also includes the pivot formed of a hollow capped trunnion D, the base of which is slotted, as at  $d$ , and is fastened to the grooved stile, with the slot  $d$  and the groove  $a''$  together. The slide-bar, which is grooved to correspond to the stile, is provided with a



socket  $b'$  for the trunnion. A rivet or bolt E is passed through the slide-bar and the axis of the cap of the trunnion and is riveted to pivot the slide-bar and cap together. Preferably the trunnion is carried by a plate  $d'$ , with screw-holes, through which screws  $d''$  are passed and screwed into the stile to hold the trunnion in place.

$e$  indicates a washer in the slide-bar, against which the rivet is riveted. The slide-bar is countersunk to chamber the washer and head of the rivet, so that they will not rub against the jamb. By means of the correspondingly-grooved stiles and slide-bars pivoted to the stiles, respectively, with slotted pivots, as shown, I am enabled to lock the stiles and slide-bars together by means of a single tongue in each stile of the sash and am able to place the locking-groove midway between the sides of the stile, thus securing a very simple and strong lock to hold the window against turning on its pivot and to close the joint between the stile and slide-bar.

I will now describe my invention with relation to maintaining a tight fit between the sash and the jamb.

By reference to Figs. 2, 4, and 5 it will be seen that the side of the window-frame is composed of a studding or pulley-stile F, a blind-stop G, and inside casing H, fixed to such studding on opposite sides, so that the window-frame has its sides provided with a socket or seat 3 for a movable jamb I, which is mounted in such socket, and springs J are interposed between the movable jamb and the frame to press the jamb outward toward the window-opening and sash and away from the studding. The studding has spring-sockets  $j$  therein, and the coil-springs J are seated in the spring-sockets, and the movable jamb I is fastened to the studding by screws K, countersunk in the jamb and screwed into the studding and respectively passing through the springs in said spring-sockets. The countersunk holes  $i$  in the movable spring-jamb allow the jamb to move toward and from the studding while carried by the screws, which are fixed in the studding, the screws playing back and forth in said holes  $i$  and the heads of the screws limiting the movement of the jamb. The countersunk portions of the holes  $i$  seat the heads of the screws K and allow the spring-jamb I to move toward and from the studding F without causing the heads of the screws to project from the jamb. The supplementary or spring jamb I is provided with the sash-stop  $I'$  and parting-bead  $I''$ .

Preferably each jamb is provided with two screws at the bottom and two screws at the top, set at equal distances from the vertical mid-line of the spring-jamb, and springs are provided at these points to press the spring-jamb outward. The screws can be screwed in or out, so as to make the spring-jamb accurately fit against the slide-bars or stiles of a window without pressing against to bind the same, so that in case the studding

which forms the sides of the frame of the window is not true a close fit can be made and yet allow the window to move up and down freely without binding.

$J'$  indicates a set-screw at the center of the spring-jamb and screwed into the studding F and screwing through a spring  $j'$ , which presses outward against the spring-jamb. By turning this screw the spring-jamb can be drawn away from the slide-stop or the stile of the sash to give freer movement to the sash in case the sash swells during wet weather. This screw is placed above the lower sash, so as to be readily accessible when the sash is in its ordinary position, so that in case the sash swells and becomes too tight it can be drawn away from the sash while the sash is in its ordinary position, and thus release the sash and allow it to be easily raised and lowered.

In practice the window is ordinarily held in its vertical position by the tongues C C', respectively seated in the conjoined grooves of their respective stile and slide-bar. When it is desired to tilt the sash to clean the window or for any other purpose, the detachable tongues C C' are withdrawn from their sockets, formed by the said grooves, and the window can then be tilted to any desired position, moving freely on the pivots D E.

In case the jamb presses too tightly against the slide-bar (or against the stiles of the window in cases where the spring-jamb is used with some other than the pivoted form of window) the set-screw  $J'$  is turned to draw the jamb toward the studding, thus to relieve the pressure.

M indicates an outside casing or weather-strip fastened over the weather-boarding or rustic N and the blind-stop G.

The sash-stop  $I'$  is provided with a shallow groove 4 to receive and seat the stile of a screen-frame O, which can be easily inserted into place by pushing in on the spring-jamb sufficiently to spread them apart to admit the screen between the stops and seat in the grooves of the said stops  $I'$ .

P indicates the plastering.

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

1. The combination of a longitudinally-grooved stile; a slide-bar grooved to correspond with the stile; a pivot pivoting the slide-bar and stile together and provided with a slot registering with the socket formed by the conjoined grooves; and a detached removable tongue in the said socket and slot.

2. The combination of a grooved stile; a hollow capped trunnion the base of which is slotted, and is fastened to the stile with the slot and groove together; a slide-bar grooved to correspond with the stile and provided with a socket for the trunnion; a rivet or bolt passed through the slide-bar and the axis of the cap to pivot them together; and a removable tongue in the conjoined grooves and slot.



3. A sash having at each side a stile and a slide-bar pivoted together between their ends and with straight faces extending from end to end of said stile and slide-bar and grooved to form a socket extending from the ends of stile and slide-bar through the pivot; and two detached tongues respectively fitting the sockets and being movable endwise only, and extending from the ends of stile and slide-bar through the pivots respectively. 10
4. The slotted hollow capped trunnion with slotted plate and rivet or bolt through the cap. ESPIRIDION HIPOLITO.

Witnesses:

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