

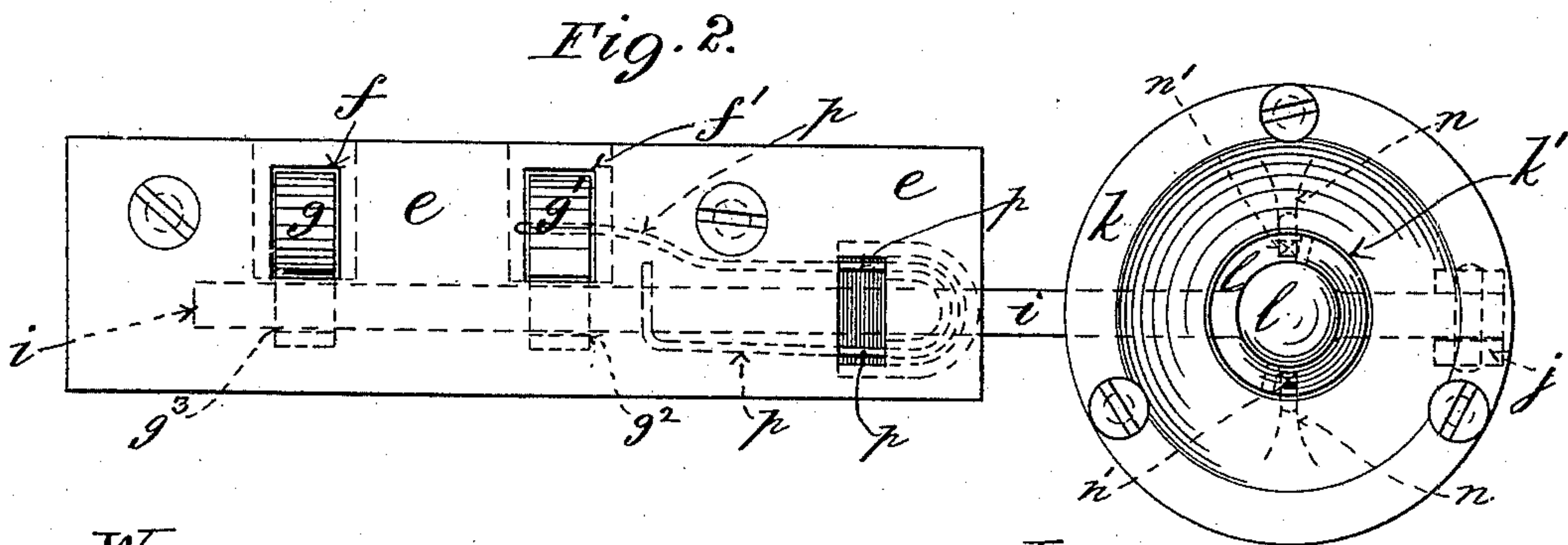
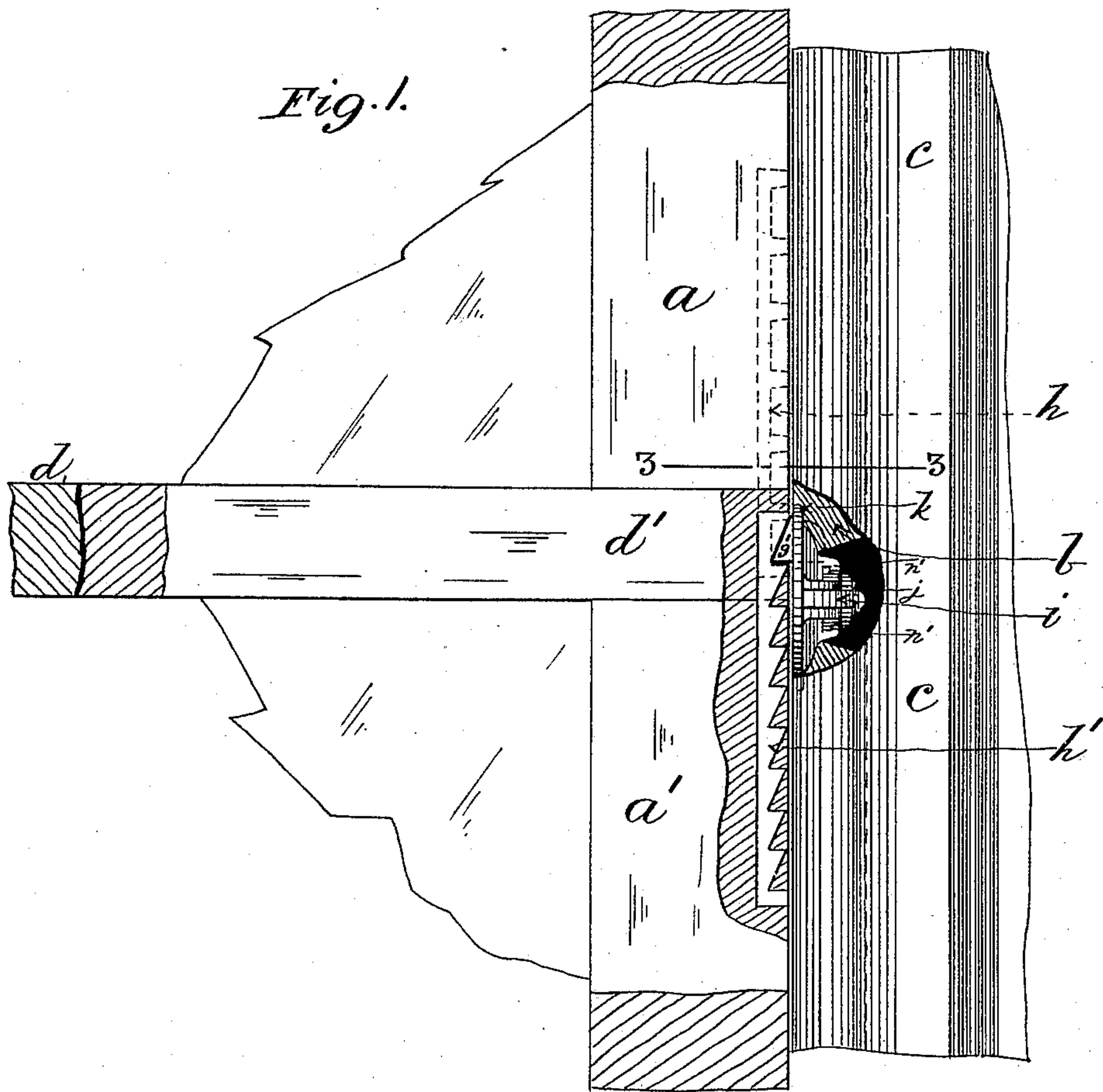
(No Model.)

3 Sheets—Sheet 1.

A. O. SHATSICK.
SASH FASTENER.

No. 418,323.

Patented Dec. 31, 1889.



WITNESSES
J. W. Crookes
Wm. M. Byrnt.

INVENTOR
Arthur O. Shatsick
Paul Bakewell
his attorney

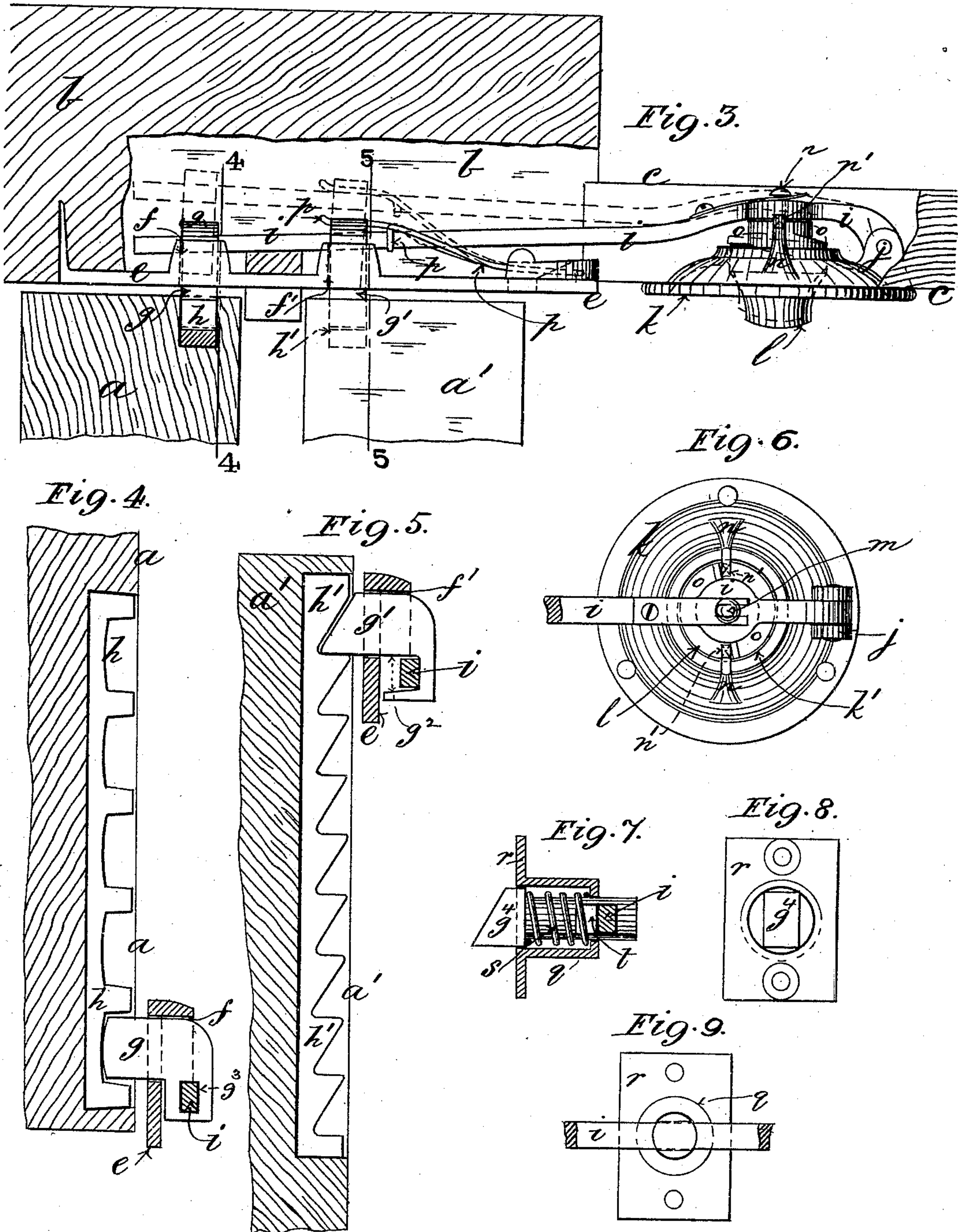
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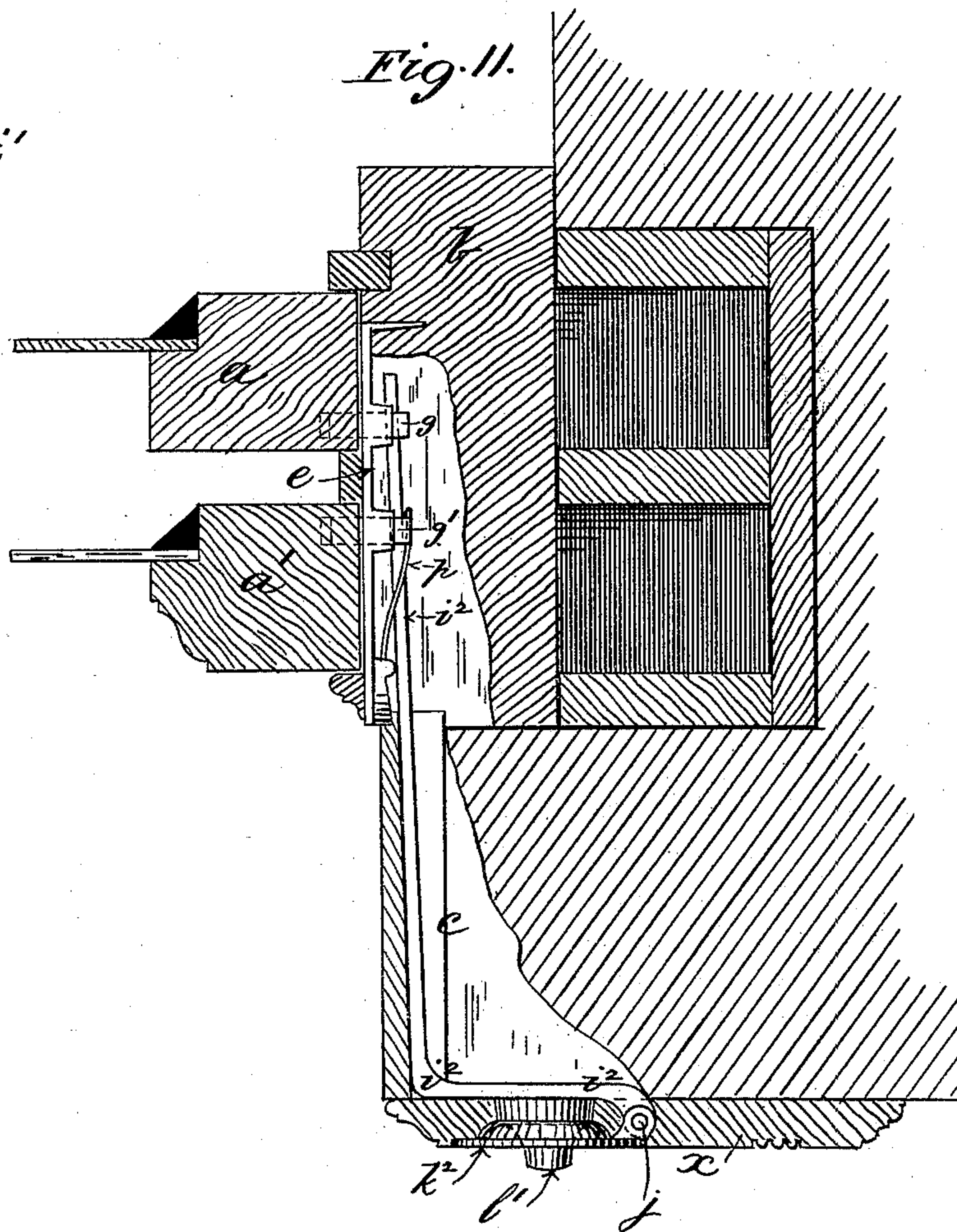
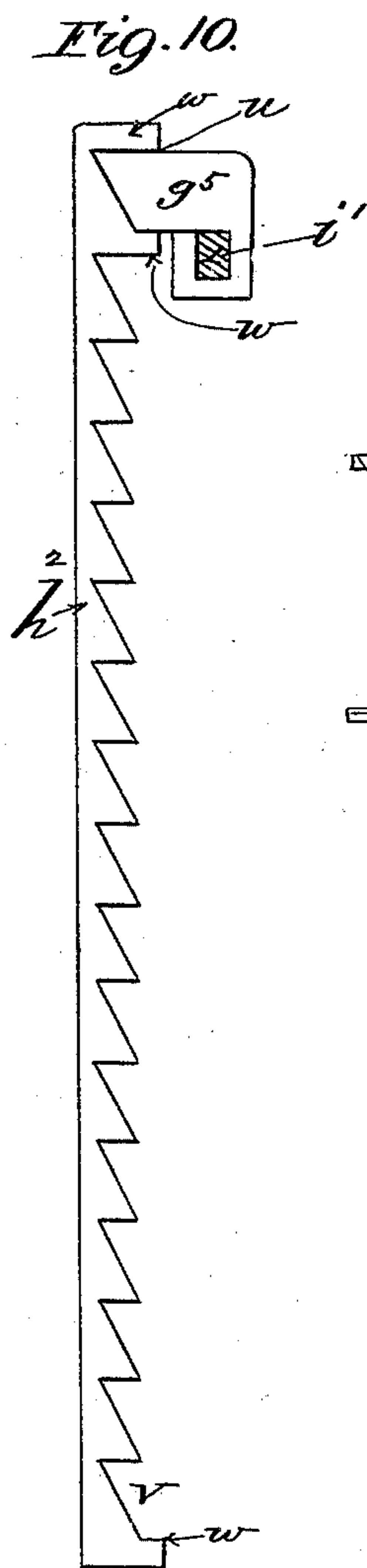
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UNITED STATES PATENT OFFICE.

ARTHUR O. SHATSICK, OF ST. LOUIS, MISSOURI.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 418,323, dated December 31, 1889.

Application filed October 24, 1889. Serial No. 328,007. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR O. SHATSICK, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improved Lock for Window-Sashes, of which the following is a full, clear, and exact description.

My invention relates to an improved device for locking window-sashes in the closed position, and also has for its object to prevent a window-sash when partially open for ventilation from being further opened from the outside of the window.

It consists in a spring-bolt (or bolts) mounted in the sides of the window-frame and caused to engage with a toothed bar on the window-sash, combined with the features of novelty hereinafter claimed.

In the accompanying drawings, Figure 1 represents an inside elevation of a portion of an upper and lower window sash, frame, and jamb fitted with my improved locking device; Fig. 2, a front view of that portion of the device mounted in the side of the window frame and jamb looking to the right of Fig. 1; Fig. 3, a sectional plan taken on line 3 3 in Fig. 1, broken away; Figs. 4 and 5, transverse sectional views through the upper and lower sashes and portions of the device, taken on lines 4 4 and 5 5, respectively, in Figs. 3, broken away; Fig. 6, a rear view of that portion of the device appearing to the right in Fig. 3; Figs. 7, 8, and 9, sectional elevation, front and rear views, respectively, showing a modification of the spring-bolts seen in Figs. 4 and 5; Fig. 10, a modified form of the toothed bar seen in Figs. 1 and 5, and Fig. 11 a sectional plan showing a modification of the parts of the device seen in Fig. 3.

Like letters of reference denote like parts in the respective figures.

a a' represent the upper and lower sashes, respectively, b the window-frame, and c the jamb, all constructed and arranged in the ordinary and well-known manner.

In the side of the window-frame b , immediately opposite to the ends of the meeting-bars d d' of the upper and lower sashes a a' when these are closed, is fixed a horizontal face-plate or bracket e , through which are formed openings f f' , the opening f facing

the upper sash a and the opening f' facing the lower sash a' . Through the openings f f' are caused to slide bolts g g' , the outer end or nose of the bolt g being preferably square-shaped and that of the bolt g' beveled for engaging respectively in a square-toothed bar h , fixed vertically along the side edge of the upper sash a , and in a bevel-toothed bar h' , fixed along the side edge of the lower sash a' , the two bars h h' being so arranged that when the sashes a a' are closed, as shown in Fig. 1, the bolt g will be opposite to and in engagement with the bottom notch of the upper-sash bar h and the bolt g' with the top notch of the lower-sash bar h' . The bolts g g' are operated by a lever i , preferably of the third kind, which is located behind the plate e , within a space formed therefor in the window-frame b c , its free end portion passing through a slot g^2 in the shank of the bolt g' , and through a hole g^3 in the shank of the bolt g , (see Figs. 4 and 5,) the slot g^2 being open in front, so that while on a backward movement of the lever i a corresponding and simultaneous withdrawal of the bolts g g' in their openings f f' will be thereby caused, an independent backward movement of the bolt g' is permitted by the slot g^2 without affecting the bolt g , as hereinafter mentioned. The other end of the lever i is fulcrumed at j to the back of the circular plate k , which is fixed on the face of the jamb c and formed with a central circular passage k' , within which is fitted, so as to be capable of being moved longitudinally and partially rotated, a pusher-button l , having its outer end projecting beyond the front of the plate k within reach from the inside of the window and its rear end projecting beyond the back of the plate k , where it is swiveled (or otherwise adjustably secured) by a pin m to the operating-lever i at a suitable distance from the fulcrum j .

From the back of the plate k project two opposite lugs n , having depending studs n' , which respectively engage in two oppositely-inclined recesses o , formed circumferentially on the rear end portion of the pusher-button l , so that when the latter is turned in one direction the narrow ends of the recesses o are brought against the studs n' and the pusher-

button *l* thereby locked or prevented from being pushed inward from the front of the plate *k*, and when the pusher-button *l* is turned in the opposite direction the wide ends of the recesses *o* are brought opposite to the studs *n'* and the pusher-button *l* thereby allowed to be pushed inward to its fullest extent, as hereinafter more particularly referred to.

The bolts *g g'* are normally held outward, or so that their noses engage, respectively, with the toothed bars *h h'* when the sashes *a a'* are closed or partially open, or against the side edges of the sashes at other times, as the case may be, by a spring *p*, which is preferably fulcrumed at one end to the plate or bracket *e*, its free end pressing partly upon the back of the lever *i* and partly upon the rear edge of the bolt *g'*, as shown in Figs. 2 and 3; or in lieu of the spring *p*, arranged as described, the shank of each bolt *g'* (see Figs. 7, 8, and 9) may slide through a box *q*, formed on the back of the plate *r*, (corresponding to the plate *e* of Figs. 3, 4, and 5,) a spiral spring *s* being placed around the shank between a shoulder on the outer end portion of the bolt *g'* and the inner closed end of the box *q*, in which case the lever *i*, in passing through the slot *t* in the shank of the bolt *g'*, acts as a stop to the outward projection of the latter by the spring *s*, the length of the slot *t* at the same time allowing of the independent backward movement of the bolt *g'*, as in Fig. 5.

In operation, assuming the window to be closed and locked by the bolts *g g'*, and it being desired to open the upper and lower sashes *a a'* to a small extent for the purpose of ventilation, a person inside the room, after partially rotating the pusher-button *l* into the unlocked position with relation to the studs *n'* on the back of the plate *k*, forces inward the pusher-button *l*, which throws back the lever *i* on its fulcrum *j* into the position indicated by dotted lines in Fig. 3, and thereby withdraws the bolts *g g'* clear of the toothed bars *h h'*, which leaves the sashes *a a'* free to be lowered and raised, respectively, to the desired extent, or, say, a distance equal to that between the top and bottom notches of the bars *h h'*, when, on releasing the pusher-button *l*, the spring *p* returns the lever *i* and bolts *g g'* to their normal position, or so that the latter engage with the said notches of the bars *h h'* of the upper and lower sashes *a a'*, which are thereby locked and cannot be opened farther from the outside of the window, nor until the bolts *g g'* are again withdrawn from the bars *h h'*, as before. Although the lower sash *a'* cannot be further raised from the outside of the window without unlocking the bolt *g'*, it may be entirely or partially closed without unlocking, owing to the bevel shape of the toothed bar *h'*, which on the descent of the sash *a'*

forces back the bolt *g'* without affecting the bolt *g* of the upper sash *a*.

In applying my invention to a railroad-car window sash the beveled top and bottom notches *u v* of the bar *h²* (see Fig. 10) are formed with square shoulders or offsets *w*, so as to form lock-stops to the bolt *g⁵* when the sash is fully opened or closed.

For rendering the device practically inaccessible from the outside of the window, the plate *k²* (see Fig. 11) may be fixed to the face of the upright wainscot *x* within the room, the shape of the lever *i²* being modified accordingly, in which case the recesses *o* and studs *n'*, previously described, for locking and unlocking the pusher-button *l* are dispensed with and the lever *i²* acted upon directly by the pusher-button *l'*.

I claim as my invention—

1. In a locking device for window-sashes, the combination of the bolts *g g'*, projected through openings *f f'* in the side of the window-frame *b* by a spring *p* and adjustably secured to a lever *i*, located within the window-frame *b c* and fulcrumed at *j* to a plate *k*, fixed to the face of the jamb *c*, and a pusher-button *l*, projecting through the plate *k* and adjustably secured to the lever *i*, with toothed bars or racks *h h'*, fixed to the upper and lower sashes *a a'*, respectively, substantially as shown, and for the purpose described.

2. In a locking device for window-sashes, the combination of the plate *e*, fixed to the side of the window-frame *b* and having openings *f f'*, bolts *g g'*, projected through the said openings by a spring *p* and adjustably secured to a lever *i*, located within the window-frame *b c* and fulcrumed at *j* to a plate *k*, fixed to the face of the jamb *c*, and a pusher-button *l*, projecting through the plate *k* and adjustably secured to the lever *i*, with toothed bars or racks *h h'*, fixed to the upper and lower sashes *a a'*, respectively, substantially as shown, and for the purpose described.

3. In a locking device for a window-sash, the combination of a lever *i*, located within the window-frame *b c* and fulcrumed at *j* to a plate *k*, formed with projecting studs *n'* and fixed to the face of the jamb *c*, and a pusher-button *l*, projecting through the plate *k* and adjustably secured to the lever *i*, said pusher-button *l* having circumferential recesses *o*, substantially as shown, and for the purpose described.

In testimony whereof I have affixed my signature, in presence of two witnesses, this 19th day of October, 1889.

ARTHUR O. SHATSICK.

Witnesses:

JOS. W. CROOKES,
J. L. HORNSBY.