

No. 724,081.

PATENTED MAR. 31, 1903.

R. K. BROWN.  
SASH FASTENER.

APPLICATION FILED APR. 12, 1902.

NO MODEL.

Fig. 1.

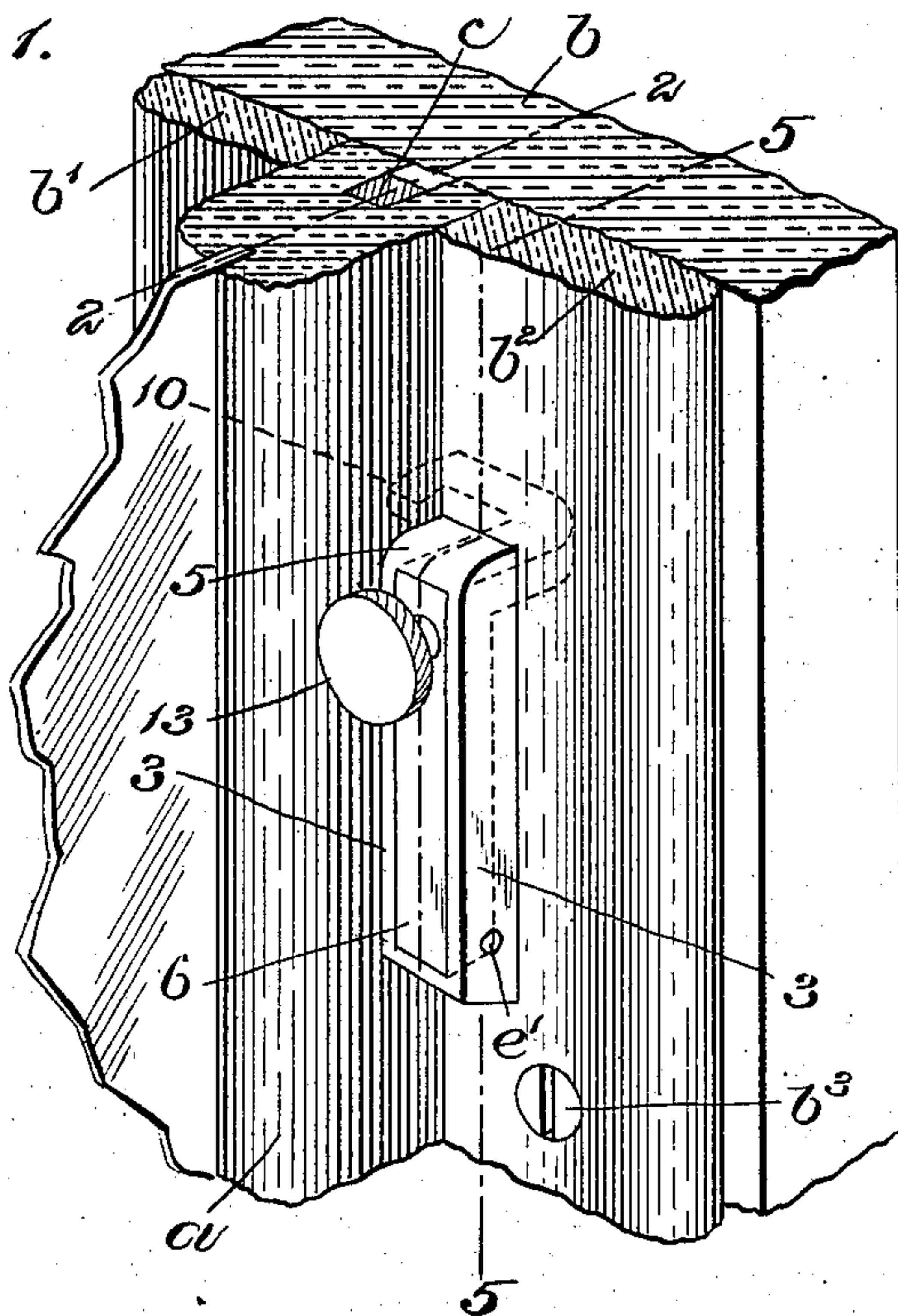


Fig. 2.

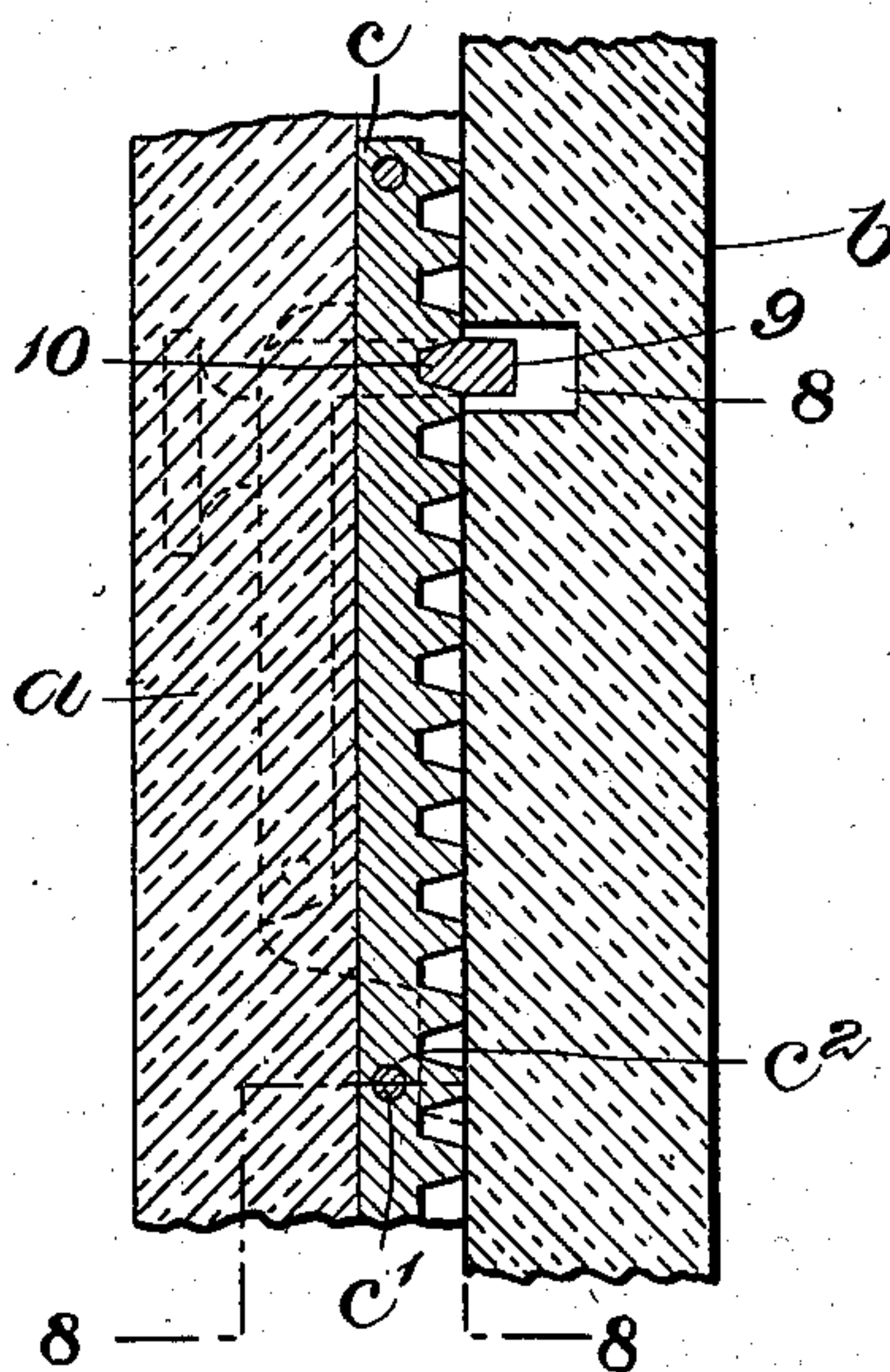


Fig. 3.

Fig. 4.

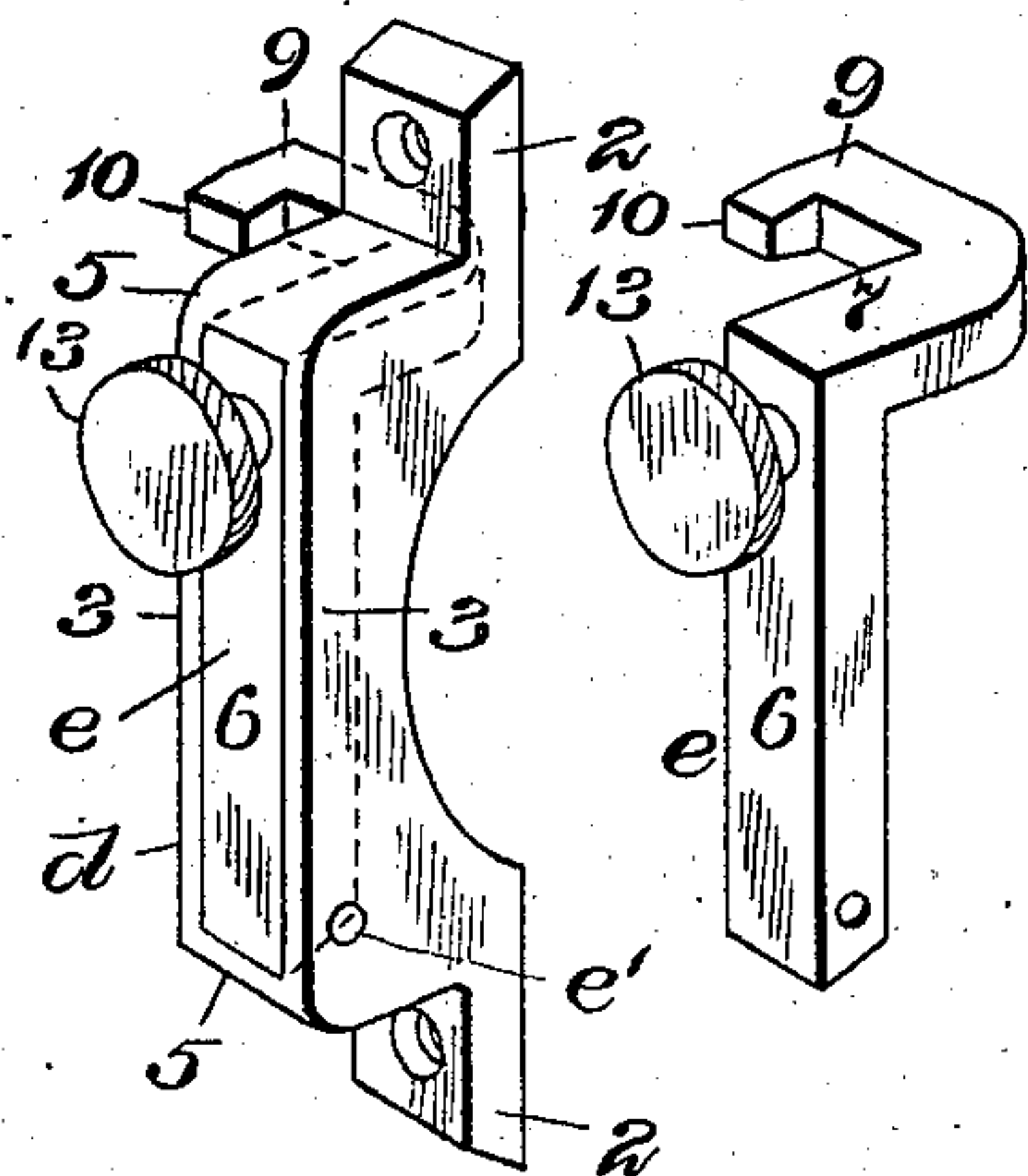


Fig. 5.

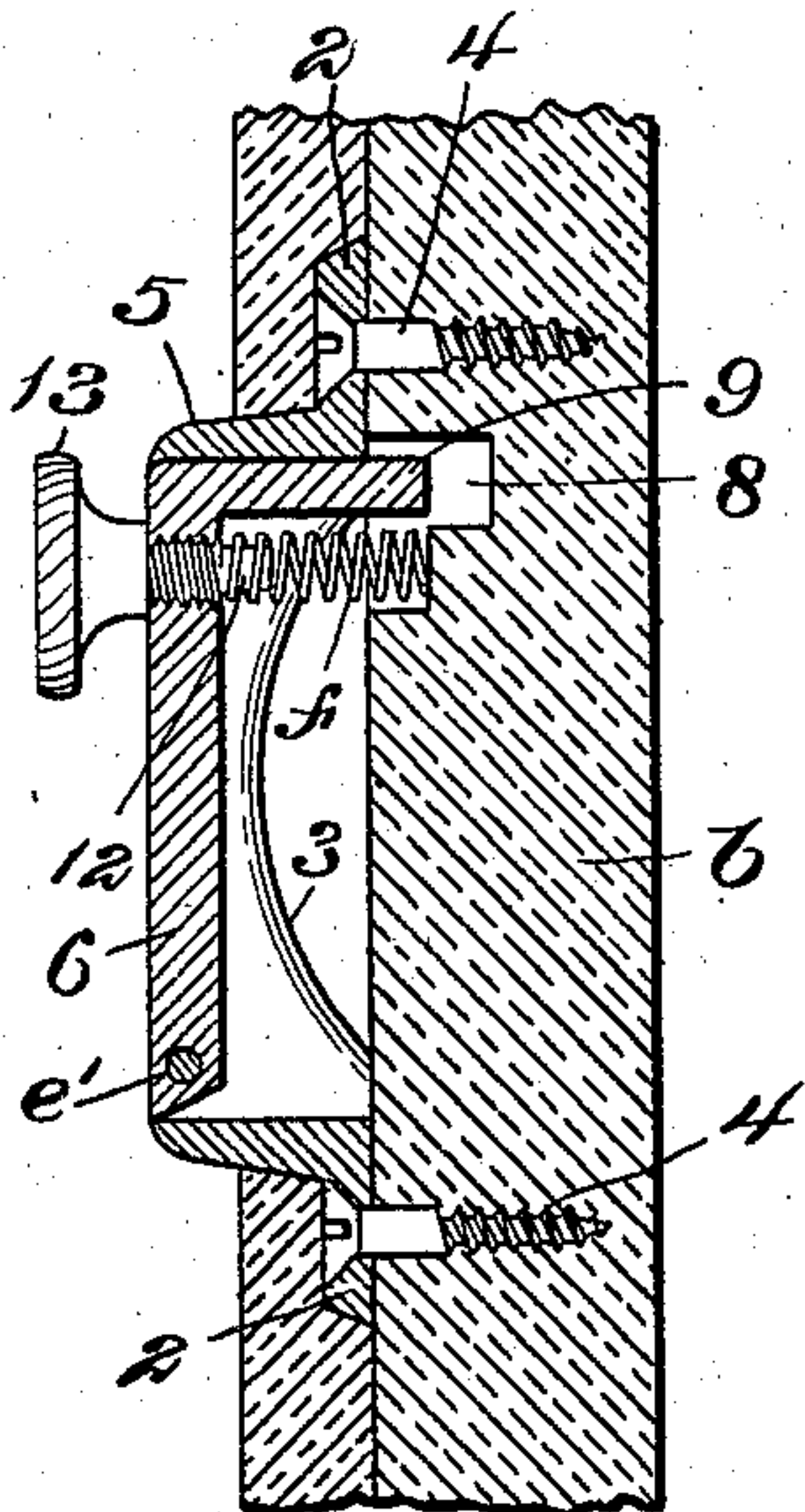


Fig. 6.

Fig. 7.

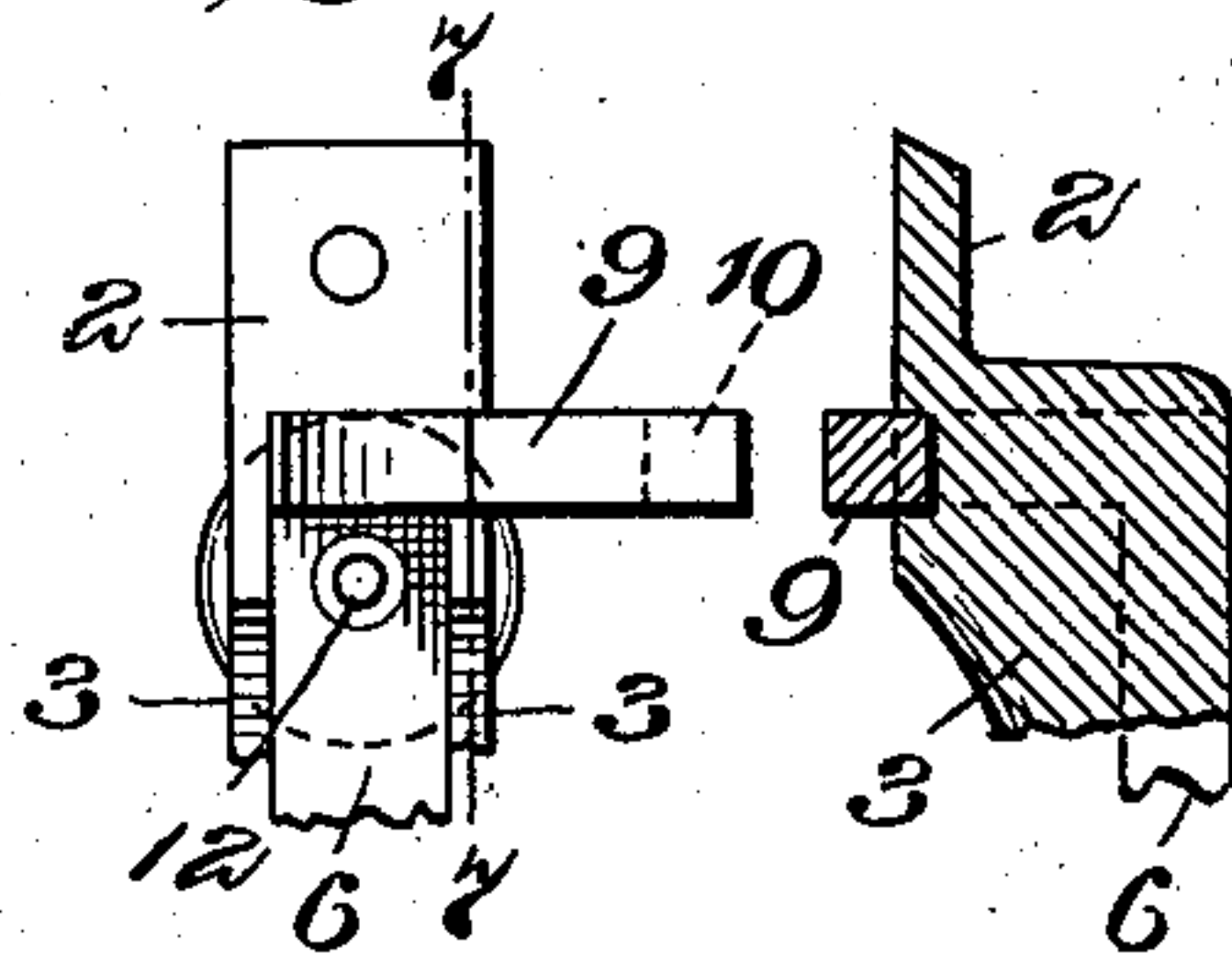
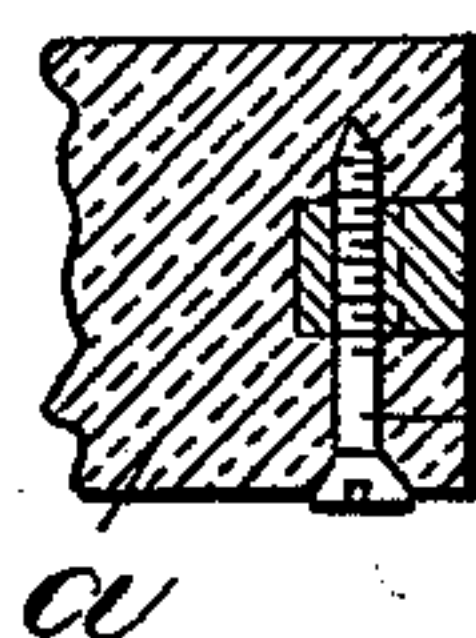


Fig. 8.



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# UNITED STATES PATENT OFFICE.

ROBERT K. BROWN, OF NORTHBRIDGE, MASSACHUSETTS.

## SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 724,081, dated March 31, 1903.

Application filed April 12, 1902. Serial No. 102,545. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT K. BROWN, of Northbridge, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a specification.

This invention relates to sash-fasteners comprising a movable latch mounted on the window-casing and adapted to engage a rack attached to one edge of the sash, a fastener of this class being shown in Letters Patent of the United States No. 577,157, granted to me February 16, 1897.

The object of the present invention is to provide a sash-fastener of the class above referred to which shall be simple and durable in construction, effective in operation, and adapted to be installed without requiring the cutting away of the casing to such an extent as to materially weaken the same.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a perspective view showing parts of a window-casing and of a window-sash engaged therewith, together with a sash-fastener embodying my invention. Fig. 2 represents a vertical section on the plane of line 2 2 of Fig. 1. Fig. 3 represents a perspective view of the fastener-holder and fastener detached from the window-casing. Fig. 4 represents a perspective view of the latch of the fastener detached from its fastener. Fig. 5 represents a section on line 5 5 of Fig. 1. Fig. 6 represents an edge view of a portion of the fastener shown in Fig. 3 looking toward the inner edge of the fastener. Fig. 7 represents a section on line 7 7 of Fig. 6. Fig. 8 represents a section on line 8 8 of Fig. 2.

The same reference characters indicate the same parts in all the figures.

In the drawings, *a* represents one of the uprights of a window-sash, and *b* represents one of the uprights of the casing in which said sash is contained, the casing being provided with suitable sash confining and guiding shoulders, here shown as formed on vertical strips *b'* *b*<sup>2</sup>, suitably secured to the up-

right *b*, the strip *b*<sup>2</sup> being removably secured by screws *b*<sup>3</sup>.

*c* represents a vertical rack inserted in a groove formed for its reception in the outer edge of the sash member *a*, said rack being preferably secured in place by screws *c'*, Figs. 2 and 8, engaged with the sash member *a* and entering orifices *c*<sup>2</sup>, formed in the rack *c*.

My improved sash-fastener comprises a holder *d* and a latch *e*, pivoted at *e'* to the holder and adapted, as hereinafter described, to engage the teeth of the rack *c*. The holder *d* is provided with end pieces or ears 2 2, the inner sides of which are formed to bear as a seat on the outer side of the casing member *b*, and with side pieces 3 3, which project outwardly from the ears 2 2 and extend substantially parallel with the plane of the sash, the holder being attached to the casing by screws 4 4 at the inner side of the sash. The sides 3 3 are connected by ends 5 5, said sides and ends forming the walls of an elongated cavity in which the latch *e* is adapted to oscillate, said cavity extending substantially parallel with the sash.

The latch *e* is composed of an elongated portion 6, which is formed to fill the outer portion of the said cavity, as shown in Figs. 1, 3, and 5, and an angular extension formed on the swinging end of said elongated portion, said extension comprising the portion 7, which projects from the inner face of the holder into a recess 8, formed for its reception in the casing, a portion 9, extending laterally from the portion 7 and across one of the sides 3 of the holder along the recess 8, and a tooth 10, formed on the outer end of the portion 9, said tooth being adapted to engage the rack *c*, as shown in Fig. 2.

*f* represents a spring which is interposed between the elongated portion 6 of the latch and the casing member *b*, said spring being engaged with a stud 12, projecting inwardly from the portion 6. The spring normally holds the latch in the position shown in Figs. 1, 2, 3, and 5, the tooth 10 being thus yieldingly held in engagement with the rack. The recess 8 is of sufficient depth to permit the latch to swing inwardly far enough to disengage the tooth from the rack and permit the movement of the sash. The latch is prefer-



ably provided with a push piece or knob 13, which may be formed in one piece with the spring-engaging stud 12, as shown in Fig. 5.

The side 3 of the casing across which the portion 9 of the latch extends is provided with a slot or recess 14, Fig. 7, which engages the portion 9 of the latch when the latter is held in its normal position by the spring *f*, the ends of said slot forming shoulders which bear upon the upper and lower sides of the latch portion 9 and firmly support the latch against either upward or downward pressure exerted upon it by an attempt to raise or lower the sash.

It will be seen that the only part of the fastener which is required to enter the casing member *b* is that part of the latch which comprises the portion 9, the tooth 10, and the corresponding part of the portion 7. These parts collectively are of such small size that they require the cutting away of a relatively small part of the casing member *b* in forming the recess 8, so that said member is not materially weakened by the formation of said recess. The form and construction of the holder and latch being such that the holder can be attached to the casing member *b* at the inner side of the sash, the detachable box-strip *b*<sup>2</sup> is enabled to cover the ears 2 and the attaching-screws 4, so that only a relatively small part of the casing is visible, as clearly shown in Figs. 1 and 5, the box-strip *b*<sup>2</sup> being suitably recessed to receive the portions of the casing which it conceals.

As above stated, the application of my device to position for use requires but a very slight cutting away of the woodwork of the window-casing. This cutting away is so slight as to effect practically no weakening whatever of the woodwork of the casing. Figs. 2 and 5 clearly indicate the relatively small amount of cutting to form the recess 8. This recess is formed simply to provide space for the angular extension of the latch, which angular extension projects inwardly from the holder of the latch. The word "inwardly" is to be understood as meaning that the said angular extension projects in a direction that is inward relatively to the window-casing and not outward from said casing. If the latch extension, whether angular or not, were formed to project outwardly from its holder, an amount of cutting into the woodwork of the window-casing would have to be provided sufficient to admit the entire latch and its casing.

My invention is adapted particularly for car-windows, because the relatively small amount of material which has to be removed from the casing member *b* avoids weakening said member, a result which is very desirable

in railway-cars. It is obvious, however, that the invention is not limited to use in connection with car-windows.

I claim—

1. A sash-fastener comprising a holder adapted to be attached to the surface of a window-casing at the inner side of the sash, and a latch pivoted to the holder and adapted to oscillate in a plane substantially parallel with the sash, said latch having at its free end an angular extension projecting inwardly from the holder and laterally between one edge of the sash and the casing, and a tooth on the said extension adapted to engage a rack inserted in the said edge.

2. A sash-fastener comprising a holder having a seat formed to bear on a window-casing at the inner side of the sash, and sides which are substantially parallel with the sash, said sides being separated by an elongated cavity, and a latch composed of an elongated portion formed to oscillate in said cavity and pivoted at or near one end to the holder, and an angular extension on the swinging end of said elongated portion, said extension projecting inwardly from the seat of the holder and laterally between one edge of the sash and the casing, and having a tooth adapted to engage a rack on the sash.

3. A sash-fastener comprising a holder having a seat formed to bear on a window-casing at the inner side of the sash, and an elongated cavity extending substantially parallel with the sash, said holder having a slot formed in one of the sides of the cavity, and a latch having an elongated portion pivoted at one end to the holder, an inwardly-projecting angular extension projecting across the said slot and adapted to engage the same, and a rack-engaging tooth on the outer end of said extension.

4. The combination of a window-casing, a sash having a rack inserted in its edge, and a sash-fastener comprising a holder attached to the casing at the inner side of the sash, a latch pivoted to the holder and adapted to oscillate in a plane substantially parallel with the sash, said latch having at its free end an angular toothed extension projecting inwardly from the holder into a recess in the casing and laterally in said recess across the said rack, and a spring arranged to hold the latch-tooth in yielding engagement with the rack.

In testimony whereof I have affixed my signature in presence of two witnesses.

ROBERT K. BROWN.

Witnesses:

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N. W. WOOD.