

(No Model.)

T. S. SMITH.

FASTENING FOR MEETING RAILS OF SASHES.

No. 309,988.

Patented Dec. 30, 1884.

Fig. 1

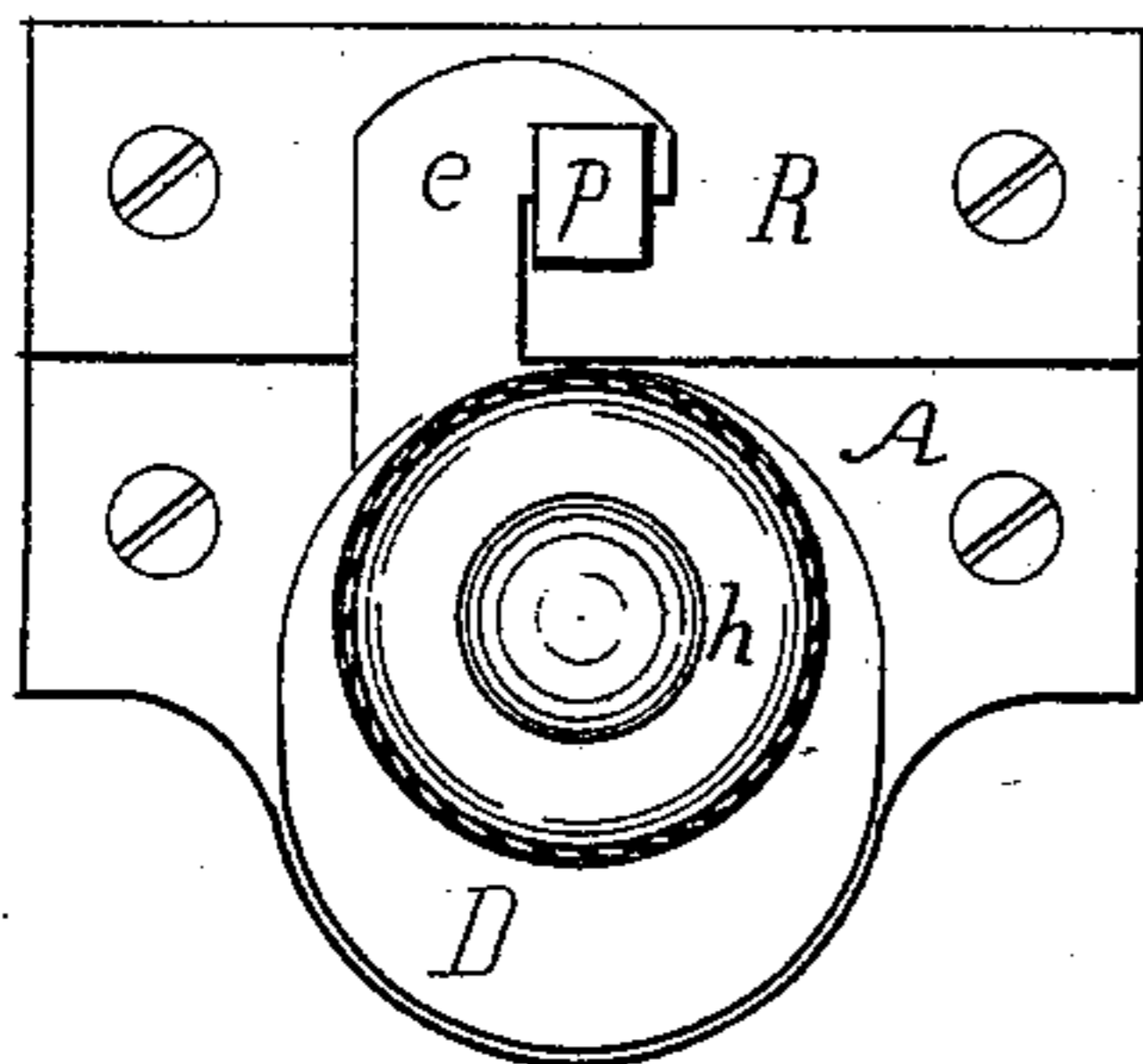


Fig. 2

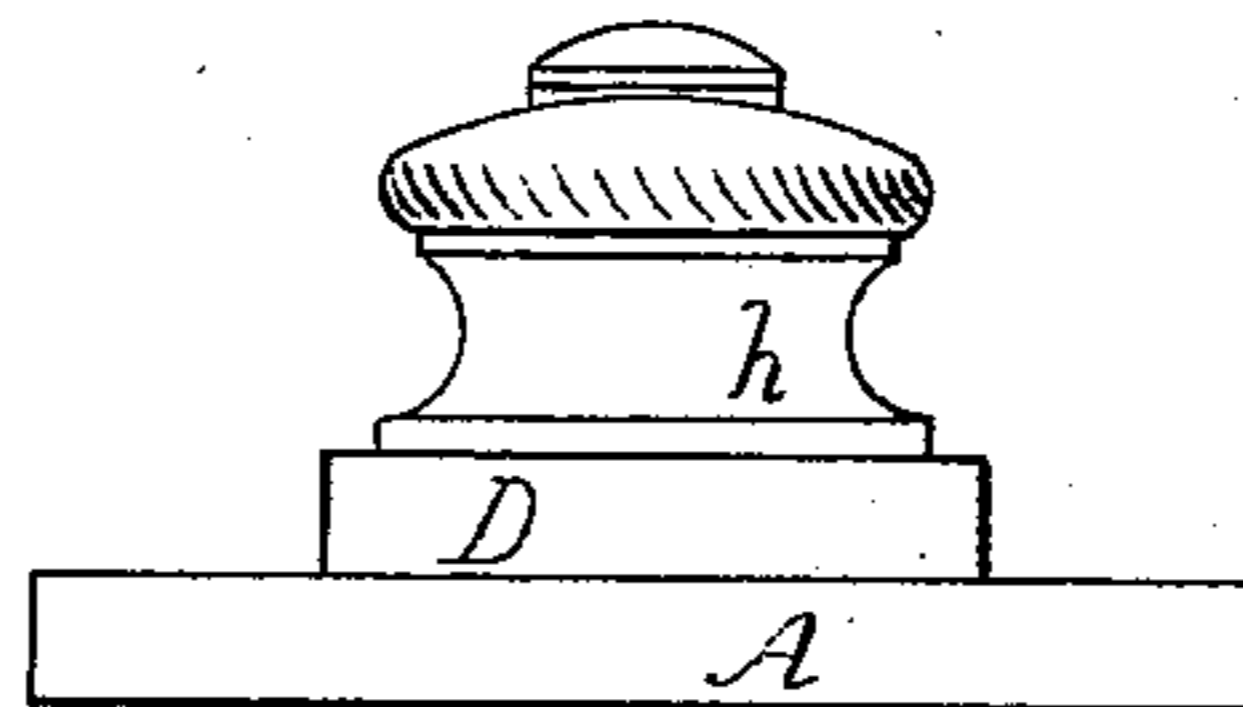


Fig. 3

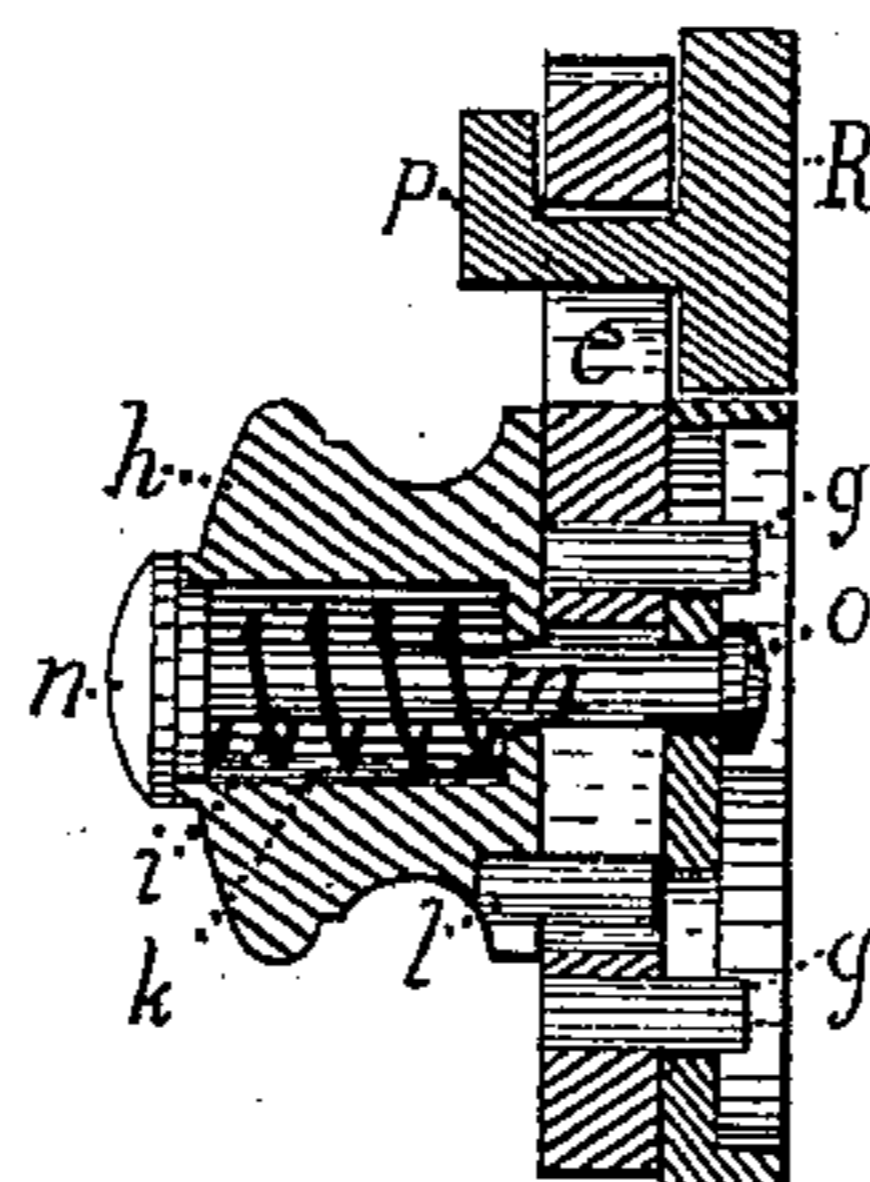


Fig. 4

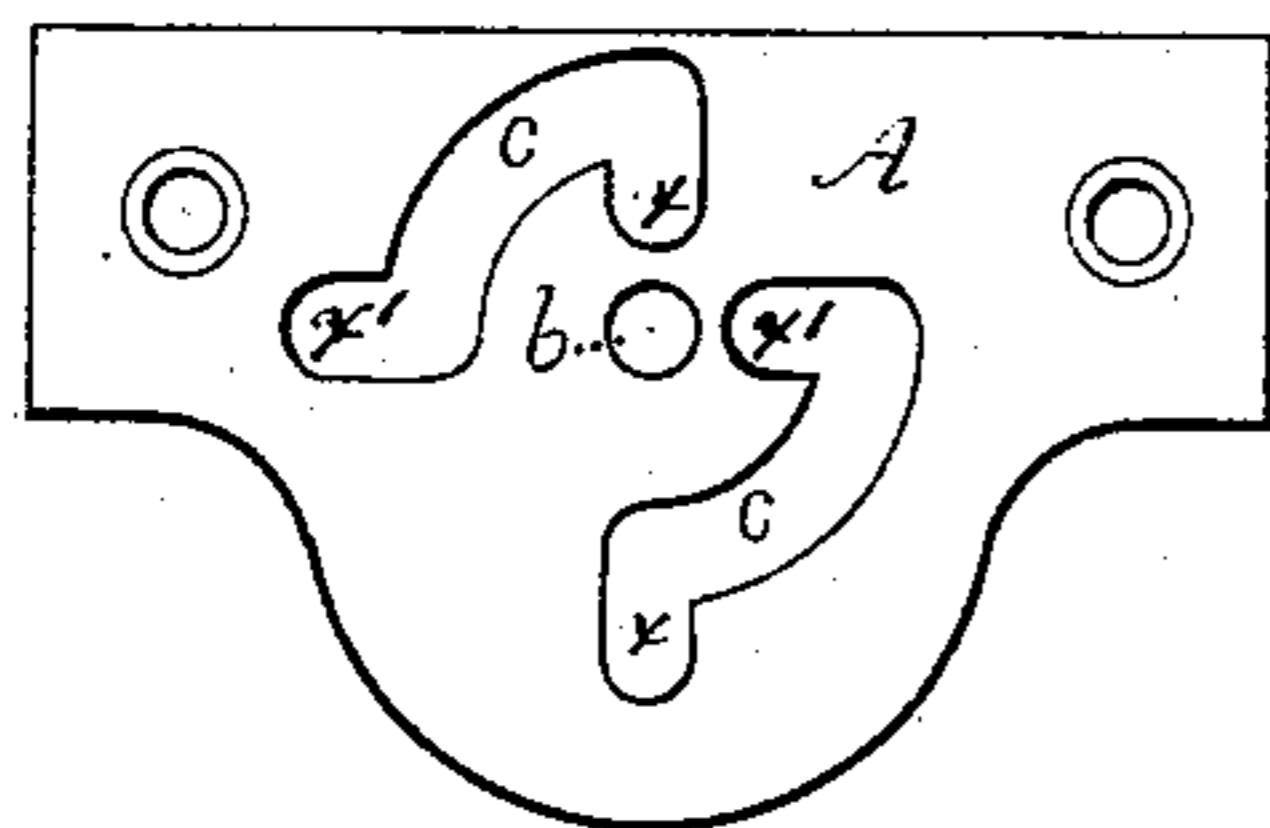


Fig. 5

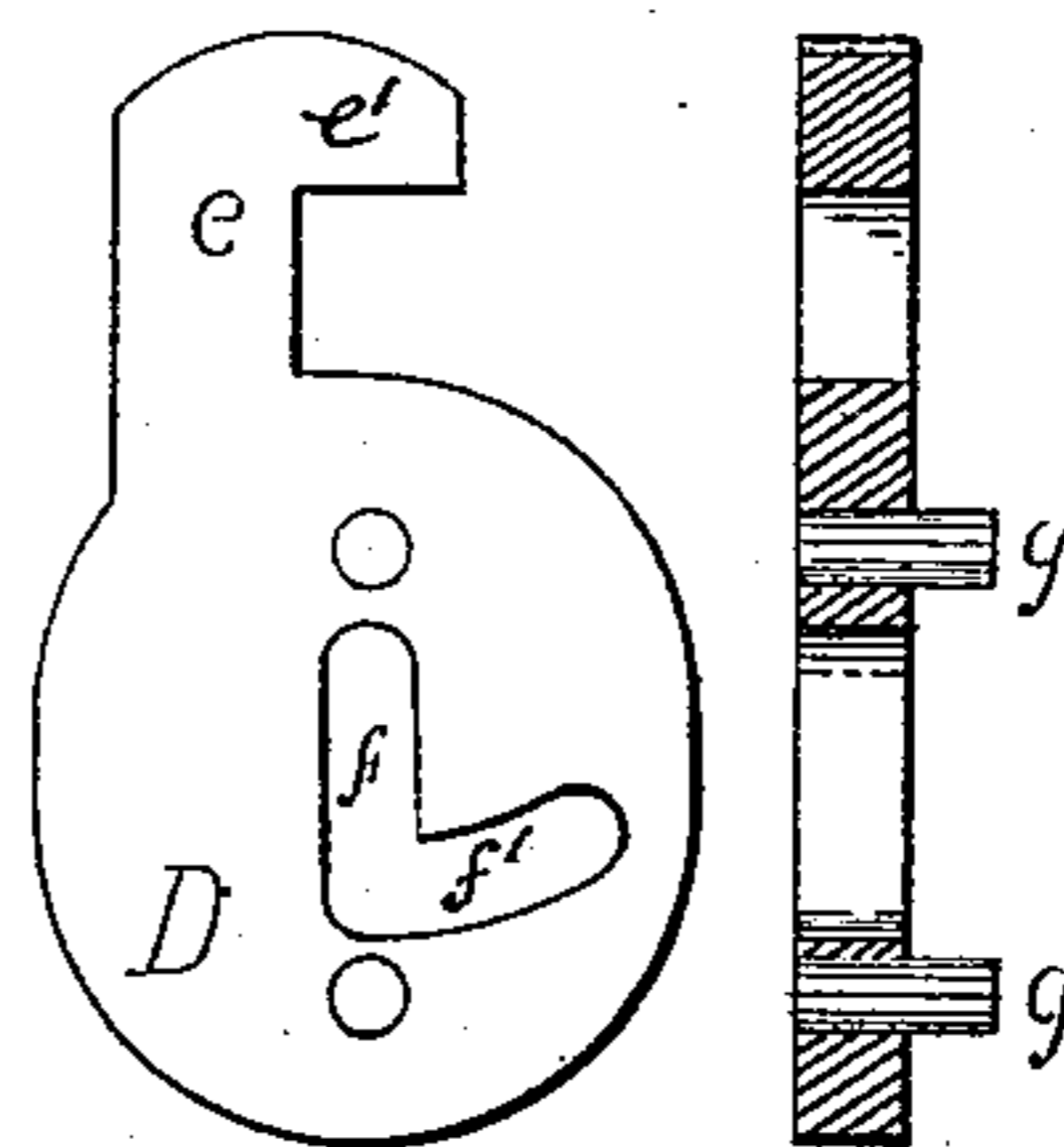
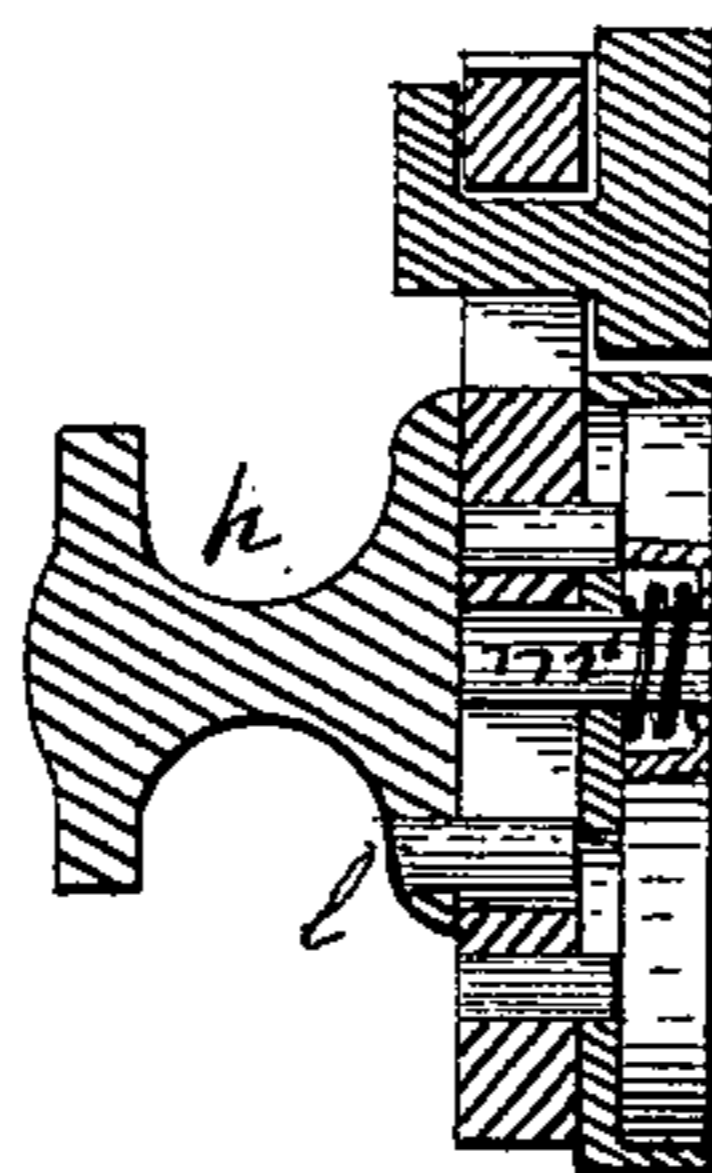


Fig. 6



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## FASTENING FOR MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 309,988, dated December 30, 1884.

Application filed March 12, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS S. SMITH, a citizen of the United States of America, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Fasteners for the Meeting-Rails of Sashes, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 is a plan view of the fastener, and Fig. 2 a side elevation of the same. Fig. 3 is a central sectional view of all the parts of the fastener. Fig. 4 is a plan view of the base-plate. Fig. 5 is a plan view of the latch, and of a central and longitudinal section of the same. Fig. 6 is a central and sectional view of all the parts of the fastener, and shows a construction slightly different from that shown in Fig. 3.

My invention relates to fasteners for the meeting-rails of sashes, and is an improvement on the fastener for which Letters Patent were granted to me on the 16th day of October, 1883, No. 286,859. The invention consists in improved means for locking the latch when the sashes are fastened and when they are unfastened.

To enable others to avail themselves of my invention, I will give a description of the same in detail.

The base-plate A is raised, as shown in the sectional view, Fig. 3. A central perforation, *b*, is made in the plate, and also two circular slots, *c*, which are concentric with the perforation *b*. The ends of each of these slots open into or are connected with the straight slots *x* and *x'*, and the slots are of the same width as the circular slots, and extend in radial and opposite directions from the circular slots. The latch D is of uniform thickness, and in it the longitudinal slot *f* is made, which opens into the slot *f'*, which is nearly at right angles to the slot *f*. In a line through the center of the slot *f*, in the direction of its length, the pins *g* are inserted, and their distance from each other is the same as the distance between the two circular slots *c* in the base-plate A, in which they are adapted to move. The latch has the notch *e*, which forms the hook *e'* on its end, and is made in the form shown in Figs. 1 and 5. The

knob *h* is perforated, and the upper part of the perforation is largest, and a shoulder is thus formed, between which and the head *n* of the bolt *m* a spiral spring is placed, to produce friction and prevent the knob and latch from turning too easily on the base-plate A. The pin *l* is inserted in the lower end of the knob. The knob, latch, and base-plate are held together by the bolt *m'*, on the ends of which heads are formed, as shown in Fig. 3. In place of the knob a crank may be used. The plate R may be a raised plate, like the plate A, or not, as desired, but its upper surface should be even with the upper surface of the plate A. The stud P is inserted in the plate R.

In Fig. 6 a construction is shown which is a little varied from that shown in Fig. 3. The knob *h* is cast onto the wrought-iron piece *m'*, which passes through a cup, and is headed to hold the parts together. The pin *l* is inserted in the knob, as in the other construction. In this construction the cup and spiral spring may be omitted, in which case the piece *m'* will be shorter, and the head formed on the same will come against the under side of the base-plate A. So, too, in the construction shown in Fig. 3 the spiral spring may be omitted.

It is obvious that one of the circular slots *c*, the short slots connecting with it, and a corresponding pin in the latch may be omitted, and yet the fastener would operate; but it would not operate as well, neither would the locking of the latch be as secure.

Constructed as above described and as shown, the operation of the fastener is as follows: When the parts of the fastener are in the position shown in Fig. 1, the pin *l* and the bolt *m* are in a line nearly parallel with the slot *f*, or with a line through the center of the slot and pins *g*. Any strain of the latch on the pin *l* while in this position does not tend to turn the knob. As the knob is turned and the pin *l* acts on the side of the slot *f'* toward the hook on the latch, the effect is to move the latch lengthwise, and to move the pins in the latch out of the slots *x*, and then through the circular slots *c* and into the slots *x'*, where the latch is locked by its pins and the slots, so that a force applied near the hook will not turn the latch. As the knob is turned in the opposite

direction the pins recede from the slots  $x'$ , move through the circular slots, and as the hook engages the stud move into the slots  $x$  and lock the latch, and the latch draws the sashes together, prevents the rattling of the same, and makes the joint between the rails tight.

Having described my improved fastener and its mode of operation, what I claim as new, and desire to secure by Letters Patent, is—

1. The base-plate A, having the central perforation,  $b$ , and either one or two circular slots,  $c$ , opening into the straight slots  $x$  and

$x'$ , and concentric with the central perforation, the straight slots extending in radial and opposite directions from the circular slots, as described.

2. The base-plate A, latch D, knob  $h$ , and bolt  $m$ , all the said parts constructed and combined as described.

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

THOMAS S. SMITH.

Witnesses:

GEORGE TERRY,

GEORGE L. BARNES.