J. BROUGHTON.

Fastener for Meeting-Rails of Sashes.

No. 220,335. Patented Oct. 7, 1879.

Fig. 1.

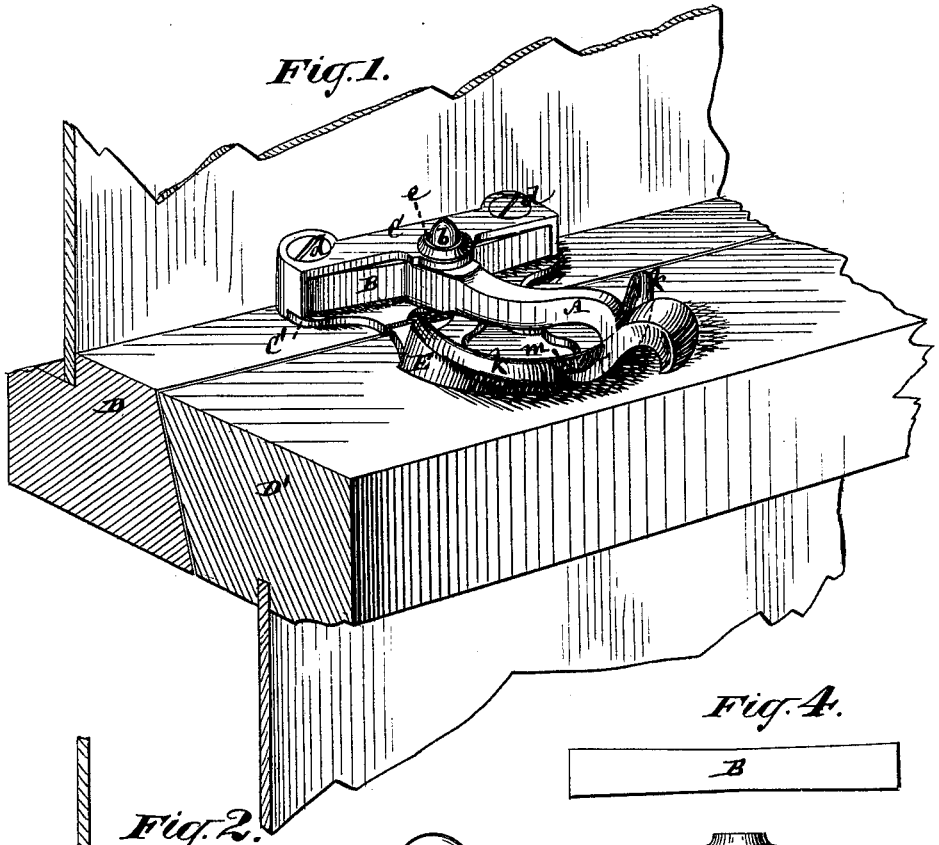

Fig. 2.

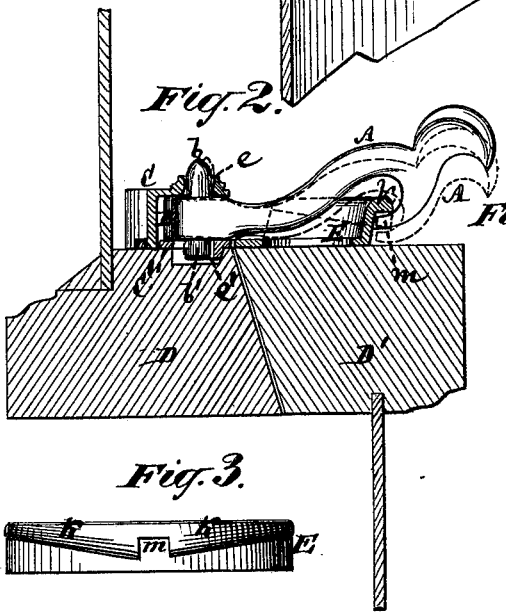

Fig. 3.

Fig. 4.

Fig. 5.

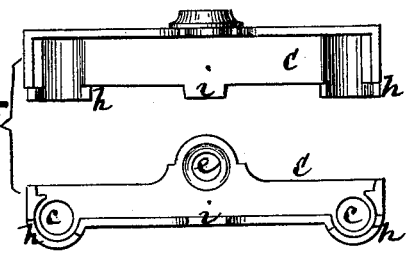

Fig. 6.

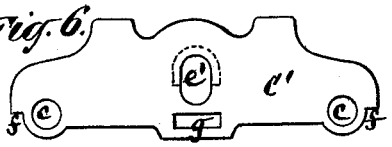

Fig. 7.

Witnesses

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IMPROVEMENT IN FASTENERS FOR MEETING-RAILS OF SASHES.

Specification forming part of Letters Patent No. **220,335**, dated October 7, 1879; application filed February 8, 1879.

To all whom it may concern:

Be it known that I, JOHN BROUGHTON, of the city of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention more particularly relates to that description of sash-fasteners in which a pivoted latch or lever, carried by a box secured to the upper sash of a pair of sashes, has combined with it a spring, which, while it admits of the latch being vibrated either to the right or to the left, to engage it with or disengage it from a locking-sector or keeper on the lower sash, acts upon the back of the latch to hold it in position when securing the sashes. Such a sash-fastener, however, is not what is termed "burglar-proof," inasmuch as it admits of a knife-blade or other thin piece being passed up between the meeting-rails of the upper and lower sashes and pushing the latch to one side, thus unfastening the window and allowing the sash to be opened from the outside.

The object of this invention is to remedy this defect, or to give greater security against the window being opened from the outside, and to cheapen the construction of the fastener; to which ends the invention consists in a certain novel construction of parts, whereby the latch is made to engage in a transverse direction relatively to its lateral movement with the locking-sector or keeper of the fastener when securing the sashes, so that the window cannot be opened without first depressing the latch and then moving it to one side.

In the accompanying drawings, Figure 1 represents a view, in perspective, of a sash-fastener constructed in accordance with my invention, applied to the meeting-rails of a pair of window-sashes. Fig. 2 is a vertical section of the same in a plane at right angles to the face of the window. Fig. 3 is an edge view or elevation of the locking-sector or keeper portion of the fastener with which the latch engages; Fig. 4, a face view of the spring used in the fastener; Fig. 5, an interior face view and inverted plan view, respectively, of the upper and main portion of the box which carries the latch, detached; Fig. 6, an inverted plan of a bottom plate forming part of said box; and Fig. 7, a top view of the latch, detached.

A is the latch or locking-lever of the fastener. This latch or lever is a solid or rigid one, and has its upper and lower pivots or journals, *b b'*, cast upon or with it. Such construction dispenses with the drilling of a hole through the back end of the latch, against the flat surface of which back the spring B of the fastener bears to hold the latch firm and in position when locked. C is the upper or main portion of the box which carries the latch A, and C' a lower plate portion thereof.

Heretofore the latch-carrying box has been cast in one piece, and holes formed in its upper and lower portions for the independent journal or pivot on which the latch vibrates to pass through. In my improved construction, however, the box or case which confines the latch between its upper and lower portions is cast in two parts or pieces, C C', in order to insert the latch, having the journals *b b'* cast upon it, in position; and making said box in two parts admits of the holes *c c* for the screws *d d*, which fasten the box or case to the one or upper sash, D, and the holes *e e'* for the journals *b b'*, being cast in said parts, such construction of said box admitting of the patterns used in forming the two parts of the box drawing out of the sand as simple flat castings are made; hence the parts when cast require assembling merely, and all drilling, countersinking, and expensive fitting are dispensed with, and no wrought iron pivot or journal with its washer-head is required to be furnished for the latch to vibrate upon.

The lower plate or portion, C', may be adjusted into position relatively with the upper portion, C, of the box by constructing it with end shoulders, *f f*, and an intermediate slot, *g*, and the portion C with projecting partial socket-shoulders *h h* and a tongue, *i*, for the shoulders, *f f*, and slot *g* to abut against and

engage with. Furthermore, the latch A is fitted so as to have not only a lateral movement to the right or to the left by its journals *b b'* in the holes or bearings *e e'*, but is free, when in the mid-position of such movement, to move up or down at its outer end. This up-and-down motion is provided for by elongating the lower journal-bearing, *e'*, in a backward direction. Such backward elongation of the bearing *e'*, however, while it allows the free end of the latch to be pressed downward, does not impair the rigidity or strength of the latch to resist an upward or lifting action. The spring B, too, arranged within the box or case and bearing against the back end of the latch, has, in addition to its lateral action, due to the horizontal vibration of the latch, a torsional or twisting action, when said latch, midway of its lateral movement, is pressed downward or vibrated vertically.

The object of this up-and-down movement of the latch, and torsional action of the spring consequent thereon, is to provide for the secure holding of the latch in its mid-position laterally, so that a knife-blade inserted between the meeting-rails of the sashes cannot move it. To effect this result the rim *k* of the locking-sector or keeper E of the fastener, which is secured to the other or lower sash, D', is provided with inclined surfaces, under which the latch A at its fastening end passes laterally. These inclined surfaces of the rim tend downward toward the middle of the latter, and at the center of the rim is a notch, *m*, into which the free end of the latch will rise when moved to its middle position, as shown in Figs. 1 and 2, the torsional action of the spring upon the back end of the pivoted latch compelling such locking adjustment of the latch.

Thus the fastener has a burglar-proof character given to it, it being impossible to move the latch to either side by inserting a knife or other blade between the meeting-rails of the sash; but by pressing down on the free end of the latch from the inside of the window, said latch may be disengaged from the locking-notch *m*, and afterward be moved laterally from under the rim *k* of the sector or keeper E of the fastener. Apart from this advantage, the cost of manufacturing the fastener by the construction herein described is very largely reduced.

I claim—

The combination, in a window-fastener, of a latch or lever, the lower pivot of which is journaled loosely in its bearing, whereby it may be moved vertically as well as laterally, and a locking-sector or keeper constructed with an inclined rim, having a notch for the reception of the lever, whereby the same may be locked in place, substantially as described.

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