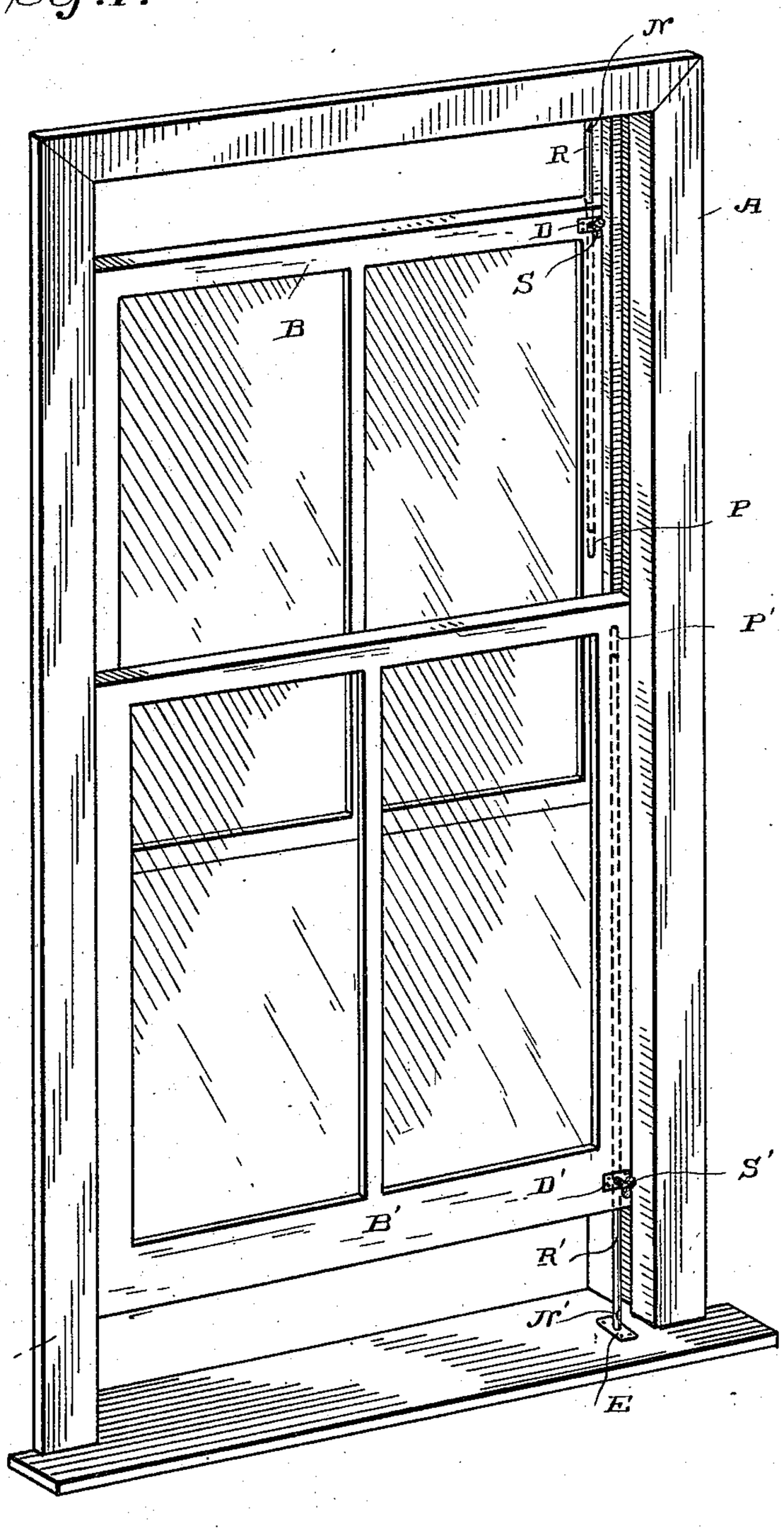
(No Model.) 2 Sheets—Sheet 1.

K. GRABURN.

SASH FASTENER.

No. 413,659. Patented Oct. 29, 1889.

Fig. 1.



Witnesses
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J. H. Brown.

Inventor
Kingsforth Graburn
By his Attorney A. P. Smith

(No Model.) 2 Sheets—Sheet 2.

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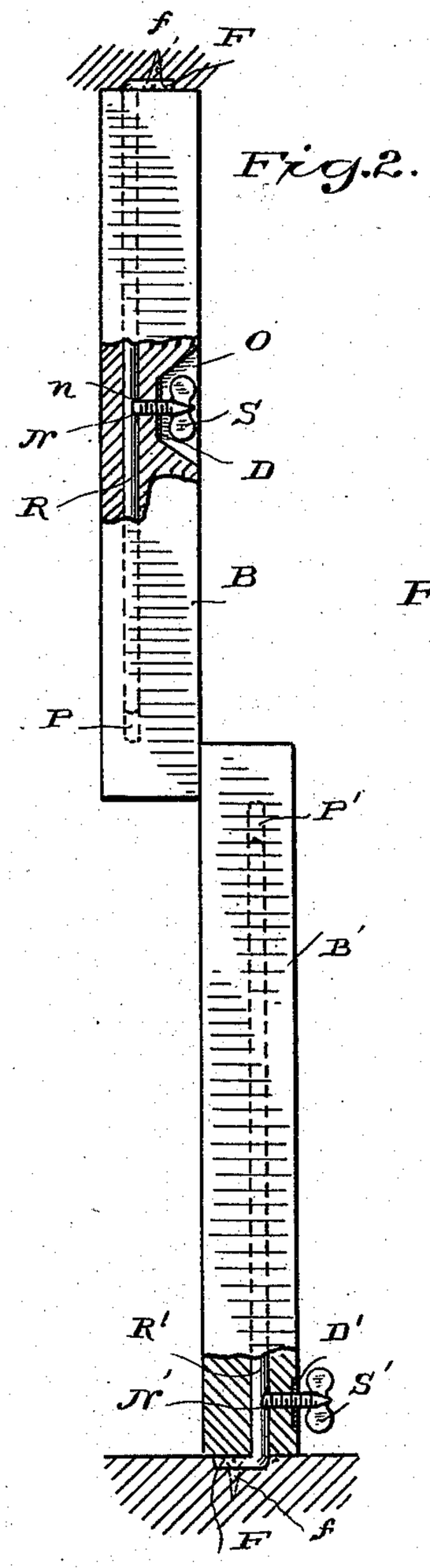


Fig. 2.

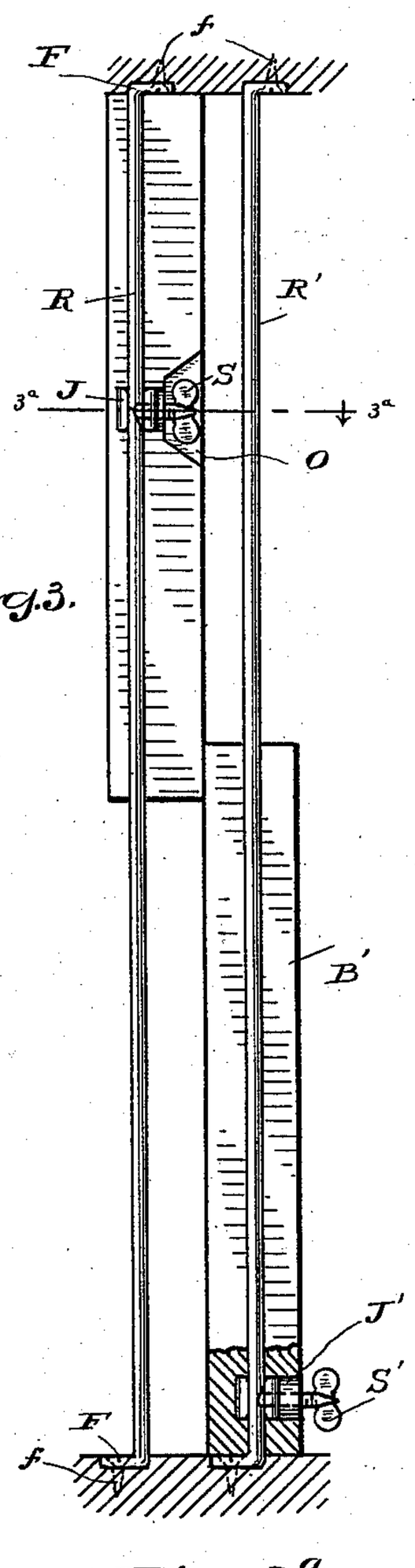


Fig. 3.

Fig. 3ª

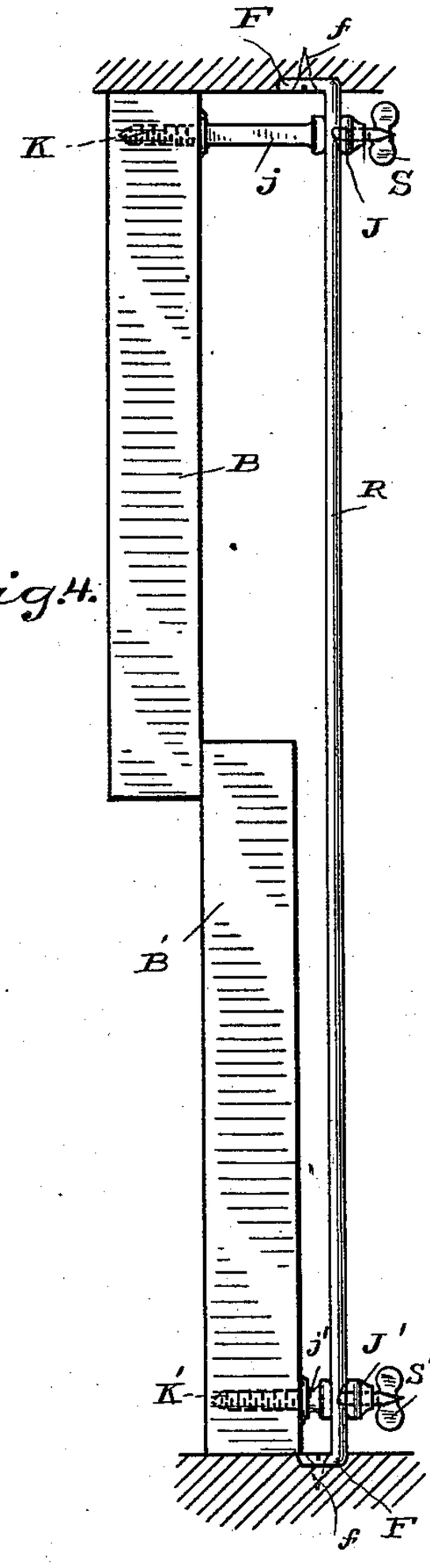


Fig. 4.

Fig. 4ª

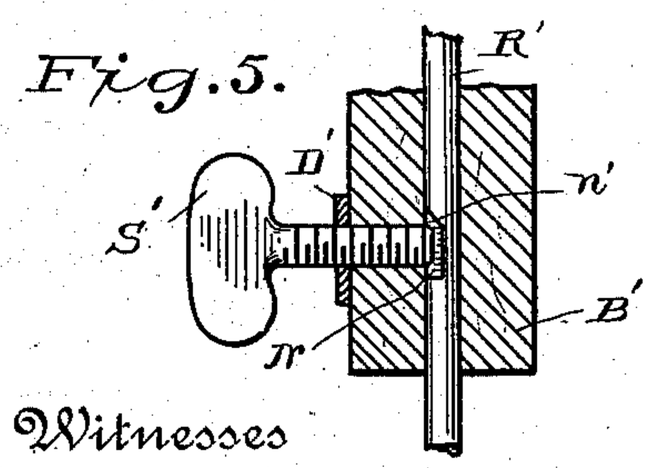
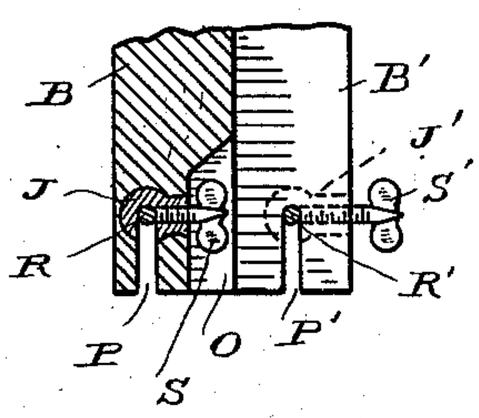
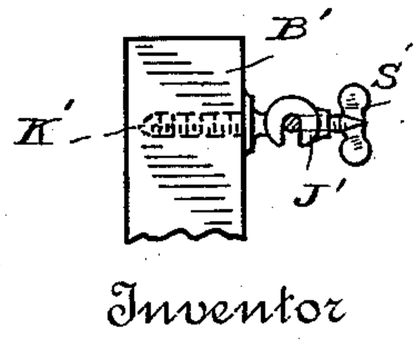


Fig. 5.





Witnesses
H. A. Lamb
T. H. Brown.

Inventor
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UNITED STATES PATENT OFFICE.

KINGSFORTH GRABURN, OF WINNIPEG, MANITOBA, CANADA.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 413,659, dated October 29, 1889.

Application filed July 12, 1889. Serial No. 317,340. (No model.)

To all whom it may concern:

Be it known that I, KINGSFORTH GRABURN, a subject of the Queen of Great Britain, residing at Winnipeg, in the Province of Manitoba and Dominion of Canada, have invented certain new and useful Improvements in Window-Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists in the improved window-fastener, hereinafter to be described and claimed.

In the drawings, Figure 1 is a perspective view of a window with my invention applied. Figs. 2, 3, 4, 3ª, 4ª, and 5 illustrate modifications of the same.

A desirable window-fastener should have the qualities of simplicity, of adjustability, of positiveness of action, and of safety. I have endeavored to combine these qualities by the following arrangement, in which A is the window-casing, and B B′ are the two window-sashes sliding therein. These sashes B B′ have perforations P P′, in which vertical rods R R′, which are attached to the window-casing, may slide. These rods are fastened to the window-casing either by means of the plates E, as shown in Fig. 1, or by turning over the end of the rod into a foot F, through which a screw *f* is passed, as shown in Figs. 2 to 4.

Connected with or set in each window-sash is a jaw which slides upon the vertical rod. This jaw may be nothing more than the surrounding portion of the sash itself, as shown in Fig. 1, or it may be a metallic jaw J set in the sash, as shown in Fig. 3, or an external jaw screwed to the sash, as shown in Fig. 4. In this jaw, of whatever construction, is a set-screw S or S′, which compresses the rod within the jaw, and together with said jaw forms a screw-clamp sliding over the rod or rigidly attached to the same, according to whether the screw is forced inwardly or is left partly withdrawn.

In the preferred form of my invention each vertical rod is provided with a notch N at that point where it will be clasped by the screw-clamp when the sash is closed. This notch, as shown in the detail view, Fig. 5, is provided with a beveled lip *n*, which bears upon that side of the set-screw from which the sash should be forced to insure complete closure of the window—that is, the notch in the rod to which the lower sash is attached will have the beveled lip on the upper side of the set-screw, whereas that to which the upper sash is attached will have its beveled lip on the lower side of the set-screw.

In the form illustrated in Fig. 1, which is perhaps the cheapest form of my invention, the set-screws S S′ turn in screw-plates D D′, set in the window-sashes, and the rods R R′ pass through perforations in said sashes. It is, of course, evident that it would be impossible to lift the lower sash B′ above the upper sash B, inasmuch as the projecting set-screw S would encounter the upper edge of the lower sash. To obviate this difficulty, I have illustrated the form shown in Fig. 2, in which the set-screw S of the upper sash is let into a countersunk hole O so that it is flush with the edge of the upper sash B, and the lower sash B′ may pass freely over it. This also permits the placing of the set-screw at or about the middle of the upper sash, where it is much more easily reached than when it is placed at the upper edge of the said sash, as is necessary when it protrudes, as shown in Fig. 1.

In Figs. 1 and 2 I have shown short rods R R′, which are attached to only the upper or lower portion of the casing. It would evidently be a stronger construction to make said rods continuous and fasten them at both the upper and lower portions of the casing, as is illustrated in Fig. 3. In this case it would be convenient to have the perforations P P′, through which these rods pass, cut out, as shown in the plan view of Fig. 3ª, so that the sash can be withdrawn from the window-casing without removing the rods R R′. In this figure I have also illustrated a jaw J set in the window-sash, with a set-screw S mounted therein. This is a more durable construction than that shown in Figs. 1 and 2, where the screw-clamp consists simply of the set-screw pressing the rod against the wood of the sash-frame.

In Fig. 4 I have illustrated a modification in which but one rod is necessary, and where the clamp-jaws J J′ are outside of the win-

dow-sash, and are connected thereto by suitable shanks *j j'*, provided with screw-points K K', which enter the sash.

The method of operation of my invention is evident. When it is desired to raise or lower one of the window-sashes, the set-screw is loosened and the sash moved to the desired position, the clamp is then tightened by turning the set-screw, and the window-sash is held positively in that position.

The advantages of the construction are, among others, that the sash is largely prevented from rattling by its attachment to the rigid rod. It can be adjusted at any position. The use of the notch with the beveled lip forces the sash firmly against the casing and prevents the dropping of the upper sash, as is frequently the case with other forms of fasteners. The clamp is either embedded in the sash or on the inside of the window, and is in a position at which it is almost impossible for persons on the outside to get if any effort is being made to open the window from the outside. It also has the great advantage of allowing the upper sash to be more easily cleansed when necessary.

Having therefore described my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. In a window-fastener, the combination of a vertical rod which is attached to the window-casing, and which fits into a longitudinal perforation in the window-sash, a jaw which surrounds said rod and is set in the window-sash, and a set-screw which is mounted in said jaw and bears against said rod, substantially as described.

2. In a window-fastener, the combination of a vertical rod which is attached to the window-casing, and which fits into a longitudinal perforation in the window-sash, a jaw which surrounds said rod and is set in the window-sash, and a set-screw which is mounted in said jaw and bears against said rod, together with a notch cut in said rod at that point where it is seized by the clamp when the window is closed, substantially as described.

3. In a window-fastener, the combination of a vertical rod attached to the window-casing, a jaw which surrounds said rod and is attached to the window-sash, and a set-screw which is mounted in said jaw and bears against said rod, together with a notch in said rod at the point opposite the set-screw when the window is closed, which notch has a beveled lip which bears upon the side of the set-screw from which the sash should be forced to insure complete closure of the window, substantially as described.

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

KINGSFORTH GRABURN.

Witnesses:
R. DOLBEAR,
A. F. CROWE.