(No Model.) 2 Sheets—Sheet 1.

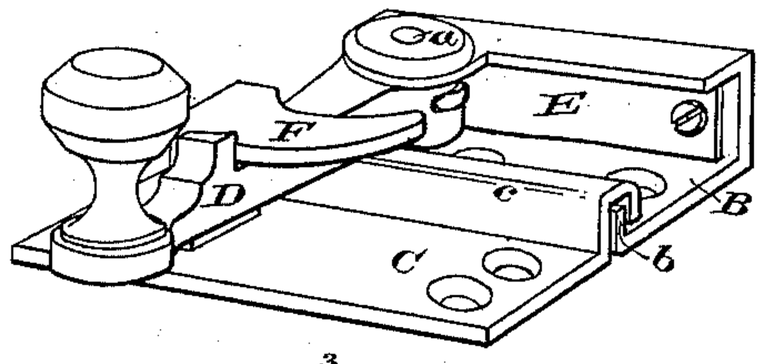
F. J. BIGGS & S. PARDOE.

SASH FASTENER.

No. 370,526. Patented Sept. 27, 1887.

Fig. 1.

Fig. 2.



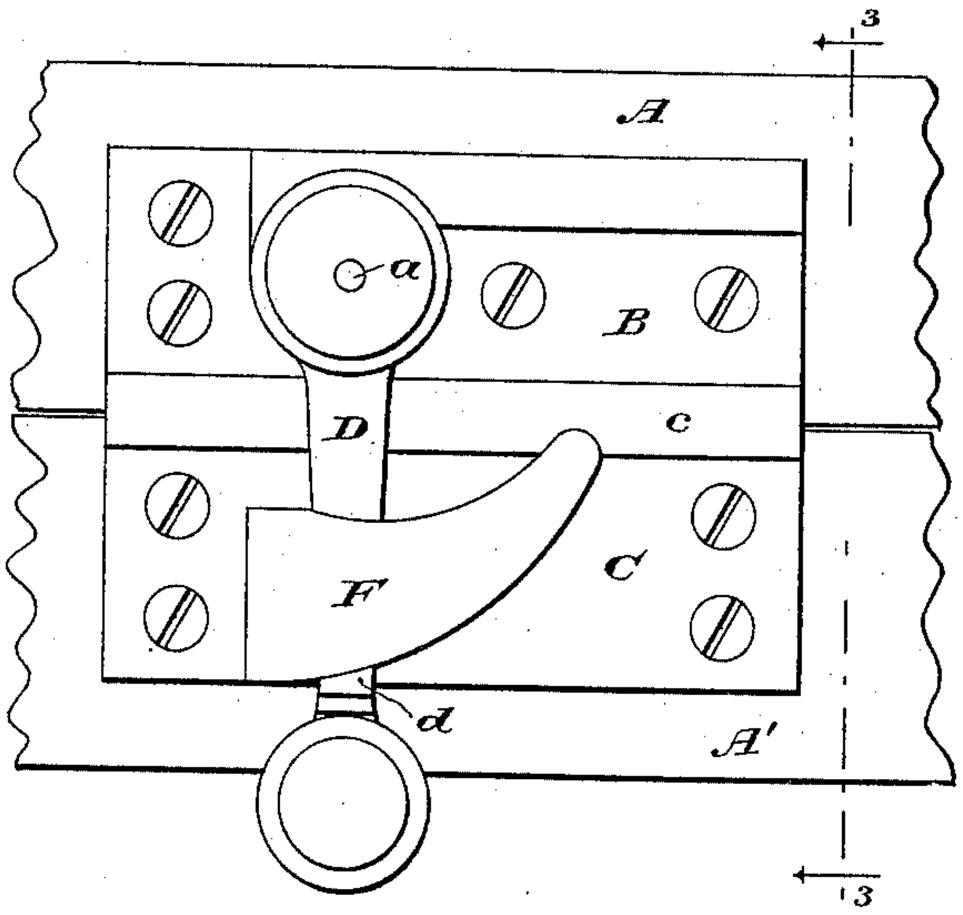


Fig. 3.

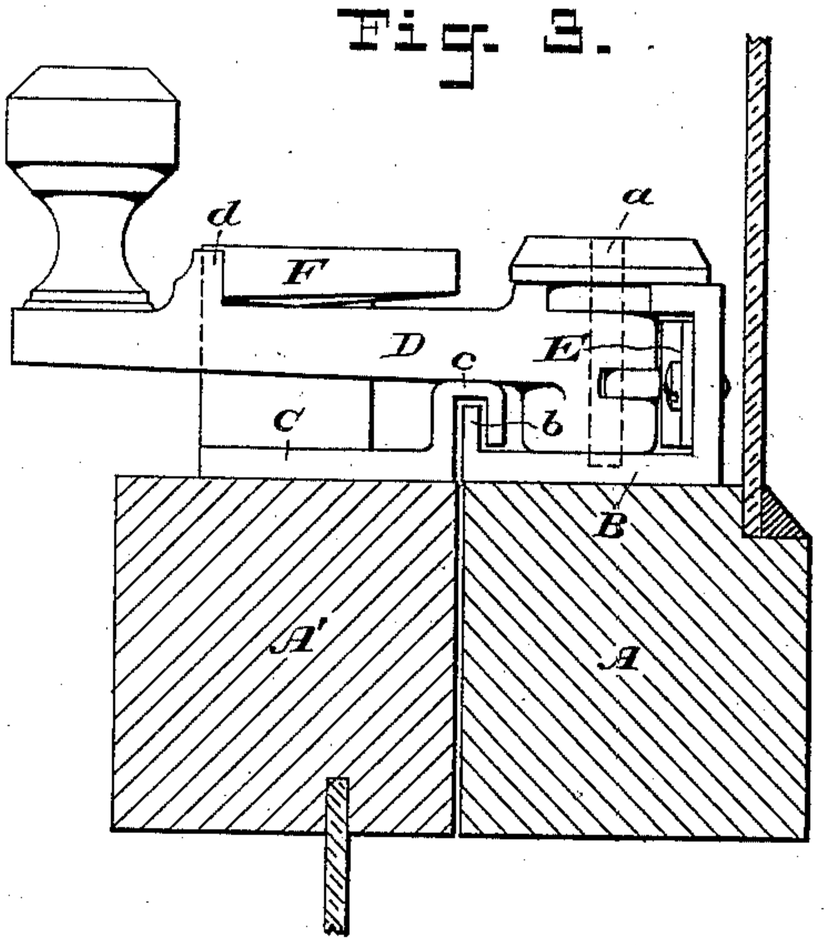
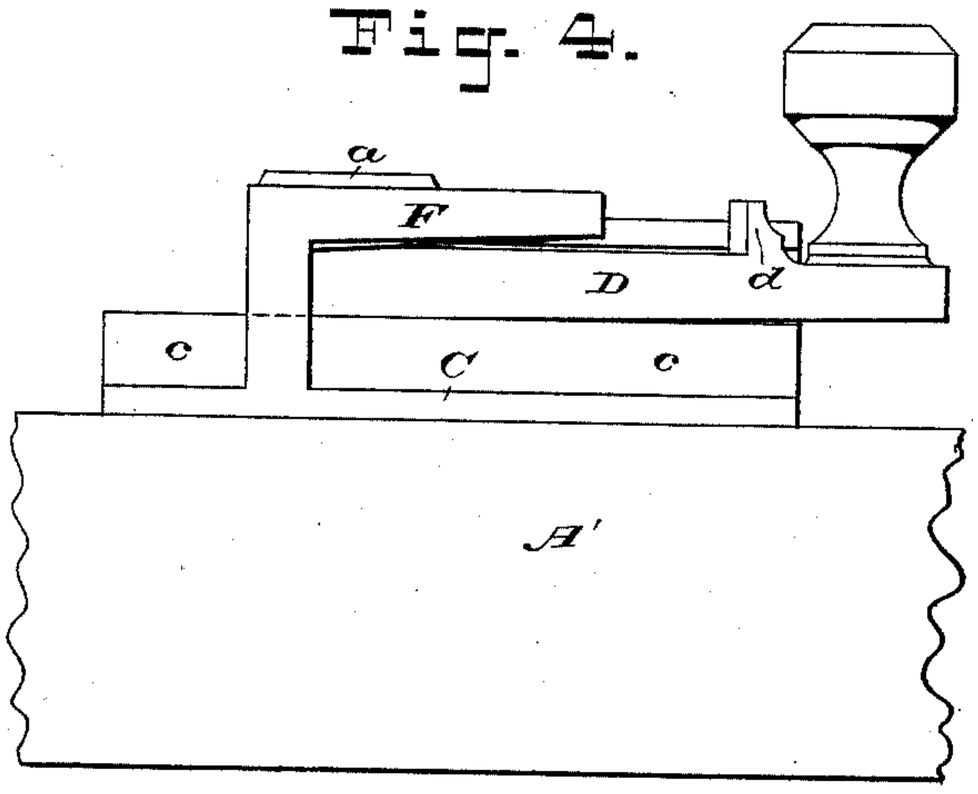


Fig. 4.



WITNESSES:

George H. Fraser.

Geo. Bainton

Frederick James Biggs
and Samuel Pardoe
By their Attorneys,
Bigby Fraser & Bennett

(No Model.) 2 Sheets—Sheet 2.

F. J. BIGGS & S. PARDOE.

SASH FASTENER.

No. 370,526. Patented Sept. 27, 1887.

Fig. 5.

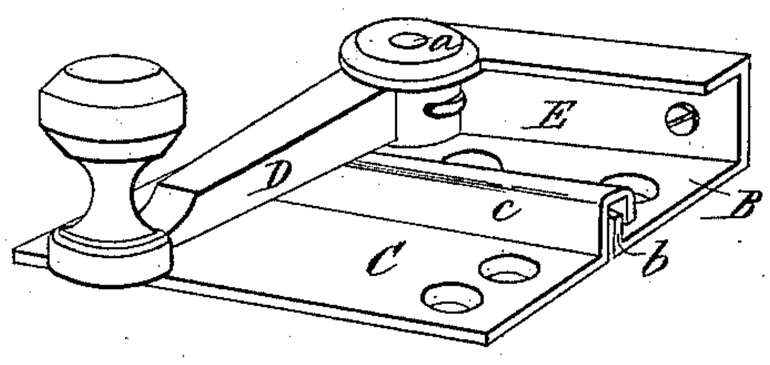
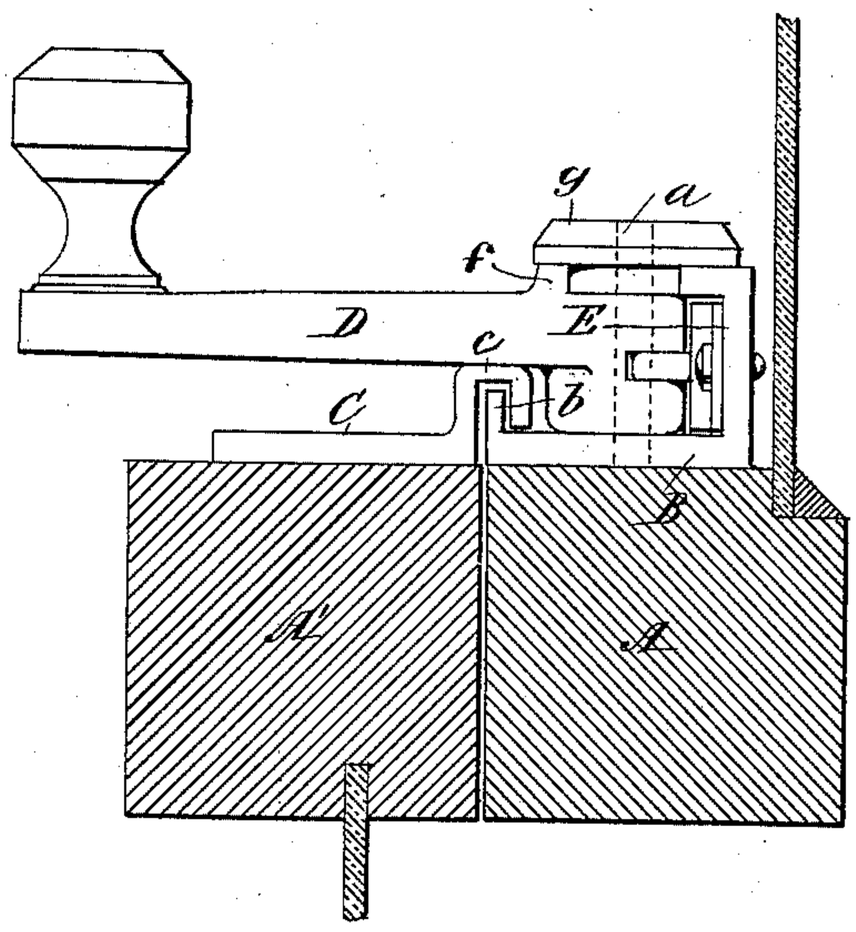


Fig. 6.



WITNESSES:
John A. Kennie.
Paschal J. Ferrara.

INVENTORS:
Frederick James Biggs
and Samuel Pardoe
By their Attorneys,
Burke Fraser & Bennett

UNITED STATES PATENT OFFICE.

FREDERICK JAMES BIGGS, OF LONDON, AND SAMUEL PARDOE, OF KILBURN, COUNTY OF MIDDLESEX, ENGLAND; SAID PARDOE ASSIGNOR TO SAID BIGGS.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 370,526, dated September 27, 1887.

Application filed July 10, 1886. Serial No. 207,675. (No model.) Patented in England February 23, 1886, No. 2,601, and in Germany April 19, 1886, No. 2,826.

To all whom it may concern:

Be it known that we, FREDERICK JAMES BIGGS, of Leadenhall Buildings, in the city of London, and SAMUEL PARDOE, of 90 High Road, Kilburn, in the county of Middlesex, England, both subjects of the Queen of Great Britain, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a specification.

This invention relates to fasteners for the meeting-rails of window-sashes, its objects being to prevent the success of nefarious attempts to open the window from the outside, and to enable the sashes to be fastened more securely and lessen their liability to rattle when fastened.

In the accompanying drawings, Figure 1 is a perspective view of our improved fastener, showing it locked or fastened. Fig. 2 is a plan thereof. Fig. 3 is a side elevation thereof, showing the meeting-rails in section; and Fig. 4 is a front elevation showing the catch open. The remaining figures illustrate a modified construction, of which Fig. 5 is a perspective view, and Fig. 6 is a side elevation showing the meeting-rails in section.

Referring to the drawings, A A′ are the meeting rails or bars of the sashes.

B is a plate secured to the rail A by screws or otherwise. C is a plate secured to the rail A′ in like manner.

D is the latch or locking-arm of the fastener, pivoted at *a* to the plate B, and E is the usual spring, engaging with the latch D in the ordinary manner.

The plate B is formed along its front with a rib, *b*, projecting upward, and the plate C is formed along its rear edge with a channel-piece, *c*, into which the rib *b* on plate B projects when the rails or bars meet.

On the plate C is formed a hook, F, which projects to one side and which, by preference, is slightly sloped and rounded on its under side, so as to admit of the more facile engagement or disengagement of the latch D therewith. We so apportion the height of the channel-piece *c* and so slope or taper the under side of the latch D that when the latch is locked into the hook F it shall bear tightly downward on the channel-piece *c* and tightly upward on the under side of the hook F, thus wedging all together by reason of the tapering of the under side of the latch and the sloping or rounding of the under side of the hook F. Thus the turning out of the latch exerts an upward pull on the plate B, thereby drawing the upper sash upward while pressing the lower sash down. A projection, *d*, is, by preference, formed on the latch D, and in locking the sashes this shoulder rides against the curved front face of the hook F, and thereby acts to draw the two sashes together by reason of the eccentric curve which is given to the face of the hook.

As clearly seen in Fig. 3, when the meeting-rails A A′ are together it is impossible to insert a knife or instrument between the plates B C, and so push back the latch D and open the window. The latch, by bearing firmly on the channel-piece *c* and hook F, prevents the sashes from being rattled by the wind or other cause of vibration.

The plates B C, with the rib and channel-piece, may be of any desired length. In fact, they may, if required, extend the whole length of the sash, and so tend to exclude or decrease draft.

Figs. 5 and 6 illustrate a modification of our fastener, the construction of which is precisely the same as that of the form already described, with the exception that the hook F is omitted from the plate C and the projection *d* is omitted from the lever D.

The operation does not differ from that of the construction first described, except that, because of the omission of F, the outer end of the lever is not kept pressed down by any part of the plate C. Consequently the strength of the fastening is dependent upon the rigidity and strength of the pivotal mounting of the lever D. The upward thrust of the lower sash is transmitted through the channel-piece *c* to the lever D, and is resisted partly by the pivots of the lever and partly by the abutment of a projection, *f*, thereon, which stands nearly over the channel-piece, against the under side of the head *g* of the pivotal mounting of the lever.

Our invention thus constructed is not of equal strength with the construction shown in

Figs. 1 to 4 unless made of thicker material and greater weight; but, nevertheless, it is superior in strength to most sash-fasteners of this character now in use, since the upward thrust of the lower sash is exerted against the locking-lever as close as possible to the pivot or fulcrum thereof, whereas in other prior fasteners this thrust has commonly been exerted against or close to the free outer end of the lever.

We claim as our invention—

1. The combination, to form a sash-fastener, of a back plate formed with a projecting flange at its front edge, a front plate formed with a channel-piece at its rear edge to engage said flange when the window is closed, and a latch pivoted to the back plate, adapted to turn horizontally outward over the front plate, and formed with an inclined under surface which presses downwardly on said channel-piece when the latch is turned outwardly, substantially as set forth.

2. The combination, to form a sash-fastener, of the plate B, the plate C, formed with a projecting channel-piece and with the hook F, beveled on its under side, and the latch D, pivoted to the plate B and constructed, when turned out, to stand over said channel-piece and under said beveled hook, substantially as set forth, whereby the latch is pressed down by the bevel of said hook, bears downwardly upon said channel-piece, and draws upwardly at its pivot.

3. The combination, to form a sash-fastener, of the plate B, formed with a projecting flange at its front edge, the plate C, formed with a channel-piece at its rear edge to engage said flange when the window is closed, and with a hook, F, in front of said channel-piece, beveled on its under side, and the latch D, pivoted to the plate B, and adapted to turn outwardly over the channel-piece and under the hook, and beveled on its under side, whereby it wedges downwardly against the channel-piece, being itself pressed downwardly by the hook, substantially as set forth.

In witness whereof we have hereunto signed our names in the presence of two subscribing witnesses.

FREDERICK JAMES BIGGS.
SAMUEL PARDOE.

Witnesses:
JOSEPH PASFIELD,
WALTER T. BROWNE.