No. 751,809. PATENTED FEB. 9, 1904.

R. S. REID.

SASH FASTENER.

APPLICATION FILED SEPT. 2, 1902.

NO MODEL.

FIG. 2

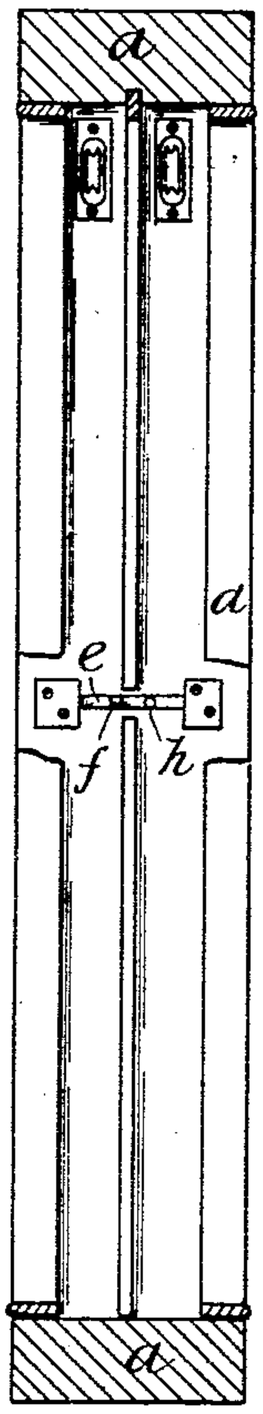


FIG. 1

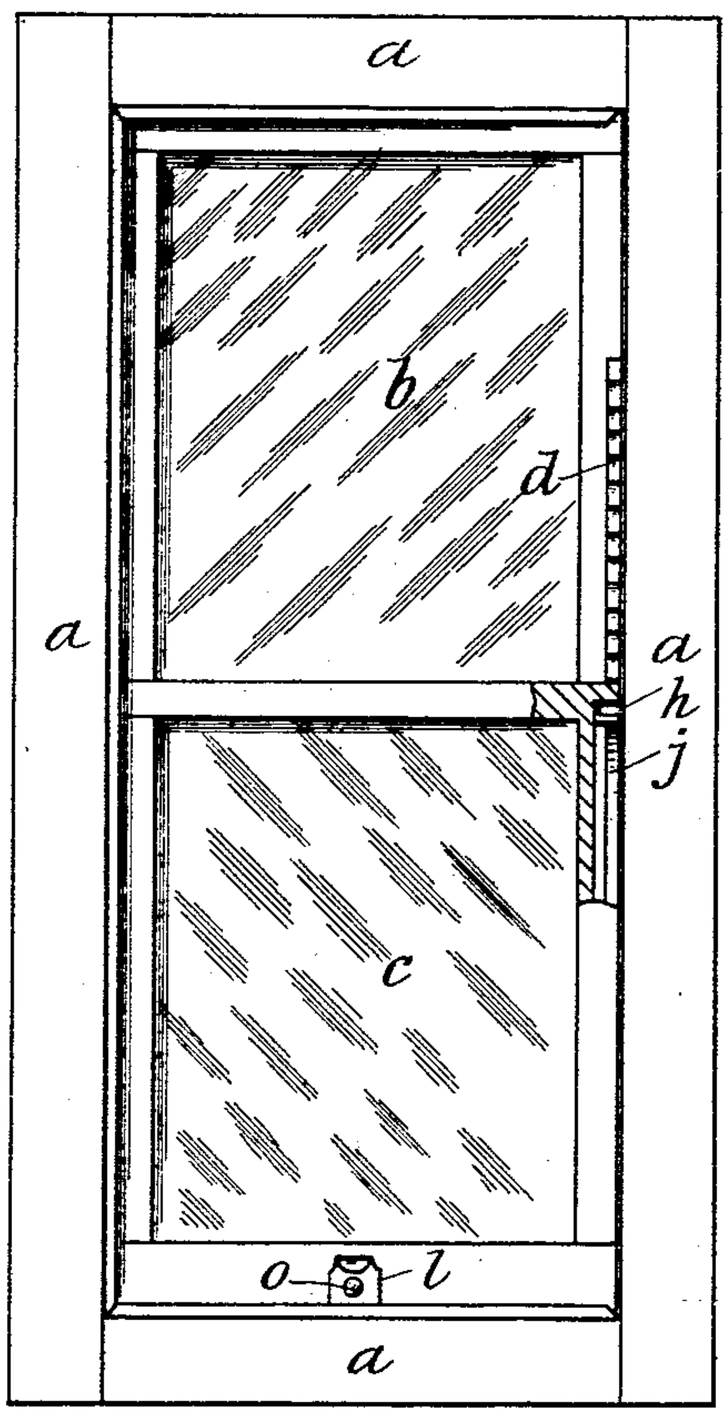


FIG. 3

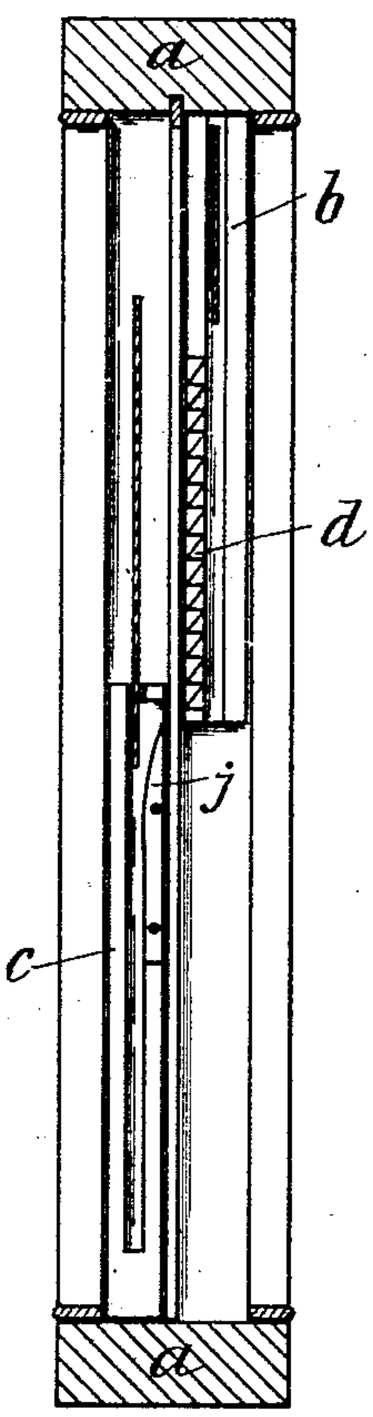
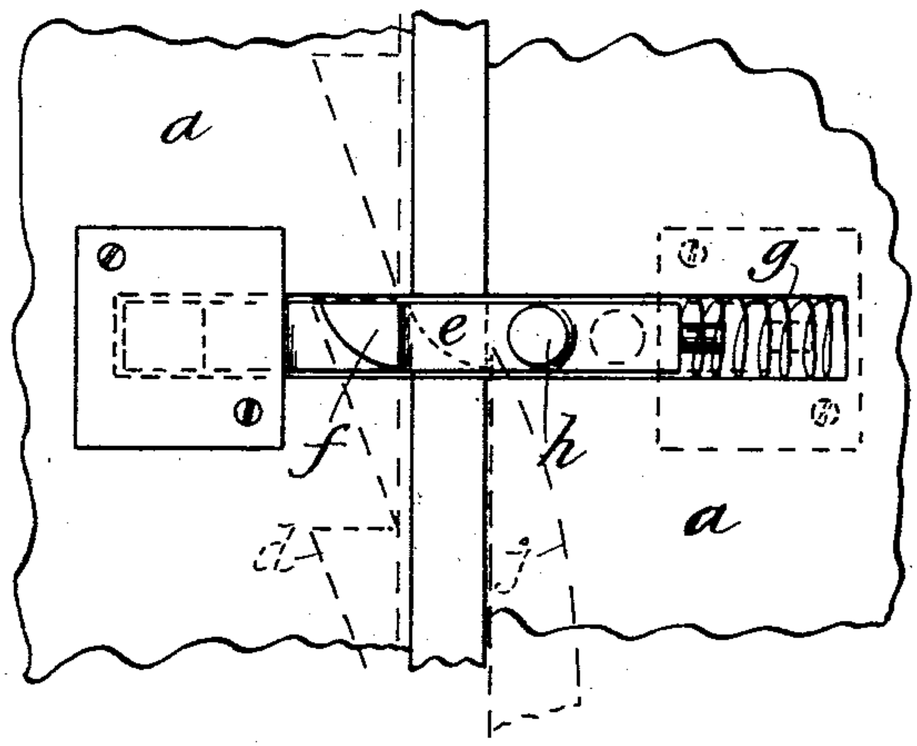


FIG. 4.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 751,809. Patented February 9, 1904.

UNITED STATES PATENT OFFICE.

ROBERT STUART REID, OF TIMARU, NEW ZEALAND.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 751,809, dated February 9, 1904.

Application filed September 2, 1902. Serial No. 121,841. (No model.)

To all whom it may concern:

Be it known that I, ROBERT STUART REID, a subject of the King of Great Britain, residing at Timaru, in the Colony of New Zealand, have invented new and useful Improvements in or Relating to Sash-Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to means whereby the top and bottom sashes of a window may be locked together when in a closed condition and whereby the top sash may be partially opened and locked in such position from being opened farther.

The object of the invention is to allow the top sash of the window to be left open without any fear of intruders being at liberty to open the window from the outside, so as to get through it, while any common device is employed to lock the bottom sash to the frame.

The inner face of one of the side pieces of the top sash has attached to it a ratchet-toothed rack that extends up the face thereof behind the parting-bead of the window-frame. Passing through the parting-bead a short distance below the level of the top of the bottom sash is a spring-bolt provided with a tooth which normally engages with the teeth of the rack on the top sash and locks it. Projecting outward from the end of this sliding bolt is a round pin that enters a groove formed within the edge of the bottom sash. This groove is formed with an inclined surface that will as the sash is raised press against the pin, so as to draw the spring-bolt out from contact with the teeth of the rack and allow the top sash to be drawn down to any required position. By closing the bottom sash the pin of the sliding bolt will be freed, so that the bolt will again engage with the teeth of the rack and lock the top sash from further opening in whatever position it may have been left. The teeth of the rack are so shaped as to allow of them slipping freely over the end of the bolt in order to raise the sash, but will not allow of the window being opened.

In the accompanying drawings, Figure 1 is a front elevation of a window, the bead and parting-bead on one side being removed and a portion of the bottom sash being in section, so as to clearly illustrate the invention. Fig. 2 is a vertical cross-section of the window-frame, the sashes being removed, looking from the left of Fig. 1. Fig. 3 is a vertical cross-section of the window-frame looking from the right of Fig. 1, the sashes being shown in end elevation. Fig. 4 is a detail, on an enlarged scale, of the spring sliding bolt for fastening the top sash to the bottom one.

a is the window-frame, *b* the top sash, and *c* the bottom sash, which are counterbalanced in the ordinary manner by means of cords and weights.

The top sash *b* is provided on its inside face at one edge with a number of ratchet-teeth *d*, which are countersunk beneath the surface of the sash-frame and lie beneath the parting-bead on that side of the window.

Placed in suitable guides within the inside face of the sash-slides of the window-frame is the sliding bolt *e*, Fig. 4, which is provided with a tooth *f*, that is raised from the surface of the bolt, so as to engage with the ratchet-teeth *d*. This tooth is kept normally in contact with the ratchet-teeth by means of the compression-spring *g*, that bears against the end of the bolt *e*. A pin *h* also projects outward from the surface of the bolt *e* a short distance into the slide of the bottom sash *c*.

The cord-groove on one side of the lower sash *c* is cut away near the top end, so as to allow of the pin *h* entering it, and the face on one side of the groove is formed with an inclined surface *j*. This inclined surface will press against the pin *h* as the lower sash is raised, so as to cause such pin and the bolt *e* to be pushed to one side, as shown by dotted lines in Fig. 4. The teeth *f* will thus be drawn free of the ratchet-teeth *d*, so that the top sash may be opened or closed at will. When the sash *c* is lowered, the pin *h* will be freed from contact with the inclined surface *j*, so that the bolt *e* will be forced back by the spring *g* and its tooth *f* will engage with the ratchet-teeth *d* of the sash *b*.

To open the top sash, it is necessary first

that the bottom one should be raised, when the top one may be drawn down to any desired distance. Upon again closing and locking the bottom sash the tooth *f* will spring in and engage with the tooth of the ratchet *d* that is then opposite to it, so that the sash *b* will be locked from further opening, although it may be closed, the ratchet-teeth and tooth *f* being so shaped as to allow of them running freely over each other as the upper sash is being raised.

From the above description it will be understood that the utility of the invention requires some locking device for the lower sash to prevent it from being raised from the outside with the effect of releasing the upper sash. I have accordingly indicated at *o* in Fig. 1 a push-button for a catch of common form and at *l* an ordinary lifting-hook by which the lower sash may be released and raised from the inside only.

What I claim as my invention, and desire to secure by Letters Patent, is—

In windows, a toothed rack secured to the face of the top sash and upon the edge thereof, a sliding spring-bolt secured transversely within the sash-slides of the window-frame and provided with a tooth normally engaging with the rack and with a pin projecting into the slide of the bottom sash, in combination with an inclined surface upon the edge of the bottom sash that is adapted to engage with the bolt-pin so as to free its tooth from the rack when the sash is raised, substantially as herein set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ROBERT STUART REID.

Witnesses:-

W. ALEXANDER,

IVY W. BARRAUD.