(No Model.) 2 Sheets—Sheet 1.

R. ADAMS.

FASTENER FOR MEETING RAILS OF SASHES.

No. 299,712. Patented June 3, 1884.

FIG. 1.

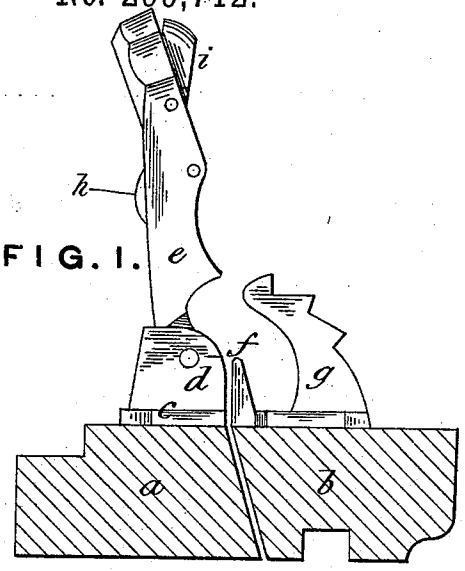


FIG. 2.

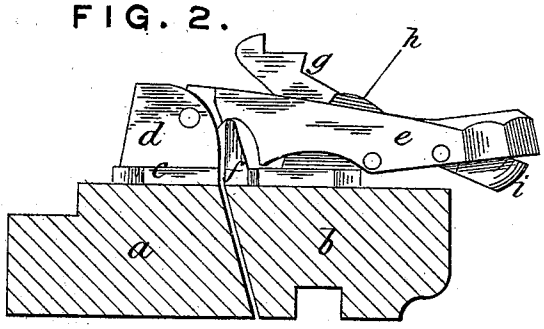


FIG. 3.

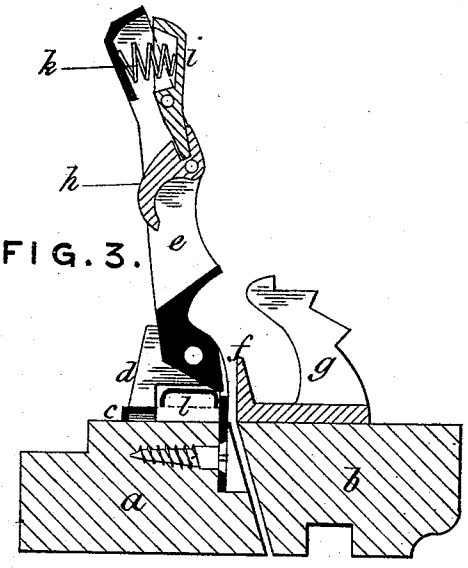
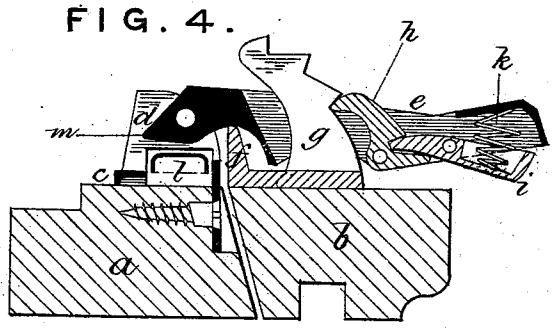


FIG. 4.



Witnesses.

Jo^s. L. Coombs.

Robert Everett.

Inventor.

Robert Adams.

By James L. Norris.

Atty.

N. PETERS. Photo-Lithographer. Washington, D. C.

(No Model.) 2 Sheets—Sheet 2.

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FASTENER FOR MEETING RAILS OF SASHES.

No. 299,712. Patented June 3, 1884.

FIG. 5.

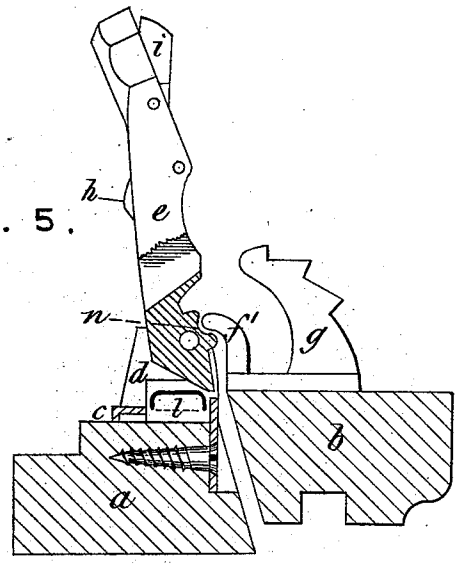
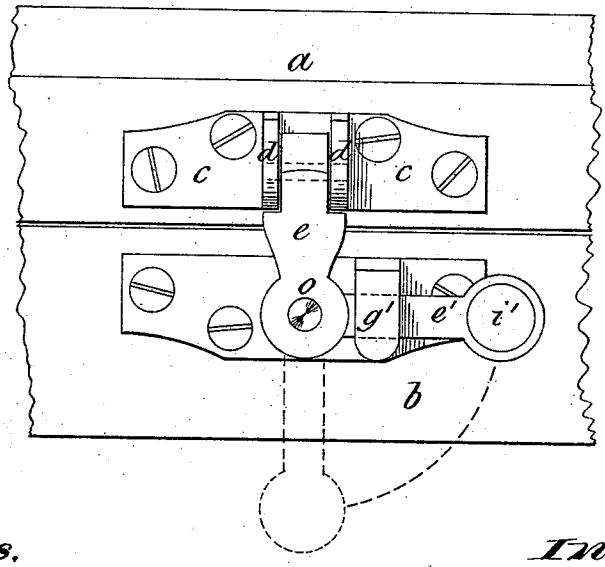


FIG. 6.



Witnesses.
H. L. Coombs
Robert Everett.

Inventor.
Robert Adams.
By James L. Norris.
Atty.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

ROBERT ADAMS, OF SOUTHWARK, COUNTY OF SURREY, ENGLAND.

FASTENER FOR MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 299,712, dated June 3, 1884.

Application filed November 6, 1883. (No model.) Patented in England April 18, 1879, No. 1,520.

To all whom it may concern:

Be it known that I, ROBERT ADAMS, a subject of the Queen of Great Britain, residing at 7 Great Dover Street, Southwark, in the county of Surrey, England, engineer, have invented certain new and useful improvements in sash-fasteners for windows and other objects opening and closing with a sliding movement vertically, or otherwise opened, (for which I have obtained a patent in Great Britain, No. 1,520, bearing date April 18, 1879,) of which the following is a specification.

This invention has for its object the secure fastening of windows, known as "sliding sashes" and the like, to the meeting-rails of which the fastener is usually fixed; but the operation of fastening such windows and other sliding objects with the fasteners generally used is often rendered so difficult through the accumulation of dirt and other obstructions which prevent the rails meeting properly to which they are applied, and also by the upper sash dropping through the stretching of the sash and weight-cord, that windows are often left open or unfastened in consequence, especially where they cannot be conveniently reached. The construction which I adopt to meet this difficulty is as follows: I make a plate, to be fixed to the bottom rail of the upper sash. This plate I mount with lugs, to which I hinge a vibrating lever, on which, and near to the hinge, I mount a somewhat V-shaped projection, which I call a "purchase" clip or grip, determining the length of the fulcrum. The other end of the lever is made suitable either by mountings or directly to engage a catch to hold the window closed. This catch is fixed to a plate secured to the top rail of the lower sash; but where Venetian blinds are used, or from any other cause, it is inconvenient to have any projections beyond the face of the lower sash, I make the lever with a joint, by which I can give it a lateral turn into a horizontal catch; but I prefer to mount the rising and falling end of the vibrating lever with a hinged pawl or sliding catch, which engages with a rack of somewhat quadrant form, the ratchet on which may be made at any desired angle. The pawl and lever may be readily disengaged. It will be seen that by this invention a pair of sashes may be instantly secured or fastened, although the dropping of the upper sash, from the previously-mentioned causes, may prevent their correct closing, as by the downward pull of the fulcrum-lever the sashes are forced home and pulled tightly together, preventing draft and rattling. At the same time the pawl or catch is caught into the rack or corresponding catch, holding the sashes fast against any external force, yet readily and easily disengaged within. To make it self-acting, I sometimes make the segment of a tooth-wheel on the fulcrum-lever, and also on the top-rail plate, previously described, so that in closing the window one part of the gearing comes into contact with the other, and causes the lever to come down and engage the catch or pawl with the rack. To insure their proper gearing, I make suitable guides on the plates fixed to the meeting-rails.

It will be evident that this fastener may be applied to other objects than sashes provided with suitable fixings, and that, adhering to its principle, modifications as to sizes, shapes, and leverage, may be made according to requirements.

In the accompanying drawings, similar letters of reference indicate corresponding parts in the several figures.

Figure 1 is a side view of my invention unfastened, and Fig. 2 is a similar view with the lever down and the window securely fastened. Fig. 3 is a sectional view of Fig. 1, and Fig. 4 a similar view of Fig. 2.

a is the bottom rail of the upper sash, and *b* is the top rail of the lower sash. *c* is the plate, and *d d* the lugs to which the lever *e* is hinged, as shown. *f* is the fulcrum attached to the ratchet-plate on the lower sash, against which the lever presses when brought down, and by means of the pressure upon this fulcrum the lever raises (when necessary) the upper sash to its proper level. *g* is the ratchet. *h* is the pawl, which is actuated by the thumb-lever *i* and spiral spring *k*. *l* is a spring, which is let into the plate *c*. This spring is depressed by the point *m*, Fig. 4, of the lever as it travels over it, and the spring keeps the lever upright when the window is unfastened, as shown in Figs. 2, 4, and 5.

The action of the fastening will be readily understood from the drawings.

Fig. 5 is a side view, partly in section, in which *f'* is formed into a tooth to catch into

the two-toothed pinion *n*. It will be seen that the sash-bar *a* is not quite up, and that the tooth on *f'* is about to engage the pinion *n*. On raising the sash-bar (and sash) *a*, the tooth *f'* causes the lever *e* to fall down and engage the ratchet *g*. The sides of the lever *e* are so formed as to guide the tooth *f'* to the pinion *n*.

Fig. 6 is a plan view of another form of my invention, in which the lever *e* is furnished with a joint at *o*. When the lever *e* is brought down, the end of the lever *e'* is turned aside and passed under the catch *g'*, as shown by the dotted lines.

I reserve the right to claim in a separate application the form of fastening illustrated in Fig. 6.

Having thus described my invention, I claim—

1. The combination of the plate provided with the lugs, the lever pivoted to said lugs, the pawl pivoted to said lever, and the plate provided with the fulcrum for the said lever to bear down on, and the ratchet-bar for the pawl to engage with, substantially as and for the purpose set forth.

2. The combination of the plate provided with the lugs and spring-plate, the lever pivoted to said lugs, and having a pointed end to bear against said spring-plate, the pawl pivoted to said lever and operated by the spring-actuated thumb-piece, and the plate provided with the fulcrum for the said lever to bear down on, and the ratchet-bar for the pawl to engage with, substantially as and for the purpose set forth.

3. The combination of the plate provided with the lugs, the lever pivoted to said lugs, and provided with a pinion at its lower end, the pawl pivoted to the said lever, and the plate provided with the toothed fulcrum to engage with the pinion of the lever, and the ratchet-bar for the pawl to engage with, substantially as and for the purpose set forth.

In testimony whereof I have hereto set my hand this 20th day of September, 1883.

ROBERT ADAMS.

Witnesses:

JOHN DEAN,
17 *Gracechurch St., London.*

GEO. C. DOWNING,
8 *Quality Ct., London.*