

(No Model.)

2 Sheets—Sheet 1.

M. McVICKAR.
REVERSIBLE SASH.

No. 460,342.

Patented Sept. 29, 1891.

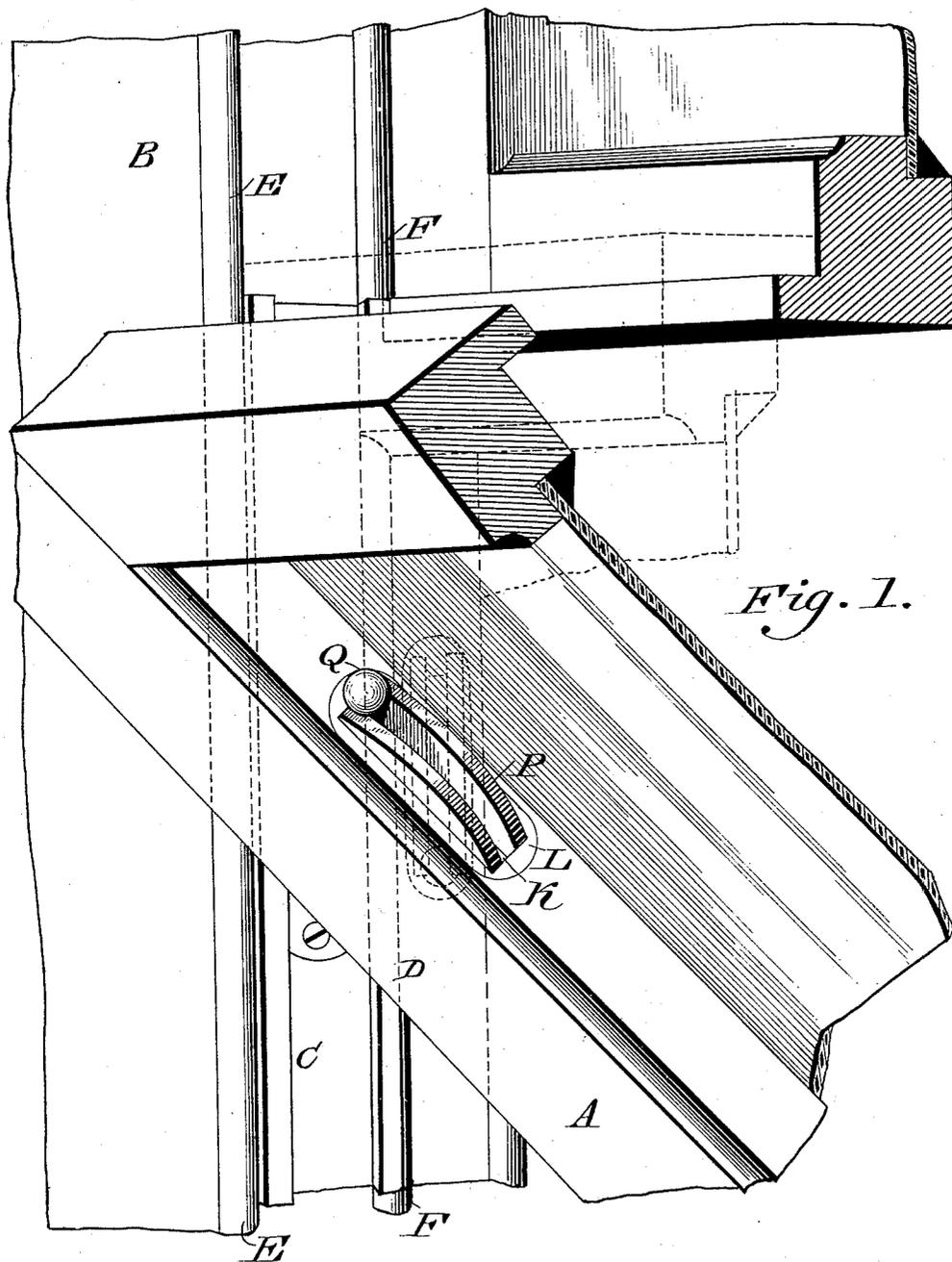


Fig. 1.

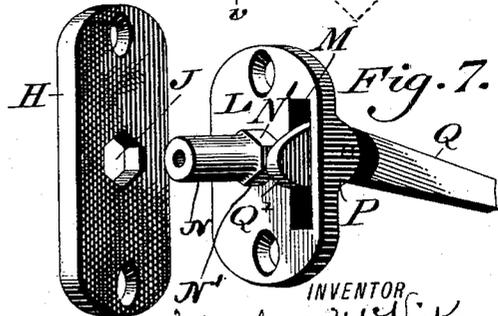
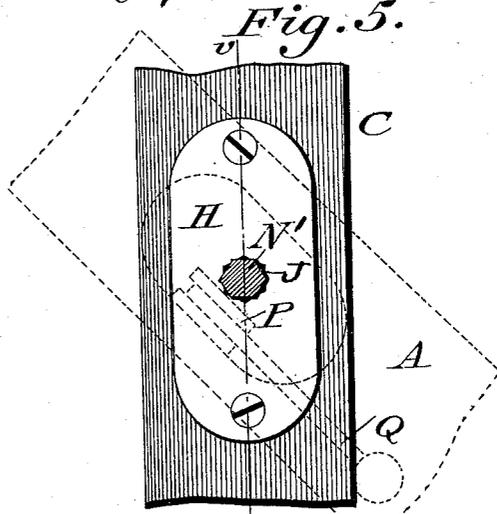
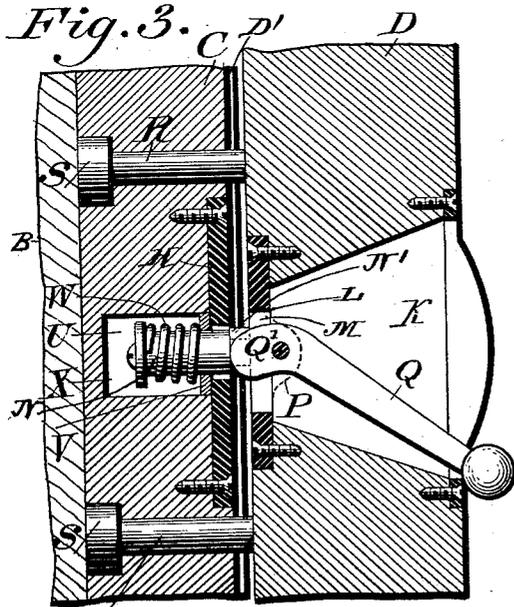
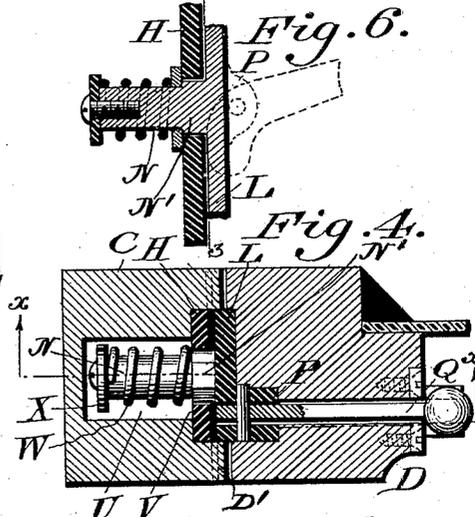
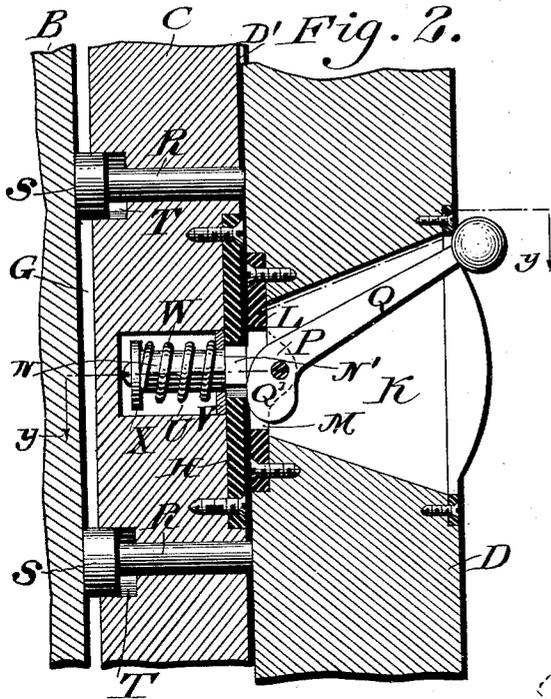
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UNITED STATES PATENT OFFICE.

MATTHEW McVICKAR, OF PHILADELPHIA, PENNSYLVANIA.

REVERSIBLE SASH.

SPECIFICATION forming part of Letters Patent No. 460,342, dated September 29, 1891.

Application filed November 17, 1890. Serial No. 371,684. (No model.)

To all whom it may concern:

Be it known that I, MATTHEW McVICKAR, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Reversible Sashes, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to improvements in window-sashes; and it consists of a reversible sash having novel means for adjusting its position in the window-frame.

It further consists of the combination of parts hereinafter described.

Figure 1 represents a perspective view of a portion of a reversible sash having means for locking the same in adjusted position, as embodied in my invention. Fig. 2 represents a view of a vertical section of a portion of the sash-frame on line *x x*, Fig. 4, showing the pivotal and locking mechanism. Fig. 3 represents a view on the same sectional line as shown in Fig. 2, the parts of the locking mechanism being in a different position. Fig. 4 represents a horizontal section on line *y y*, Fig. 2. Fig. 5 represents a vertical section on line *z z*, Fig. 6. Fig. 6 represents a vertical section of the locking-plates on line *v v*, Fig. 5. Fig. 7 represents perspective views of the locking mechanism, the parts being separated.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a reversible window-sash, and B the window-frame therefor. The side stiles of the sash are formed of two strips or pieces C and D, having a tongue-and-groove joint D', so that each side of the sash when the latter is closed is substantially integral. The strip C is located between the beads E and F of the frame, and has at its back between it and the frame a recess G when the sash is closed.

Secured to the strip C is a bearing-plate H, having an angular opening J therein. The strip D of side stiles is provided with a slot K and has secured to it a plate L, having a slot M and a stud N, the latter having an angular inner end N' adapted to closely fit in said angular opening J in the plate H.

Pivoted in the ears P on the plate L is a cam-lever Q, projecting through the slot M

and having its cam end Q' bearing against the plate H and its handle end extending through the slot K and projecting on the inner face of the sash-stile, so as to be convenient for operation. The outer end of the stud N, beyond the angular inner part N' thereof, is cylindrical and has bearing in the opening J of plate H, thereby forming a journal or axis for the sash.

R designates pins located in the strips C of the side stiles and formed with the heads S, adapted to fit in the recesses T of the said strip. The said pins are of such length that when the sash is closed their ends are in contact with the sides of the strip D, preventing rattling of the sash. When the sash is closed, the parts are in the position shown in Fig. 2, the strips C and D being in contact, the angular part of the stud N being in the angular opening J, and the cylindrical part of the stud being within a chambered or recessed portion U of the strip C. Bearing against a washer V on the stud in contact with the plate H is a coil-spring W, which bears against a head X, suitably secured to the said stud.

The manner of operation of the parts is as follows: When it is desired to open the sash, the cam-lever Q is drawn down, so that the cam Q' is raised, so as to bear against the plate H, forcing back the same, with its strip C, in the space between the beads E and F of the window-frame. The pushing back of the plate H from the plate L removes the said plate H from contact with the angular portion of the stud N, so that the plates are no longer locked; but the plate L is free, along with the strip D, to be rotated by means of the stud N in the opening J, thereby permitting the swinging of the sash, as desired. When the sash is in the position desired, the lever Q is raised, so as to release the cam from bearing against the plate H, whereupon the spring W will force the plate H and the strip C in contact with the plate L and the strip D, so that the angular portion of the stud N will be in the angular opening J, thereby locking said plates and strips. It will be noticed that the said strips and plates, with locking means, are employed on both sides of the sash, although shown in the drawings on but one side, the parts on the other side being similar to

the ones shown. The tongue-and-groove connection of the strips aid the locking device in keeping the sash closed.

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

1. A reversible sash having each of its side stiles consisting of two strips and provided with plates attached to said strips, one of said plates having a spring-actuated stud with an angular portion and the other having an angular opening to receive said stud, and one of the strips being horizontally movable in the window-frame, and a cam-lever for operating said stud, said parts being combined substantially as described.

2. A sash having each of its side stiles consisting of two strips, one of said strips being adapted to move to and from the other strip, which latter has a journal secured thereto and provided with a bearing in the said movable strip for purpose of horizontal adjustment, means, substantially as described, for moving the said strip, and loosely-mounted pins carried by one of said strips, said parts being combined substantially as described.

3. A sash-frame having each of its stiles consisting of two strips, pins loosely carried by one of said strips, a plate with an angular opening secured to one strip, a plate with a stud having an angular portion secured to the other strip, and a cam-lever secured to one strip and bearing against the plate on the other, said parts being combined substantially as described.

4. A sash having a side stile consisting of two strips, a plate having an angular opening secured to one of the strips, and a plate with a stud having an angular portion secured to the other strip, a coil-spring on said stud, and a cam-lever pivoted to the plate

having the stud, said parts being combined substantially as described.

5. A sash having its side stiles consisting of two strips, one being vertically guided in a frame and the other having a pivotal connection with the first strip, and pins passing through said first strip and adapted to contact with the second strip when the said sash is closed, said parts being combined substantially as described.

6. A reversible sash-frame having each of its side stiles composed of two strips having a tongue-and-groove joint, one of said strips being located between beads on the window-frame and having at its back when the sash is closed a recess, and pins with heads fitting in recesses in said strip, said parts being combined substantially as described.

7. A reversible sash-frame having each of its side stiles composed of two strips, a bearing-plate having an angular opening fitted to one of said strips, the other strip being provided with a slot and having secured to it a slotted plate with a stud having an angular inner end, said parts being combined substantially as described.

8. A reversible sash-frame having each of its side stiles composed of two strips with tongue-and-groove joints, a bearing-plate having an angular opening secured to one of said strips, the other strip being slotted and having a slotted plate with a stud adapted to fit closely in said angular opening, and ears with a cam-lever pivoted thereon and bearing against the other plate and sash, said parts being combined substantially as described.

MATTHEW McVICKAR.

Witnesses:

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