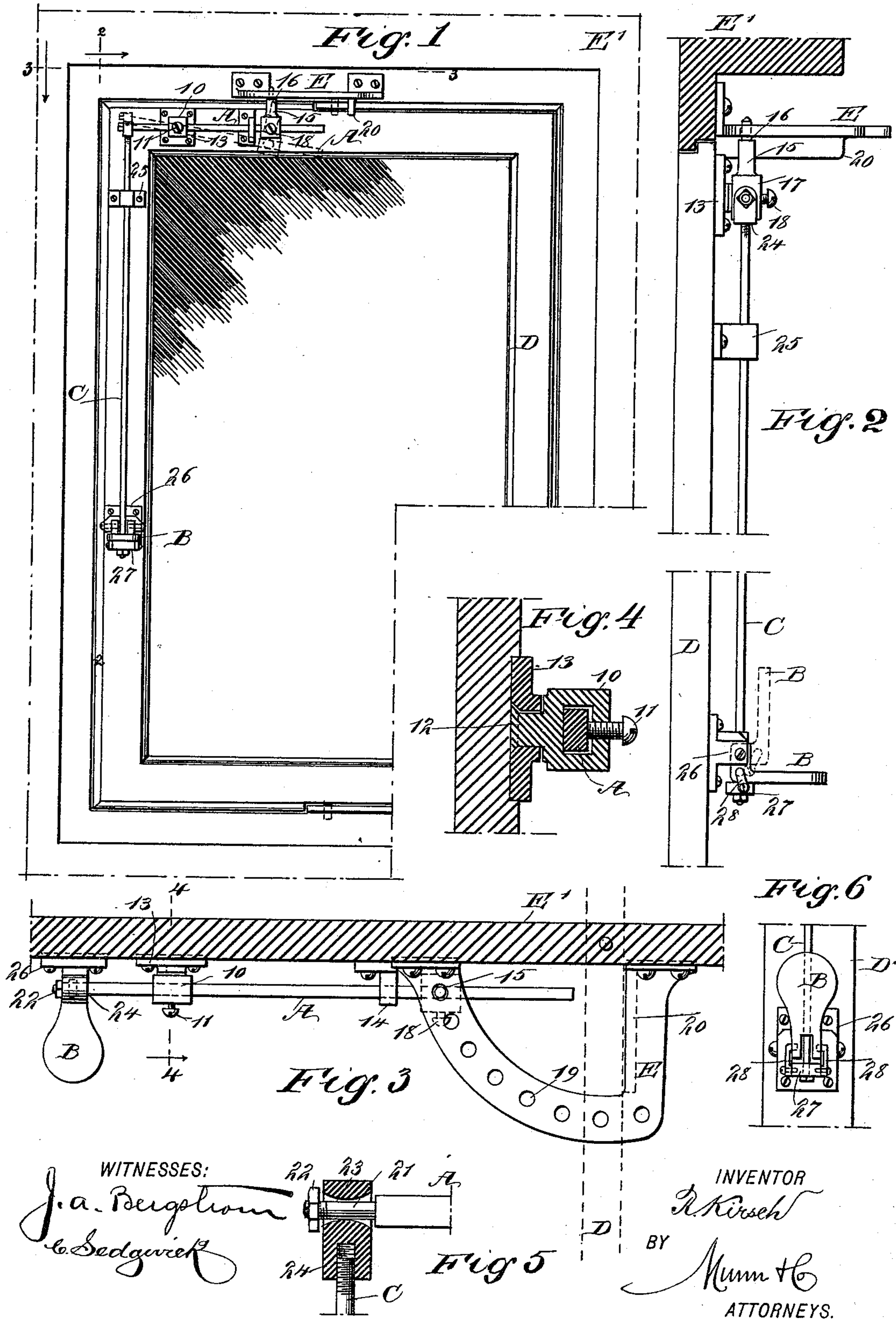


(No Model.)

R. KIRSCH.
WINDOW SASH FASTENER.

No. 519,607.

Patented May 8, 1894.



UNITED STATES PATENT OFFICE.

RICHARD KIRSCH, OF BAY RIDGE, NEW YORK.

WINDOW-SASH FASTENER.

SPECIFICATION forming part of Letters Patent No. 519,607, dated May 8, 1894.

Application filed October 26, 1893. Serial No. 489,205. (No model.)

To all whom it may concern:

Be it known that I, RICHARD KIRSCH, of Bay Ridge, in the county of Kings and State of New York, have invented a new and Improved Window-Sash Fastener, of which the following is a full, clear, and exact description.

My invention relates to a window sash fastener, and it has for its object to provide a fastener adapted for use in connection with pivoted window sashes, primarily those sashes which are pivoted at their centers at top and bottom.

Another object of the invention is to provide a fastener of the above type, which will be exceedingly simple, durable and economic, and which will be capable of expeditious and convenient manipulation and capable of attachment to any window of the center pivot type, without detracting from the appearance of the window.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of a window having the improvement applied. Fig. 2 is a vertical section taken through a portion of the window frame, showing a portion of the sash in side elevation, and likewise the attachment, the section being taken on the line 2—2 of Fig. 1. Fig. 3 is a horizontal section taken through the window frame, practically on the line 3—3 of Fig. 1, and illustrating the attachment in plan view. Fig. 4 is a vertical section through a portion of the window sash and a portion of the attachment, the section being taken on the line 4—4 of Fig. 3. Fig. 5 is a sectional view through a connecting block adapted to unite members of the attachment, standing at right angles to each other; and Fig. 6 is a front elevation of the lower portion of the attachment, illustrating the manipulating or locking lever in a position to effect free movement of the window sash.

The invention consists primarily of a lock-

ing lever A, an operating lever B, and a connecting rod C, establishing communication between the two levers. The above named parts are adapted to be located upon the window sash D, and to operate in conjunction with a rack E, to be attached to the window frame E'. The locking lever is located upon the top rail of the sash, and extends across the upper portion of one of the side rails, and upon that side rail the connecting rod C and the operating lever B, are to be located.

The locking lever A, is passed loosely through a block 10, the block being apertured to receive the lever; and the lever is held fixedly in the block 10 after it has been adjusted, through the medium of a setscrew 11, passed through the block to an engagement with the lever, as shown in Fig. 4. The block 10, is adapted as a pivot for the lock lever, and to that end the block is provided with a shank 12, and the said shank is held to turn loosely on or is pivoted in any approved manner in a plate 13, the plate being adapted for attachment, through the medium of screws or equivalent fastening devices, to the window sash. The lock lever is likewise provided with a guide 14, which guide is of a bracket-like character, being open at the bottom, and the said guide bracket is secured to the window sash, and the lever has vertical movement in the bottom opening in the said guide.

At or near the inner end of the lock lever, a locking pin 15, is located, the said locking pin being made in two diameters, whereby a shoulder 16, is formed near its upper end; and the locking pin is further provided with an enlarged base 17, and the base is provided with an opening through which the lever is passed. The base is adjustable upon the lever, and may be held stationary at any point upon the lever through the medium of an adjusting screw 18. The upper or reduced end of the locking pin is adapted to enter any one of a series of apertures 19, produced in the rack E. The rack is horizontally located near the upper central pivot of the window sash, being secured to the window frame; and the rack is preferably of a quadrant form, and one member is located sufficiently close to the upper pivot of the window sash to allow said win-

5 dow sash, when opened or carried at right angles to the window frame to engage with a flange 20, projected downward from the said inner member, which flange will serve as a stop and prevent the window from passing over a center line when opened.

10 The outer end of the locking lever A, is reduced in diameter, as shown at 21 in Fig. 3; and the said reduced portion 21, is preferably circular in cross section, while the remaining portion of the lever is more or less rectangular in cross section. The outer extremity of the lock lever is threaded to receive a nut 22, and the circular or cylindrical end of the lever is made to pass loosely through an opening 23 made in a block 24, which opening is flaring at both of its ends in order that when the block is moved in a vertical direction the lever A, which stands at an angle to the block, may be moved at its inner end upward or downward, as shown in positive and in dotted lines in Fig. 1, thereby carrying the locking pin 15 either to an engagement with the rack or out of engagement therewith.

25 It will be observed that the locking lever A, is capable of a lateral adjustment both in its pivot block and in the end block 24, which may be termed a connecting block, since the said block is attached to the connecting rod C. And it is likewise evident that the locking pin has independent adjustment upon the lock lever, so that the pin and the lever may be adjusted to suit any emergency or any condition under which they may be used.

35 The connecting rod C, is held to slide in one or more guides 25, secured upon a vertical rail of the window sash, and the lower portion of the rod has guided movement in a plate 26, the lower extremity of the rod being preferably provided with a head 27, adjustably located thereon. The operating lever B, is pivoted in the plate 26; and the said operating lever is an elbow, an angle or a crank lever, one of its members, its pivot member, being much shorter than its outer or handle member; and the lever at the junction of its two members, is bifurcated to permit the passage of the connecting rod, and the head of the connecting rod is connected with the operating lever at the junction of its two members, through the medium of links 28. The operating lever is so placed in the plate that when the handle member of the lever is carried to a horizontal position, as shown in Figs. 1, 2 and 3, the handle section of the lever will have such bearing upon the head of the connecting rod as to carry the said rod downward, locking it in its downward position, which movement also causes the outer end of the locking lever to be drawn downward, and the locking pin carried by the lever to be forced upward in the aperture in the rack. The locking lever will then be in a horizontal position at right angles to the connecting rod, and the window will be locked in an open, a partially open, or in a closed position as may be desired.

When the handle end of the operating lever is carried up to the vertical position shown in dotted lines in Fig. 2 and in positive lines in Fig. 6, the connecting rod is carried upward, and the inner end of the locking lever is carried downward, thereby removing the locking pin from engagement with the rack E, and permitting the window to be swung upon its pivot.

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

1. In a window sash fastener, the combination, with a window frame, a window sash pivoted in the said frame, and a rack located upon the frame adjacent to the pivot of the window sash, of a lock lever located upon the sash, the said lever being adjustable upon its fulcrum, an adjustable locking pin carried by the lock lever and adapted for engagement with the rack, an operating lever also adapted for location upon the sash, said locking lever being of angular construction, a connecting rod projected from the lock lever and provided with a head adapted for engagement with the operating lever, and a link connection between the head and operating lever, the operating lever serving through the medium of the links to actuate the connecting rod in one direction, and by engagement with the head of the connecting rod to actuate said rod in an opposite direction, as and for the purpose specified.

2. In a window sash fastener, the combination, with a window frame, a sash having central pivots in said frame, and a rack horizontally located above the window sash adjacent to one of its pivots, said rack being secured to the window frame and provided with a series of apertures in one of its members, and a stop adapted to limit the movement of the window sash when opened, of a lock lever, a pivoted block in which the said lever is adjustably secured, the pivot block having pivotal connection with the window sash, a locking pin adjustably secured upon the lock lever and adapted to enter the apertures in the rack, an operating lever of angular construction fulcrumed upon the window sash, a connecting bar having an opening extending through it, the end portions whereof are made flaring, one end of the locking lever being adjustably passed through the said opening, a head adjustably located at the lower extremity of the connecting rod, adapted to be engaged by the operating lever, and a link connection between the head of the connecting rod and the operating lever, said connection being made near the junction of the members of the operating lever, substantially as and for the purpose set forth.

RICHARD KIRSCH.

Witnesses:

META LOESCHER,
HORNBOHLA GLOECKMANN.