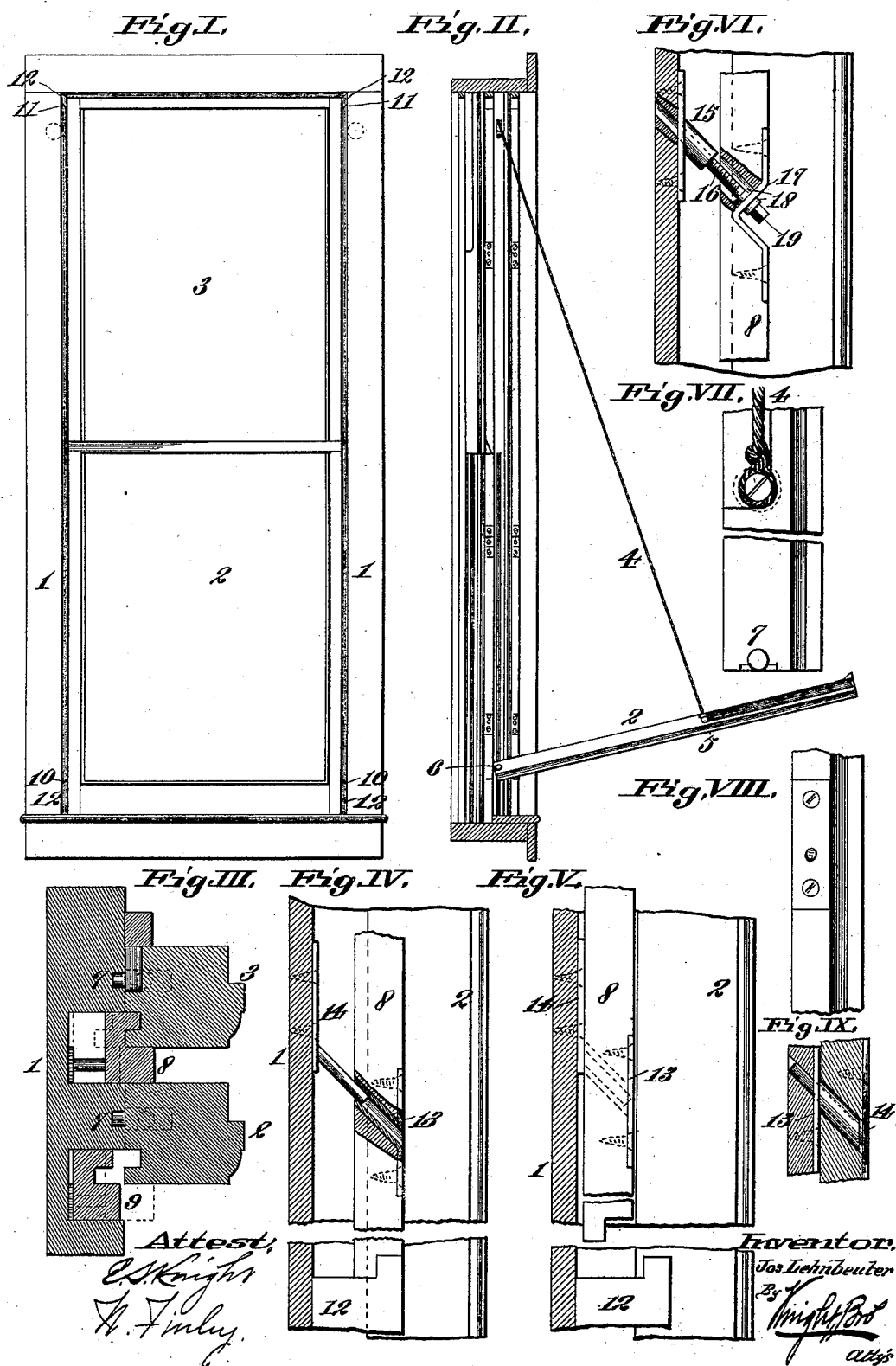


(No Model.)

J. LEHNBEUTER.
REMOVABLE WINDOW SASH.

No. 553,413.

Patented Jan. 21, 1896.



UNITED STATES PATENT OFFICE.

JOSEPH LEHNBEUTER, OF ST. LOUIS, MISSOURI.

REMOVABLE WINDOW-SASH.

SPECIFICATION forming part of Letters Patent No. 553,413, dated January 21, 1896.

Application filed April 15, 1895. Serial No. 545,700. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH LEHNBEUTER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful
5 Improvement in Removable Window-Sashes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 My present invention relates to certain improvements in removable window-sashes, the prime object being to provide means which is effective for the purpose and which is at the same time inexpensive and not liable to get
15 out of order.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is an elevation illustrative of my
20 invention. Fig. II is a vertical longitudinal section. Fig. III is an enlarged transverse section. Fig. IV is an enlarged detail view, part in vertical section and part in elevation. Fig. V is a similar view showing the movable
25 strip in its inner position, this strip being shown in its outer or normal position in Fig. IV. Fig. VI is a similar view and illustrates the means for moving the strip. Fig. VII is a detail edge view of one of the sashes. Fig.
30 VIII is a detail edge view of one of the movable strips. Fig. IX is a detail view illustrating a modification.

Referring to the drawings, 1 represents the window-frame, 2 the lower sash, and 3 the
35 upper sash.

4 represents the weight-cords, which, as shown at 5, Fig. II, are connected to the sash slightly above the middle of the sash, and the inner part of the sash from the top down to
40 the point of connection 5 is cut away to the bottom of the cord-groove, so that the cords will not interfere with the opening of the sash to the position shown in Fig. II, and when in this position the sash is supported by the
45 cords. Each sash is provided with a pin 6 at each of its lower corners, these pins fitting in grooves 7 of the frame 1 and serving as the pivots for the sash as they are moved into their outer or cleaning position.

50 8 represents the parting-strip of the window, and 9 the window-stop strip, which will

be referred to hereinafter as the "movable" strips. Each strip is capable of being moved from the position shown in Fig. IV to the position shown in Fig. V. The position shown in
55 Fig. IV is the normal position of these strips, and in this position they serve to hold the sash in place, and by moving the strips to the position shown in Fig. V the sash can be turned out into the position shown in Fig. II to be
60 cleaned. I prefer to have the movable parts of these strips to extend from the point 10 to 11, Fig. I, and to have a fixed top and bottom part 12 that does not move. The sash, of
65 course, have to be at as high an elevation as the lower fixed part 12 of the strips when they are turned out into cleaning position. The movable strips are preferably formed with a rabbet-joint between them and the
70 sash, as shown in Fig. III, so that when the strips are in their normal position they will prevent air and dust passing through between the window-frame and the sash.

The prime feature of my present invention relates to the manner of guiding, supporting
75 and moving the strips 8 and 9; and it consists in securing socket-brackets to the frame or strips and prong-brackets to the other one of these members to guide the strips in their
80 movements, and in securing to the frame a socket-bracket, and to the strips a threaded rod or screw entering the socket-bracket for moving the strips.

In Figs. IV and V, I have have shown the socket-brackets secured to the strips and the
85 prong-brackets to the frame; but the reverse arrangement may be made, as shown in Fig. IX, the socket-bracket being secured to the frame and the prong-bracket to the movable
90 strips.

13 represents the socket-brackets and 14 the prong-brackets. The sockets and prongs are arranged at an angle, each socket having
95 the same angle as its prong, so that as the strips are forced inwardly they will move and be guided in an upwardly direction.

15 represents the socket-bracket of the moving device, which is secured to the window-frame, as shown in Fig. VI. 16 is the threaded
100 rod or screw entering the socket of the bracket 15 and being held to the strip by means of angularly-arranged plate 17, on each side of

which is a collar 18 secured to the threaded rod or screw. The outer end 19 of the rod or screw is adapted to receive a key by which it may be turned. The angle of the socket 5 of the bracket 15 and the angle of the screw 16 are the same as the angle of the prong on the bracket 14 and the socket of bracket 15, so that when the screw 16 is turned the strip will be moved in an upwardly and inwardly 10 direction, so as to release the sash. When the screw is turned in the other direction the strip will be moved back to its normal position so as to hold the sash in place.

The device forms an inexpensive and durable 15 arrangement for holding the sash in place and for allowing it to be turned outwardly to be cleaned.

I claim as my invention—

1. In a removable window sash, a movable 20 strip, an inclined prong, an inclined socket to receive said prong, said prong and socket being secured respectively to the window frame and the movable strip, in combination with an inclined socket and an inclined 25 threaded rod or bolt; said last mentioned socket and said rod or bolt being secured re-

spectively to the window frame and movable strip, substantially as and for the purpose set forth.

2. In a removable window sash, a movable 30 strip, a bracket 14 having an inclined prong, and a bracket 13 having an inclined socket to receive said prong, said brackets being secured respectively to the window frame and the movable strip, in combination with a 35 bracket having an inclined socket secured to the window frame, and a threaded rod or bolt secured in an inclined position to the movable strip, substantially as and for the purpose set forth. 40

3. In a removable window sash, the combination of removable strips having rabbeted connection with the sash, and means for guiding and moving the strips, consisting of 45 brackets having sockets and an inclined prong and threaded bolt for respectively guiding and moving the strips, substantially as set forth.

JOSEPH LEHNBEUTER.

In presence of—

GEO. H. KNIGHT,
E. S. KNIGHT.