

(No Model.)

E. W. LUCE.
SASH FASTENER.

No. 384,535.

Patented June 12, 1888.

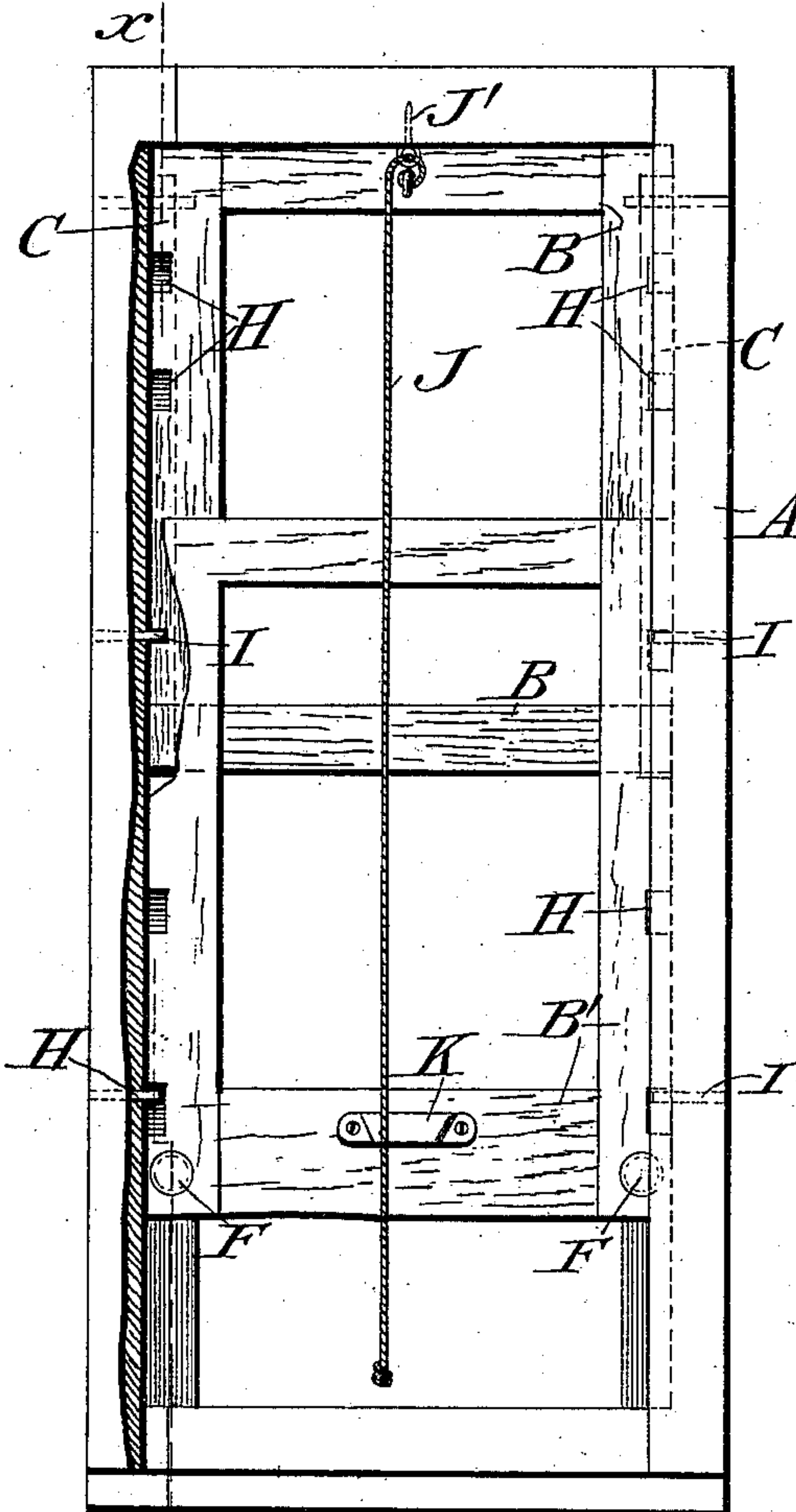


Fig. 1.

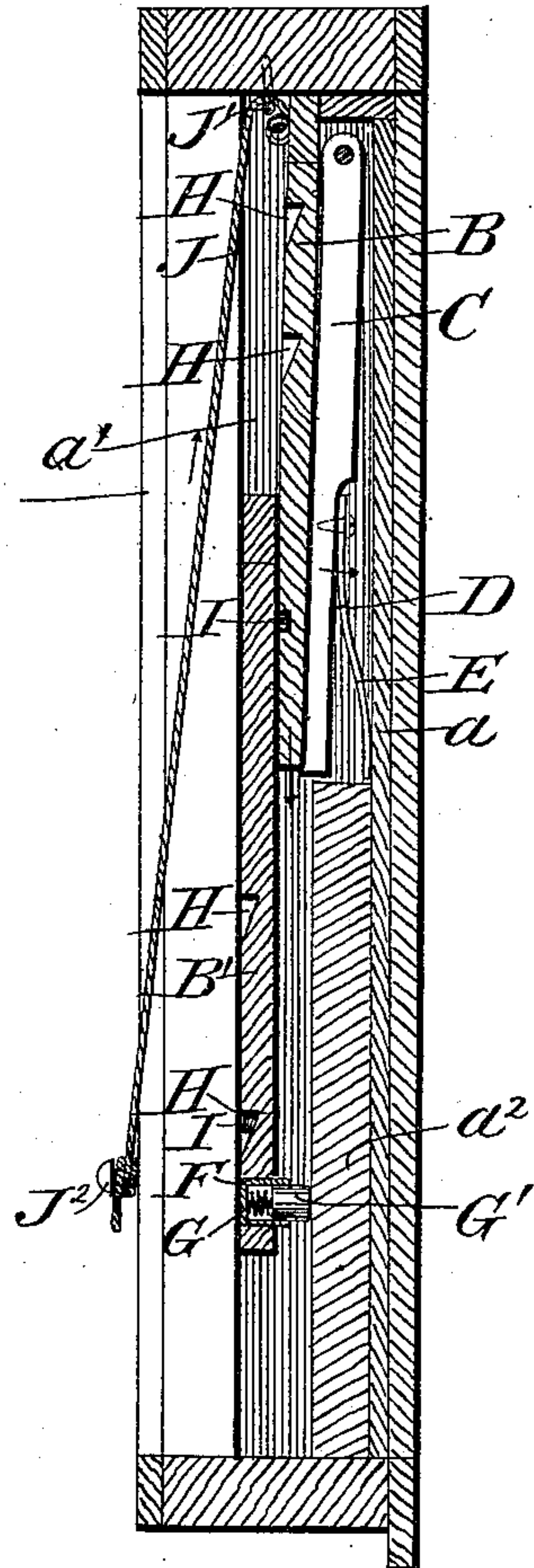


Fig. 2.

Witnesses.

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UNITED STATES PATENT OFFICE

EDWIN W. LUCE, OF BOLIVAR, NEW YORK.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 384,535, dated June 12, 1888.

Application filed January 9, 1888. Serial No. 260,209. (No model.)

To all whom it may concern:

Be it known that I, EDWIN W. LUCE, a citizen of the United States of America, residing at Bolivar, in the county of Allegany and State of New York, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention has relation to that class of devices technically known as "window-sash fasteners," the object being to construct a device of this character which, by reason of the many advantages possessed by it and of the simplicity of construction, will readily recommend itself to the masses of people.

To this end my invention consists in certain novel features of construction, arrangement, and combination of parts, substantially as hereinafter described, and more particularly pointed out in the subjoined claims.

In the accompanying drawings, illustrating my invention, Figure 1 is a front side elevation of a window with a portion of the same broken away to expose the operating mechanism; and Fig. 2 is a vertical section taken on the line *xx* of Fig. 1, and showing more particularly the operating mechanism.

Like letters of reference designate like parts in both figures.

A represents the window-frame, which is obviously made of the usual and well-known construction, and which is adapted to receive and accommodate the sashes B and B'. To the rear of the upper sash, B, and in contact therewith are rods or strips C, situated one on either side of the said sash, and pivoted or otherwise secured at their upper ends within the frame A, while their lower extremities are left free, and are formed with longitudinal recesses D for the reception of springs E, all of which is clearly shown in Fig. 2. These springs E are secured at their upper extremities to the rods or strips C, while their lower extremities abut against the strip *a* of the frame A. It will thus be readily seen that these springs E tend to normally keep the rods or strips C pressed outwardly against the sides of the window-sash B with sufficient force to keep it in close contact with the lower sash,

B', pressing the same tightly against the strip *a'* of the frame A, and obviously securely holding the said upper sash in its closed position against vertical accidental displacement, and preventing also, by reason of the closeness of contact of the two sashes, the entrance into the room of any drafts of air, or of any dust, snow, or rain.

In connection with the lower sash, B', another but somewhat similar means for accomplishing the above purposes is shown; and it will be quite obvious that either or both of these means may be employed without departing from the spirit of the invention. To the bottom portion of the rear of the sash B', and preferably at either corner thereof, thimbles or sockets F are located, which are adapted to receive coiled or other springs, G, upon the top of which are located blocks G', or other suitable devices, the outermost extremities of which are kept pressed tightly against the strip *a''* of the frame A, which obviously tends to keep the lower portion of the said sash in close contact with the strip *a'*, its upper portion being held against the said strip by the upper sash, B, in the manner above set forth. In order to secure these sashes B and B' in any desired intermediate position, the forward faces of their sides at the edges are formed with series of recesses or notches H, preferably cut sloping inwardly from their lower to their upper extremity and situated suitable distances apart. These notches H are adapted to engage with lugs or projections I, secured within the sides of the frame A, and which lugs are normally located within the uppermost or deepest extremities of the said notches.

From the foregoing the operation of my device in opening and closing the window will be readily comprehended. When it is desired to lower the upper sash, the operator presses against the sides thereof, depressing the springs E and moving the notches back out of contact with the lugs or projections I, allowing the sash to drop until the pressure upon it is removed, when it will immediately spring forward to its original position, and in the event of its being lowered but partially another pair of notches will engage with the said lugs or projections.

Both the upper and lower sashes, by reason of the form of the notches, are free to be raised at any time without being pressed by the operator, thus rendering it unnecessary to possess any familiarity whatever with the device, and obviating one of the greatest disadvantages heretofore experienced in devices of this character; but the lowering of the lower sash when raised is accomplished in the same manner as that set forth for the lowering of the upper sash.

In order to accomplish the raising of the upper sash a cord or rope, J, is provided having its upper end secured to the said sash at or near its top, and passing through an eye, J', secured to the frame A, and thence to within a convenient distance to be grasped by the operator, being preferably, although not necessarily, wound around a pin, J², secured near the bottom of the window-frame. The lower sash, B', is provided with a handle, K, for convenience in operating.

Although I have shown and described my invention in connection with double-sash windows, it will be evident I do not intend to limit my invention to its connection therewith, as it can be used equally as well with the window of railroad-cars when but one sash is employed, in which event the means described in connection with the upper sash, B, will by preference be adopted.

It will be observed that the springs tend to keep the sashes in close contact with each other and with the frame of the window, so that obviously no cracks or openings will be left for the entrance of air, dust, snow, or rain. It will be observed, further, that the sashes by reason of the elasticity of the springs will not be caused or liable to bind too tightly against the frame of the window to interfere with their free and easy movement in opening or closing the window, but that they will work equally as well in all weathers, the springs obviously being capable of adjusting themselves to the swellings or contractions of the sashes due to the changes of temperatures. These are all features of prime importance, and their advantages will be readily recognized and appreciated by the masses of people familiar with this class of invention.

Having now described my invention, what I believe to be new, and desire to secure by Letters Patent, is—

1. In a window, the frame thereof, in combination with the sash, rods or strips at the rear of the said sash, and springs at the rear of the said rods or strips.

2. The combination, in a window, of the frame A, sashes B and B', rod C, and spring E at the rear of sash B, and springs G and blocks G' at the rear of sash B', all arranged in the manner and for the purposes substantially as shown and set forth.

3. The combination, in a window, of the frame A, sashes B and B', situated therein and having inclined notches deepest at their uppermost extremities, lugs or projections secured to the frame, rods or strips C at the rear of the sash B and on either end thereof, having their uppermost extremities pivotally secured to the frame and their lowermost extremities left free, springs at the rear of said rods, thimbles or sockets within the sash B', springs situated therein, and blocks upon the said springs, all arranged substantially as and for the purposes herein set forth.

4. The combination, with the window-frame and the sash, of rods at the rear of said sash, having their upper extremities pivoted to the window-frame, and springs at the rear of said rods or strips, having their upper extremities secured thereto and their lower extremities abutting against the window-frame, substantially as shown and described.

5. A window-sash having notches at its outer edges, and lugs or projections set in the window-frame, adapted to engage with the said notches, in combination with rods or strips at the rear of said sash and abutting thereagainst, and springs at the rear of said rods for holding the same in contact with the said sash.

In testimony whereof I affix my signature in presence of two witnesses.

EDWIN W. LUCE.

Witnesses:

R. S. SPROULL,
W. M. KEELER.