M. G. BUNNELL.

AUTOMATIC WINDOW LOCKING DEVICE.

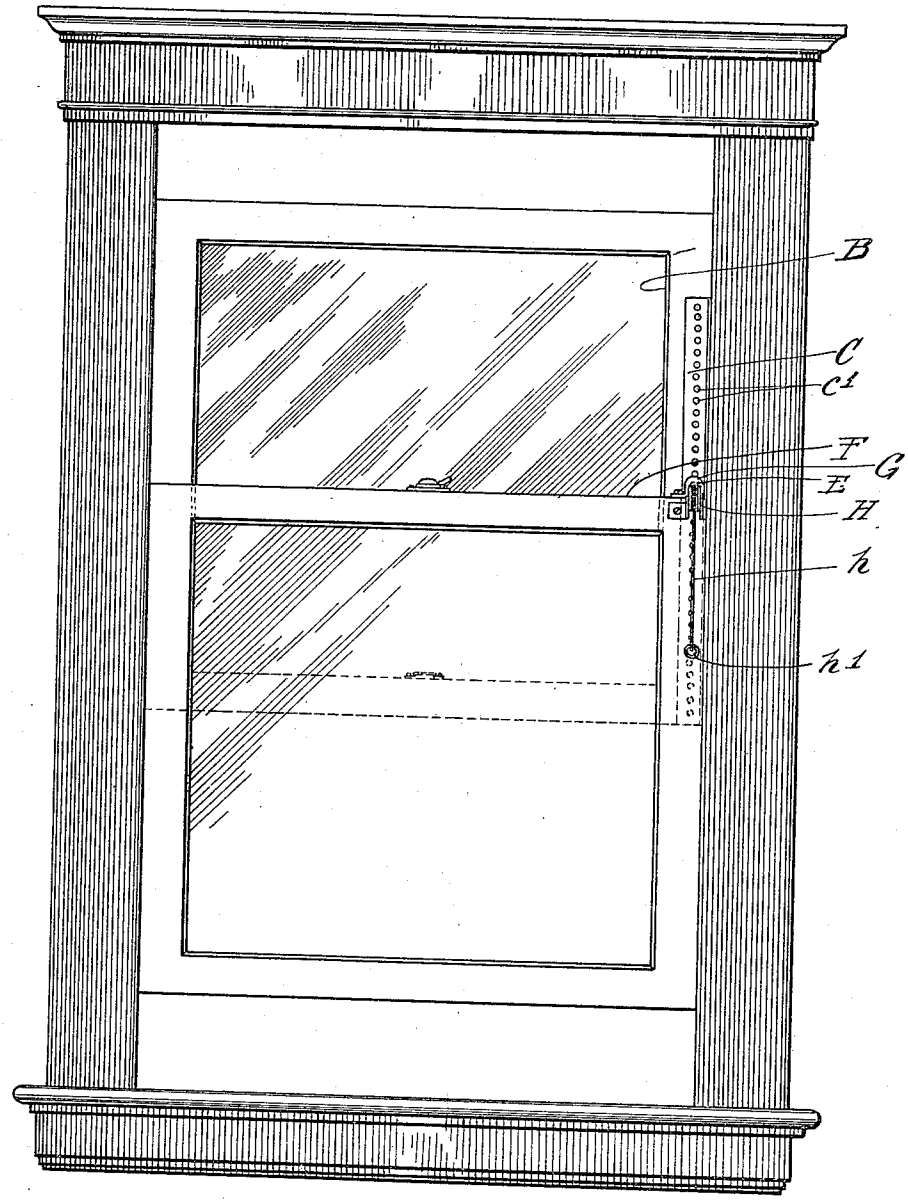
APPLICATION FILED APR. 6, 1912.

1,203,971.

Patented Nov. 7, 1916.

2 SHEETS—SHEET 1.

Fig. 1.



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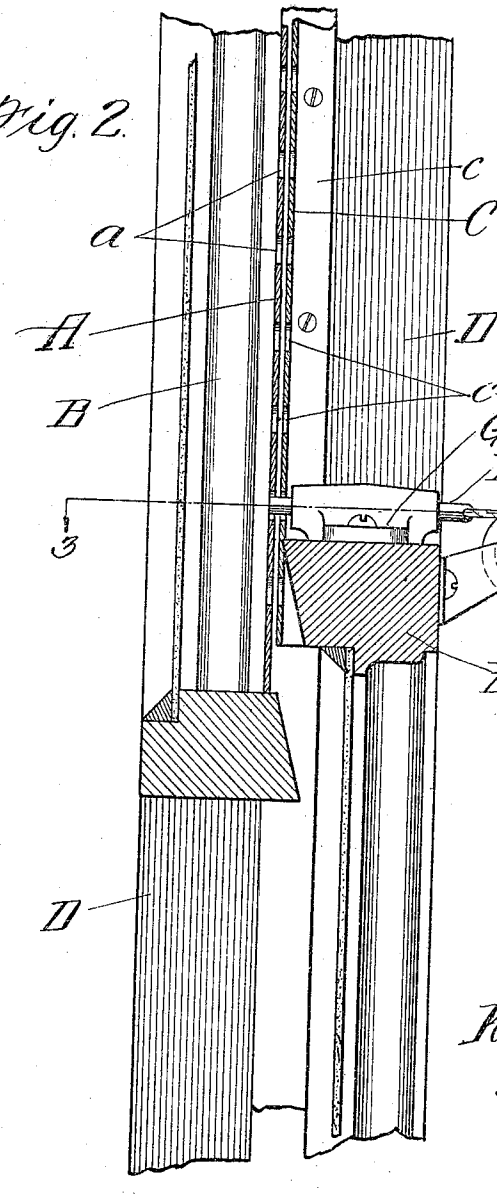
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2 SHEETS—SHEET 2.

Fig. 2.



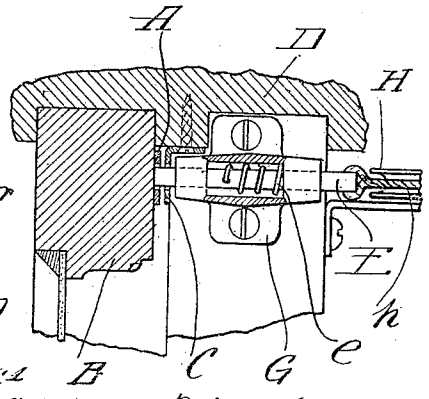
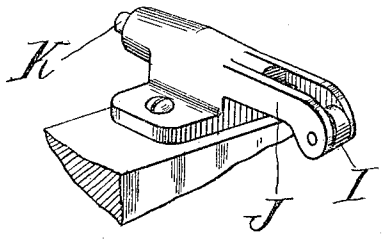


Fig. 3.

Fig. 4.



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UNITED STATES PATENT OFFICE.

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AUTOMATIC WINDOW-LOCKING DEVICE.

1,203,971. Specification of Letters Patent. Patented Nov. 7, 1916.

Application filed April 6, 1912. Serial No. 689,099.

To all whom it may concern:

Be it known that I, MORTON G. BUNNELL, a citizen of the United States of America, and resident of Chicago, Cook county, Illinois, have invented a certain new and useful Improvement in Automatic Window-Locking Devices, of which the following is a specification.

My invention relates to window fasteners for locking the upper and lower sashes together. With a device of this kind the upper or lower sash can be open, and still the window is locked in the sense that it cannot be opened from the outside. This is obviously of advantage, as it renders it unnecessary to close the window in order to lock it.

Generally stated, the object of my invention is to provide a novel and efficient window lock of this general character.

Special objects are to provide a novel and improved construction whereby the two sashes can be locked together and to the window frame by one and the same locking device; to provide a novel and improved construction whereby the two sashes can be locked in any desired position thereof; to provide a novel and simple device of this kind which can always be operated easily and conveniently by a person standing on the floor; and to provide certain details and features of construction tending to increase the general efficiency of a locking device of this particular character.

To these and other useful ends, my invention consists in matters hereinafter set forth and claimed.

In the accompanying drawings: Figure 1 is an inside elevation of a window provided with a locking device embodying the principles of my invention. Fig. 2 is an enlarged vertical section through one side of the adjacent portions of the two sashes, and through the perforated locking strips of the said locking device, showing the spring pressed bolt and cord for operating it in side elevation. Fig. 3 is a horizontal section on line 3—3 in Fig. 2. Fig. 4 shows another form of my invention.

As thus illustrated, my invention comprises a perforated metal strip A secured to the upper sash B at one side thereof, whereby the row of holes *a* in the strip extends up and down. A similar strip C has a flange *c* secured to the window frame D, whereby the holes c^1 of this angle iron strip are directly opposite the holes *a* in the other strip. With this arrangement the strip A moves up and down with the sash B, whereas the strip C remains stationary. Thus, there are essentially two vertical series of openings disposed in parallel vertical planes between the planes of the glass of the two sashes.

The locking bolt E is disposed horizontally at the top of the lower sash F, being arranged in front of said strips. The said bolt is mounted in a casing or bracket G, so that it extends crosswise of the top of the lower sash, that is to say, it is so arranged that the engaging portion thereof moves back and forth in a direction crosswise of the sash, and is preferably provided with a spring *e* by which it is pushed into the holes of said strips. A sheave H is mounted on the face of the sash F, and a cord or chain *h* runs over the sheave and connects with the end of the said bolt, a ring or other handle *h'* being provided at the lower end of this cord or chain.

The mode of operation is as follows: To move the two sashes relative to each other, the bolt E is withdrawn from engagement with the two strips A and C by a pull on the depending portion of the said cord or chain. This permits relative movement between the sashes, so that either one or both can be moved to open or close the window, and when the desired position of the sash is found the bolt is released and allowed to shoot into the holes, whereby the two sashes are once more locked together and to the window frame. It will be seen, of course, that it is not necessary for the bolt to be withdrawn far enough to disengage the outer strip C, as disengagement from the strip A alone will permit movement of the upper sash. But to move the lower sash, it is necessary to pull the bolt out from both strips. The locking device thus constructed and operated is easily and conveniently controlled by a person standing on the floor. The said strips A and C can be of any suitable length or height. For example, they can be of a length to permit the sashes to be opened and moved to practically any desired position. In any position, however, the two sashes are both locked against movement.

As shown in Fig. 4, the sheave I is mounted directly on the casting or locked

bearing J of the bolt K, whereby separate brackets are not necessary for the bolt and sheave.

It will be observed that with the foregoing construction it is impossible to lock the two sashes together without first locking the lower sash of the window frame. Thus the strain, should it be attempted to open either sash when locked, is upon the window frame, and not upon the other sash. Furthermore, it will be seen that by withdrawing the locking bolt, and then slightly adjusting the lower sash, so that the bolt engages the strip C at a point between two of the openings c^1, whereby this strip serves as a stop to hold the bolt in unlocked position, the upper sash can then be freely raised and lowered.

I do not limit myself to the exact construction shown and described.

What I claim as my invention is:—

1. A window-sash-lock comprising a movable strip secured to the upper sash, a stationary strip secured to the window-frame, each of said strips having a series of openings therein, a bolt mounted on the lower sash and arranged to extend first through the frame-strip and then through the sash-strip, so that the upper sash can be moved without unlocking the lower sash, and a spring for holding said bolt in locking position, said strips being disposed in parallel vertical planes between the planes of the glass of the two sashes, and said bolt being arranged crosswise of the top of said lower sash.

2. A window-sash-lock comprising a movable strip secured to the upper sash, a stationary strip secured to the window-frame, each of said strips having a series of openings therein, a bolt mounted on the lower sash and arranged to extend first through the frame-strip and then through the sash-strip, so that the upper sash can be moved without unlocking the lower sash, and a spring for holding said bolt in locking position, a connection attached to said bolt and arranged to hang downward, so that the bolt can be held out of engagement with the frame-strip while the lower sash is being raised, and means to support said connection.

3. A window-sash-lock comprising a movable strip secured to the upper sash, a stationary strip secured to the window-frame, each of said strips having a series of openings therein, a bolt mounted on the lower sash and arranged to extend first through the frame-strip and then through the sash-strip, so that the upper sash can be moved without unlocking the lower sash, and a spring for holding said bolt in locking position, said strips being disposed in parallel vertical planes between the planes of the glass of the two sashes, and said bolt being arranged crosswise of the top of said lower sash, said frame-strip being of angle-iron form and having a flange secured to the window-frame between the sides of the two sashes, and the two vertical series of openings registering with each other when the sashes are locked together.

Signed by me at Chicago, Illinois, this 4th day of April, 1912.

MORTON G. BUNNELL.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."