

(No Model.)

F. WILLCOX.
SASH FASTENING DEVICE.

No. 359,119.

Patented Mar. 8, 1887.

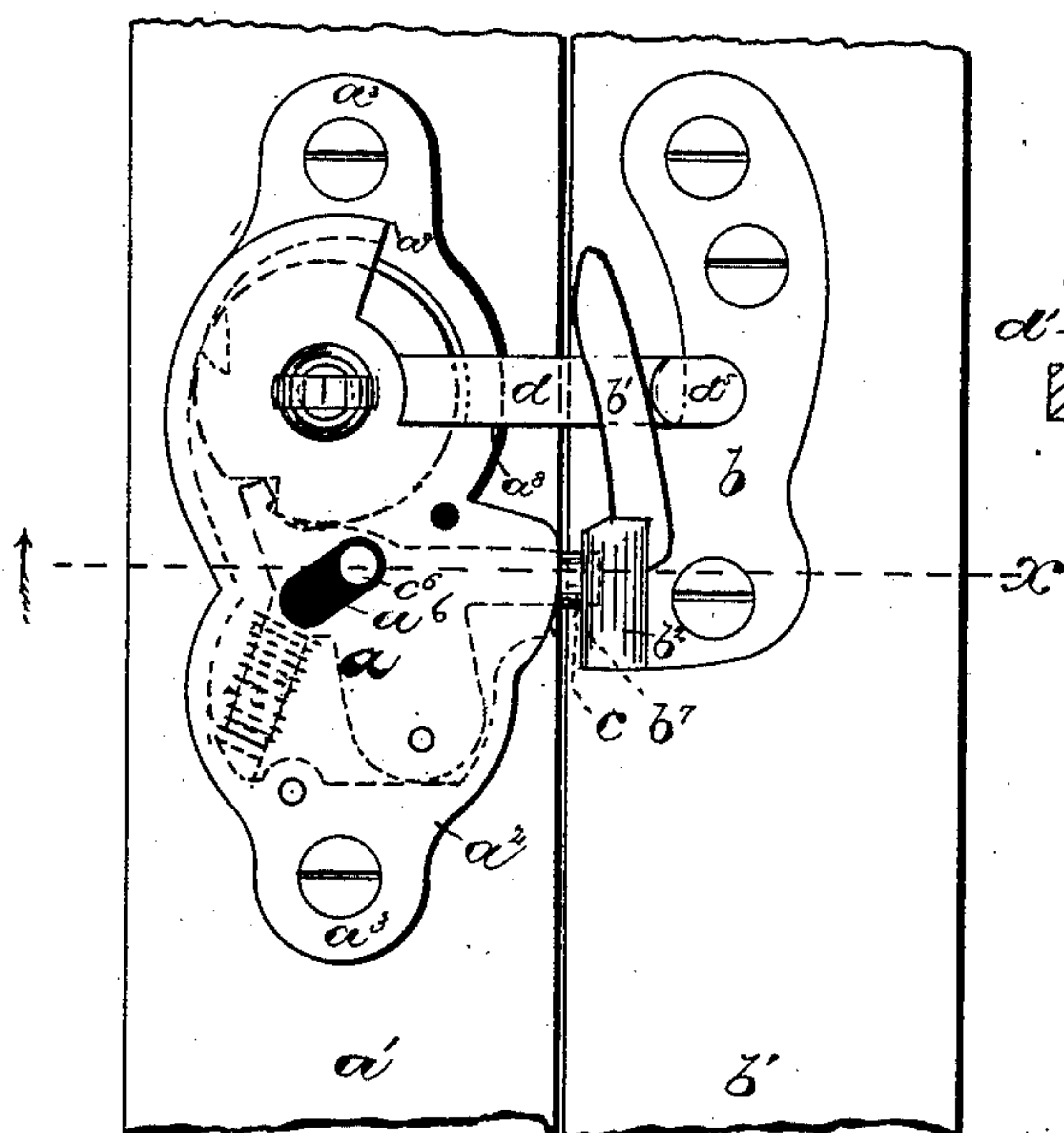


Fig. 1.

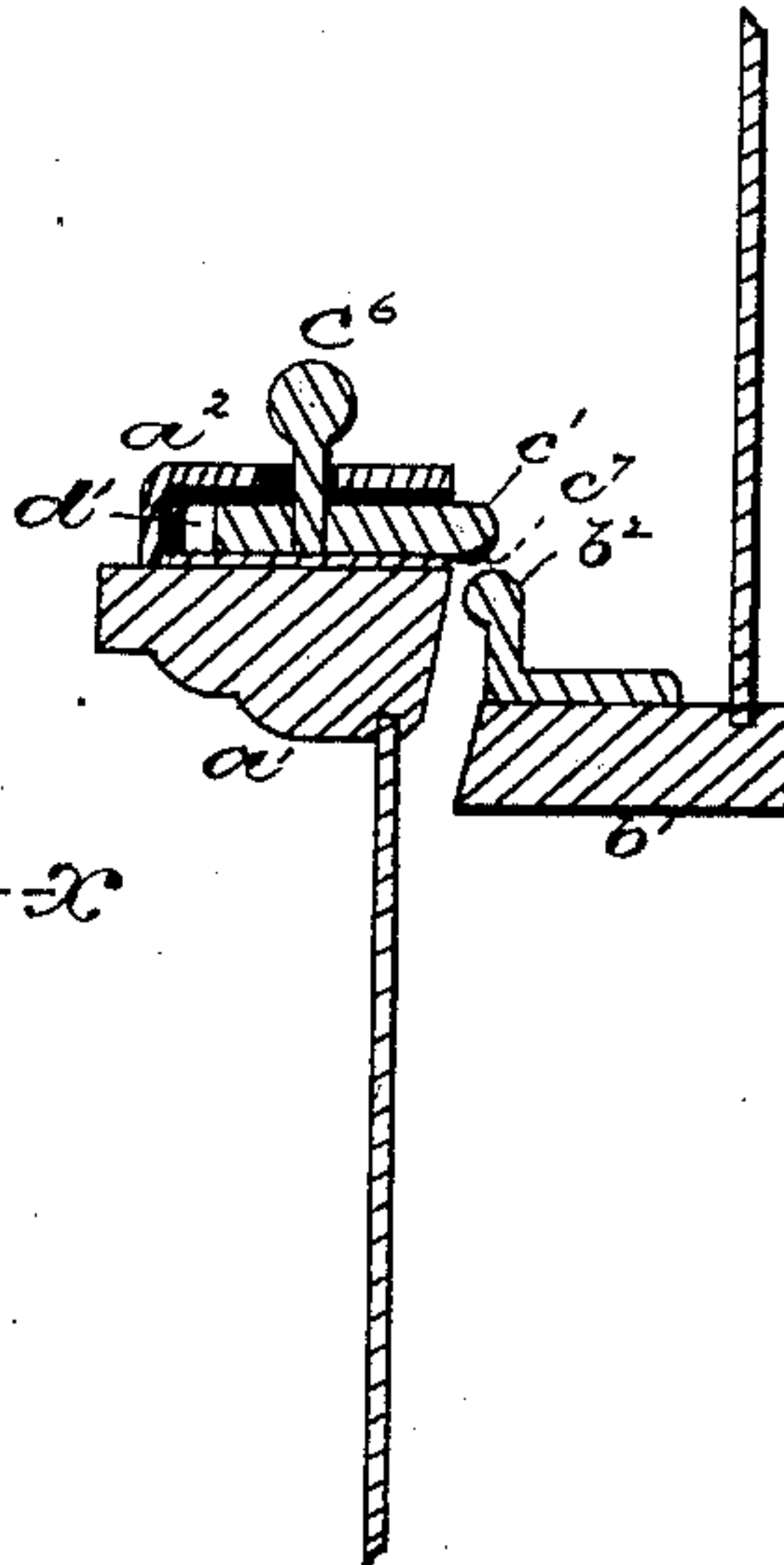


Fig 2

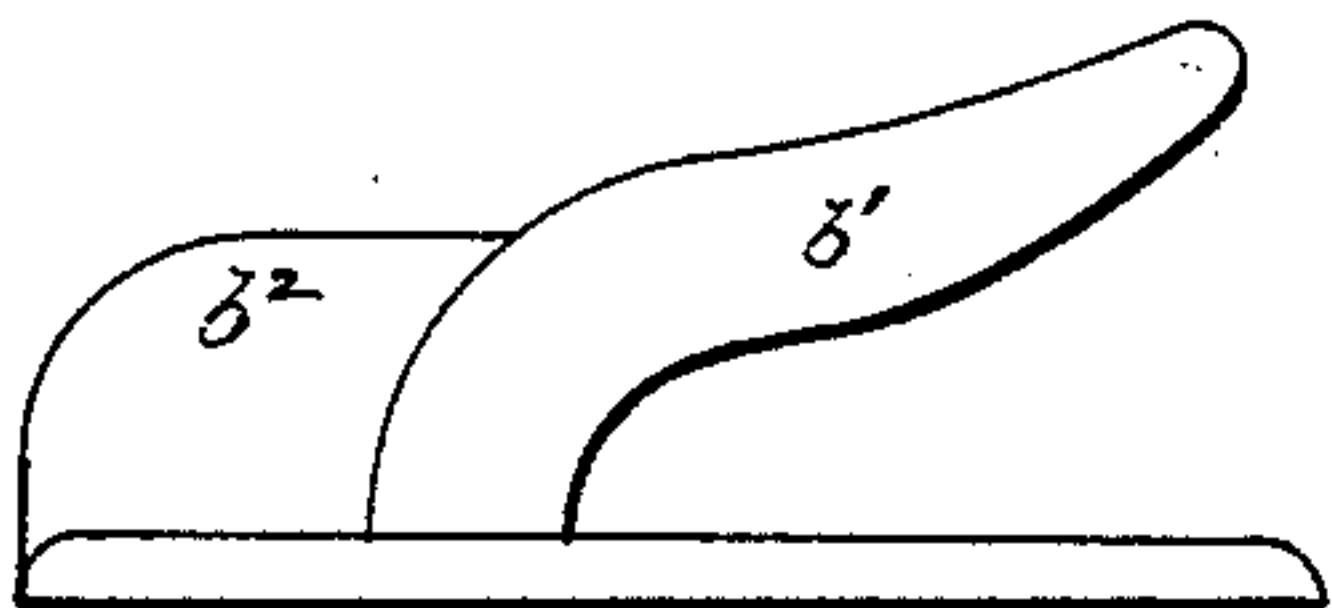


Fig. 3.

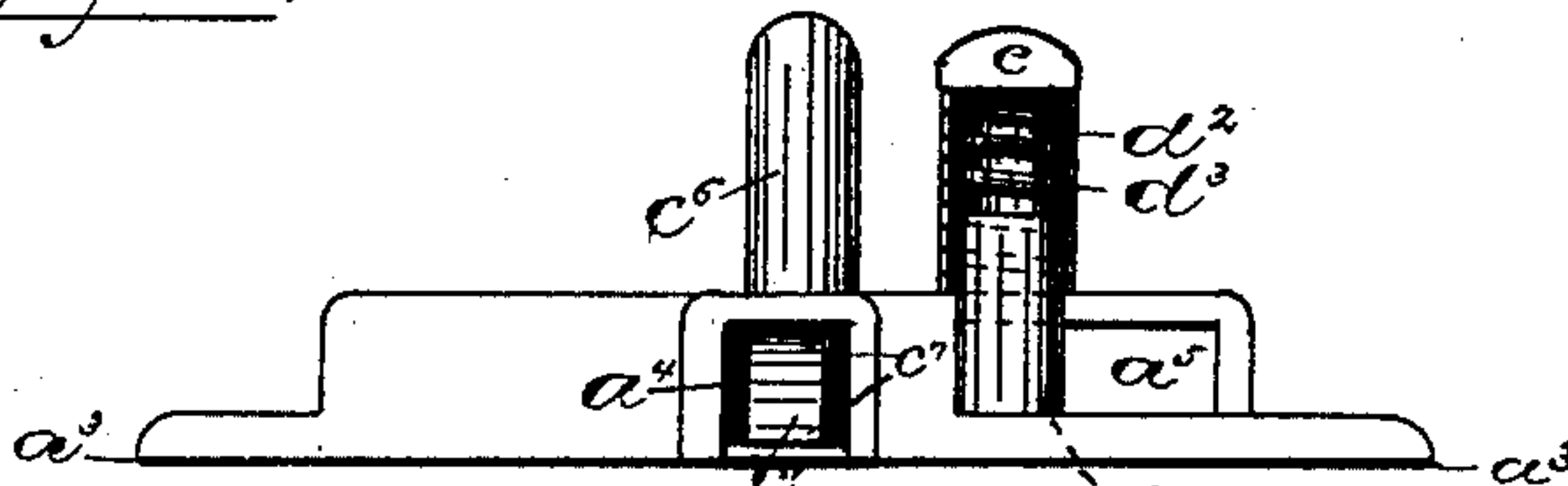


Fig. 4.

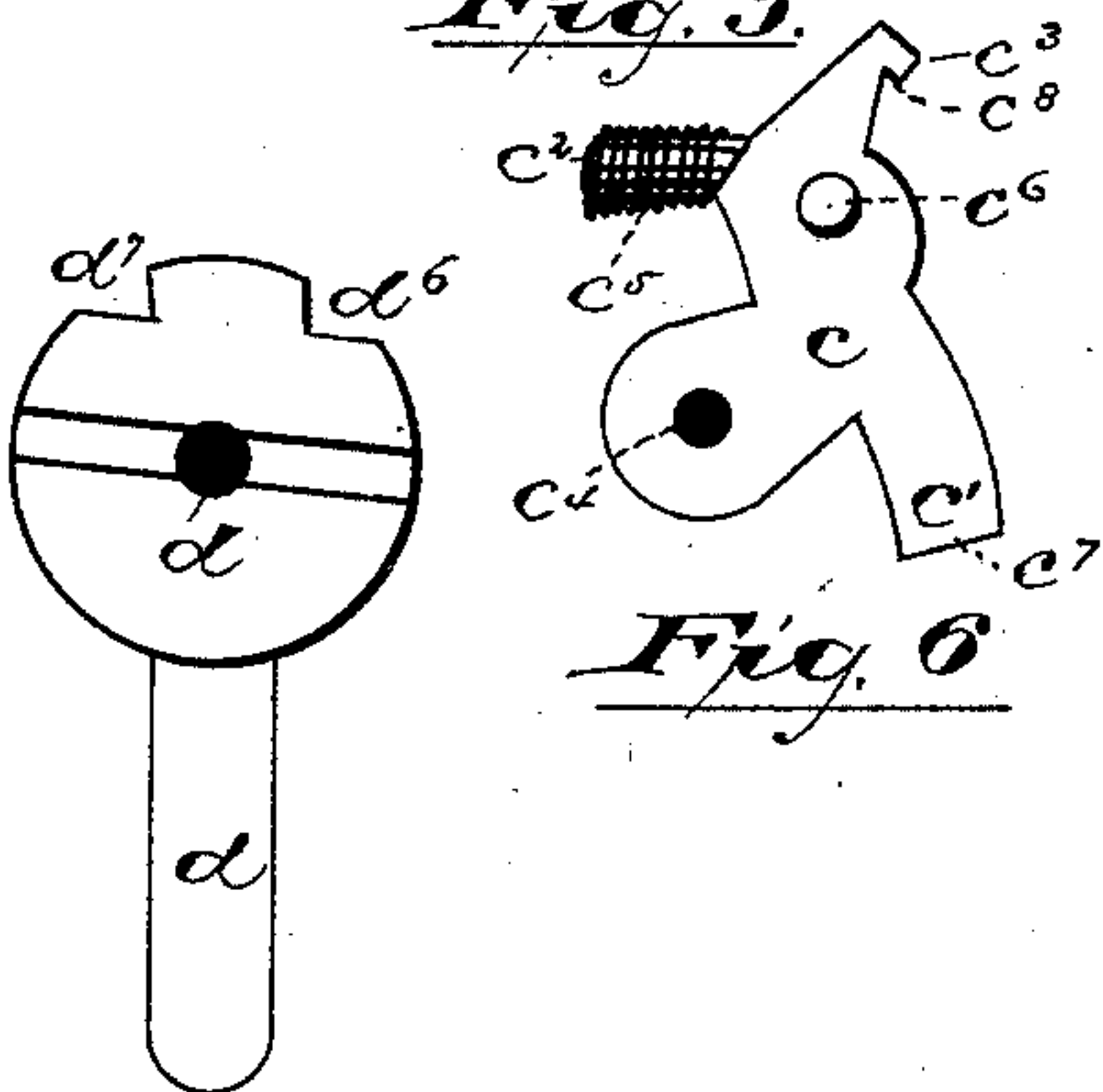


Fig. 6

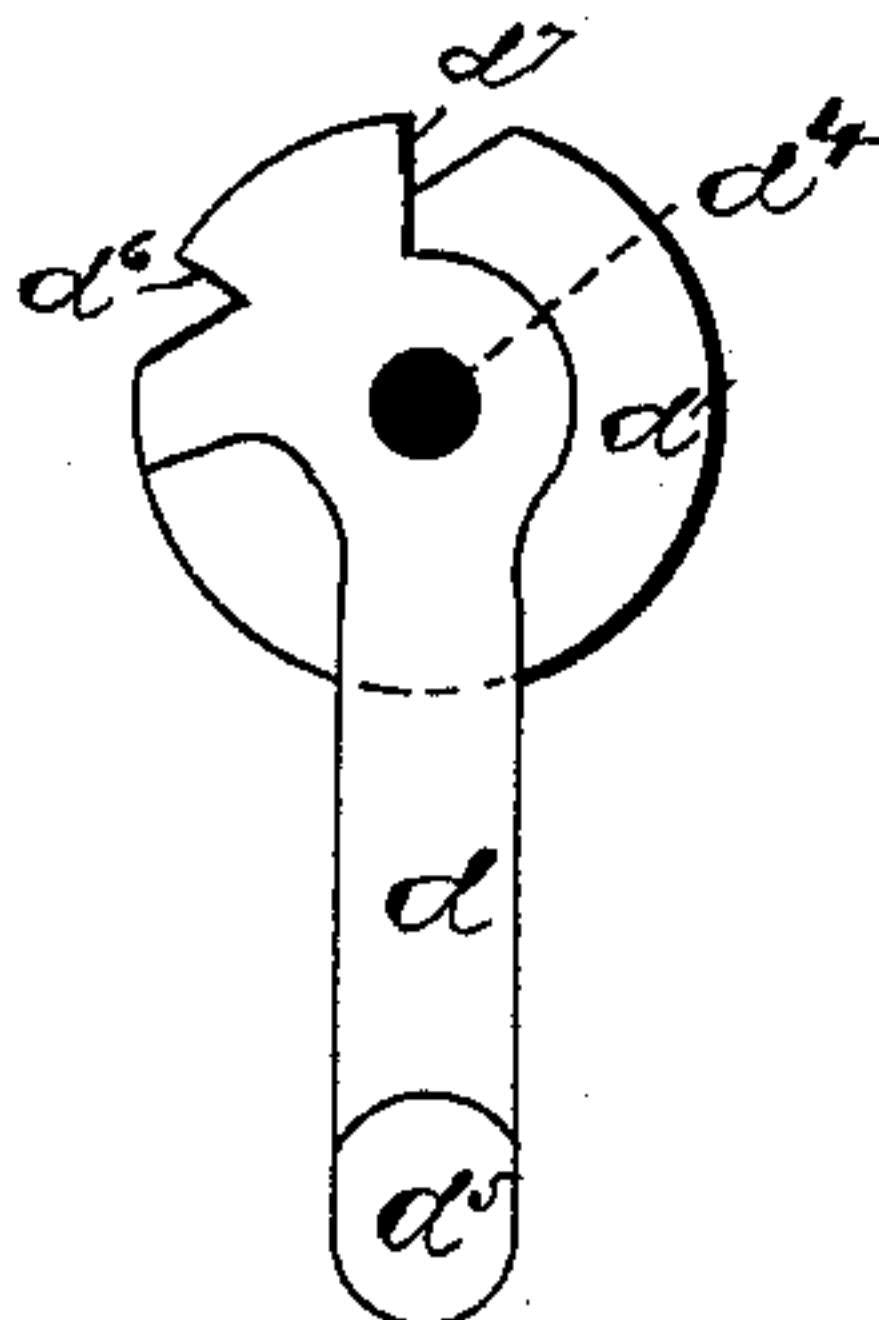


Fig. 7.

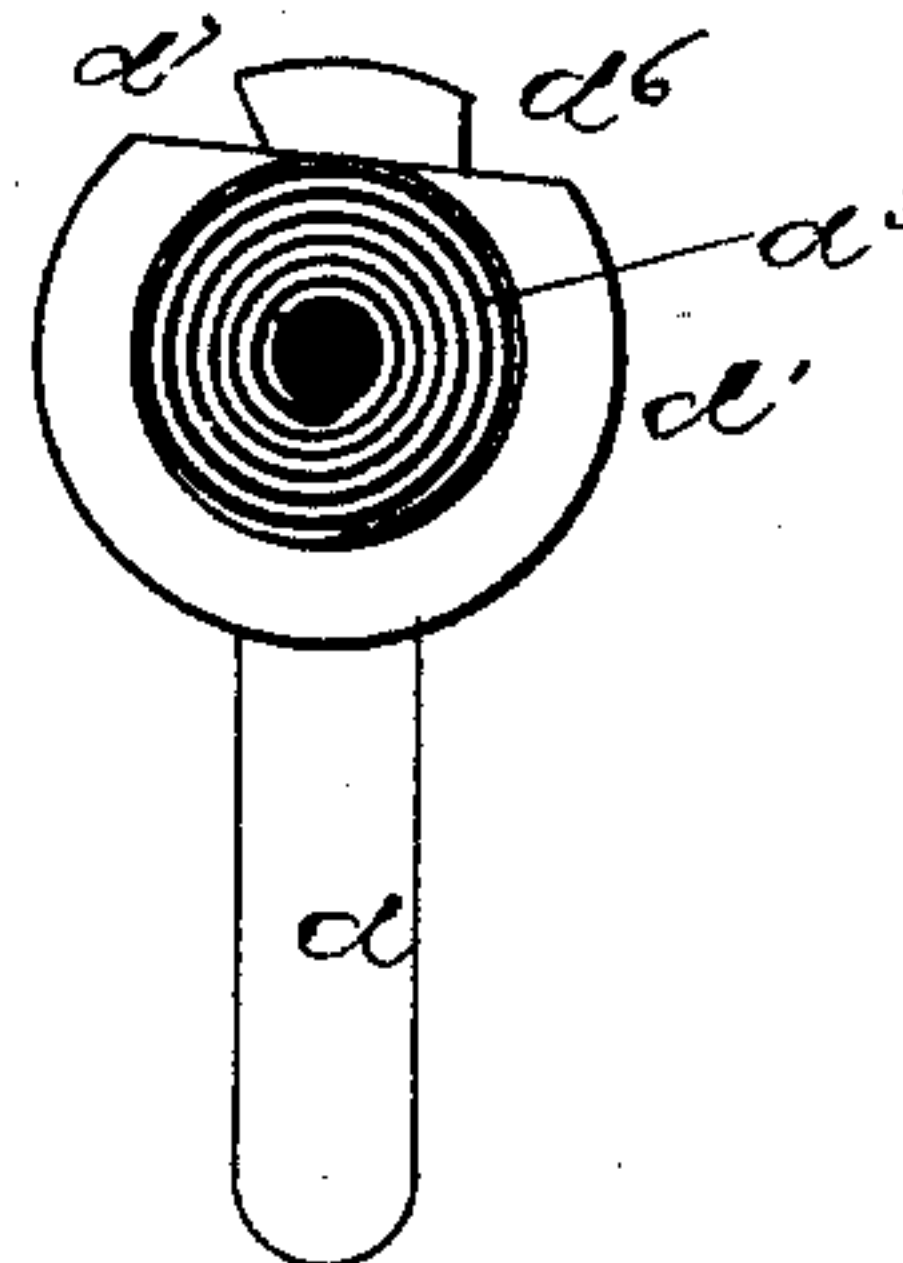


Fig. 8.

WITNESSES:

-INVENTOR:

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UNITED STATES PATENT OFFICE.

FENN WILLCOX, OF NEWARK, NEW JERSEY.

SASH-FASTENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 359,119, dated March 8, 1887.

Application filed November 8, 1886. Serial No. 218,289. (No model.)

To all whom it may concern:

Be it known that I, FENN WILLCOX, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Sash-Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a sash-fastener for windows that will automatically fasten the sashes when they are lowered to a closed position, and will also automatically lock itself, so that the fastening-bar of said fastener cannot be moved by a knife-blade or other instrument inserted between the sashes from the outside. A further object is to provide an ornamental, cheap, durable, and effective fastener.

The invention consists in an improved sash-fastener and in the arrangements and combinations of parts thereof, substantially as will be hereinafter set forth, and finally embodied in the clauses of the claims.

Referring to the accompanying drawings, in which like letters indicate corresponding parts in each of the several figures, Figure 1 is a plan of a portion of two sashes provided with my improved fastener. Fig. 2 is a section through line *x*, Fig. 1, showing the sashes partly raised, in order to more clearly illustrate the working of the fastener. Fig. 3 is a side elevation of the part of the fastener adapted to be attached to the upper sash. Fig. 4 is a side elevation of that portion of the fastener adapted to be attached to the lower sash; and Figs. 5, 6, 7, and 8 are details of certain parts of said fastener, which will be hereinafter more fully described.

In said drawings, *a* is a portion of the fastener for lower sash, *a'*, and *b* the co-operating portion for the upper sash, *b'*, of the said fastening portion *a*.

*a*² is the casing-plate, which is chambered on the under side to receive certain operating mechanism, and is provided with ears *a*³ *a*³, whereby said plate may be secured upon the sash. On the edge of the casing is an opening, as

at *a*⁴, Fig. 4, to allow a passage for a repression-finger, *c'*, of said operating mechanism, and at *a*⁵ to allow a passage for a locking-bolt, *d*. The said casing is furthermore slotted at its upper face, as at *a*⁶, to receive a finger-piece, *c*⁶, extending from a portion of the trigger *c*. Within said chamber, adjacent to the slot or opening *a*⁵, is pivoted a locking-bolt, *d*. This is provided at its inner pivotal end with a ratchet-like disk, *d'*, and a pivotal post, *d*², which may be integral with the disk; or, and preferably, the said post may be secured in a hole, *d*⁴. Said post has a bearing in the casing, preferably extending upward through said casing, and being on the upper side thereof provided with a spring, *d*³, which tends to throw the bolt automatically into a locked position, as shown in Fig. 1. When the spring is thus arranged on the outer side of the casing, the same may be covered with a cap, *e*, which conceals said spring and prevents access of dust or dirt thereto. I may, however, arrange a coil-spring, as indicated in Fig. 8, in connection with the locking-bar, in which case the spring will lie within and be concealed by the casing.

The outer end of the locking-bar is provided with an upward projection or hook, *d*⁵, which passes behind an inclined hook or projection, *b'*, by means of which the sashes may be drawn together.

To engage the ratchet-teeth of the locking-arm and hold it securely, so that it cannot be turned pivotally from its locked position, and to hold it in its open position, I have provided a trigger, *c*. (Shown in Figs. 1, 2, and 6.) This is caused to engage the ratchet by a spring, *c*⁵, which latter bears at one end on the wall of the casing and at the other on the trigger, the latter being provided with a stem, *c*², to hold said spring in position. Said trigger is pivoted, as at *c*⁴, to the casing at a point in the same at a distance from the ratchet and at a point approximately between said ratchet and the pivotal center. Said trigger is provided with a repression-projection, *c'*, which extends from the body of the trigger through the opening *a*⁴ and from the casing a sufficient distance to engage a bearing, *b*², of the co-operating fastening portion *b*. The repression-finger and the said bearings are both, or either of them may be, provided with an incline or bevel, *c'* *b'*, adapted as the window-sashes are brought

together to cause the repression-finger c' to be thrown backward or toward the casing. Should the locking-bolt be in its open position and the hook c^8 of the pawl-projection c^3 be caught in the notch d^6 , the action above referred to will cause a disengagement of the pawl with the ratchet, releasing it so that it turns automatically under the influence of the spring d^3 into locking engagement with the co-operating hook b' .

The pivotal movement of the locking-bolt in its locking and unlocking movements is limited by stops a^8 and a^9 . After the locking-bolt has turned into its locked position after having been released by the trigger, the pawl-projection is caused to enter automatically under the influence of the spring c^5 into engagement with the ratchet at the notch d^7 , whereby the locking-bolt is prevented from turning from said locked position. By turning the trigger by the hand by means of the finger-piece c^6 , projecting through the casing, the said locking-bolt may be released and with the finger be turned to its opened position. It may be held there by the automatical engagement of the pawl with the ratchet at d^7 .

The co-operating catching part b may be of any ordinary form to provide the bearings b^2 and hook b' ; but, preferably, as shown in Figs. 1 and 3, the hook b' has an upward inclination, as in Fig. 3, and is curved longitudinally, as in Fig. 1. Thus when said locking-bolt d engages said co-operating fastening b , said hook b' acts both to draw the meeting-rails into close

contact and to push the sashes more effectually into their seat in the window frame.

Having thus fully described my invention, what I claim as new is—

1. In a sash-fastener, the combination, with a co-operating fastener, as b , provided with an arm, b' , and bearing b^2 , of a spring-actuated ratcheted locking-bolt, and a trigger, as c , provided with a suitable pawl for holding said locking-bolt in an open position until said trigger is automatically released, substantially as and for the purposes set forth.

2. In a sash-fastener, the combination, with a ratcheted locking-bolt, as d , of a spring-actuated trigger, as c , provided with a finger-piece, repression-finger, as c' , and pawl-projection, as c^3 , substantially as and for the purposes set forth.

3. In a sash-fastener, a case, a^2 , provided with openings a^4 , a^5 , and a^6 , a locking-bolt, d , having a ratchet, d^7 , a spring, d^3 , and locking-arm d^5 , a trigger, c , having a finger-piece, c^6 , repression-finger c' , pawl-projection c^3 , and a spring, c^5 , all said parts being combined and adapted to operate with a co-operating fastener, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 1st day of November, 1886.

FENN WILLCOX.

Witnesses:

OLIVER DRAKE,
WM. S. CORWIN.