

No. 742,030.

PATENTED OCT. 20, 1903.

R. W. HUTCHISON.
SASH LOCK.

APPLICATION FILED APR. 30, 1903.

NO MODEL.

Fig. 1.

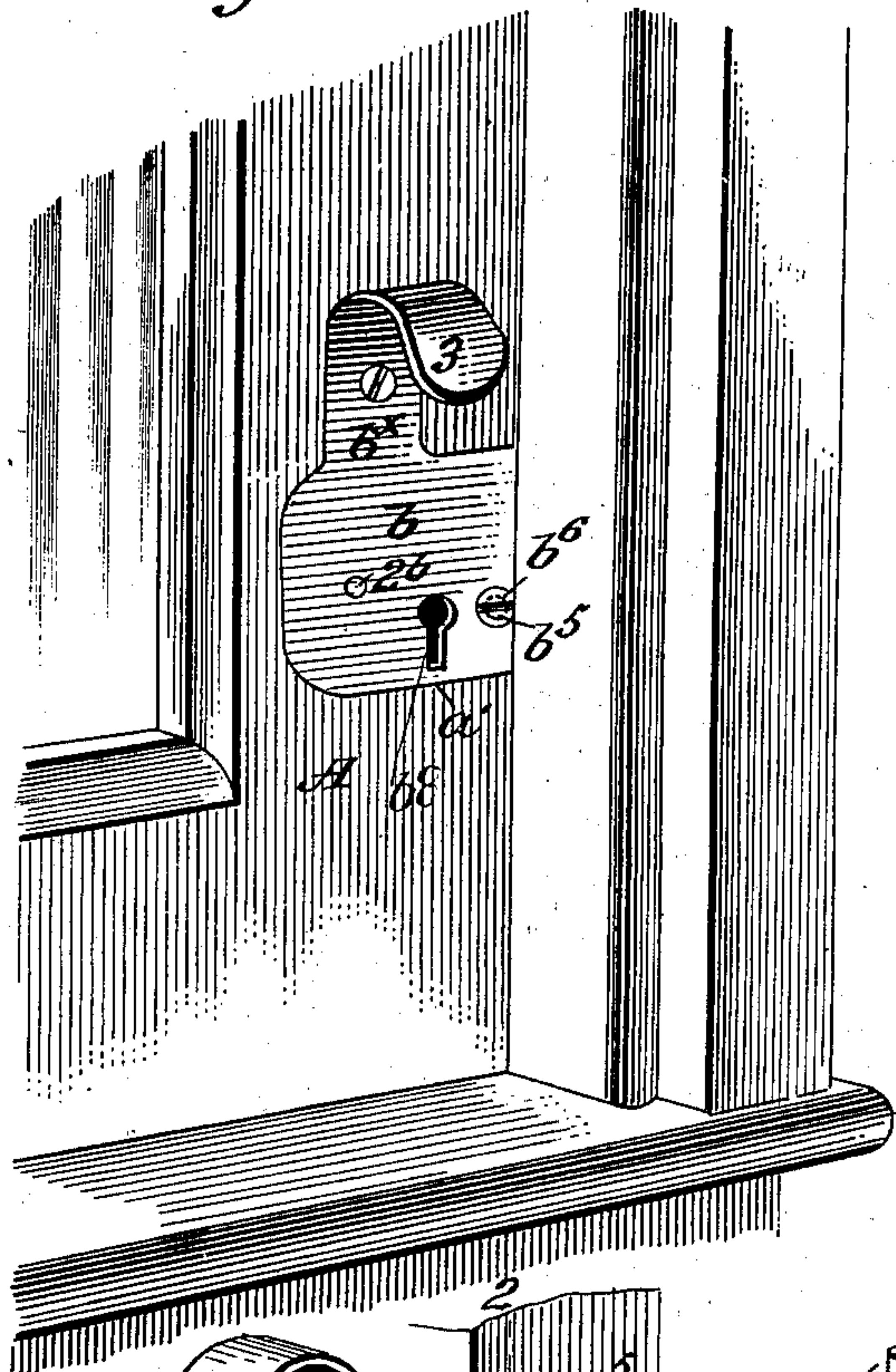


Fig. 2.

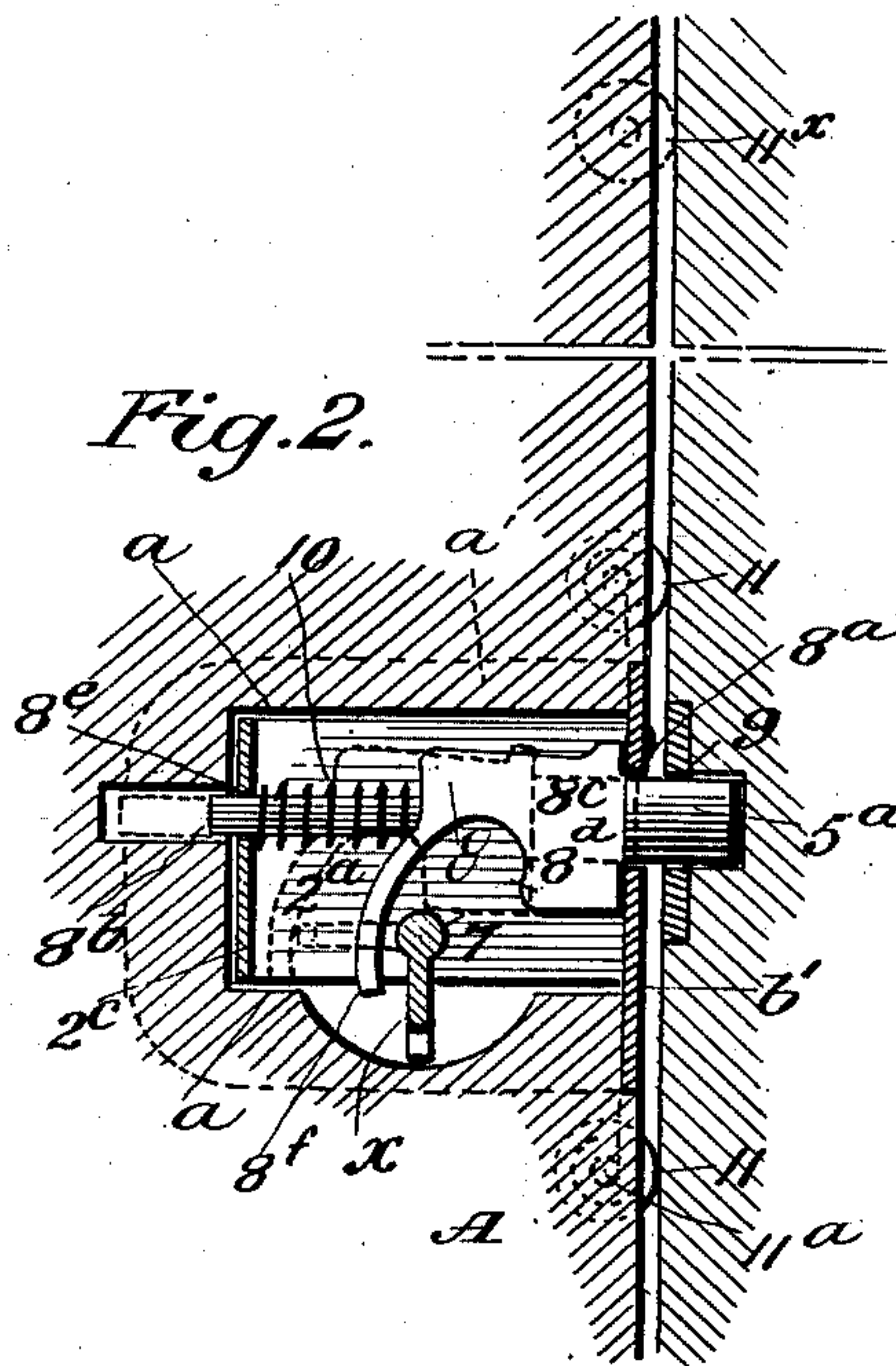


Fig. 3.

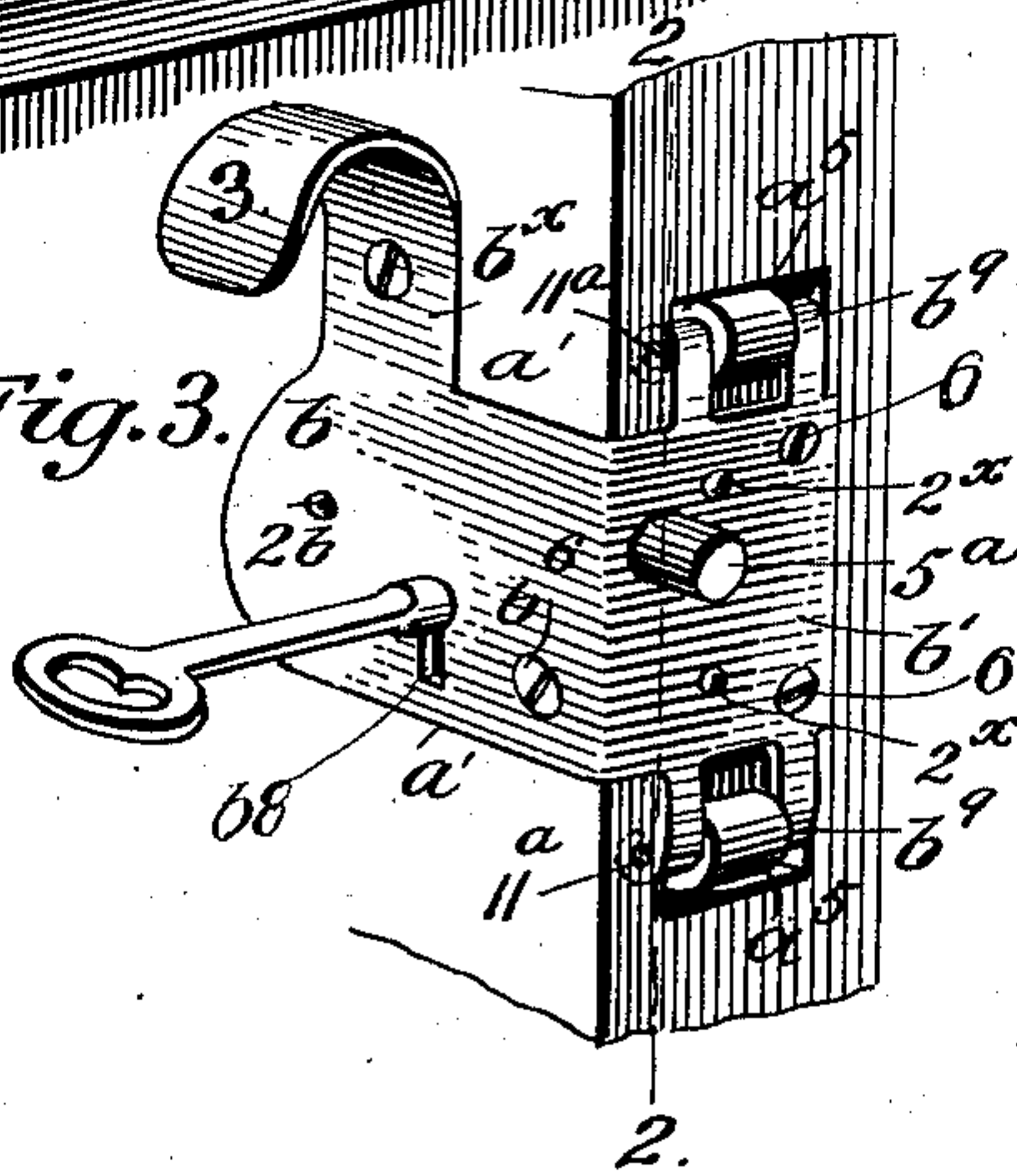


Fig. 4.

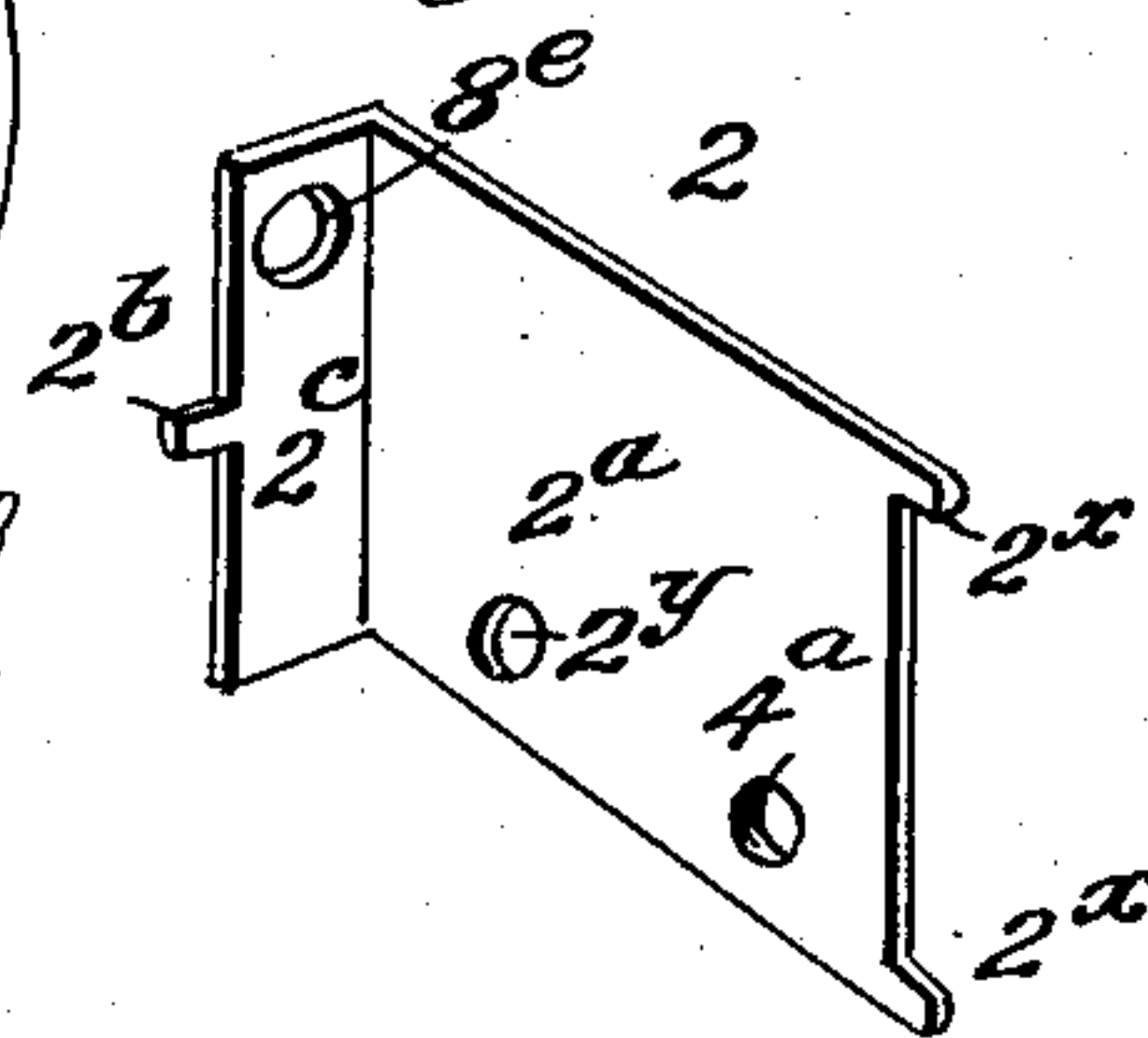
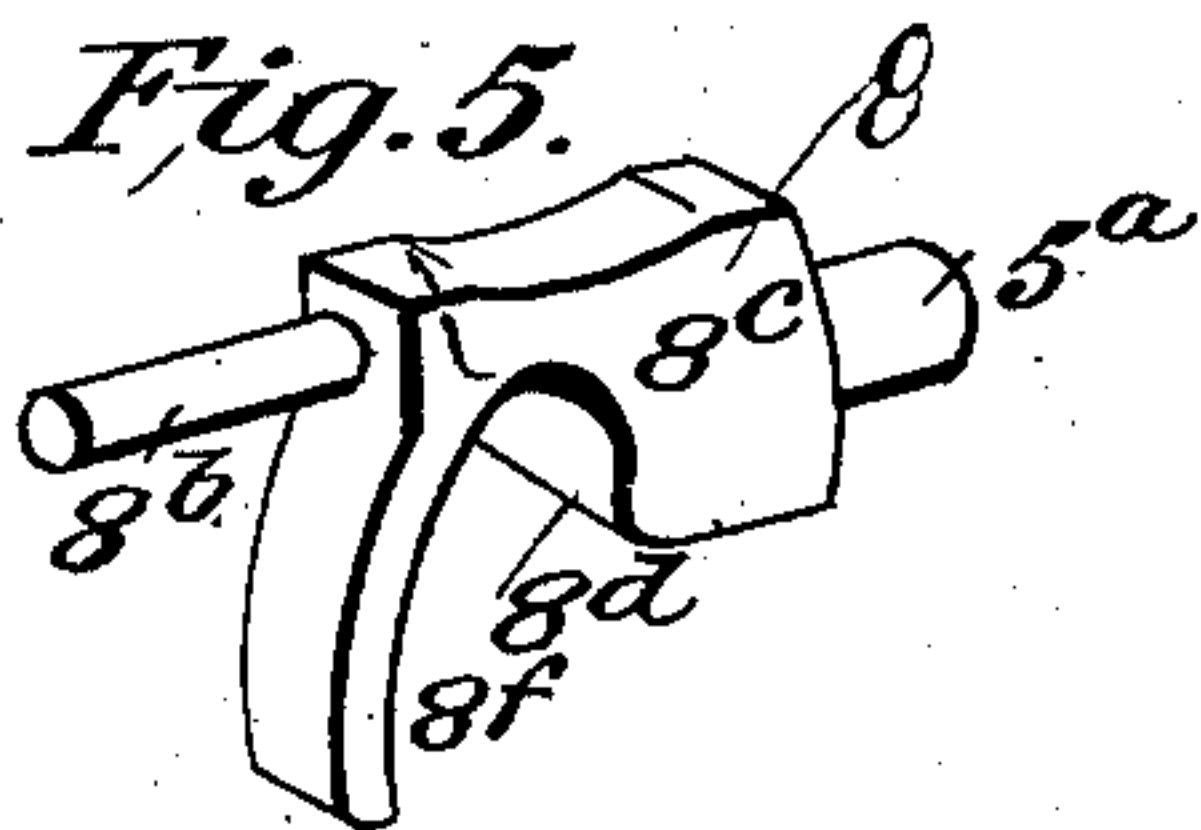


Fig. 5.



WITNESSES:

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ROBERT W. HUTCHISON, OF MARCELLUS, MICHIGAN.

SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 742,030, dated October 20, 1903.

Application filed April 30, 1903. Serial No. 154,979. (No model.)

To all whom it may concern:

Be it known that I, ROBERT W. HUTCHISON, residing at Marcellus, in the county of Cass and State of Michigan, have invented certain new and useful Improvements in Sash-Locks, of which the following is a specification.

This invention relates to improvements in that type of sash-locks in which is included a lock-casing mounted on the sash, a key-operated bolt adapted to engage with sockets in the window-casing; and it comprehends a simple, effective, and economical construction of parts, in which the lock-bolt is especially designed to be held to its turned-in or unlocked position by the key that moves it into such position and spring-actuated in its locking movement.

My invention also embodies certain details of construction and peculiar combination of parts, all of which will hereinafter be fully described and claimed; and it particularly includes a special construction of the lock-casing whereby to conveniently support friction-rollers for facilitating the movement of the sash to its opening and closing position.

Referring now to the accompanying drawings, in which like letters and numerals indicate like parts in all the figures, Figure 1 illustrates a portion of a window sash and casing with my improvements applied. Fig. 2 is a vertical section of the same, taken practically on the line 2-2 of Fig. 3, the bolt being shown key-held to its drawn-in position in dotted lines. Fig. 3 is a perspective view of a portion of the sash and the lock devices attached. Fig. 4 is a detail view of the several parts which constitute the locked casing, and Fig. 5 is a detail view of the lock-bolt.

In the practical application of my invention the sash A at a suitable point is cut out, as at *a*, the face or sash end of which is open, and the outer or front face of the sash is formed with a shallow seat *a'*, which surrounds the inner and the upper and lower edges of the cut-out portion *a* to receive the edges of the front plate *b* of the lock-casing B, whereby to provide a smooth and flush adjustment of the casing on the sash.

The casing B, the peculiar construction of which is best shown in Fig. 4, consists of two parts 1 and 2, both stamped up from stout

sheet metal, and the portion 1 has a flat front member *b*, an end member *b'*, which is bent inwardly at right angles to the part *b*, and an upwardly-extending member *b^x*, integral with the part *b*, the free end of which is turned outwardly to form a lifting-hook 3, the body portion of which fits a seat cut in the front face of the sash, as clearly shown in the drawings. The part 2 of the casing comprises a flat bearing 2^a and an end member 2^c, which is provided with a stud or rivet 2^b to fit the aperture *b³* in the part *b*, and the said part 2^a is also provided with a number of studs or rivets 2^x to enter the rivet-apertures *b⁴* in the end member *b'*. The casing member *b* has an aperture *b⁵* to receive the fastening-screw *b⁶*, adapted to engage with a threaded aperture 4^a in the inner member 2^a, and the end piece *b'* has apertures 5 for the wood-screws 6, that secure the casing B to the window-sash. The member *b* is also provided with a keyhole *b⁸*, and the piece 2^a has an aperture 2^v in register with the hole *b⁸* to receive the key-heel 7, as shown.

8 designates the locking-bolt, which, as best shown in Fig. 5, comprises an end member 5^a, adapted to engage within one of a series of metal-faced sockets 9 9 in the window-casing and which rides in an aperture 8^a in the end-portion *b'* of the casing 1. It also has a reduced shank 8^b, which slides in an aperture 8^c in the casing member 2^c and upon which is disposed the spring 10, that forces the bolt outward to its locking position. The lock-bolt also includes a tumbler or key-engaged block 8^c, which has a short pendent shoulder 8^d and an opposing curved tang 8^f, which projects down in a plane below the heel portion of the keyhole in the front plate *b*, and the said tang serves the double function of providing for shifting the bolt to its inner or unlocked position by turning the key in the required direction and as a lock or detent for automatically holding the bolt to its inner position when the key-wing *x* is turned to the horizontal position, (shown in Fig. 2,) and thereby admit of removing the finger-hold on the key after the latter has been turned to the position stated and leave the hand free to raise the sash by pulling up on the lift member 3, before referred to. The spring 10 serves to shift the bolt to the lock-

ing position when the key is turned to the position shown in full lines on Fig. 2. It will be noticed, however, that by reason of the peculiar formation of the block portion 5 of the bolt should the spring break or bind the bolt can be readily shifted in either direction by a proper key movement.

To prevent the metal casing binding against the opposing window-casing face, I 10 provide friction-rollers 11 11, one above and one below the inner face b' of the casing, which project sufficiently beyond the plane of the sliding face of the sash (see Fig. 2) to reduce the danger of the sash binding on the 15 casing to the minimum. To facilitate the attachment of the friction-rollers in an economical and a stable manner, they are seated in recesses a^5 , formed in the sash edge, and they have their studs or pintles 11^a mounted 20 in bearings $b^9 b^9$, integrally formed with the body portion b' of the casing-section 1, as clearly seen in Fig. 4, from which it will be noticed the bearings are in the nature of narrow extensions the ends of which are turned 25 inward to form bearing-eyes to receive the stud or pintle ends of the rollers. If desired, additional rollers 11^x may be provided at the upper and at the lower ends of both edges of the sash, as indicated in dotted lines in 30 Fig. 2.

From the foregoing, taken in connection with the accompanying drawings, it is believed the advantages of my invention will be readily understood.

35 The construction of the several parts is such that the said parts can be very economically made and readily applied to the ordinary window-sash without the aid of more than ordinary skill.

40 I am aware that sash-locks embodying the generic features shown—that is, a casing, a spring latch-bolt key-operated—have heretofore been provided. My invention differentiates, so far as I know, from what has heretofore been provided in this art in the peculiar 45 correlation of the bolt, the key, and the casing, the special construction of the casing, and particularly forming the latter with an integral lift member and integral bearing

members for supporting the upper and lower 50 friction-rollers in the manner hereinbefore described.

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

1. In a lock as described, in combination 55 with the sash and the casing, the latter having one or more bolt-sockets; of a locking mechanism comprising a casing consisting of an outer section 1 and an inner section 2, 60 said sections having interlocking means, the section 1 comprising a front plate b and a side member b' , projected at right angles to the front plate, said front plate having an integral lift or pull extension and a spring and 65 key-actuated slide-bolt mounted within the casing, substantially as shown and described.

2. As an improvement in sockets of the character described, the combination with the sash and the sash-casing; of a lock-casing 70 mounted on the sash and including a front plate b and side plate b' for opposing the sash-casing face that opposes the sash edge, said plate b' having integral extensions at the upper and lower ends bent to form bearings, 75 rollers mounted in said bearings, and a key-actuated locking-bolt mounted within the lock-casing, as set forth.

3. The hereinbefore-described improvement in sash-locks, comprising in combination 80 with the sash having a recess and the sash-casing having bolt-sockets; of the lock-casing B, consisting of an outer section 1 and an inner section 2; the two sections having interlocking members, the outer section 1 including a front plate b and a side plate b' , 85 the latter having upper and lower extensions b^9 whose ends terminate in bearing edges, the plate b having an extension b^x curved to form a lift or pull portion, the bolt 8 held 90 within the casing and spring-actuated, all being arranged substantially as shown and for the purposes described.

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Witnesses:

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