

(No Model.)

E. O. LADD.

FASTENING FOR MEETING RAILS OF SASHES.

No. 313,503.

Patented Mar. 10, 1885.

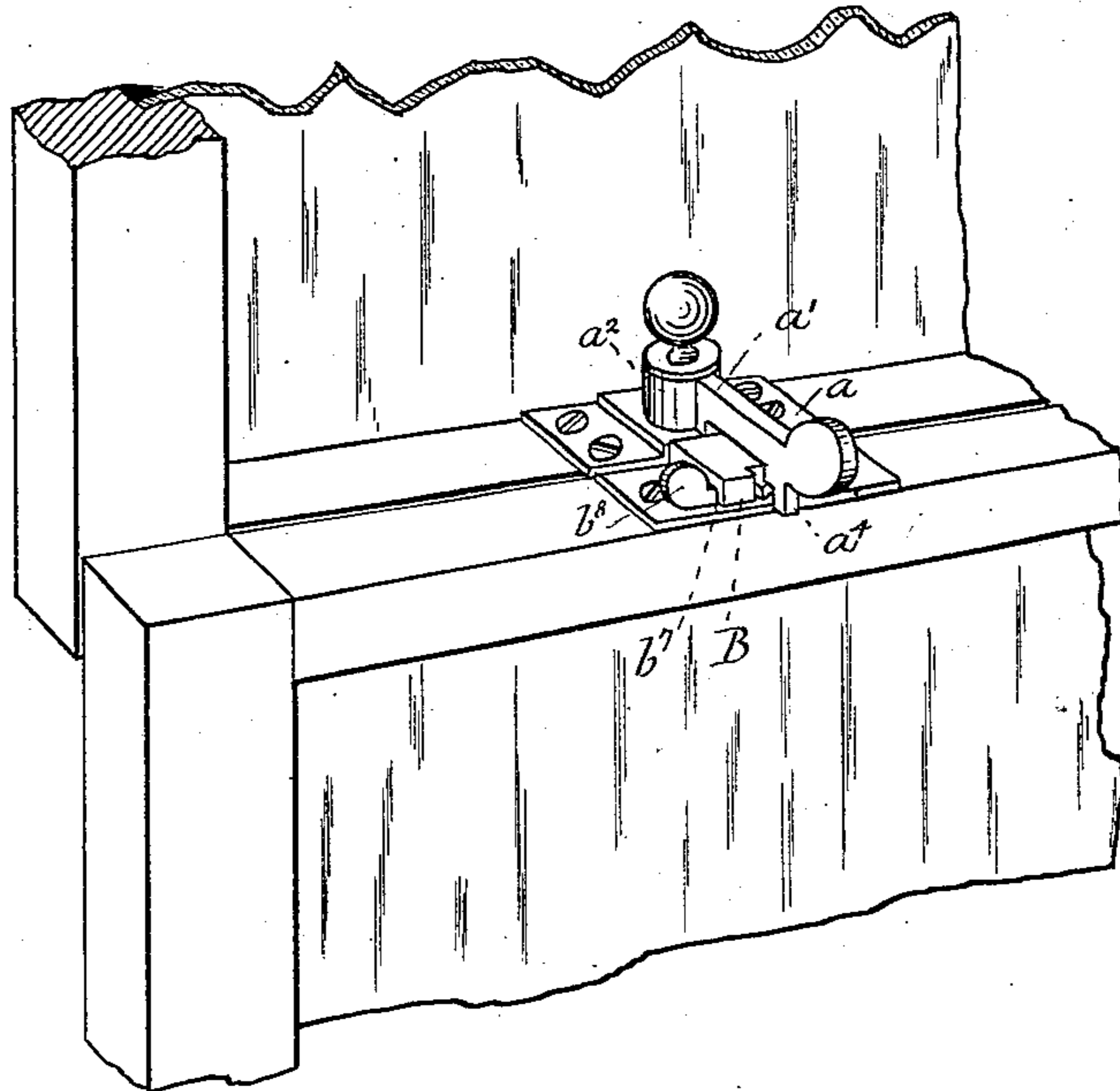


Fig. 1.

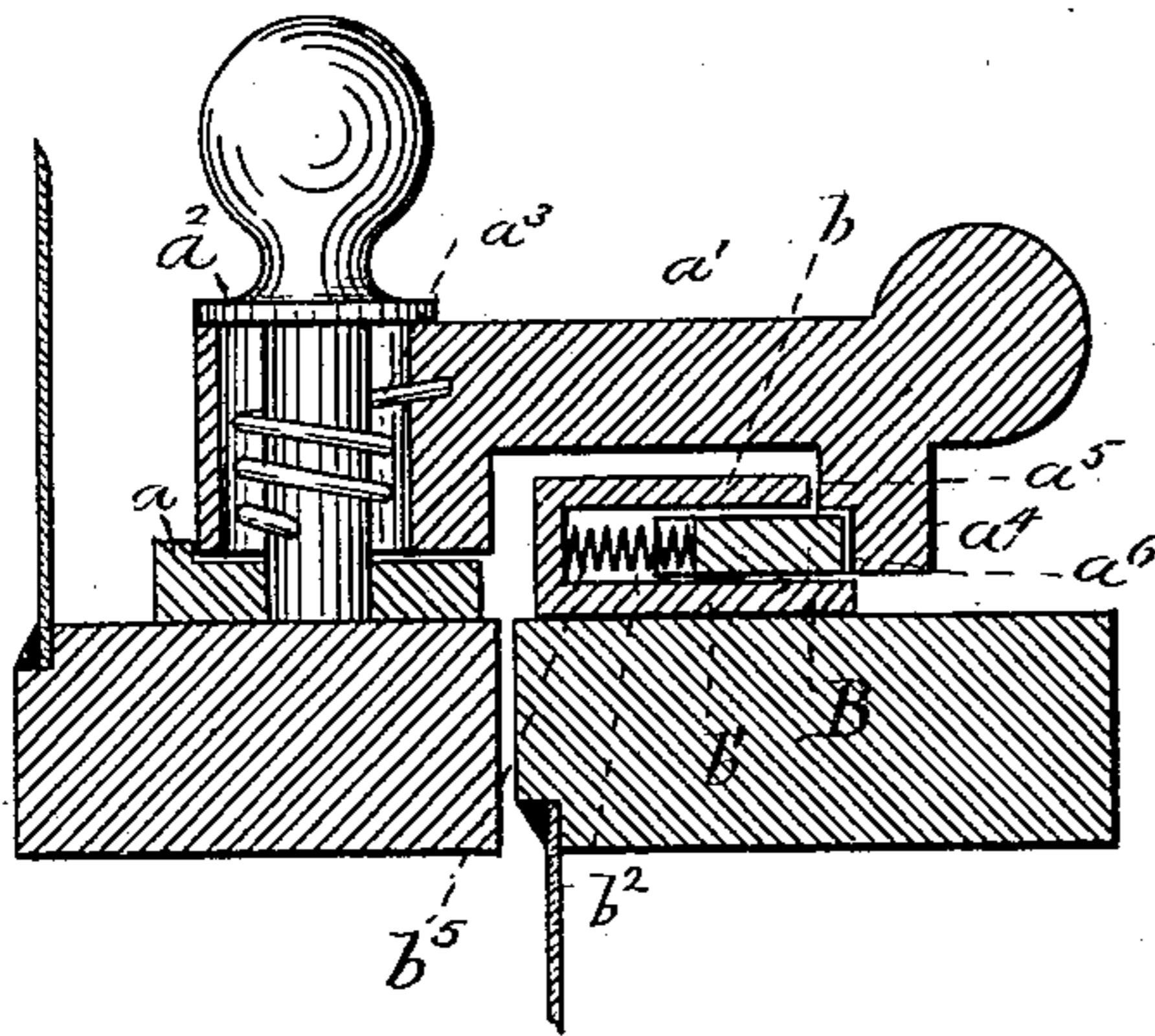


Fig. 2.

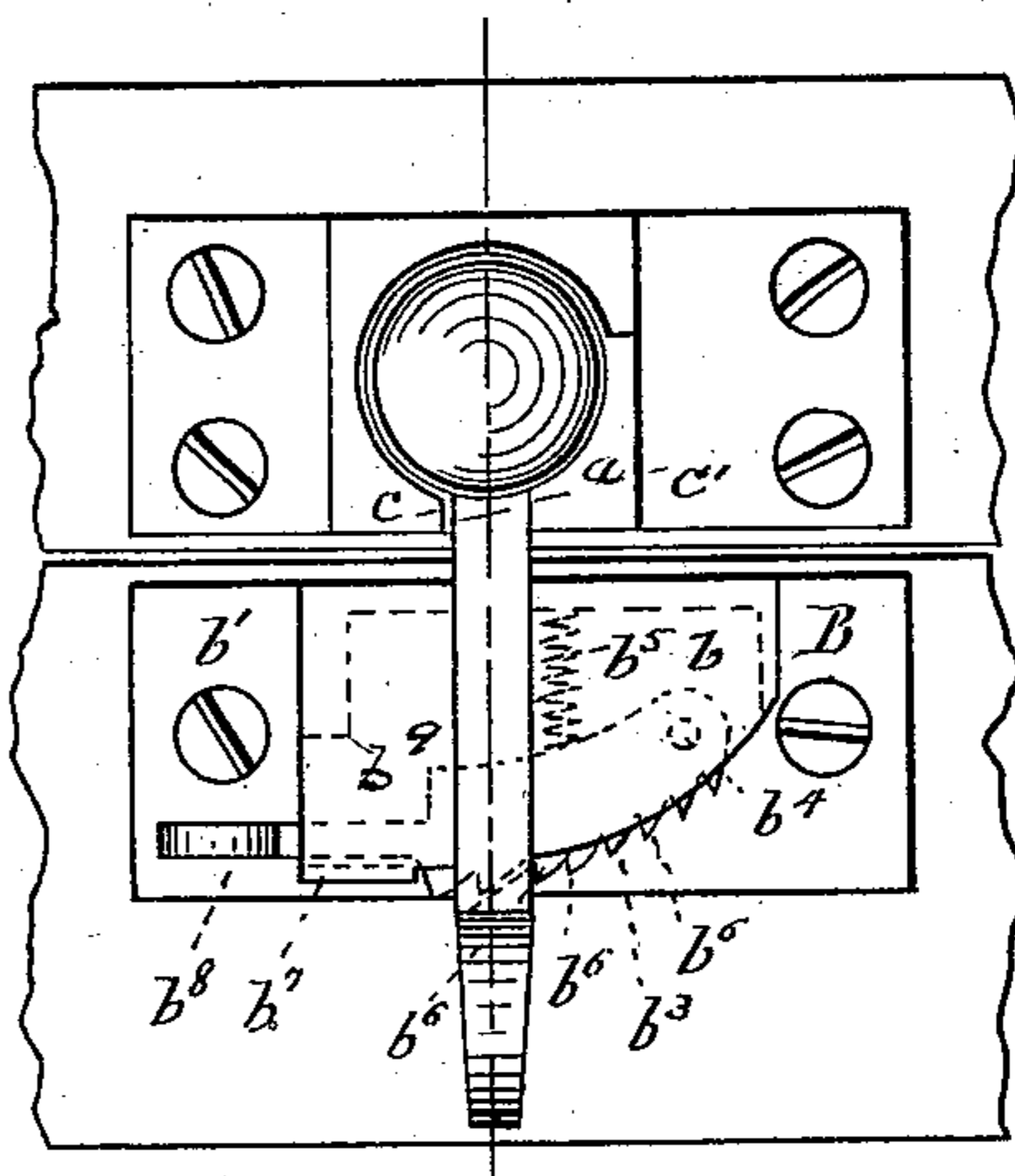


Fig. 3.

WITNESSES.

Bowdoin S. Parker

Fred. B. Dolan.

INVENTOR.

Edmund O. Ladd.

by his attys

Clark & Raymond

UNITED STATES PATENT OFFICE.

EDWARD O. LADD, OF EVERETT, MASSACHUSETTS.

FASTENING FOR MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 313,503, dated March 10, 1885.

Application filed November 22, 1884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD O. LADD, of Everett, in the county of Middlesex and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Sash and Door Fasteners, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification in explaining its nature, in which—

Figure 1 represents a portion of an upper and lower sash, showing the meeting-rails and my improved invention. Fig. 2 is a vertical section thereof somewhat enlarged, and Fig. 3 is a plan view.

This invention is an improvement upon that described in my Letters Patent No. 296,188. In said patent I have shown and described a sash-fastener having an edge cam-bearing plate and edge ratchet-plate, the plates or edge surfaces being independent of each other, but coincident in curvature, and a fastening bar or arm, which is like the ordinary bar or arm of such fasteners, with the exception that it carried a pawl which engaged with the teeth on the ratchet-plate.

In my present invention I make the ratchet-plate movable and do not attach a pawl to the locking-bar, and while the effect of the two constructions is substantially the same, the construction of the present invention is cheaper and less liable to get out of order.

Referring to the drawings, a represents the plate, which is fastened to the bottom rail of the top sash. To this plate is pivoted the locking arm or bar a' in the ordinary manner, or, as shown in the drawings, by means of the cap a^2 and the spring a^3 . This construction, however, is also old and common, and need not further be described here. The front end of the locking bar or arm has a downward-projecting tongue, a^4 , the upper inner edge, a^5 , of which is adapted to bear against the cam-plate hereinafter specified, and the lower inner edge, a^6 , of which is beveled, as represented, and forms the tooth or latch which engages with the teeth of the ratchet-plate.

B is the other member of the fastener. It has the cam-plate b , which is cast integral with or fastened to the base-plate b' , which is

adapted to be secured to the upper surface of the upper rail of the lower sash. Between it and the plate is the space b^2 , in which is located or arranged the ratchet-plate b^3 . This ratchet-plate is hinged or pivoted at b^4 to the plate b' , and is pressed or moved outward by the spring b^5 , so that the teeth b^6 thereon project beyond the edge of the cam-plate. The stop b^7 prevents the further movement of the ratchet-plate outward. The ratchet-plate also has the extension b^8 , which forms the thumb-piece by which it is moved inward against the stress of the spring b^5 , and a stop, b^9 , limits its inward movement.

In the operation of locking, the shoulder upon the tongue of the locking bar or arm comes in contact with the edge of the cam-plate, and the tooth or latch a^6 engages with the teeth of the ratchet and presses the ratchet-plate back as it clears each tooth until it is finally left. It will be seen that by this construction, even if the locking-bar is not moved but a very little on the cam-plate, still the tooth or latch upon it will engage with the teeth of the ratchet-plate almost simultaneously with the movement of the tongue by the edge of the cam-plate. The stops $c c'$ prevent the locking-bar from being moved beyond a line substantially at right angles to the line of the sash.

To disengage the locking-bar it is simply necessary to throw in the ratchet-plate, when the tooth which holds the locking bar or arm is disengaged, and it is moved back either by the spring or by hand.

The cheapness and advantages of the construction as compared with that described in my said Letters Patent are obvious.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a sash-fastening device, the combination of an edge cam-bearing plate and hinged edge ratchet-plate, the plates or edge surfaces being independent of each other but coincident in curvature, and adapted to operate in connection with the locking bar or arm, substantially as and for the purposes described.

2. The sash-fastening device consisting of the plate a , provided with the locking bar or

arm a' , pivoted thereto, and having the tongue
 a^4 , having the bearing-surface a^5 and tooth or
latch a^6 , in combination with the plate b' , pro-
vided with the circular edge cam-plate b , cir-
5 cular edge ratchet-plate b^3 , formed coincident
with each other, the ratchet-plate being mov-
able, as described, and provided with a thumb-

piece, b^8 , and adapted to operate in combina-
tion with the locking bar or arm a' , all sub-
stantially as specified.

EDWARD O. LADD.

Witnesses:

F. F. RAYMOND, 2d,
FRED. B. DOLAN.