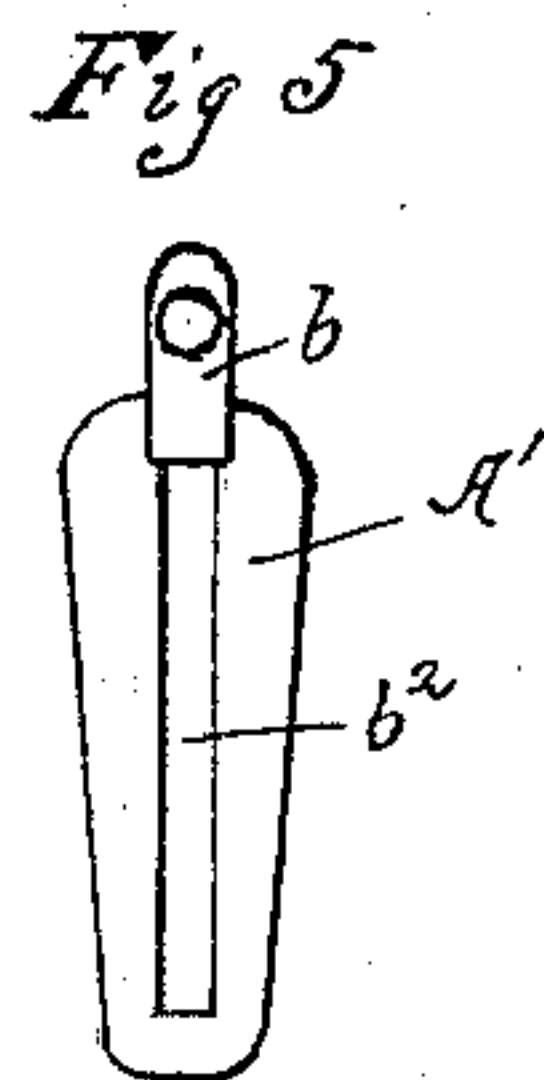
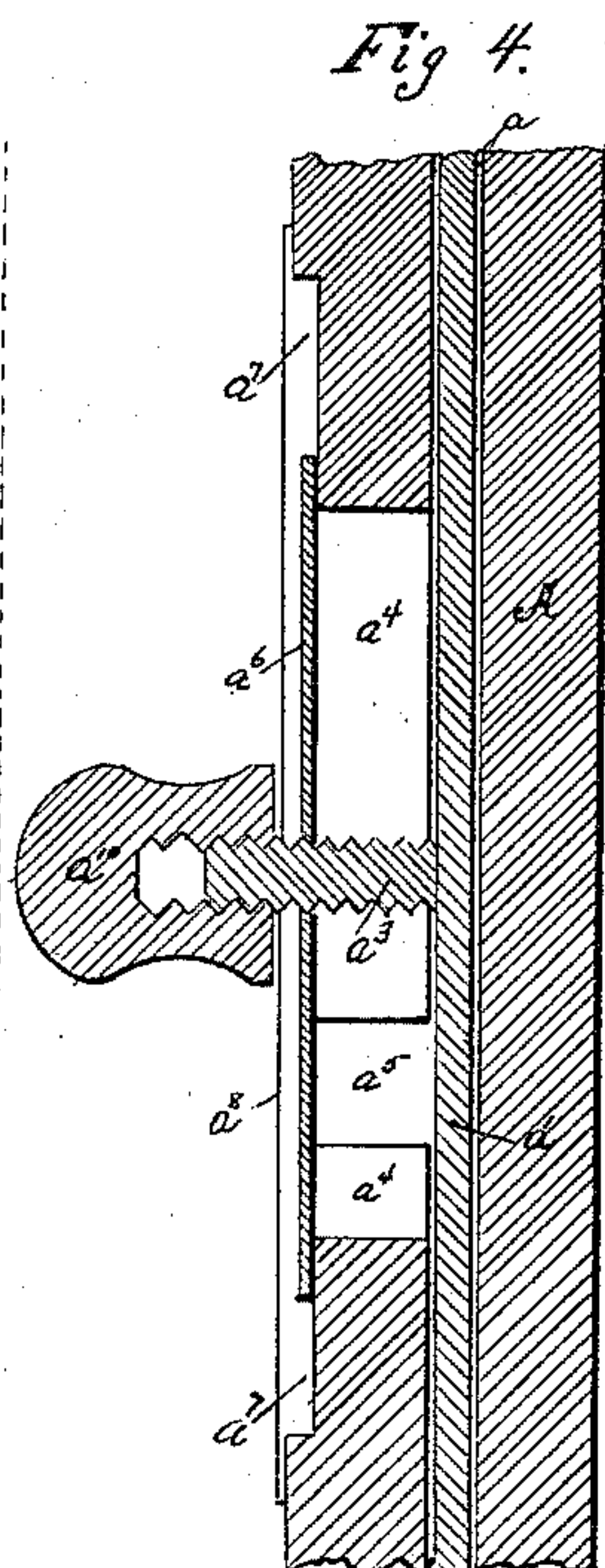
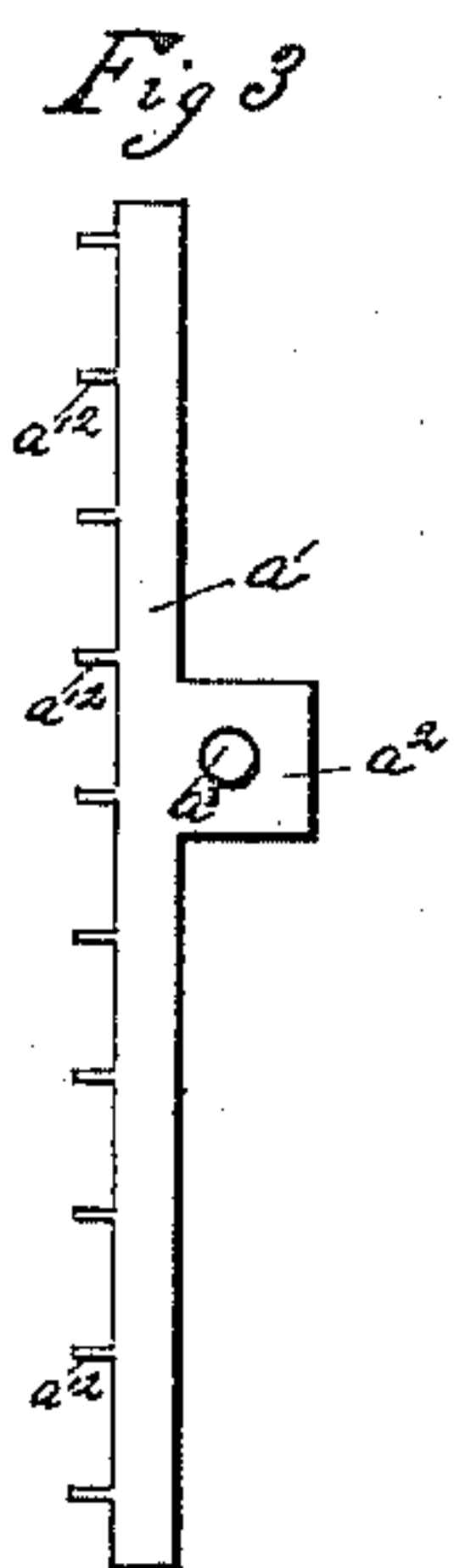
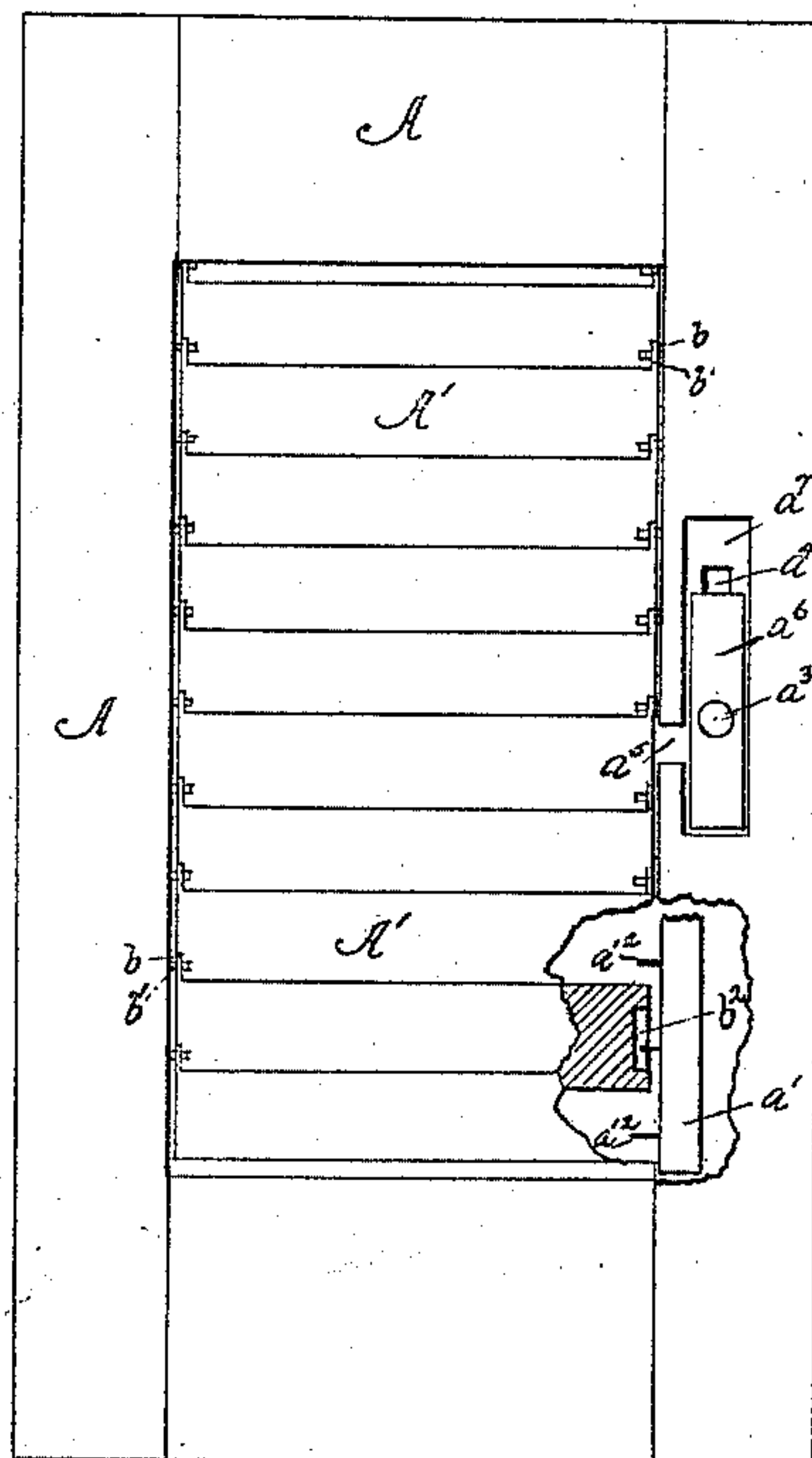
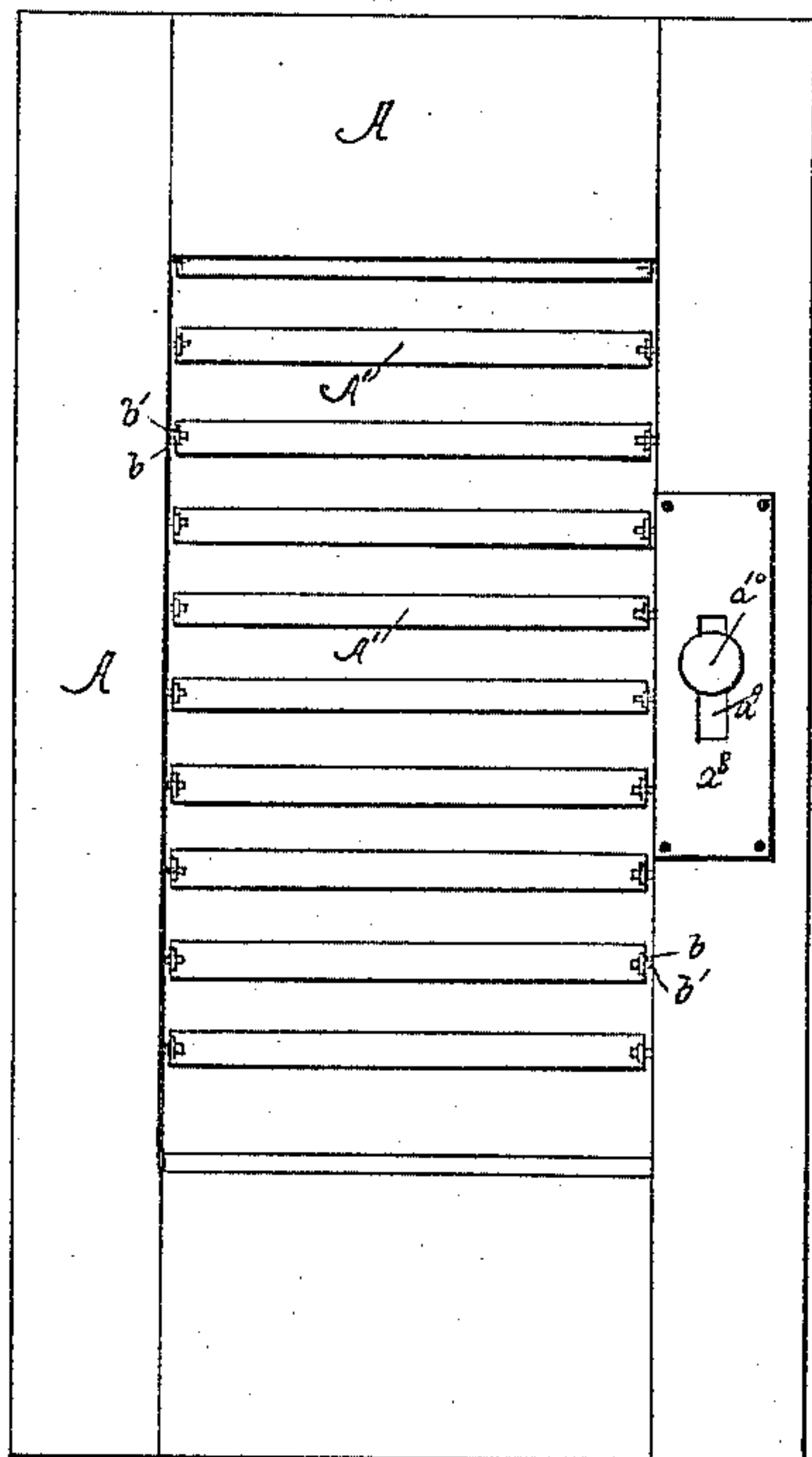


(No Model.)

J. A. MAULE.
WINDOW OR DOOR BLIND.

No. 465,098.

Patented Dec. 15, 1891.



Witnesses
Franklin Moore
R. H. Howard

Inventor
John A. Maule
By *his* Attorneys

Hallock & Hallock

UNITED STATES PATENT OFFICE.

JOHN A. MAULE, OF LAFAYETTE, INDIANA, ASSIGNOR OF ONE-HALF TO
WILLIAM R. GORDON, OF SAME PLACE.

WINDOW OR DOOR BLIND.

SPECIFICATION forming part of Letters Patent No. 465,098, dated December 15, 1891.

Application filed October 31, 1890. Serial No. 369,887. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. MAULE, a citizen of the United States, residing at Lafayette, in the county of Tippecanoe and State of Indiana, have invented certain new and useful Improvements in Window and Door Blinds; 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.

My invention relates to that class of shutters that is provided with movable slats operated from the inside of the house by means of a movable rod having suitable connection with the movable slats.

The object of my invention is to improve upon the construction of that class of devices; and to that end the nature of the invention consists in constructions and combinations, all as will hereinafter be set forth in the specification, and pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 represents a front elevation with slats open; Fig. 2, a front elevation with the slats closed and partly broken away to show slat in the slots; Fig. 3, a side view of the bar; Fig. 4, a section showing the bar, recesses, adjusting-nut, and other parts; and Fig. 5, an end view of one of the slats.

A represents the frame of a shutter, and A' the slats. In one side of the frame a groove a is formed, and in this groove is placed a rod or bar a' , of less length than the groove, so that said bar can be moved up or down in said groove, for a purpose hereinafter explained. The bar may be of any desired width—i. e., of a width equal to the depth of groove a , or less width—and provided with a projection a^2 for a stud a^3 , that extends through a slot a^4 , formed longitudinally in the frame and provided with a transverse passage a^5 toward the slats A'. Before the slats are put in the frame the bar a' is inserted in the groove a , the stud a^3 entering the slot a^4 through the transverse passage a^5 , and is held therein by moving the bar longitudinally until the stud a^3 is moved past the transverse passage a^5 , where it is held in place primarily by a stop-plate a^6 , secured to the stud and of

sufficient length to allow the stud to have a limited movement, the scope of which is regulated by the ends of the recess a^7 , formed in the face of the shutter and concealed from view by a cap or cover a^8 , secured to the frame and having an opening a^9 for the stud a^3 to project through. The projecting end of the stud is screw-threaded and receives an interiorly-screw-threaded knob a^{10} for raising and lowering the bar a' and, when desired, locking the bar in any desired position by screwing the knob down against the cap or cover a^8 , which has more or less resiliency. The bar is also provided with a series of pins a^{12} , which project into the opening of the frame and, as will hereinafter be explained, into the slats. The slats are hinged at the ends of the upper edges to the frame by means of eyes b and staples b' , the former being on the slats, and the staples inserted through the eyes into the frame, so that by pulling out one or both of the staples the slat can be removed from the frame. The end of each slat next to the bar a' is provided with a longitudinal recess b^2 , into which the pins a^{12} , one to each slat, is inserted, so that when the bar a' is moved up or down the pins will slide in said recesses and cause the slats to move outwardly and upwardly or inward and downward, as the case might be, to open or close the spaces between the slats, and when the pins have been moved to the outer or lower end of the recesses the slats are locked in place, so that they cannot be moved except by lifting the bar a' , as the slats, by reason of their being pivoted at their upper edges and held down near their lower edges by the pins, offer practically no leverage to any one prying under the lower edge thereof.

The operation of the device is as follows: If the slats have been let down or closed and it is desired to open them, the rod or bar a' is raised by means of the knob a^{10} until the slats have been moved the desired distance, this movement being accomplished by the pins a^{12} sliding in the recesses b^2 , which are parallel with one or both sides of the slats, and as the bar a' moves upward the pin moves in the recess and lifts the outer end of the slats and discloses the spaces between them. The slats can be held in that position by screwing the

knob down upon the cap or cover. The slats are let down by a reverse movement of the knob, which, if moved down to the fullest extent, carries the pins on the bar a' to the lowest point in the recesses b^2 . The recesses b^2 may be formed in the ends of the slats, or they may be formed in metal and attached to the ends of the slats, in which the eyes b may be formed integral with the metal.

10 What I claim as new is—

1. In a shutter, the combination of the frame, bar a' , adapted to move up and down within the frame and having pins projecting beyond said frame, slats extending from end to end of the frame and pivoted thereto at the ends of their upper edges, the ends of the slats adjacent to bar a' having a longi-

tudinal slot b^2 , within which the pins of said bar move, as set forth.

2. In a shutter, the combination of a frame having a longitudinal groove, a longitudinal slot, and a recess around said slot, a bar having a stud projecting through said slot and having a stop-plate in said recess, a bar a' in said groove having pins a^2 , and slats pivoted to said frame and having recesses in their ends for engagement with the pins on bar a' , substantially as described and set forth.

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

JOHN A. MAULE.

Witnesses:

THOS. J. BARNES,
J. W. McCREA.