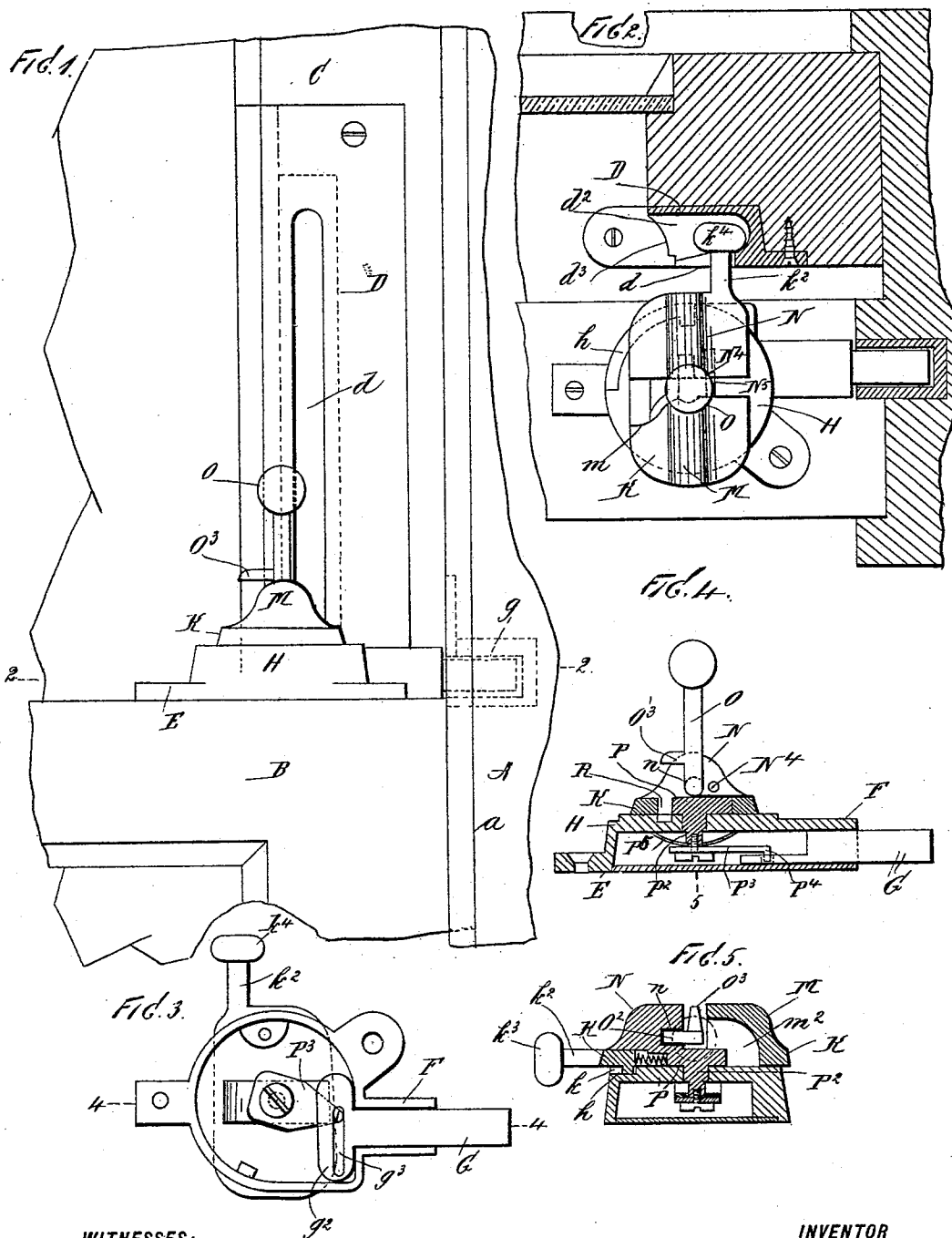


(No Model.)

E. H. BEEKMAN.  
LOCKING DEVICE FOR WINDOWS.

No. 569,317.

Patented Oct. 13, 1896.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

EDWIN H. BEEKMAN, OF PLAINFIELD, NEW JERSEY.

## LOCKING DEVICE FOR WINDOWS.

SPECIFICATION forming part of Letters Patent No. 569,317, dated October 13, 1896.

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*To all whom it may concern:*

Be it known that I, EDWIN H. BEEKMAN, a citizen of the United States, and a resident of Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Locking Devices for Windows, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar letters of reference indicate corresponding parts.

This invention relates to locking devices for window-sashes; and the object thereof is to provide an effective device of this class whereby both sashes may be locked in the closed position; and with this and other objects in view the invention consists in the construction, combination, and arrangement of parts herein shown and described.

My improved locking device for window-sashes consists of two parts, one of which is connected with the lower sash and the other with the upper sash, and the invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a front view of a portion of a window-frame, showing also a portion of the upper and lower sashes mounted therein and my improved lock in position; Fig. 2, a transverse section on the line 2 2 of Fig. 1, that part of the lock which is connected with the lower sash being shown in full lines; Fig. 3, a bottom plan view of that portion of the lock connected with the lower sash; Fig. 4, a transverse section thereof on the line 4 4 of Fig. 3, and Fig. 5 a transverse section on the line 5 5 of Fig. 4.

In the drawings forming part of this specification, A represents a portion of a window-frame; *a*, one of the beads or strips by which the sashes are held in position; B, a portion of the lower sash, and C a portion of the upper sash; and that part of my improved lock which is connected with the upper sash consists of a plate or strip D, of the general form shown in Figs. 1 and 2, said strip being provided with a vertical slot *d* and with a central vertical or longitudinal chamber *d*<sup>2</sup>, the bottom of which opens inwardly, as shown at *d*<sup>3</sup> in Fig. 2, and the bottom portion of the slot *d* also opens inwardly in the

same manner as the bottom portion of the vertical or longitudinal chamber *d*<sup>2</sup>.

That portion of the lock which is connected with the lower sash consists of a circular plate or disk E, by means of which it is secured to the sash, and on one side of which is formed a tubular housing F, in which is placed a sliding bolt G, which is adapted to engage with a corresponding cavity or recess *g*, formed in the frame A. The inner end of the bolt G is provided with a transverse head *g*<sup>2</sup>, in which is formed a longitudinal slot *g*<sup>3</sup>.

Formed on the upper side of the plate E is a circular housing H, which is integral with said plate E, with which the tubular housing F communicates, and on which is transversely mounted a sliding cross-head K, on the under surface of the inner end of which is formed a depending lug or projection *k*, which is adapted to enter a segmental groove or recess *h* in the circular housing H, and said inner end of the sliding cross-head is also provided with a projecting arm *k*<sup>2</sup>, on which is formed a head *k*<sup>3</sup>, said arm *k*<sup>2</sup> being adapted to enter the slot *d* in the plate D through the inwardly-directed opening at the bottom thereof.

The outer end of the sliding cross-head K is provided with an upwardly-directed convex portion M, the inner side of which is cut away, as shown at *m*, to form a cavity or recess therein, and mounted on the opposite end of said cross-head is a sliding spring-operated block N, which is similar in form to the convex portion M on the opposite end. This sliding block N is provided on its inner end with a circular cavity *n*; and I also provide a lever O, on the inner end of which is formed an angular projection O<sup>2</sup>, which is adapted to enter the circular cavity *n*, and formed on the upper side of said lever is a shoulder O<sup>3</sup>. The sliding block N is provided at its inner end with an angular block P, which is adapted to fit within a longitudinal central slot or opening formed in the bottom of the cross-head K, and said sliding block is also provided with a depending shank P<sup>2</sup>, which passes through the upper side of the circular housing H, and to the lower end of which is secured an arm P<sup>3</sup>, the outer end of which is provided with a depending projection P<sup>4</sup>, which passes through the slot *g*<sup>3</sup> in

the inner end of the bolt G. Mounted on the shank P<sup>2</sup> is a plate-spring P<sup>5</sup>, which is designed to depress the angular block P and to hold the same in close contact with the upper surface of the circular housing H, and the block N, which is rigidly connected therewith, in close contact with the upper surface of the cross-head K.

Formed in the inner side of the angular block P is a notch or recess R, which is adapted to receive the shoulder or projection O<sup>3</sup> on the lever O; and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings.

The under side of the convex portion M of the sliding cross-head K is cut out, as shown at m<sup>2</sup>, so as to provide space for the angular block P, and when the lever O is in the position shown in Figs. 1 and 2 the bolt G will be projected into the opening g in the window-frame, and the arm k<sup>2</sup> on the inner end of the sliding cross-head K will be turned into the slot or opening at the bottom of the vertical slot d in the plate D, and the sashes will be locked in the closed position; and in this position of the parts the cross-head K will be drawn outwardly and the head k<sup>4</sup> on the arm k<sup>2</sup> will draw the sashes together and prevent the rattling thereof. When it is desired to release the lock, the lever O is turned inwardly at a right angle to the position shown in Figs. 1 and 2, and in this position of the parts the cross-head K will be moved inwardly and the shoulder or projection k, formed on the bottom of the inner end thereof, will be free to turn in the segmental slot or groove h by turning the cross-head K, and the arm k<sup>2</sup> will be withdrawn from the slot d in the plate D, and said arm k<sup>2</sup> will project in line with the frame of the lower sash, and the lever O will rest transversely thereof, and in this position of the parts the bolt G will also be withdrawn from the opening g in the frame A by the arm P<sup>3</sup>, and the upper sash may then be lowered or the lower one raised, as may be desired, or either sash may be operated independently of the other.

The above-described operation is facilitated or rendered possible by means of a cavity or recess m<sup>2</sup>, formed in the inner side of the convex portion M of the cross-head K, and by means of the spring P<sup>5</sup>, which depresses the block P and the block N, which is rigidly connected therewith. Whenever it is desired to relock the sashes in the closed position, it is only necessary to turn the lever O to the position shown in Figs. 1 and 2, and this operation may be repeated as often as desired. I also form in the inner end of the sliding block N a hole N<sup>4</sup>, which is adapted to receive a pin N<sup>5</sup>, formed on the inner end of the convex portion or head M, said parts being adapted to guide the sliding block M; and my invention is not limited to the exact form, construction, combination, and arrangement of the various parts herein shown and de-

scribed, and I therefore reserve the right to make all such alterations therein and modifications thereof as fairly come within the scope of the invention, and it will also be apparent that I may substitute for the vertical strip D a lug or lock of any preferred form in connection with which the arm k<sup>2</sup> will operate to hold the sashes in the closed position, and the object of providing the vertical strip D, in which is formed a chamber d<sup>2</sup> and a slot d, is to provide means for lowering the upper sash in order to ventilate a room or compartment, and it will be observed that when the sashes are locked together or the locking device is in the position shown in Figs. 1 and 2 the upper sash may be lowered at a predetermined distance, depending upon the plate D and the slot d formed therein.

Having fully described my invention, its construction and operation, I claim as new and desire to secure by Letters Patent—

1. A locking device for window-sashes, comprising two parts, one of which consists of a vertical plate which is secured to the side of the upper sash, and is provided with a vertical longitudinal chamber which opens at the bottom, and with a vertical slot in the front side thereof, which also opens at the bottom, and the other being composed of a circular housing which is secured to the lower sash, and in the outer side of which is mounted a sliding bolt which is adapted to operate in connection with a hole or opening formed in the window-frame, said circular housing being also provided with a sliding cross-head on which is mounted a sliding block, the inner end of said sliding block being provided with a lever which is pivotally connected therewith, and said sliding block being also operatively connected with said bolt, and said sliding cross-head being provided at its inner end with an arm which is adapted to enter the slot formed in the plate which is secured to the upper sash, said parts being constructed, combined and arranged, substantially as shown and described.

2. A locking device for window-sashes, comprising two parts, one of which consists of a vertical plate which is secured to the side of the upper sash, said plate being provided with a vertical chamber which opens inwardly at the lower end thereof, and with a vertical slot which communicates with said chamber and which also opens inwardly, at the lower end thereof, the other part being composed of a circular housing which is secured to the lower sash, and in the outer side of which is a sliding bolt, said circular housing being provided with a sliding cross-head on which is mounted a sliding block, which is provided with an angular block adapted to move in a slot formed in the bottom of said cross-head, said sliding cross-head being provided at its inner end with an arm which is adapted to enter the vertical slot in the plate secured to the upper sash, and on the outer end of which is formed a head which is adapted to enter the

vertical chamber formed in said plate, and said angular block being provided with a shank which projects through the circular housing, and on the lower end of which is  
5 mounted a spring which operates in connection therewith, the lower end of said shank being provided with an arm which connects with a cross-head formed on said sliding bolt, and said sliding block being provided with a  
10 lever which is pivotally connected with the inner end thereof and which is adapted to be operated, substantially as shown and described.

3. A locking device for window-sashes comprising a circular housing which is adapted to be secured to the lower sash, said housing being provided in the outer side thereof with a sliding bolt which is adapted to enter a hole or aperture in the window-frame, said housing being also provided with a sliding cross-

head which is adapted to be turned thereon, and said cross-head being provided with a sliding block on which is formed, or with which is connected an arm which is adapted to operate in connection with a locking device secured to the upper sash, said sliding block being also in operative connection with said sliding bolt, and said block being also provided with a lever by means of which the parts are operated, said parts being constructed, combined and arranged, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 9th day of December, 1895.

EDWIN H. BEEKMAN.

Witnesses:

C. GERST,

S. L. HAWKSHURST.