No. 646,909.

Patented Apr. 3, 1900.

J. A. JOHNSON.

SASH FASTENER.

(Application filed Apr. 7, 1899.)

(No Model.)

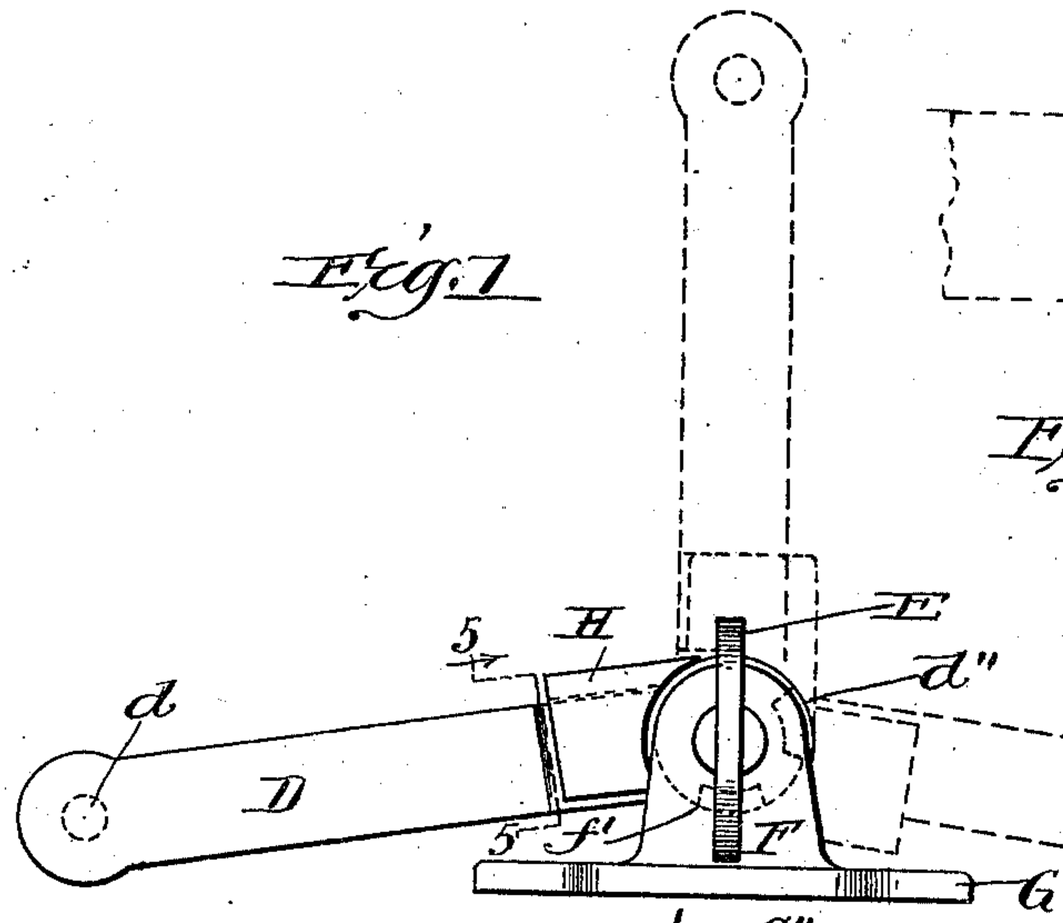

Fig. 3

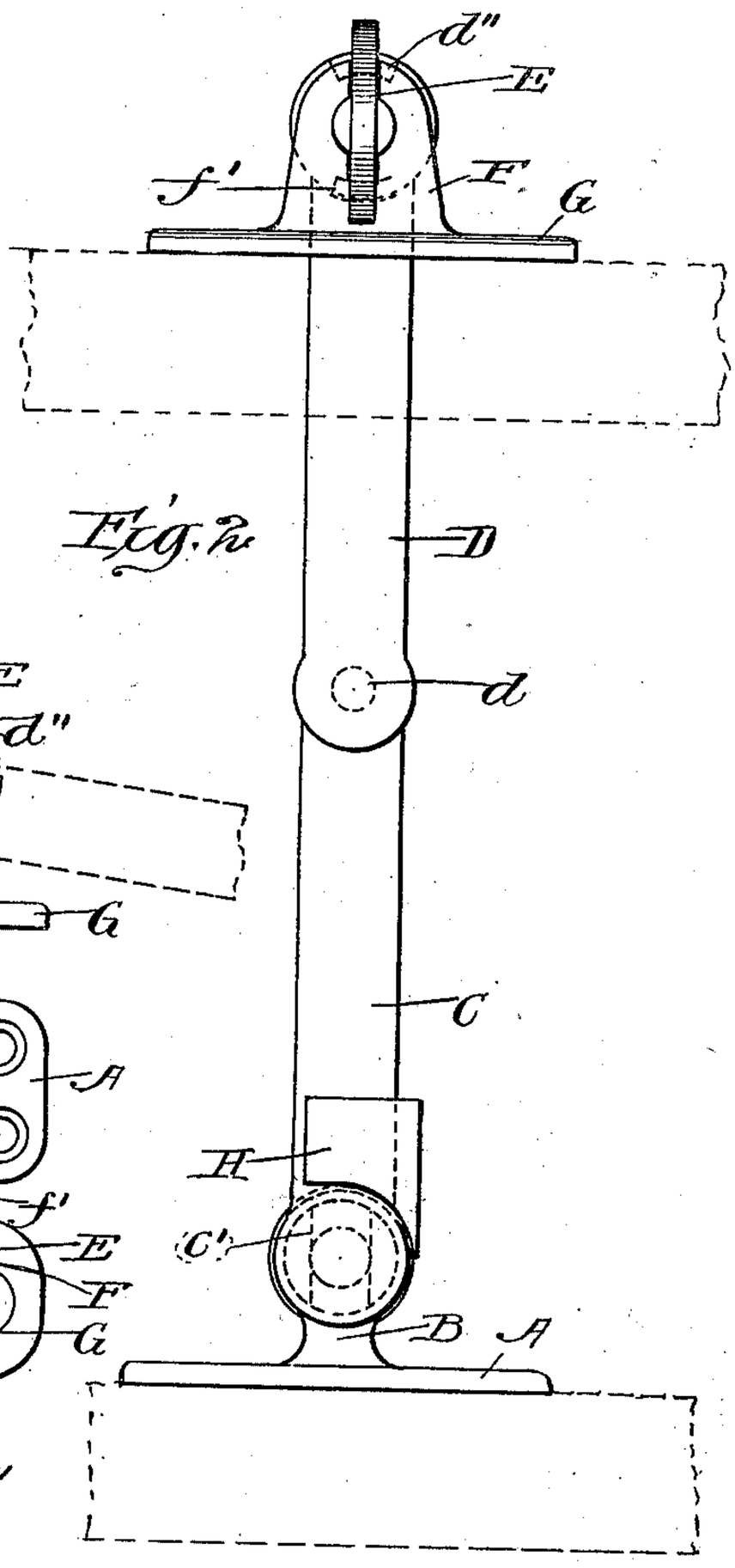

Fig. 2

Fig. 4

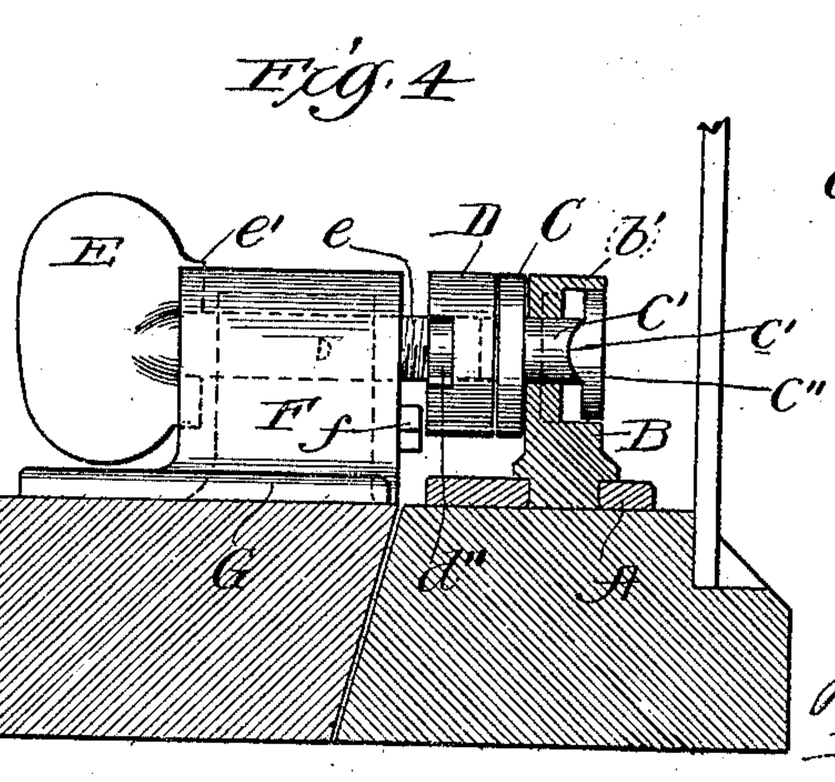

Fig. 5.

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UNITED STATES PATENT OFFICE.

JOHN A. JOHNSON, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-FOURTH TO OSCAR BURGESON, OF SAME PLACE.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 646,909, dated April 3, 1900.

Application filed April 7, 1899. Serial No. 712,121. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. JOHNSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a specification.

The present invention relates to a sash-fastener of such construction that the sashes may be securely locked together while both are closed or may be locked together while one or both of them are partly open for the purpose of ventilation or may be unlocked, permitting either or both of them to be freely moved.

To these ends the improved sash-fastener comprises a pair of links, each pivoted to the other at one end, and accessories whereby the other ends of said links are connected to the sashes, respectively, said links and accessories being so constructed and arranged that when the links are placed in one position and the sashes both closed the sashes will be locked together, when placed in another position the sashes may be moved relatively to each other to the extent permitted by the aggregate lengths of the links, and when placed in a third position the sashes may be unlocked, the unlocking of the sashes being prevented so long as the links are in any position other than this third position. I am aware that a sash-fastener having these same capabilities is not new, broadly considered, and I therefore desire to have it understood that my present invention is limited to certain herein-described features of novelty whereby I am enabled to attain results not heretofore attained in a sash-fastener of this class.

The invention consists in the features of novelty that are herein described.

In the accompanying drawings, which are made a part of this specification, Figure 1 is a front elevation of a sash-fastener embodying the invention, the parts being shown by full lines in the positions which they occupy when the sashes are closed and locked together, the two other heretofore-mentioned positions of the parts being indicated by dotted lines. Fig. 2 is a front elevation of the improved sash-fastener, showing the parts in the positions that they occupy when the sashes are slightly open and locked together. Fig. 3 is a view of the improved sash-fastener partly in plan and partly in section. Fig. 4 is a view of the improved sash-fastener partly in side elevation and partly in section. Fig. 5 is a transverse section of the links on the line 5 5, Figs. 1 and 3, looking in the direction of the arrow.

A is a base-plate provided with perforations for the passage of screws whereby it may be secured to the top side of the bottom rail of the upper sash. From this base-plate rises a post B, perforated from front to back and provided in its rear side with a circular socket *b*, the bottom of said socket being provided with a depression *b'*.

C and D are the links, each of which is pivoted to the other at one end, as shown at *d*. The other end of the link C is pivoted to the post B by means of a cylindrical stud C', carried by the link and passing through the perforation of the post, the rear end of the stud being provided with an enlarged circular head C'', which occupies the circular socket, the fit of the parts being such that the stud C', with its enlarged head, is capable of both rotary and endwise movement relatively to the post. The stud is provided also on the under side of the enlarged head with a rib or projection *c'*, which is adapted to be brought to register with the depression *b'* for the purpose of permitting the endwise movement of the stud C' and which, excepting when brought to register with the depression *b'*, bears upon the bottom of the circular socket *b* and prevents the endwise movement of the stud. The end of the link D opposite its pivot *d* is provided with a threaded opening *d'*, adapted to be engaged by the threaded end *e* of a key E, which latter passes through a post F, rising from a base-plate G, provided with holes for the passage of screws whereby it may be secured to the top rail of the lower sash. While the parts are in the positions shown in full lines in all of the figures, a projection *e'* on the key E occupies a notch or depression *f* in the outer face of the post F and prevents the key from being rotated, and at the same time a lug *f'*, projecting from the rear face of the post F, engages the face of the link D and thereby prevents the endwise movement of the key. This lug *f'* is disposed in the

path which is traveled by a depression d'' in the outer face of the link D, and the lug and depression are so disposed that when the links are brought to upright position, as indicated by dotted lines in Fig. 1, the depression and lug will be opposite each other, and this disposition of the links will at the same time bring the rib or projection c' to register with the depression b'. With the parts in these positions both the stud C′ and the key E may be moved endwise a sufficient distance to disengage the projection e' from the depression f. This disengagement of the projection and depression will permit the key to be turned, and by turning it it may be disengaged from the link D. This will entirely disconnect the posts B and F and permit the sashes to be freely moved up or down. When thus disconnected, the links may be thrown either to the right or to the left and allowed to rest at their pivotally-connected ends upon the bottom rail of the upper sash. This is permitted by reason of the fact that all of the parts carried by the upper sash are outside of the line of the meeting faces of the bottom rail of the upper sash and the top rail of the lower sash, and in like manner when the key E is withdrawn to the limit of its permitted movement all of the parts carried by the lower sash will be inside of said line.

In sash-fasteners of the class to which the present invention belongs as heretofore constructed in order to unlock the sashes so as to permit their unrestricted movement it has been necessary to give the links a quarter-turn about their pivotal connection with the base-plate and stand them against the glass, and this is objectionable not only because the construction is more or less expensive, but because more or less care must be exercised in order to place the links so that they will not interfere with the movement of the sashes, and, furthermore, when so placed they are liable to be accidentally misplaced.

In order to lock the sashes in closed position, one of the links—C, for example—is provided with a lip or lug H, which overlaps the other link, and in order to draw and hold the links close together the adjacent faces of the lip or lug and the link which it engages are beveled, as shown more clearly in Fig. 5. With the parts in the positions shown by full lines in the drawings the lip H will positively prevent any movement of the sashes relatively to each other.

In order to permit the sashes to be opened a limited distance for the purpose of ventilation, the links are thrown to the position indicated by dotted lines at the right of Fig. 1. This will bring the lip or projection H below the link D and permit the lower sash to be raised or the upper sash to be lowered, bringing the parts to the positions shown in Fig. 2. While in these positions the depression d'' and the lug f' will still be out of register, as indicated by dotted lines in Fig. 2, and hence the endwise movement of the key E will be prevented, its rotary movement being at the same time prevented by the engagement of the projection e' and the depression f. In order to prevent the complete withdrawal of the key E when it is disengaged from the link D, it is provided with a spur e'', which may be formed by simply turning up a part of the metal of the key by means of a chisel or similar tool.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a sash-fastener of the class described, the combination of a pair of base-plates, a pair of links pivoted together, means for pivotally connecting one of the links with one of the base-plates, a key carried by the other of the base-plates and adapted to engage the other of the links, pivotally, means for disengaging the key and link by a rotary movement of the key, means for preventing said rotary movement until the key is first moved endwise, means for preventing the endwise movement of the key while the links are in one position, and means for permitting the endwise movement of the key and thereafter permitting its rotary movement, when the links are in another position, substantially as set forth.

2. In a sash-fastener of the class described, the combination of a pair of base-plates, a pair of links pivoted together, means for pivotally connecting one of the links with one of the base-plates, a key carried by the other of the base-plates and adapted to be engaged with or disengaged from the other link by a rotary movement, means on the base-plate last aforesaid for engaging the key and preventing its rotary movement until it is first moved endwise, and means carried by the base-plate and link last aforesaid for preventing the endwise movement of the key while the links are in one position and for permitting the endwise movement of the key when the links are in another position, substantially as set forth.

3. In a sash-fastener, the combination of a base-plate, a key capable of both endwise and rotary movement, means carried by the base-plate for preventing the rotary movement of the key until it is first moved endwise, a second base-plate, a movable device carried thereby, means whereby said movable device and key may be engaged by a rotary movement of the key, and means for preventing the endwise movement of the key while said movable device is in one position and permitting its endwise movement when said part is in another position, whereby, after such endwise movement, the key may be rotated to engage or disengage said movable device, substantially as set forth.

4. In a sash-fastener of the class described, the combination of a base-plate, a perforated post B rising therefrom, a pair of links C, D pivoted together, a stud carried by the link C, and fitting the perforation of the post, a second base-plate, a post F rising therefrom, a key E carried by the post, means whereby

the key may engage or disengage the link D by a rotary movement of the key, means carried by the post F for preventing the rotary movement of the key until it is first moved endwise, means for preventing the endwise movement of the key and stud C′ while the links are in one position, and means for permitting the endwise movement of the key and stud when the links are in another position, substantially as and for the purpose set forth.

5. In a sash-fastener of the class described, the combination of a base-plate, a key carried thereby and capable of both rotary and endwise movement, means carried by the base-plate for preventing the rotary movement of the key until it is first moved endwise, a second base-plate, a movable part carried thereby and having a threaded opening, the key being provided with a threaded portion adapted to engage the threads of said opening, means for preventing the endwise movement of the key when said part is in one position, and means for permitting the endwise movement of the key when said part is in another position, substantially as set forth.

6. In a sash-fastener of the class described, the combination of the base-plate A, the perforated post B carried thereby, a pair of links C, D pivoted together, the stud C′ carried by the link C and projecting through the perforation of the post, a projection *c′* carried by the stud and adapted to engage the post, the post having also a depression *b′* with which the projection *c′* may be brought to register by a partial rotation of the stud C′, a second base-plate, the post F rising therefrom, the key E carried by the post F and capable of both endwise and rotary movement, said key having a threaded portion *e*, and the link D having a threaded opening adapted to receive the threaded portion of the key, the lug *f′* projecting from the post F, the link D being provided with a depression *d″* adapted to be brought to register with the lug *f′*, and means carried by the post F for preventing the rotary movement of the key E until it is first moved endwise, said endwise movement being permitted only when the projection *c′* is brought to register with the depression *b′* and the depression *d″* is brought to register with the lug *f′*, substantially as set forth.

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Witnesses:
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