(No Model.)

N. A. BUCKINGHAM.

FASTENER FOR THE MEETING RAILS OF SASHES.

No. 426,581. Patented Apr. 29, 1890.

Fig. 1.

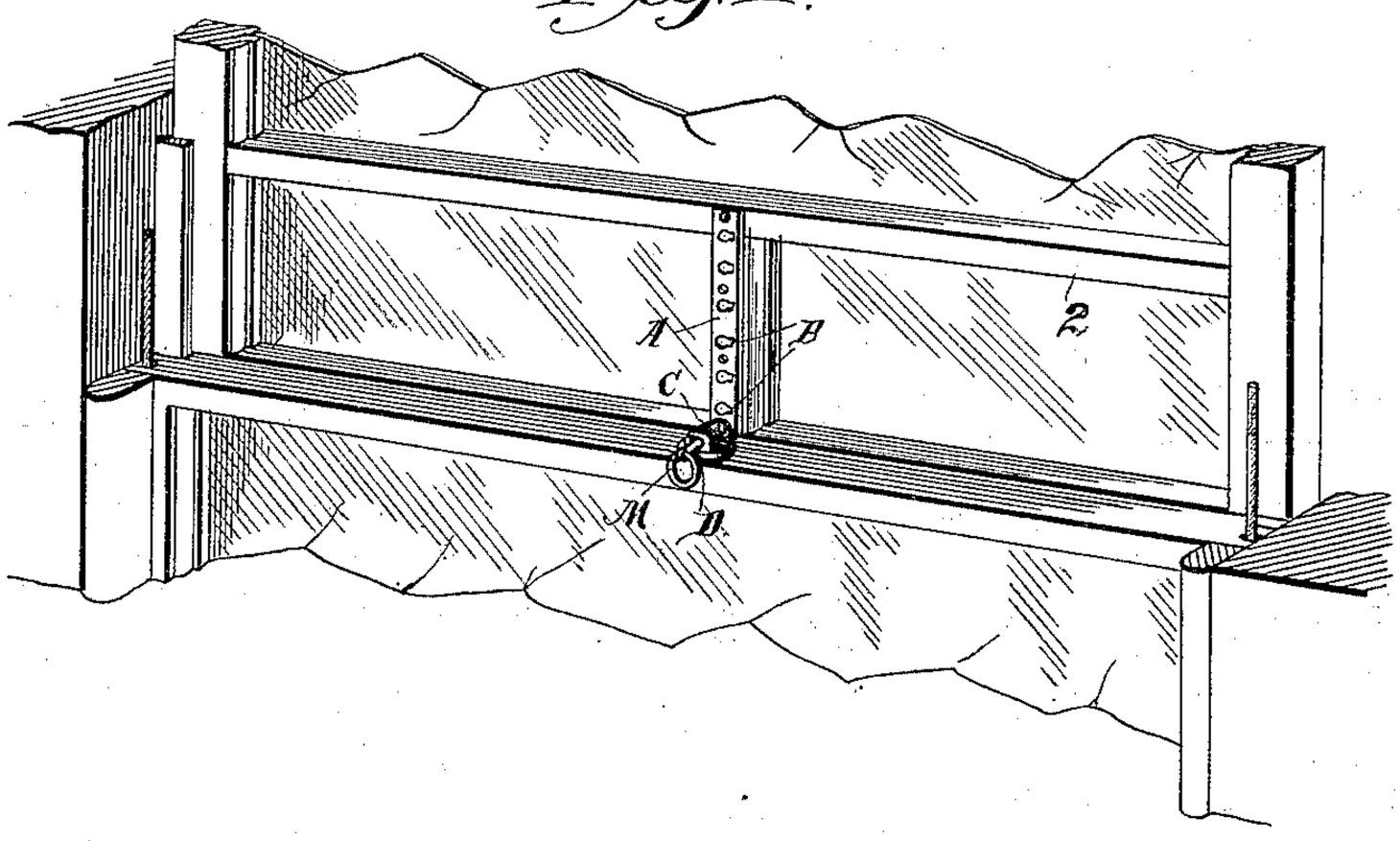

Fig. 2.

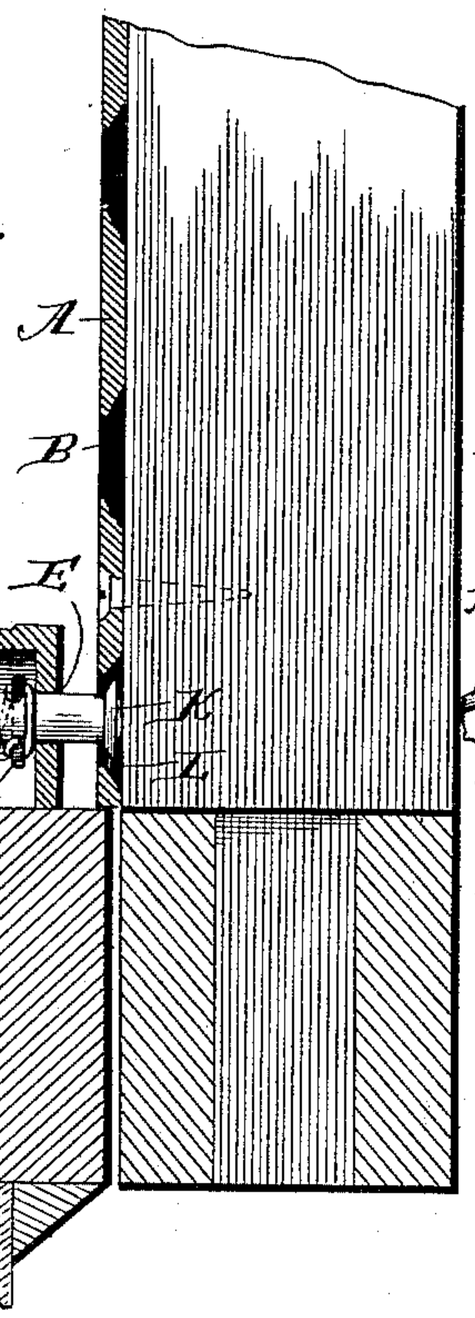

Fig. 3.

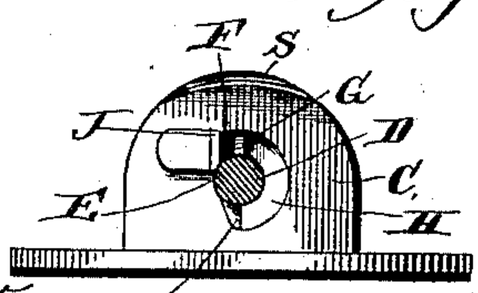

Fig. 5

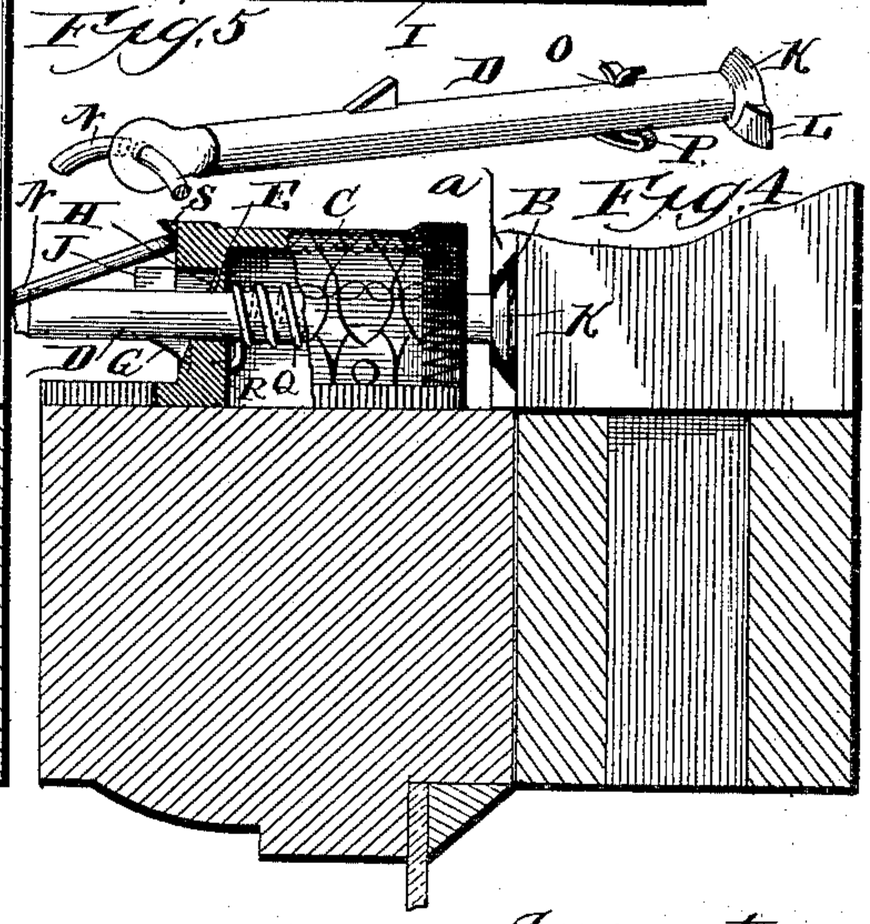

Fig. 4.

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UNITED STATES PATENT OFFICE.

NATHAN A. BUCKINGHAM, OF JACKSONVILLE, ILLINOIS.

FASTENER FOR THE MEETING-RAILS OF SASHES.

SPECIFICATION forming part of Letters Patent No. 426,581, dated April 29, 1890.

Application filed February 18, 1890. Serial No. 340,838. (No model.)

To all whom it may concern:

Be it known that I, NATHAN A. BUCKINGHAM, a citizen of the United States, residing at Jacksonville, in the county of Morgan and State of Illinois, have invented certain new and useful Improvements in Sash-Locks, of which the following is a specification in such full, clear, and exact terms as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in that class of devices which are employed to secure the two window-sashes together and hold them firmly in any position to which they may be adjusted.

The invention consists in certain novel features of the device illustrated in the accompanying drawings, as will be hereinafter set forth.

In the drawings, Figure 1 is a perspective view of a portion of a window, showing my improved sash-lock in its operative position thereon. Fig. 2 is a longitudinal section of the lock and keeper-plate. Fig. 3 is a front elevation of the lock. Fig. 4 is a view similar to Fig. 2, showing the sashes locked together; and Fig. 5 is a detail perspective view of the bolt.

Before proceeding to describe my invention in detail I wish to state that I have illustrated it in the accompanying drawings as applied to the middle bar or strip of the sashes; but it will be understood that in practice it may be applied to the side bars of the sashes or used in other relations without involving a departure from its principles. I prefer, however, to use the device at the center of the window, as a single lock is then sufficient. In practice the central vertical strip of the upper sash will be extended upward only a short distance, and its upper end will be connected to a horizontal dividing-strip 2. This construction, it will be seen at once, permits the upper sash to be filled with a single continuous pane of glass, thus giving an unobstructed light through the upper portion of the window.

I secure to the upper sash a keeper-plate A, which is preferably constructed of metal, but may be of any other desired material, and is provided with a number of key-hole slots B, as clearly shown, the under or rear side of the keeper-plate being beveled or countersunk around the said slots, so as to permit the end or head of the bolt to rotate, as will be hereinafter more fully referred to.

A casing C is secured upon the upper edge of the lower sash, and the bolt D is mounted in the said casing. This casing may be given any desired configuration for the sake of ornamention, and it is provided in its front and rear walls with the openings E, in which the bolt is mounted and through which it plays. Radial notches F lead from the openings E and permit the passage of the lug G when the bolt is being fitted in position within the casing. A cam-groove H is formed in the front side of the casing around the opening therein and terminates in a shoulder or stop I, which is engaged by the lug G on the bolt in the operation of the bolt to hold the two sashes together. A lug or projection J is also provided on the front side of the casing adjacent to the opening therein, and this lug is engaged by the lug G to prevent the bolt being rotated so far as to carry its head past the position in which it can be disengaged from the keeper-plate.

The bolt consists of a cylindrical rod of suitable length and diameter, having the lug G near its front end and provided with the head or stud K at its rear end, said head being provided with the radial tooth L, as shown. At its front end the bolt is provided with the diametrical openings M, into which the ends of the divided ring N are sprung, said ring serving as a handle to operate the bolt. Near the rear end of the bolt I form therein the diametrical slot or opening O, in which the key P is secured, and a spring Q is coiled around the bolt with its rear end wrapped around the key and its front end secured in a recess or notch R in the front wall of the casing, the spring thus serving to give the bolt a rearward longitudinal movement and also an upward rotary movement.

The several elements of my device being constructed as above described, they are fitted together in the following manner: The casing is held in any suitable vise or other tool and the spring is placed therein, after which the bolt is inserted through the casing from the

rear end. The lug G on the bolt passes through the radial notches leading from the openings in the walls of the casing, and the bolt is thus inserted easily and quickly through the casing. The front end of the spring is then secured in the notch in the front wall of the casing and its rear end fitted around the key, as will be readily understood, after which the lock is completed by springing the ends of the ring into the openings in the front end of the bolt. This ring, as before stated, serves as a handle to operate the bolt, and it is made to engage under a horizontal projection S on the front end of the casing at the top of the same when it is desired to hold the bolt in its forward position.

The construction and arrangement of the several parts of my device being thus made known, the operation of the same will, it is thought, be readily understood. In the normal position of the parts the head of the bolt registers with the key-hole slot in the keeper-plate and projects through the same. When it is desired to lock the sashes together, the bolt is rotated so as to turn the radial tooth downward, and this motion of the bolt will cause the lug G to ride upon the cam-surface of the groove in the front end of the casing and slip into engagement with the shoulder at the end of said groove. As the lug rides over the cam-surface the bolt will be drawn forward, and as the tooth at the rear end of the bolt is at the same time turned downward to engage the rear side of the keeper-plate the two sashes will be drawn together, and thus prevented from rattling. If the lug on the bolt be disengaged from the shoulder at the end of the cam-groove, the spring will at once throw the bolt rearward and simultaneously rotate it, thus bringing the tooth into engagement with the straight portion of the key-hole slot. The bolt can then be drawn forward through the keeper-plate and held in its withdrawn position by engaging the ring under the projection S, as will be readily understood, thus permitting the sash to be raised and secured in another position.

The advantages of the device are thought to be obvious from the foregoing description, taken in connection with the accompanying drawings, and detailed reference thereto is deemed unnecessary.

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

1. The combination of the casing having a forwardly-projecting lug on the outer side of its front wall, the rotary bolt mounted in the casing and provided with a radial lug adapted to impinge against the lug on the casing, and the spring coiled around the bolt within the casing, as specified.

2. The combination of the casing having bolt-openings in its front and rear walls and provided on its outer wall with a cam-groove arranged concentrically with the bolt-opening, a vertical shoulder at the lower end of said groove, and a forwardly-projecting lug at the upper end of the same, the bolt mounted in the bolt-openings and provided with a radial lug playing in the cam-groove and adapted to engage the shoulder at the lower end of the same and to impinge against the lug at the upper end thereof, and the spring coiled around the bolt within the casing, as specified.

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

NATHAN A. BUCKINGHAM.

Witnesses:

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