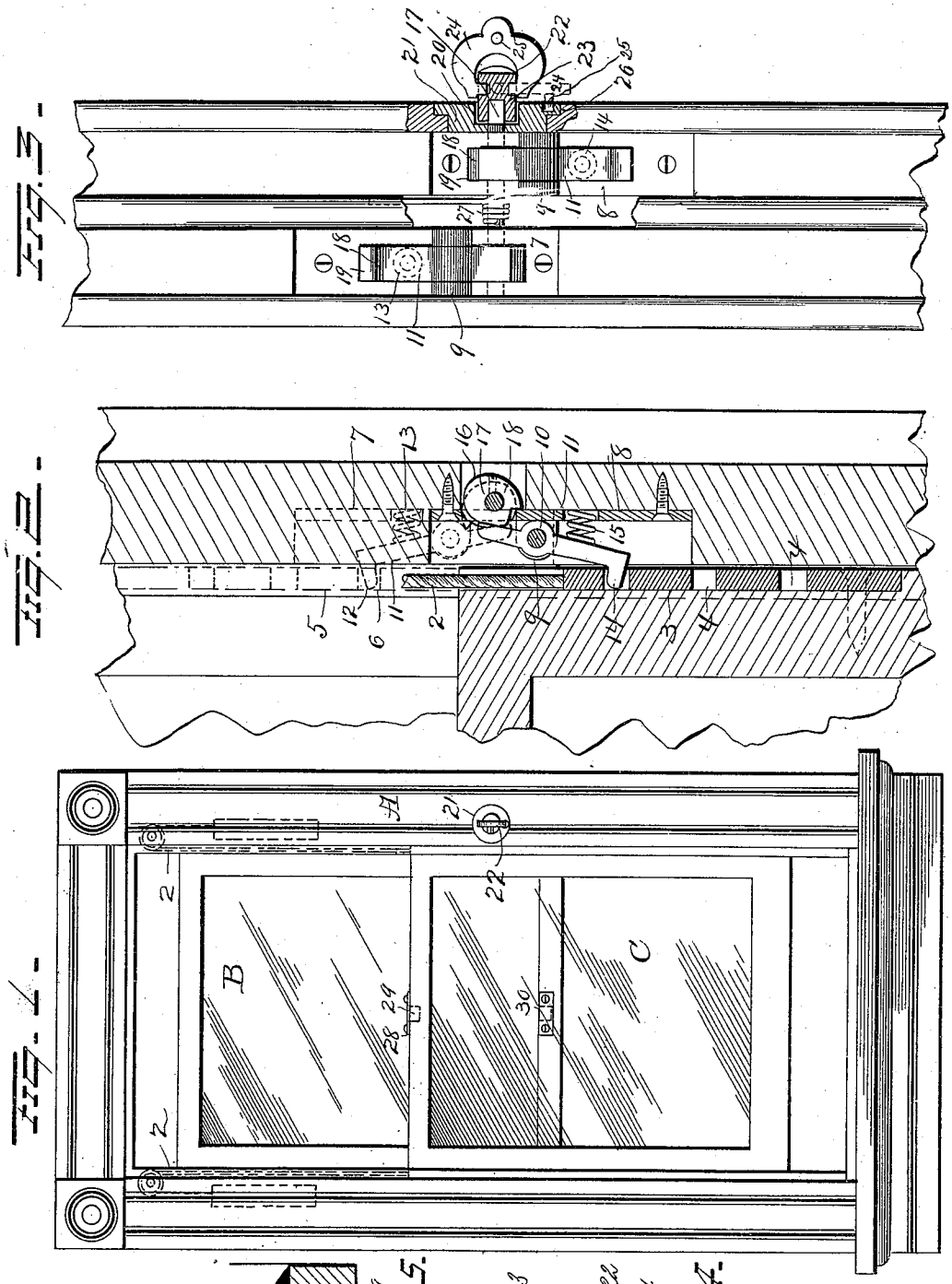
No. 639,546. Patented Dec. 19, 1899.

A. R. FERGUSSON.

SASH LOCK.

(Application filed June 14, 1899.)

(No Model.)



WITNESSES

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ALAN ROBB FERGUSSON, OF NEW YORK, N. Y., ASSIGNOR TO WILLIAM D. MACKEY AND WILLIAM R. ROBBINS, OF SAME PLACE.

SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 639,546, dated December 19, 1899.

Application filed June 14, 1899. Serial No. 720,517. (No model.)

To all whom it may concern:

Be it known that I, ALAN ROBB FERGUSSON, a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Sash-Locks; 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 an improvement in sash-locks, the object of the invention being to provide a device of the above-mentioned character which will operate to prevent a window-sash from being opened, but which will permit the closing of the sash.

A further object is to provide a sash-lock which will be simple in construction, comparatively cheap to manufacture, and most effectual when in operation.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claim.

In the accompanying drawings, Figure 1 is a view in elevation illustrating my improvements. Fig. 2 is a view in longitudinal section through the locking mechanism. Fig. 3 is a plan view of the frame A, partly in section, with the sashes removed. Fig. 4 is a detail view of the key 22 and disk 21; and Fig. 5 is a detail view in section, showing the plate 28 and socketed plate 30.

A represents a window-frame, and B and C the upper and lower sashes mounted therein. The sashes B and C are each provided with the ordinary weights 1 and cords 2 and are adapted to move in guides in the frame, as shown.

The lower sash C is provided on one side edge at its upper end with a metal plate 3, having a series of (preferably three) sockets or pockets 4 therein, and the upper sash B is provided on the same side at its lower end with a plate 5, having sockets 6 therein similar to the sockets 4. The frame A is cut out or recessed at one side in proximity to the plates 3 and 5, and brackets 7 and 8 are secured in said recesses. The brackets 7 and 8 are disposed in different horizontal planes and are provided on one face with lugs or ears 9, having alined holes therein for the reception of a pin 10, by means of which catches 11 are pivotally supported between their ends on said brackets. The catch 11 on the bracket 7 is provided on its upper end with a tooth 12, beveled or rounded on its lower face, as shown, and a spring 13 is disposed between the catch and bracket to press the toothed end of the catch against the plate 5 on the upper sash and in engagement with the sockets in said plate. The lower catch 11 is provided on its lower end with a tooth 14, beveled on its upper edge, and a spring 15 is disposed between said catch and the bracket to normally press the toothed end against the plate 3 on the lower sash and in engagement with the sockets in said plate.

The brackets 7 and 8 are provided with alined bosses 16, in which an arbor 17 is mounted. Cams 18 are secured on the arbor 17, one beneath each short arm of the catches 11, and project through slots 19 in the brackets, and one end of the arbor 17 projects outward and is made angular on its outer end and is disposed in a socket 20 in a disk 21, secured in the frame A. A key 22, comprising a socket-piece 23 to receive the angular end of the arbor 17 and a yoke 24, pivotally connected to said socket-piece, is adapted to be placed on the end of the arbor 17 to turn the same. The yoke 24 is provided on one face with a pin 25, and a disk 21 is provided with a socket 26 for the reception of the pin 25 to hold the arbor in such position as to retain the catches 11 out of engagement with the sashes, and a spring 27 is secured on the arbor 17 to normally hold the arbor in such position that the catches 11 will be in engagement with the sashes.

A plate 28 is secured to the upper edge of the lower sash, and said plate is provided on one edge with a downwardly-projecting beveled finger 29, adapted, when the sashes are closed, to engage a socketed plate 30 on the lower end of the upper sash to hold the sashes tightly together and prevent the entrance of air and rattling of the sashes.

The operation of my improved device is as

follows: When the sashes are in their closed position, the catches 11 will be in engagement with the sashes to lock them, and when it is desired to operate either or both sashes the key 22 is applied to the end of the arbor 17 and the arbor turned to force the cams 18 against the catches to move them out of engagement with the sashes, when the latter can be raised or lowered at will. The pin 25 on the key can now be forced into the socket 26 in the disk 21 and hold the catches in their unlocked position and permit the sashes to be raised and lowered without obstruction and be retained in the position to which they are moved by the counterweights. When the key is released, the arbor will be turned by the spring 27 to permit the cams to move away from the catches and the latter to engage the plates 3 and 5. It will thus be seen that as the catches engage the sashes only when at or near their closed position the catches can be operated to lock the sashes open for the purpose of ventilation, but not far enough to permit the entrance of a thief, and when the sashes are in this position they can be readily moved to their closed position and will lock automatically when the lug on the catch springs into a socket in the plate on the sash and prevent any movement of the sash toward its open position. When the sash is moved so as to bring the catch out of engagement with the plate on the sash, the sash can be readily moved up or down and maintained in its position by the counterweights. Thus it will be seen that my improved device is in no sense a sash-holder, but a lock pure and simple.

Various slight changes might be resorted to in the general form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I would have it understood that I do not wish to limit myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

The combination with a window-frame and a counterweighted sash, the latter having pockets in one edge, of a spring-actuated catch mounted in the sash and coöperating with said pockets to prevent the opening of the sash beyond the catch and permit the free closing of the sash, a cam mounted in the frame for withdrawing the catch, a key attached removably to said cam, said key having a pivoted member provided with a pin and a plate secured to the frame and having a socket for the reception of said pin.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALAN ROBB FERGUSSON.

Witnesses:
JOHN MCLEAN,
JAS. T. BECK.