

J. X. MILLER.  
Sash-Holders.

No. 146,837.

Patented Jan. 27, 1874.

Fig. 1

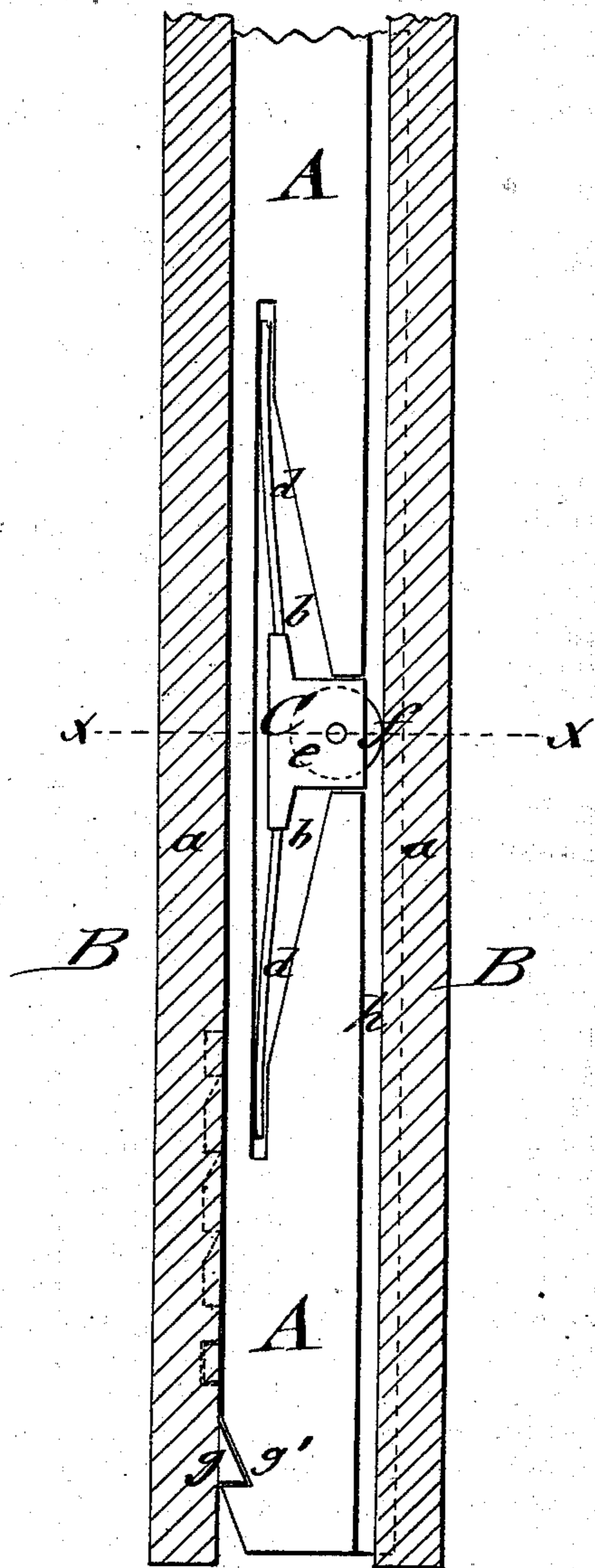
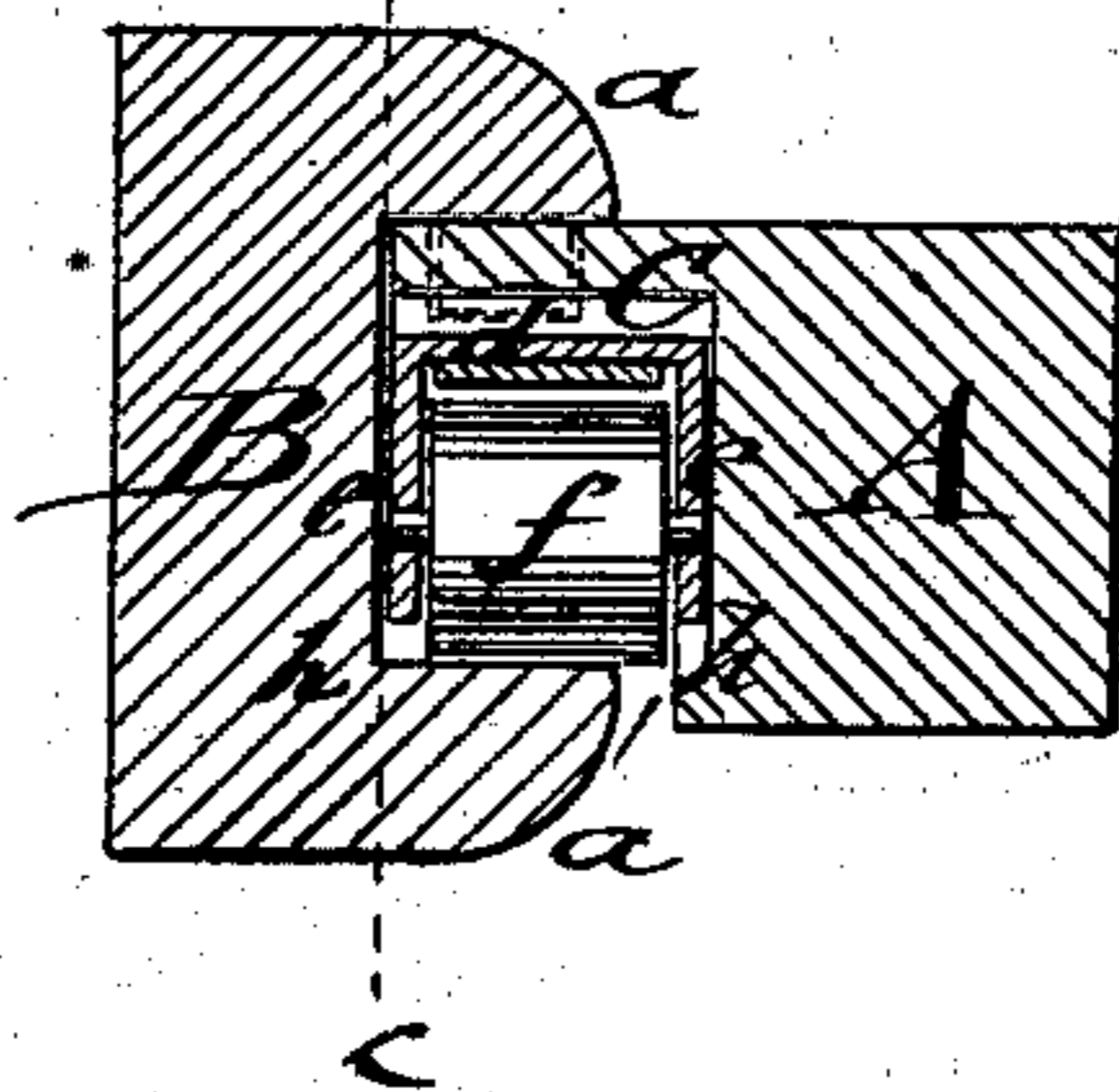


Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN X. MILLER, OF CHESTER, PENNSYLVANIA.

## IMPROVEMENT IN SASH-HOLDERS.

Specification forming part of Letters Patent No. 146,837, dated January 27, 1874; application filed December 20, 1873.

*To all whom it may concern:*

Be it known that I, JOHN X. MILLER, of Chester, in the county of Delaware and State of Pennsylvania, have invented a new and Improved Sash-Fastener, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side elevation of a window-sash with my improved fastener applied thereto, guided by the window-frame, which is shown in vertical section on the line *c c*, Fig. 2; and Fig. 2 is a horizontal section of my window frame and sash on the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to improvements in sash-fasteners, by which the sash is retained at any desired point, so as to exclude air, dust, and moisture, prevent rattling, and lock the sash securely in position when closed.

My invention consists in providing the window-sash at both sides with triangular recesses, into which strong band-springs are placed, with forward-projecting rollers attached thereto, which rollers bear against one guide-strip of the window-frame, so as to hold the sash by its friction on the other guide-strip in any position in which it is placed.

For locking the sash in closed position, so as to prevent its opening from the outside, small catches are attached to the lower parts of the outer guide-strips, which catches engage a corresponding recess of the sash, while the necessary play of the sash for engaging and disengaging it from the catches is obtained by recesses at both sides.

In the drawing, A represents the window-sash, and B the window-frame, which guides the sash by a rabbet or groove of corresponding size between the projecting strips A. Sash A is provided at both sides with triangular recesses *b*, with a central extension toward the inside, in which the sash-fastener C is inserted. The fastener C consists of a strong band-spring, *d*, with a metallic frame, *e*, attached centrally thereto, in which roller *f* turns. The ends of spring *d* extend into the oblique angles of triangular recess *b*, and are firmly retained therein, while frame *e* and roller *f* project through the front extension of recess *b* beyond the sash, so as to bear against the guide-strip *a* and force

the outer side of sash A against the opposite strip *a*. The friction of the sash against the guide-strip *a* produces its retention in any required position in which it is raised or lowered, while its close contact against the outer strips prevents the admission of air, dust, and moisture.

For the purpose of locking the sash firmly in position after it is closed, so as to prevent its being raised from the outside, I apply to the outer guide-strips *a*, near their lower ends, small downwardly-projecting catches *g*, which fit into recesses *g'*, of similar shape, at the outside of sash A. Recesses *h*, the depth of which is equal to the thickness of the catches *g*, are cut along the side edges of sash A, which is also beveled at its lower outer edge below recesses *g'*, so that the sash, when pulled inwardly and raised by a knob or button at the inside, is carried against the inner guide-strips and released from catches *g* for raising it.

Heavier sashes may, besides the friction-rollers and springs, be provided in the usual manner with cords, pulleys, and weights, the presence of the spring serving then only to prevent rattling and make them fit tightly to the frame. Instead of the weight, catches or ratchets for retaining the sashes in different positions may be employed.

The tight closing of the spring-rollers makes it very useful for cars, ship-work, pilot-houses, and other purposes, as not only all rattling is avoided, but, moreover, a thorough exclusion of the moisture and water is obtained. For the latter purpose an angle of the sill may be used in connection with an overlapping plate at the bottom of the sash, by which the rising of the moisture from below is prevented. The top and bottom sashes may also overlap and lock each other by suitable catches and plates, the spring action of the roller and the play of the rabbeted sashes allowing their ready separation for throwing them open.

I am aware that it is not new to use a roller and spring in connection with a window-sash and casing for the purpose specified by me, and therefore I do not desire to claim said roller and spring, broadly.

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

1. As an improvement in friction sash-fasteners, the combination of sash A, having triangular side recesses *b*, with spring-rollers *d e f* and projecting guide-strips *a* of sash B, arranged substantially as and for the purpose described.

2. The sash A, provided with front recesses *h* at both sides, outer recesses *g'*, and lower beveled edge, in combination with projecting

catches *g* for locking the sash in closed position to prevent the opening from the outside, and give it sufficient play for raising it, as set forth.

JOHN X. MILLER.

Witnesses:

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WM. S. DEAKYNE.