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WILLIAM H. BROWN.

Improvement in Sash Supporters.

No. 121,701.

Patented Dec. 12, 1871.

Fig. 1.

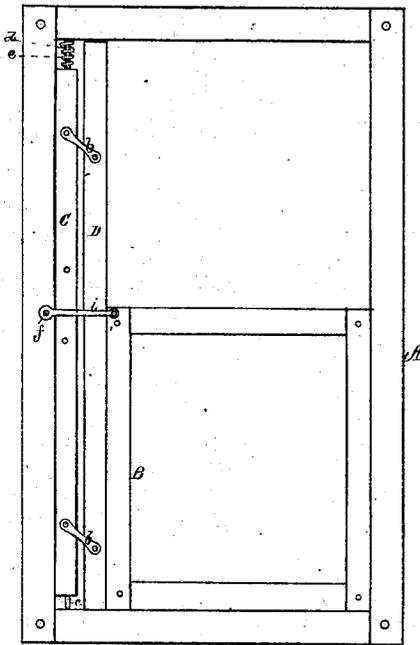


Fig. 2.

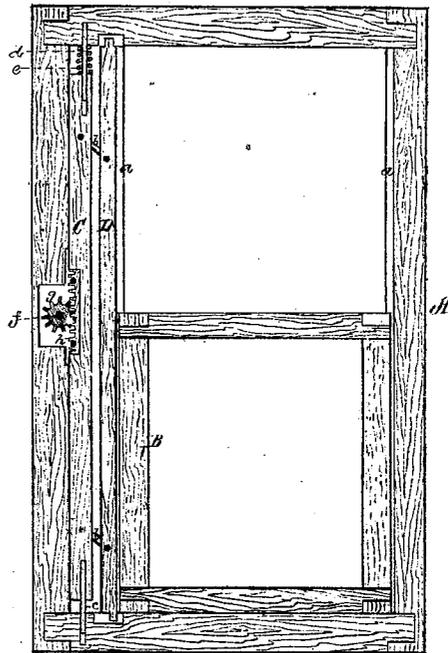
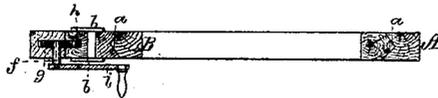


Fig. 3.



Witnesses.

S. N. Piper

L. N. Moller

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# UNITED STATES PATENT OFFICE.

WILLIAM HAMMOND BROWN, OF BANGOR, MAINE.

## IMPROVEMENT IN SASH-SUPPORTERS.

Specification forming part of Letters Patent No. 121,701, dated December 12, 1871.

*To all whom it may concern:*

Be it known that I, WILLIAM HAMMOND BROWN, of Bangor, in the county of Penobscot and State of Maine, have invented a new and useful Improvement in Window-Sash Supporters; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawing, of which—

Figure 1 is a front view of a window-frame and sash provided with my said invention. Fig. 2 is a longitudinal, and Fig. 3 a transverse section of such.

My invention relates to mechanism for supporting a sash within the window-frame without the use of weights and suspension-lines, as generally employed, the design of the said invention being not only to dispense with such devices, but to enable the sash to be moved either up or down in its grooves with great ease.

In such drawing, A denotes the window-frame, and B the sash, there being arranged between the two, in manner as shown, two parallel bars, C D. The innermost bar D and the opposite edge of the window-frame are to be grooved throughout their length to receive the sash, the grooves being shown at *a a* in Fig. 2. The two bars C D are connected by parallel links *b b* pivoted to each, and arranged as shown, the two links being of equal length. Furthermore, the bar C slides freely on and is held in place by two pins, *c d*, projecting in line with each other from the upper and lower inner edges of the window-frame, as shown, there being a helical spring, *e*, arranged on and around the upper of such pins, and against the upper end of the bar and the upper inner edge of the window-frame. The bar D,

at its ends, is to be tenoned into the upper and lower parts of the window-frame, the mortises for the tenons being of a length to enable the bar to be moved sufficiently in directions toward and away from the sash. Within the window-frame, and on an arbor, *f*, is a pinion or gear, *g*, to engage with a short rack, *h*, fixed to the bar C. A crank, *i*, or a key may be fitted on or to the said arbor for the purpose of turning it.

By the action of the spring *e* the bar C will be forced downward, where, by means of the links, the bar D will be crowded closely against the sash, and will force it up to the window-frame. Thus the sash will be held at any altitude by the power of the spring and the friction of the sash against the grooved parts of the bar D and the window-frame. By turning the pinion so as to force the bar C upward a little the sash will be eased of the pressure against it, and may be caused to fall to a lower position, or may be raised to a higher one, as circumstances may require. So, by sufficiently elevating the bar C, the bar D may be retracted enough to admit of the sash being removed from its grooves, or of being placed within them.

I claim—

The combination of the rack *h* and pinion *g*, provided with means as set forth for operating the latter with the window-frame A, the sash B, the parallel bars C D, their spring *e* and connecting-links *b b*, all arranged in manner and to operate as described.

WILLIAM H. BROWN.

Witnesses:

R. H. EDDY,  
S. N. PIPER.

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