J. BENSON.

Window-Sash Tightener.

No. 167,635. Patented Sept. 14, 1875.

FIG. 1.

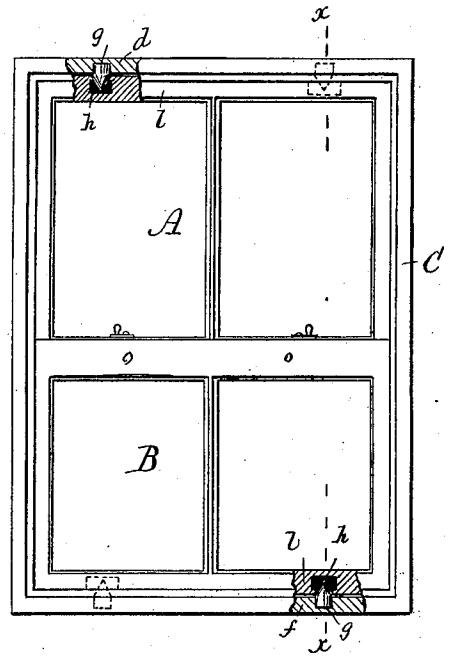


FIG. 2.

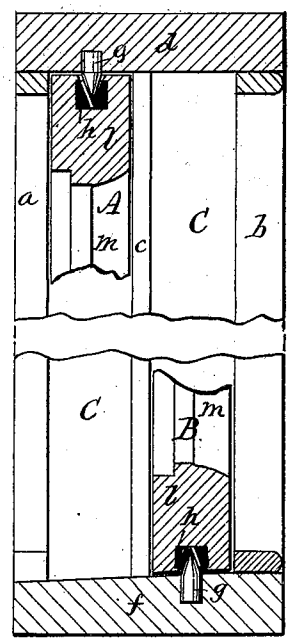
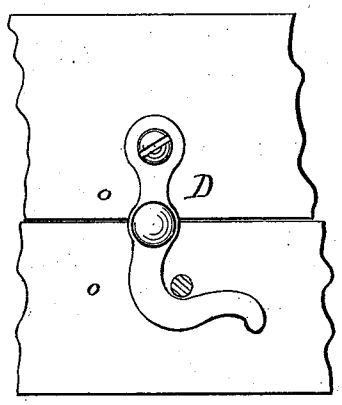


FIG. 3.



WITNESSES.

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IMPROVEMENT IN WINDOW-SASH TIGHTENERS.

Specification forming part of Letters Patent No. **167,635**, dated September 14, 1875; application filed August 13, 1875.

To all whom it may concern:

Be it known that I, JOSEPH BENSON, of South Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Window-Sash Tightener, of which the following is a specification:

This invention consists in providing a window-sash and the frame in which it slides with a device which is constructed and applied to the window-frame and its sash, as hereinafter described, for the purpose of forcing the window-sash to a tight bearing against the parting bead of the sash-frame in closing the window-sash against the head or sill, as the case may be, of the sash-frame.

In the accompanying plate of drawings, Figure 1 is a front elevation of an upper and lower window-sash, and showing my improved sash-tightening device applied to both sashes. Fig. 2 is a cross-section on line *x x*, Fig. 1; Fig. 3, a plan view of the meeting-rails of the two sashes and of a sash-fastener.

In the drawings, A and B represent the upper and lower window-sashes; C, the sash-frame in which they slide, and *a* the inside bead, *b* the outside bead, *c* the parting bead, *d* the head, and *f* the sill, of the sash-frame C; *g*, conical studs projecting from the head *d* and the sill *f* of the sash-frame C; *h*, conical sockets in the contact-rails *l* of the sashes A and B with the head *d* and sill *f* of the sash-frame C. The conical sockets *h* of the sash-rails *l* receive the conical studs *g* of the sash-frame C, (see Figs. 1 and 2,) and acting on the studs *g*, they draw and force the stiles *m* of the sashes tightly against the parting bead *c* of the sash-frame C, and thereby secure (provided the meeting-rails *o o* of the two sashes be drawn together by a suitable sash-fastener, such as shown at D, Fig. 3) a sufficiently tight and close joint between the sashes and their sash-frame to prevent the passage of air and dust through them, and also rattling or noise, the advantages of which are obvious.

Sash-fasteners of other forms than that shown may be used, and therefore it is not intended to limit the invention to any one particular sash-fastener, and, besides, the conical studs *g* and sockets *h* may be reversed in their application to the sashes and sash-frame, but it is preferable to apply them as described.

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

The combination of studs *g* and sockets *h* with a sash and sash-frame, substantially as described, for the purpose specified.

JOSEPH BENSON.

Witnesses:

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