

W. H. PLYMPTON.  
Sash-Holder.

No. 165,945.

Patented July 27, 1875.

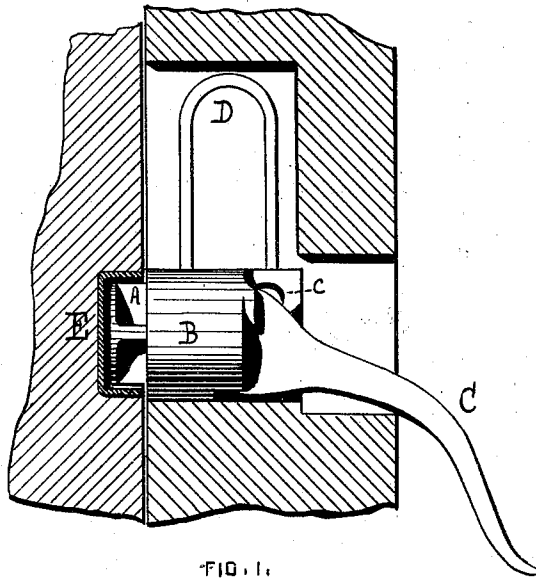


FIG. 1.

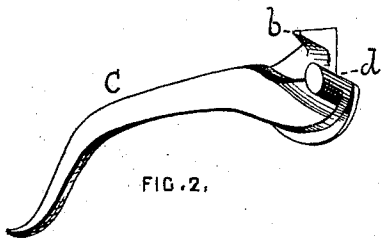


FIG. 2.

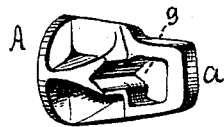


FIG. 3.

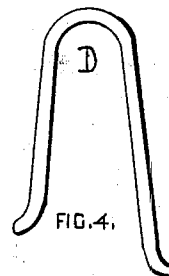


FIG. 4.

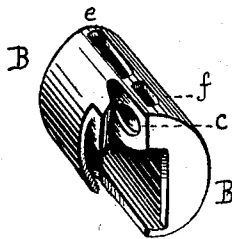


FIG. 5.

WITNESSES,

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# UNITED STATES PATENT OFFICE.

WARREN H. PLYMPTON, OF PROVIDENCE, RHODE ISLAND.

## IMPROVEMENT IN SASH-HOLDERS.

Specification forming part of Letters Patent No. **165,945**, dated July 27, 1875; application filed December 26, 1874.

*To all whom it may concern:*

Be it known that I, WARREN H. PLYMPTON, of the city and county of Providence, in the State of Rhode Island, have invented a new and Improved Sash-Supporter, of which the following is a specification:

In the accompanying drawings like letters indicate like parts.

Figure 1 shows the sash-supporter in position in its mortise within the sash. Figs. 2, 3, 4, and 5 are detail views.

My invention relates to that class of sash-supporters which sustain the sash at any position within the window-case by means of a pressure against the jamb, caused by the spring contained in the mechanism. The sash is held securely in place, not only by this pressure upon the one side, but also because the sash is thereby crowded hard against the opposite jamb. The friction thus occasioned upon both sides is so great that the weight of the window-sash is insufficient to overcome it, and the window remains open at any desired height.

I am aware that several devices embodying this principle have already been invented and secured by Letters Patent. My invention differs from these in that it consists in a horizontally-working bolt, actuated by a spring, placed vertically within the stile of the sash, and interposed between the working parts of the mechanism, by which arrangement of the spring I am able to obtain such amount of pressure as may be necessary for the purpose.

The parts of my mechanism are made of any suitable metal, and may be thus described. A bolt, A, is made with an eye-piece, *a*, (see Fig. 3,) and moves horizontally in the cylindrical case B. A bent finger-piece or lever, C, fashioned as shown in Fig. 2, has its fulcrum at the projecting point *b* within the opening *c* of the case B, and has a limited vertical motion through a slot in the stile of the sash. This lever has also a lug, *d*, which

engages with the eye-piece *a* of the bolt, and which operates the bolt within the case B. The requisite pressure to sustain the weight of the sash is obtained by a long U-shaped steel spring, D, (see Fig. 4,) which lies vertically within the mortise, as shown in Fig. 1. The arms of this spring differ in length, and enter within the case B through slots *e* and *f* made to receive them. The ends of this spring are slightly bent to secure them in place. The longer arm bears against the bolt A, which has a groove, *g*, to receive the bent end of the spring, while the shorter arm bears against the case itself, as shown at *f*. The spring thus keeps the face of the bolt in constant and forcible contact with the jamb of the window-frame, and may be of such size and power as are necessary to sustain the weight of the sash. A circular socket-piece, E, is inserted in the lower part of the jamb, into which the bolt A is crowded by the spring, and the window is thus securely fastened down. The form of the cylindrical case B is fully shown in Fig. 5. By operating the lever the bolt is withdrawn within the case until the sash is moved into the desired position, when the lever, being released, permits the spring to crowd the bolt outwardly, and the window-sash is firmly held in place.

I claim as a novel and useful invention, and desire to secure by Letters Patent—

The improved sash-supporter herein described, consisting of the bolt A, the cylindrical case B, the bent lever C journaled in the opening *c*, and provided with the operating lug *d* and the U-shaped spring D interposed between the working parts, and placed vertically within the stile of the sash, all constructed, arranged, and operating substantially as and for the purpose specified.

WARREN H. PLYMPTON.

Witnesses:

WARREN R. PERCE,  
WILLIAM B. W. HALLETT.