D. N. B. COFFIN, Jr.

Improvement in Sash Holders.

No. 115,822. Patented June 13, 1871.

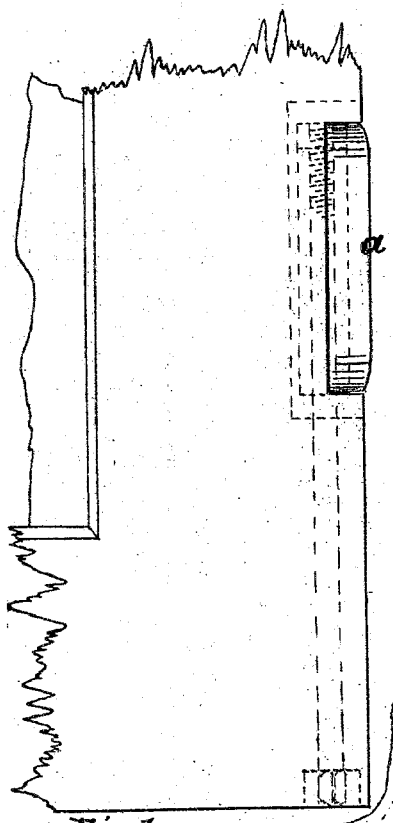

Fig. 1.

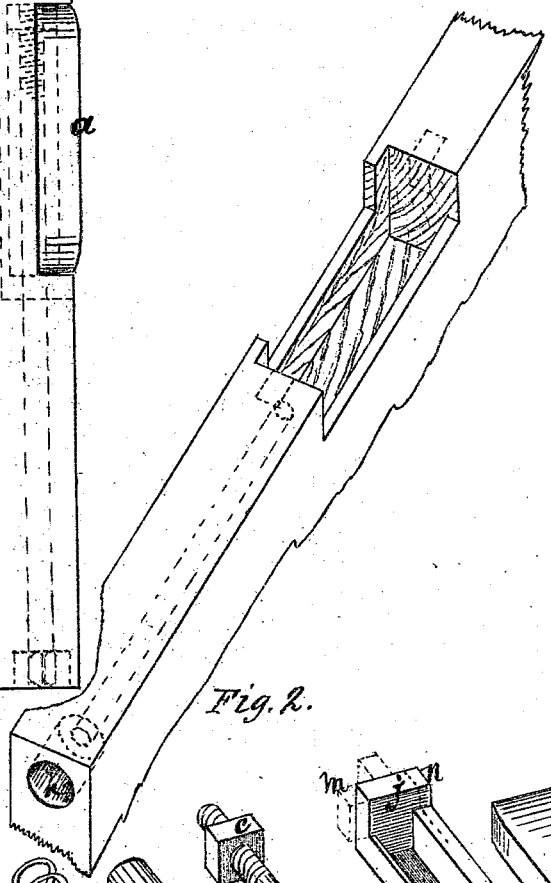

Fig. 2.

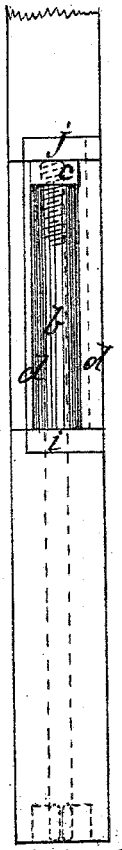

Fig. 3.

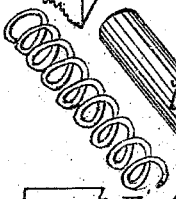

Fig. 5.

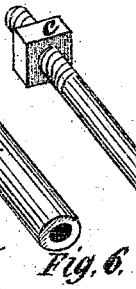

Fig. 6.

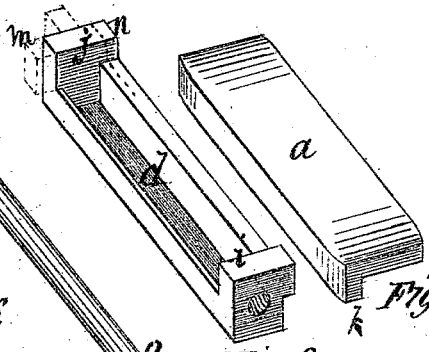

Fig. 8.

Fig. 9.

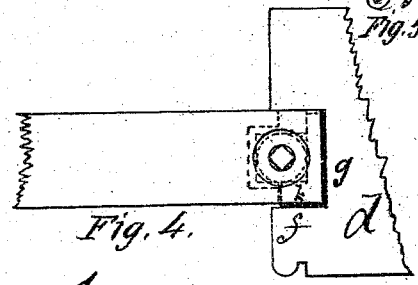

Fig. 4.

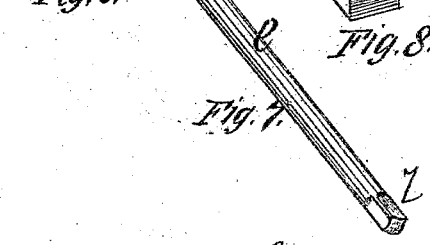

Fig. 7.

Inventor

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Witnesses.

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UNITED STATES PATENT OFFICE.

DAVID N. B. COFFIN, JR., OF NEWTON, MASSACHUSETTS.

IMPROVEMENT IN SASH-HOLDERS.

Specification forming part of Letters Patent No. 115,822, dated June 13, 1871.

I, DAVID N. B. COFFIN, Jr., (of the city of Boston, and) of Newton, in the county of Middlesex and State of Massachusetts, have invented an Improved Window and Blind Supporter, of which the following is a specification:

Nature and Objects of the Invention.

The nature of my invention relates to the construction, combination of parts, and their application, substantially as hereinafter set forth; the object being to produce a simple, inexpensive, noiseless, frictional, and adjustable support, the same being at the same time to a degree self-adjusting.

Description of the Accompanying Drawing.

Figure 1 is a front elevation, showing parts of the window-sash and fastening. Fig. 2 is a perspective view of a part of the window-sash, prepared with suitable mortise and hole for the screw, ready to receive the fastening. Fig. 3 is an elevation of the sash, showing an edge view of sash and fastening, except that the friction-plate *a* is removed to show the spring *b*, nut *c*, and socket *d*. Fig. 4 is a view from beneath of the sash, its guiding-groove or frame *d*, and the fastening. Fig. 5 shows one of the various kinds of springs which may be used, viz., a coiled-wire spring of metal. Fig. 6 shows a rubber or other gum spring. Fig. 7 shows the adjusting-screw, the lower end of which is fitted to receive and be operated by a key. Fig. 8 shows the metallic socket *d*, which receives the spring, and guides the nut *c*, screw *e*, and friction-plate *a*. Fig. 9 shows the friction-plate *a*.

General Description.

A mortise is formed in the side or edge of the sash, as shown in Fig. 2, to receive the metallic socket *d* when the metallic socket is to be used; it, however, is not indispensable, as, if the wood is hollowed to the same form, it will answer the purpose. Into the socket *d*, of wood or metal, is fitted the friction-plate *a*, which has two friction-surfaces, one to bear at *f* and one at *g*. (See Fig. 4.) Into the socket, at one end, is placed the nut *c* of screw *e*; in the remaining space is placed the spring *b*. A hole is bored, as at *h*, (see Fig. 2,) large enough to receive a key at the outer end and to receive screw *e* between that and the socket *d*. The screw is entered through this hole into the nut *c*, passing within the spring *b*. The friction-plate *a* is then adjusted to cover the parts, and, being embraced between the end shoulders *i j* of the socket, is placed, with the sash, in its groove, as shown at Fig. 4. The spring *b*, or its substitute, presses the friction *a* against the sash-guide or groove at *g*, Fig. 4, and with a less force, proportioned to the wearing-surface at *f*, as but a portion of the spring bears on the narrower flange *k* of the friction-plate.

When it is required to increase or diminish the friction of plate *a* in the sash-guiding groove, the screw is turned to the right or left, as the occasion requires, so compressing or allowing the spring to coil lengthwise, so increasing or diminishing its lateral pressure, and increasing or diminishing its action on the friction-plate. The screw is operated by raising the window, when necessary, and applying a key to the end *l* fitted to receive a key. The key should be in the keeping of the conductor or other person in charge of the car or vehicle to which the improvement is applied. The parts may be made of the materials ordinarily used in the art, such as iron, steel, (galvanized or otherwise,) brass, composition, &c. A nut may be used at each end of the spring, if preferred, either with differential or right-and-left-handed screw-threads, for compressing and relieving the spring.

To make the mortise in the sash of uniform shape, the socket-piece may be cast with the wings on, as shown at *m* in dotted lines in Fig. 8; or these may be left off and the wood cut away, only, as shown at the left of Fig. 2, the opposite side of the socket-piece at each end being taken off, as indicated by dotted lines at *n*, Fig. 8, so making the mortise of uniform shape and more easily made.

Any spring which, by the longitudinal screw and its nut, may be subjected to more or less tension laterally, or may be made to exert more or less pressure laterally against the friction-plate, may be used as a substitute for the rubber or gum spring *b*. Also, gains may be cut

at both ends of the mortise, and the metallic socket furnished with tongues to fit, as indicated in dotted lines in Figs. 2 and 8.

I claim—

1. The combination of the laterally-acting spring and friction-plate with the adjusting-screw and sash-guiding groove, substantially as described.

2. The arrangement of the accessible part or head of the adjusting-screw of a frictional sash or window supporter within or beneath the lower rail.

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Witnesses:

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