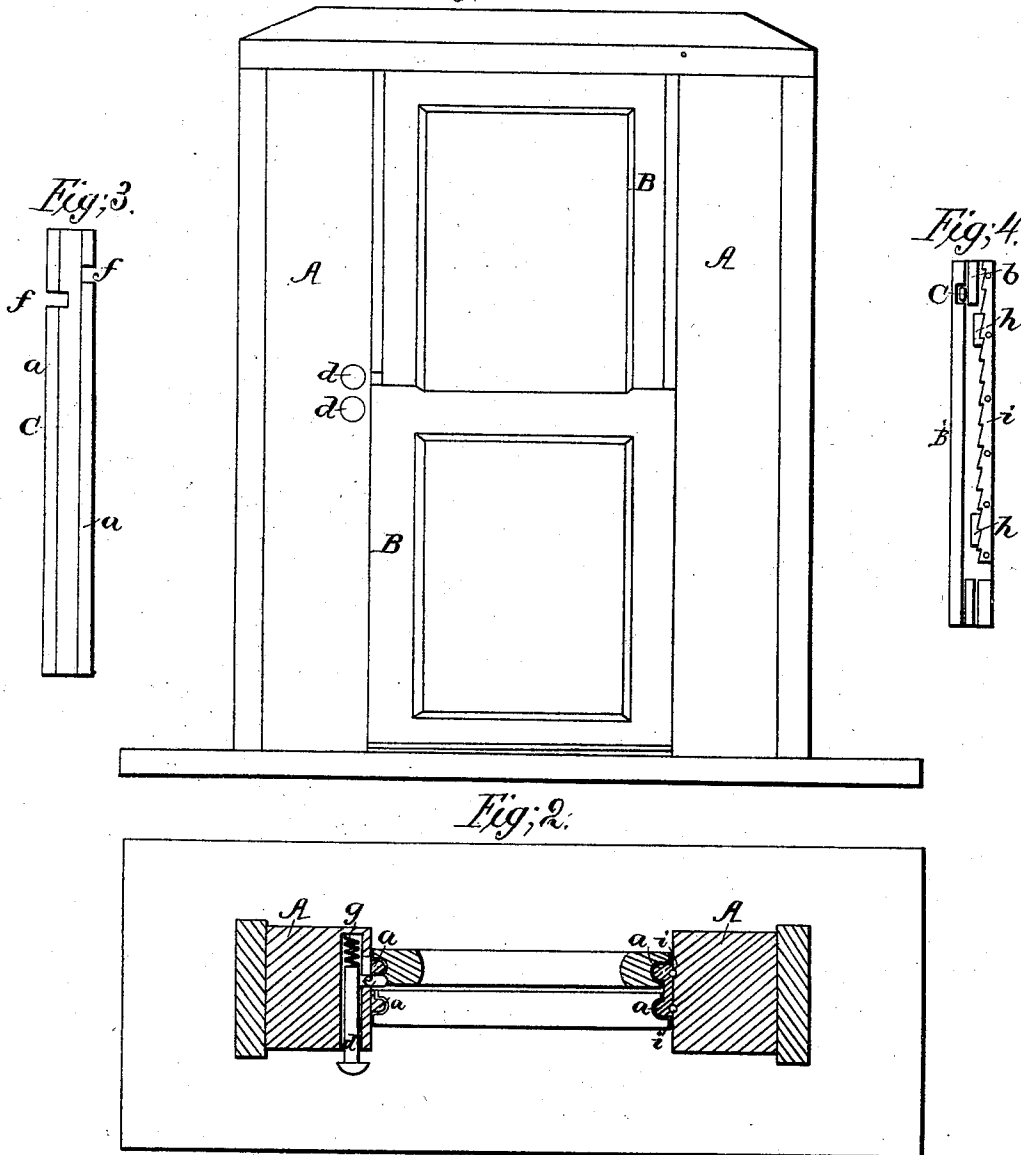


*J. M. Hale.*

*Sash Fastener.*

*N<sup>o</sup> 93,711.*

*Fig. 1. Patented Aug. 17, 1869.*



*Witnesses;*  
*Harry King.*

*Cornelius Co*

*Inventor;*  
*Jas. Madison Hale*  
*per*

*Alexander Massalp*

# United States Patent Office.

JAMES MADISON HALE, OF GEORGIA PLAINS, VERMONT.

Letters Patent No. 93,711, dated August 17, 1869; antedated August 5, 1869.

## IMPROVED SASH-FRAME AND FASTENER.

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, JAMES MADISON HALE, of Georgia Plains, in the county of Franklin, and in the State of Vermont, have invented certain new and useful Improvements in Sash-Fasteners; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists of a metallic corrugated plate, or plate of any other substance, such as vulcanized rubber, or wood, answering the same purpose, formed so as to guide the sash vertically, and, at the same time, serve to keep the sash from rattling or jarring; or, if there are two sashes, as in common windows, they are kept apart, so as not to rub their face-sides together, and at the same time form a durable and perfect joint with the window-casings and with each other.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a front view;

Figure 2, a cross-section;

Figure 3, a side view of the guide; and

Figure 4, a side view of the sash.

A represents the window-casing, and

B B, the sash.

The edges of the sash are grooved, and the inside lip of the sash is dressed down, the thickness of the sash-guide C being removed.

The longer lip of the sash, when in place, makes a joint, in the ordinary way, with the casings.

The sash-guide, C, is a plate of any suitable material, provided with tongues, *a a*, as shown in fig. 3, and placed on and along the inner sides of the window-casing.

The tongue *a* of said sash-guide fits the groove in the sash, while the short lip of the sash makes joint with the plain face of the guide-plate, so forming a matched joint between the sash and casings.

The plate forming the tongue, which thus keeps the sash in position, and the convex side of the guide, in connection with grooves *i i* in the casing, form a hidden way for the ropes and pulleys. These guides are in sections, so as to remove the sash without taking off the whole plate.

The outer edge of each upper section is shortened, so as to form a recess between the edge of the guides and the casings, in which the rope-hooks work when attached to the sash.

At the upper corners of each sash, adjacent to the rope-way, there is a slot, *b*, cut in the long lip of the

sash, in which stands a pin or eye, *c*, to which the rope-hooks are coupled.

The transverse bolts, *d d*, of the locks have angular projections, *e e*, of the same shape as the tongue *a* of the sash-guide, and fill the slot *f*, cut in the guides, when the bolts are pressed inward, thus allowing the sash to work on the guides, and when the pressure is removed, the spring *g* throws the projection *e* inward from the tongue into slots or notches in the lip of the sash, locking each sash in place.

On the inner side of the lower lip of the sash I place checks or springs *h h*, of rubber or other material, which press upon the inner faces of the sash-guides.

It will thus be seen, that in windows with two sashes, these check-pieces press the upper sash inward, while those on the lower sash act in the opposite direction, or outwardly, so as to keep the point of contact of the sashes close together, if there is any lateral motion of the sashes upon the guide-plates, as well as to perfect the joint of the guide-plate and outer lips of the sashes.

The short lips of the sashes are covered with a notched plate, *i*, on the lock-side, into which notches the projection *e* fits, so as to lock the sash in any position desired.

This plate, in combination with the check-pieces, will hold a car-window in any position, and prevent all jarring or noise from the windows.

The inside rails of the sash are bevelled on the meeting-side, so as to fill the space between the sash, the meeting-rails being left thicker than the side-rails; or a bevelled piece can be fastened to each sash, answering the same purpose.

The faces of the meeting rails being two inclined planes, and working opposite each other, will press together when properly constructed, and the sashes are closed, thus forming a perfect joint at the intersecting point of the two sashes.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The combination of the grooved sashes B B, and their notched plates, with the double guide-plates C C, bolts *d d*, lugs *e e*, and spring *g*, all constructed and operating substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand and seal, this 25th day of May, 1868.

JAMES MADISON HALE. [L. s.]

Witnesses:

C. L. EVERT,  
H. H. HALE.