

G. A. Russell,

Window.

No. 90,396.

Patented May 25, 1869.

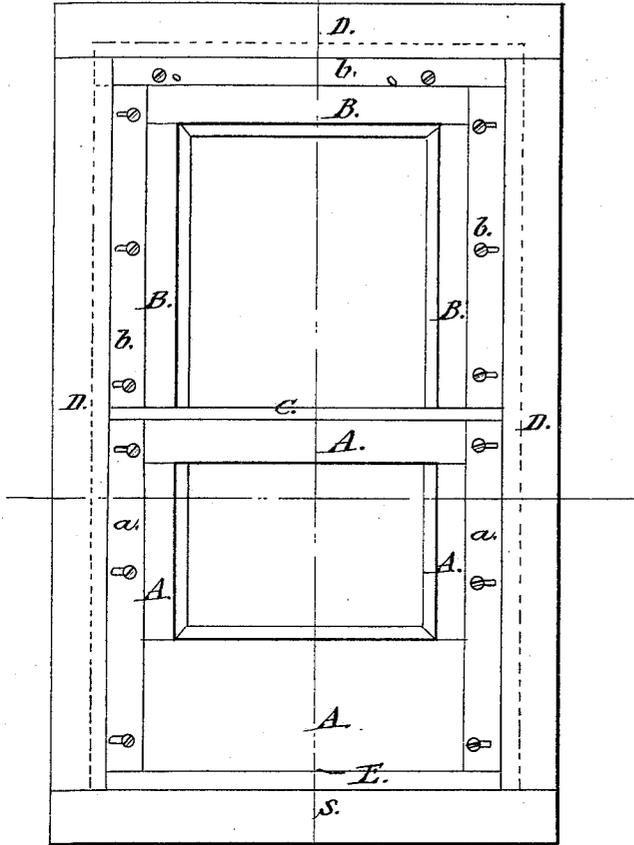


Fig. 1.

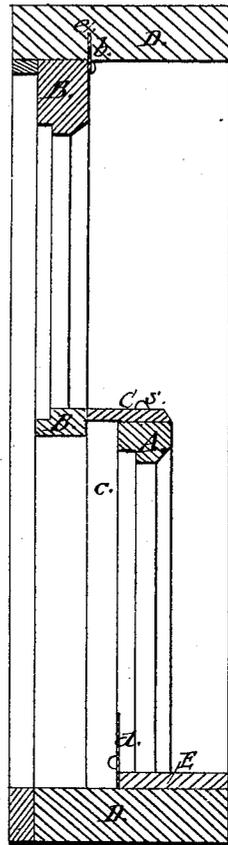


Fig. 2.

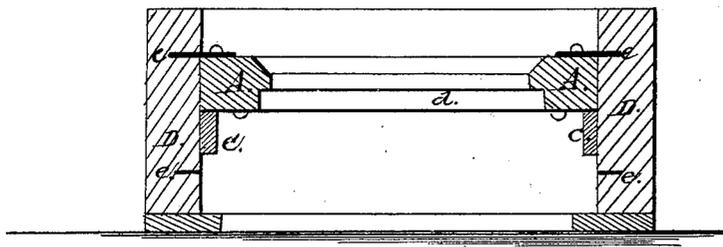


Fig. 3.

Witnesses:
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GIDEON A. RUSSELL, OF CHICAGO, ILLINOIS.

Letters Patent No. 90,396, dated May 25, 1869.

IMPROVEMENT IN WINDOWS.

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, GIDEON A. RUSSELL, of Chicago, in the county of Cook, and State of Illinois, have invented a new and useful Improvement in Windows ; and I do hereby declare and make known that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and the letters and figures marked thereon, which form part of this specification.

My invention consists in applying to the sides and bottom of the lower sash, and the sides and top of the upper sash, a thin metallic strip, which projects into and slides in suitable and appropriate grooves in the sides and top of the window-frame, and fits closely against the ledge of the window-frame, at the bottom, thus forming a tight joint, and excluding the wind, cold, and dust, and at the same time effectually preventing all rattling and jarring of the sash.

My said improvement further consists in attaching to the top of the lower sash an adjustable strip, which may be moved out against the lower member of the upper sash, or withdrawn, to adapt the same to the shrinking or swelling of the wood, so that a close joint may always be formed between the top of the lower sash and the bottom of the upper sash, as hereinafter described.

To enable those skilled in the art to understand how to construct and use my invention, I will describe the same with particularity, making reference, in so doing, to the aforesaid drawings, in which—

Figure 1 represents a front elevation of my invention ;

Figure 2 is a longitudinal section thereof, at the vertical line in fig. 1 ; and

Figure 3 is a cross-section, at the horizontal line in fig. 1.

Similar letters of reference in the several figures denote the same parts of my invention.

D represents the window-frame, S the sill, and A B the lower and upper sections of the sash.

Upon the face of the sash are secured, by means of screws passing through slots, as shown, metallic strips, marked, respectively, *a*, *b*, and *d*, the latter, however, in no case to be secured by slots, unless desired.

The strips *a b* are inserted in and move in the grooves *e e*, made in the sides of the window-frames, said slotted attachments being for the purpose of allowing the strips *a b* to be withdrawn from the grooves, by simply loosening the screws, when it is desired to take out the sash, but the same effect may be attained without the slots, as in that case the screws can be entirely withdrawn, but I consider the slotted arrangement, above described, and shown in the drawings, to be the better and more convenient mode.

Upon the sill S, a strip, E, is secured upon which the lower member of the sash rests, so that the strip *d*, upon the lower edge of the lower sash, fits closely down against the same, as clearly shown in fig. 2, forming a close joint, as desired.

By this mode of arranging or securing the sash in the frames, the sash may always be made loose enough to prevent any possibility of the swelling of the wood, making the sash bind, so as not to be easily moved up and down, while at the same time a perfect and tight-fitting joint, excluding cold, wind, dust, or rain is made, and the sash prevented from rattling or jarring.

The grooves *e e*, in which the strips *a b* slide, may fit closely to the strips, all danger of the swelling of the wood's binding the strips being obviated by having the groove made in a large single piece of wood, so that the expansion of the frame tends to open the groove as much as it tends to force the sides thereof together by the local expansion adjacent thereto.

Between the two members of the sash, the ordinary strip or stop *c* is arranged, as shown, extending to the top of the lower sash only.

To close the joint or opening between the lower end of the upper sash and the upper end of the lower sash, I arrange upon the top of the lower sash a movable bar, C, which moves towards or from the upper sash, said adjustment being effected by securing the strip *c* upon the sash A, by passing screws *s* through slots in C.

By this arrangement the bar C may always be kept close against the upper sash, to make a tight joint, adjusting the same to the shrinking or swelling of the sash.

By the use of the metallic strips, a much less amount of friction is occasioned in moving the sash, from the fact that there is less friction-surface and that there is a less amount of friction arising from the sliding of a metallic surface upon wood than from the sliding of two wood surfaces upon each other.

Having described the construction and operation of my invention, I will now specify what I claim, and desire to secure by Letters Patent.

1. I claim the combination of the strips *a b* upon window-sash, to operate within the grooves *e*, in the manner and for the purposes set forth.

2. I claim the arrangement of the strips *d* upon the lower sash, in the manner and for the purposes described.

3. I claim the arrangement of the movable strip *c*, in combination with the sash A, to operate in the manner specified.

Witnesses :

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