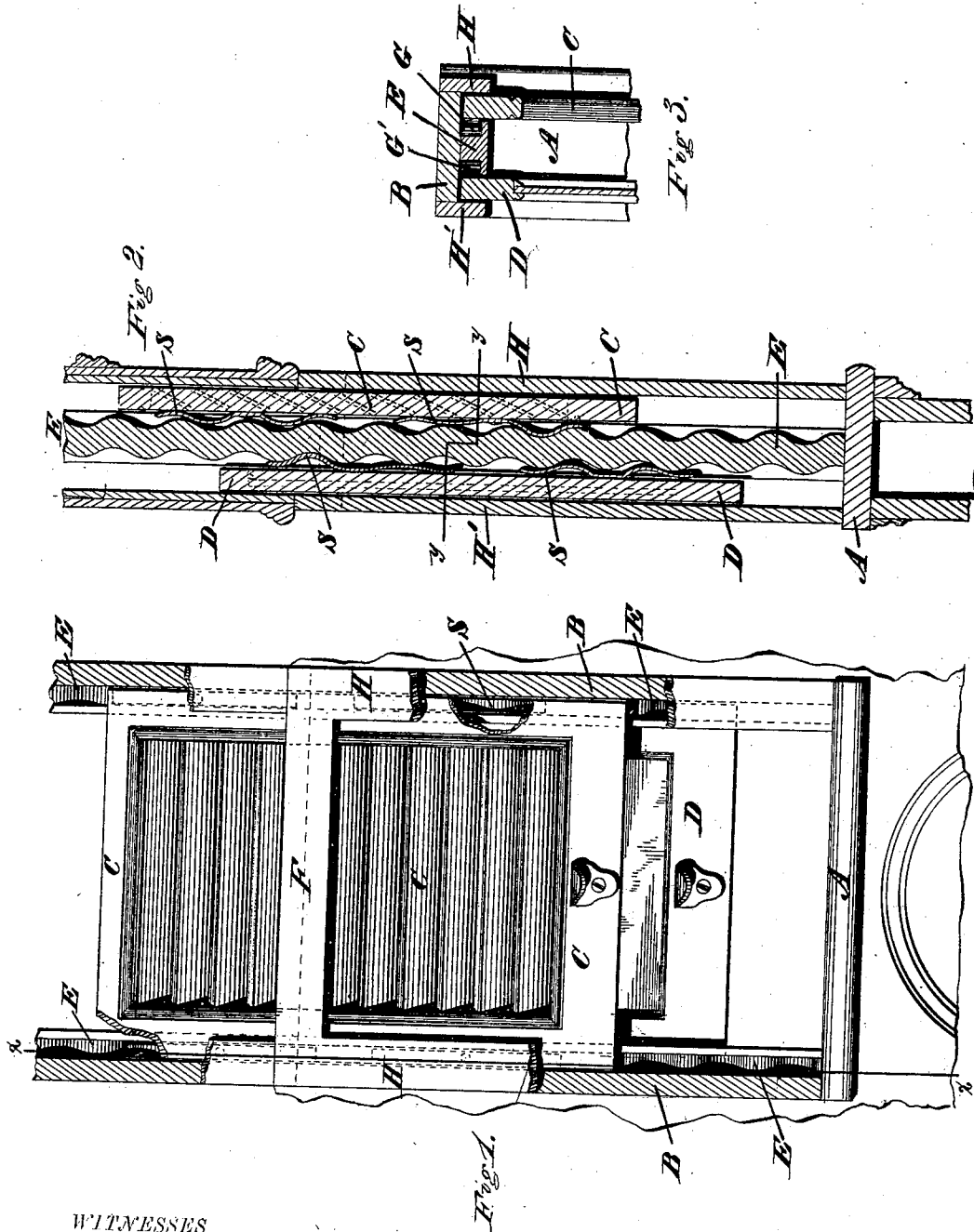


R. L. WALKER.

Sash-Holders for Car-Windows.

No. 150,206.

Patented April 28, 1874.



WITNESSES

Harry King.
H. P. Dill

Fig. 1.

INVENTOR

Robert L. Walker
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UNITED STATES PATENT OFFICE.

ROBERT L. WALKER, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN SASH-HOLDERS FOR CAR-WINDOWS.

Specification forming part of Letters Patent No. **150,206**, dated April 23, 1874; application filed March 11, 1874.

CASE B.

To all whom it may concern:

Be it known that I, ROBERT L. WALKER, of Boston, in the State of Massachusetts, have invented Improvements in Car-Windows; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a front elevation, partly in section, of a car-window having my improvements, parts of the frame being broken away to show the construction. Fig. 2 is a vertical transverse section of the window-frame on line *x x* of Fig. 1. Fig. 3 is a horizontal section on line *y y* of Fig. 2.

The same part is marked by the same letter of reference wherever it occurs in the drawings.

My invention relates to railroad and street car windows, and has for its objects to exclude dust, prevent rattling, and cause the sash to be held automatically and securely at any point to which it may be raised. It consists of a double-faced corrugated strip or fillet interposed between the slatted sash and the glazed sash of a railway or other car window in place of the ordinary plane strip or fillet, and a series of springs attached at their centers to the sash, with free ends of such length, and so curved and located in relation to the curves or corrugations of the fillet, as to produce an even and uniform pressure against the glazed and slatted sash, but in opposite directions, in order that they may be supported automatically, that the entrance of dust may be prevented when they are closed, and all rattling noise be obviated.

In the drawings is represented one of my improved car-windows having a glazed sash protected by a slatted sash, each running in its own groove in the framing, and having my improved supporting and tightening device applied to it.

A marks the window-sill, and B the side framing, against which the edges of the sash run. C is the slatted sash, and D the glazed sash. Between these is placed the corrugated projection or strip E, clearly shown in Fig. 2. The outer faces of these sash bear against the front and back casing H H' of the window. On their inner faces are attached the undulating or corrugated springs S S, two on each side or four on each sash. These springs run in the grooves or recesses G, and react against

the opposite faces of the corrugated strip E. The undulations of the springs S correspond in curvature with the corrugations of the strip E; but the springs are so arranged as to their positions on the sash that while the convex portion of one end of a spring fits into a concave portion of the strip E, the convex portion of the other end will come in contact with a convex portion of the strip, so that in every position of the sash the full pressure of a portion of each spring will be exerted to press the sash against the casing H H' on the side opposite to that against which the spring reacts. Moreover, in every position of the sash, at least one of the convex corrugations of the spring will be engaged with a concave corrugation of the strip or fillet E, and effectually support the sash and prevent it from descending by its own weight, the proper tension having been given to the spring for that purpose.

In this way I combine the slatted and glazed sash with an interposed double-faced corrugated fillet and series of springs, so that the sash are conveniently operated, automatically supported, dust-tight when closed, and free from rattling noise.

As will be seen, this fillet and the springs can be readily applied to the ordinary car-windows, and easily removed, repaired, or another substituted, when desired.

I am aware that springs have been applied to the edges of the sash as supporters, having tried that method myself, as shown by my rejected application filed November 2, 1870. Such application of the springs I found to be impracticable, and, besides, it fails to produce the important results accomplished by my present invention.

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

In a railway or other car window, the interposed double-faced corrugated fillet E, in combination with the springs S, the slatted sash C, and glazed sash D, constructed and arranged to operate as and for the purpose set forth.

The above specification of my said invention signed and witnessed, at Washington, this 7th day of March, A. D. 1874.

Witnesses: ROBERT L. WALKER.
HARRY KING,
CHAS. T. STANSBURY.