

J. S. McINTIRE.

WEATHER-STRIPS FOR WINDOWS.

No. 173,034.

Patented Feb. 1, 1876.

Fig. 1.

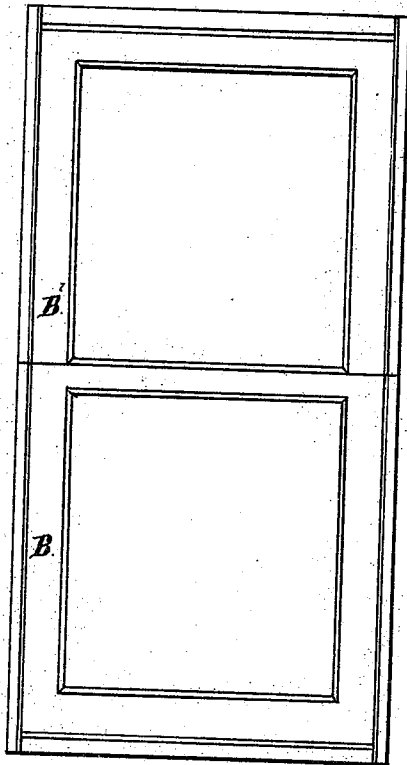


Fig. 3.

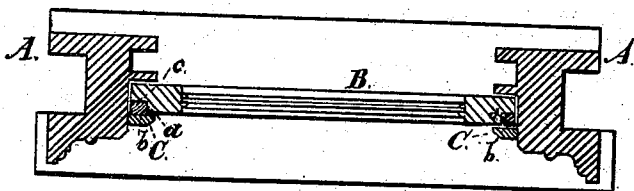
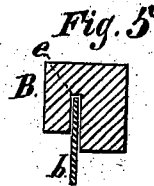
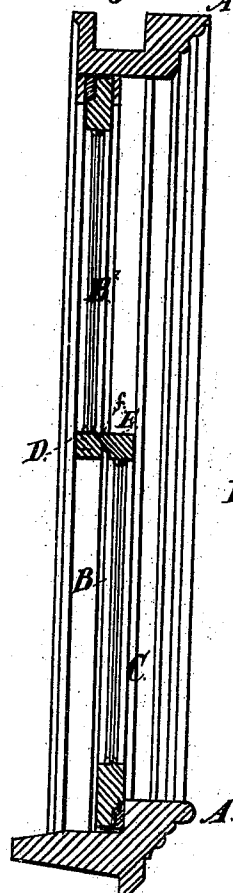


Fig. 2.

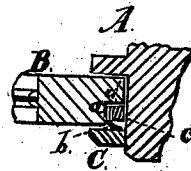


Fig. 4.

Witnesses:
Heinrich F. Bruns.
Lewis L. Leoburn

Inventor:
John S. McIntire

UNITED STATES PATENT OFFICE.

JOHN S. MCINTIRE, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF HIS
RIGHT TO ALBERT B. PULLMAN, OF SAME PLACE.

IMPROVEMENT IN WEATHER-STRIPS FOR WINDOWS.

Specification forming part of Letters Patent No. **173,034**, dated February 1, 1876; application filed
October 16, 1875.

To all whom it may concern:

Be it known that I, JOHN S. MCINTIRE, of Chicago, in the county of Cook and State of Illinois, have invented an Improvement in Weather-Strips for Windows, of which the following is a specification, reference being had to the accompanying drawings, which form a part hereof.

The object of my invention is to make a tight joint between the window-sash and its casing, so as to prevent, as nearly as possible, the passage of air and dust from without.

The invention consists in attaching a rubber strip to the sash in such a manner that the force of the wind entering from without serves to tighten the joint formed by the pressure of the rubber against the casing.

In the accompanying drawings, Figure 1 represents a front view of the window-sash; Fig. 2, a transverse sectional view of the sash and sash-casing; Fig. 3, a longitudinal sectional view of the same; Fig. 4, an enlarged cross-section of the sash and casing at the side, showing the manner of attaching the strip; and Fig. 5, a cross-section of one side of the sash, showing another mode of attaching the rubber strip.

A represents the ordinary window-casing for a house or railway-car; B, B', the upper and lower sash-frames.

In applying my invention to windows already in place, I cut away a portion of the inner corner of the sash, forming a rabbet, as shown in Figs. 2 and 4, and to the face *a* of this rabbet I attach, by any suitable means, a thin strip, of rubber, *b*, so that the free edge of the strip will project inward toward the room. Outside of the rubber strip is placed the cleat *c*, which is securely fastened to either the face *a* or face *a'* of the rabbet in the sash. The sash is then put in its proper place within the casing, and the ordinary strip of molding or sash-stop C is attached in the usual manner, the free edge of the rubber strip being turned outward, as clearly shown in Fig. 4.

If the rubber strip is applied when the sash is manufactured I prefer the mode of attach-

ment shown in Fig. 5, in which the inner corner of the sash B is slightly cut away, and a groove, *e*, is formed in the sash, into which the rubber strip *b* is inserted and secured in place by nails or screws passing through it and the sash. When the sash is placed in position in the window the strip is bent outward in the same manner as in Fig. 4.

It will be seen that as the rubber strip is bent outward, the wind, which forces it way through the small spaces between the sash and the casing will be effectually stopped by the strip, and the greater the force of the wind the tighter will be the joint between the rubber strip and the molding, because the wind will press the turned edge of the strip *b* more firmly against the molding or sash-stop C. This strip may be applied to all sides of the sash of any window, thereby forming a secure protection against wind and dust. It is, however, especially adapted to railway-cars; and I have intended it for use in sleeping-cars, where great difficulty has been experienced in preventing the entrance of dust.

I am aware that rubber strips like mine have been fastened to the inner edge of a window-sash, so as to form a joint with the casing; but heretofore they have been attached so that when the sash was put in place the free edge of the rubber strip was bent inward by the casing, and, therefore, the force of the wind would operate constantly to open the joint made with the casing and admit dust. The opposite result is obtained by my method of attaching the rubber strips.

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

1. The combination of the window-sash and the rubber strips, arranged as described.

2. The combination, substantially as described, of the sash B, rubber strips *b*, casing A, and molding C, all arranged and operating as set forth.

J. S. MCINTIRE.

Witnesses:

L. A. BUNTING,
HEINRICH F. BRUNS.