

N. JOHNSON.  
Weather-Strips.

No. 157,836.

Patented Dec. 15, 1874.

FIG. 1.

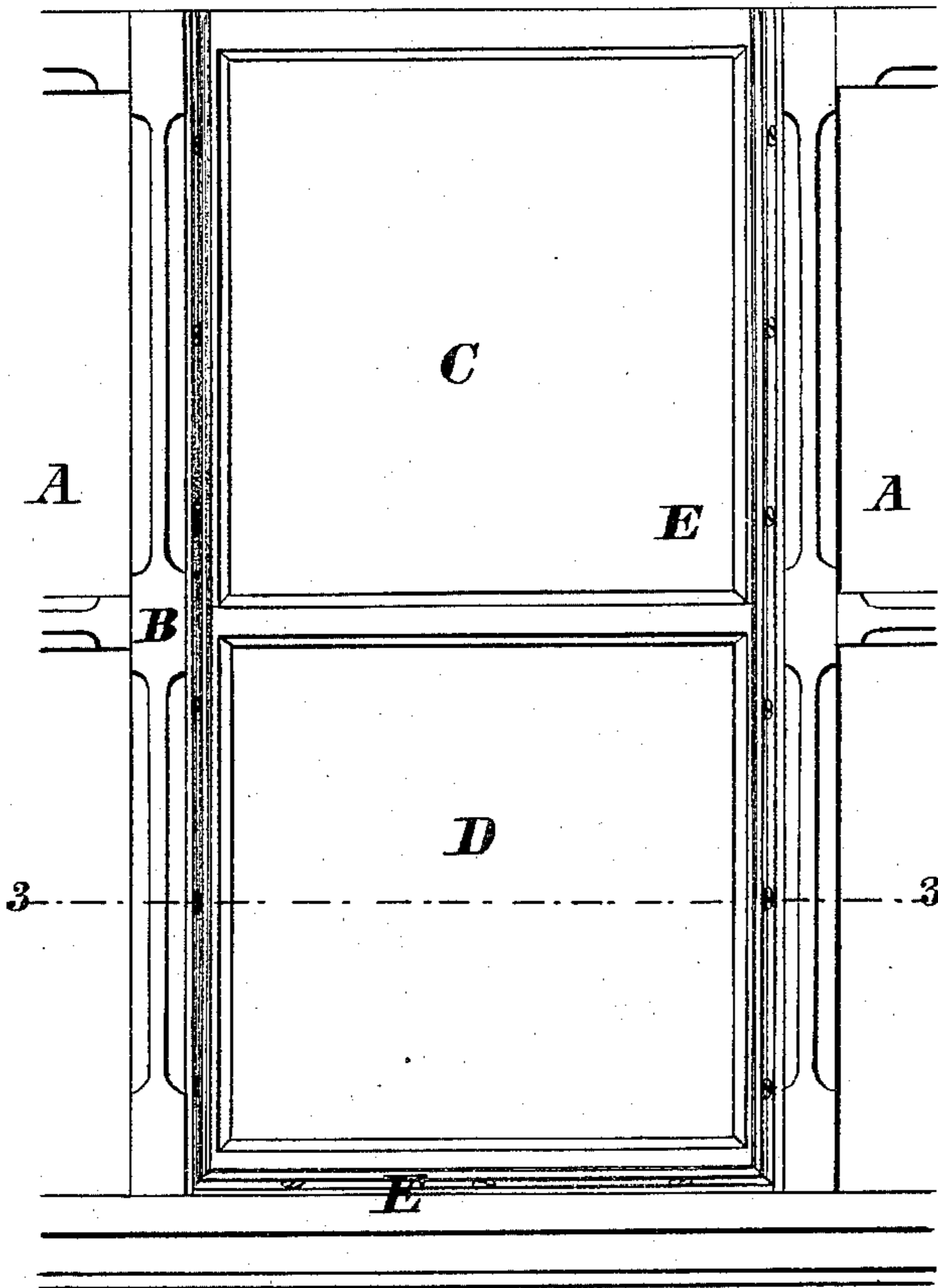


FIG. 2.

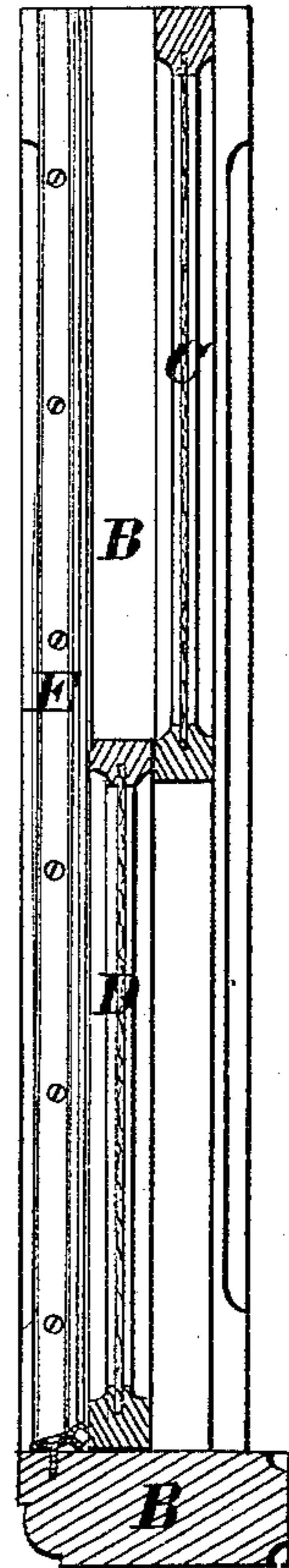


FIG. 3.



FIG. 4.

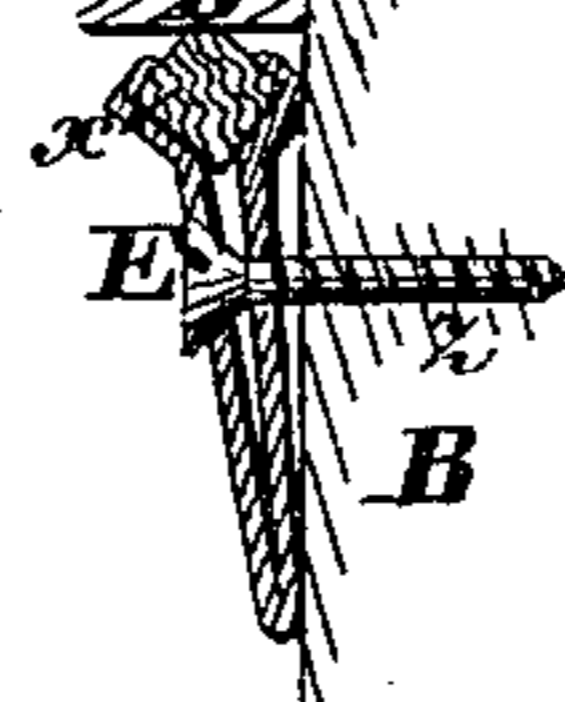


FIG. 5.

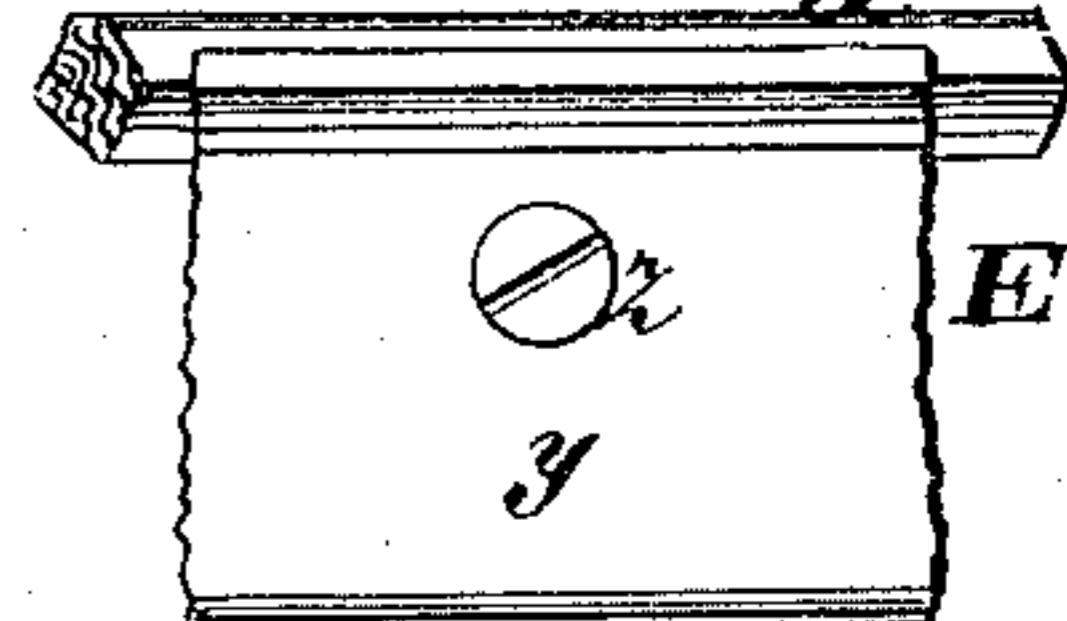


FIG. 7.

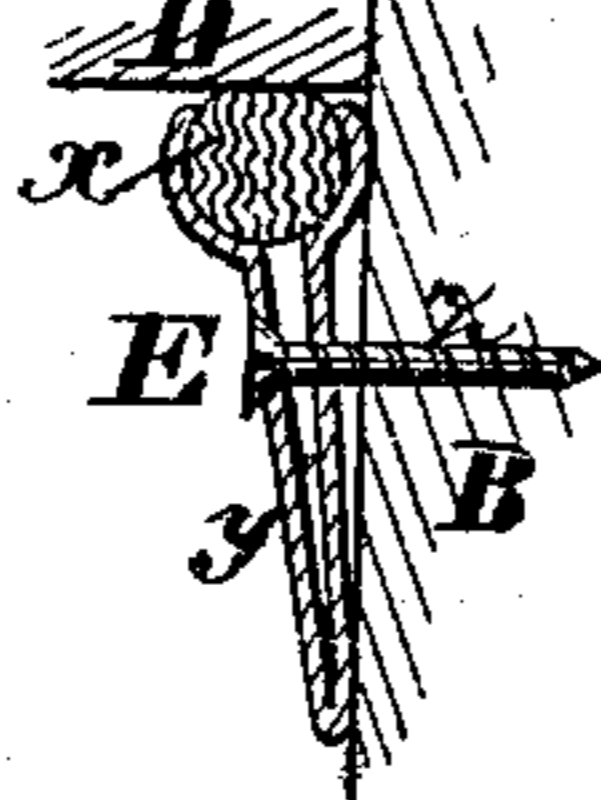
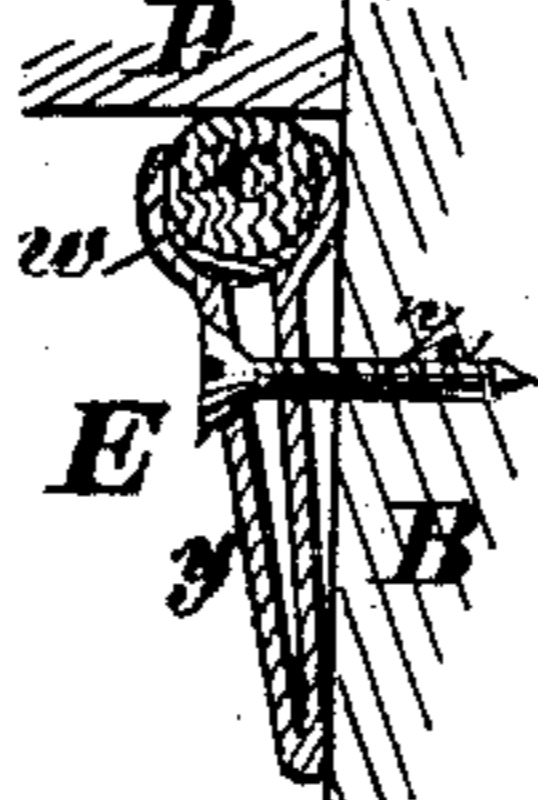


FIG. 6.



WITNESSES

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# UNITED STATES PATENT OFFICE.

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## IMPROVEMENT IN WEATHER-STRIPS.

Specification forming part of Letters Patent No. **157,836**, dated December 15, 1874; application filed April 29, 1874.

*To all whom it may concern:*

Be it known that I, NELSON JOHNSON, of the town of Jasper and county of Steuben, in the State of New York, have invented an Improved Weather-Strip and Stop-Bead for Windows, of which the following is a specification:

This invention relates to adjustable weather-strips of that form in which a strip of elastic material is supported and adjusted by means of a metallic holder in the form of a thin molding, and to those window-beads which are made elastic or adjustable, so as to retain the sash at any desired height without the aid of sash-holders.

The present invention consists in a compound elastic strip or bead of peculiar construction, adapted to be applied in place of the ordinary stop-bead, and to perform the functions of a stop-bead, weather-strip, and sash-holder in a superior manner.

A very narrow strip or cord of elastic material is employed, and it is secured and adjusted by one and the same set of ordinary wood-screws, and may readily be removed when worn out.

The invention is applicable to all windows in which sliding sashes are employed.

Figure 1 is a face view of a car-window illustrating this invention. Fig. 2 is a vertical section of the same. Fig. 3 is a horizontal section on the line 3 3, Fig. 1. Figs. 4 and 5 are, respectively, a transverse section and a fragmentary side view of the strip or bead proper on a larger scale. Fig. 6 is a transverse section, representing a preferred modification. Fig. 7 is a transverse section, representing another modification. Figs. 4 to 7 are drawn on the same scale.

Referring to Figs. 1, 2, and 3, A A represent portions of the wall of a railway-car; B, a window-frame therein; C, a fixed upper sash; D a sliding lower sash, and E E improved strips or beading attached to the frame by common wood-screws *z* in place of the ordinary stop-beads.

The improved strips or beads serve to form the guides for the sliding sash, and to keep the same tight, so as to exclude wind, rain and dust, and to prevent rattling, and to support the opened sash in any desired posi-

tion. They are arranged at the bottom and sides of the sash; and may either be extended upward above the top of the sash, as represented, or may take the place of the ordinary beads only to the height of the closed sash; or short sections may be attached to the ordinary beads, the latter serving as the extended guides.

The improved strip or bead consists of a metallic holder, *y*, in the form of a light and thin molding, and a narrow strip or string, *x*, of india-rubber or other elastic material. For the reception of the elastic material a longitudinal recess is formed in or at the inner edge of the holder, and conformed to the general shape of the strip or cord of elastic material. The holder is also perforated to receive the attaching-screws *z*, by adjusting which the recess of the holder is contracted or expanded, and the elastic material is thus caused to project more or less, as required, in order to properly tighten and hold the sash.

The holder may be made of sheet brass or other suitable metal, plain or decorated, and the details of its form and construction are variable.

The holder is double, its two members being united along one edge, and the two members may be interlocked; but, preferably, they are formed in one part, and adapted to spring apart, so as to facilitate releasing the elastic strip for renewal. Also, a properly-bent plate, *w*, is preferably arranged within the holder to form a solid back behind the elastic strip, closing the space between the members of the holder, as illustrated in Fig. 6, so as to confine the projection of the elastic material to the side adjoining the sash.

The elastic strip is shown in two forms, round and square in cross-section. It may also be of octagonal or other shape; but the two forms of holder represented will probably answer for any form of strip which may be desired.

The strip, when worn on one face or corner, may be released and turned, and, when worn out, it may readily be replaced.

The device is adapted to be cheaply manufactured and readily applied, and possesses, also, the advantages of simplicity, compactness, and neatness of appearance.

Having described this my invention, I claim—

1. An improved stop-bead, weather-strip, and sash-holder, consisting of a narrow elastic strip or cord, *x*, a double metallic holder, *y*, having a longitudinal recess formed at its open edge, and screws *z*, serving to attach and adjust the device, substantially as herein described.

2. The back plate *w*, in combination with

the double holder and narrow elastic strip or cord, substantially as set forth, for the purpose specified.

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Witnesses:

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