J. H. DAVIS.

WEATHER-STRIPS.

No. 194,296. Patented Aug. 21, 1877.

FIG. 1.

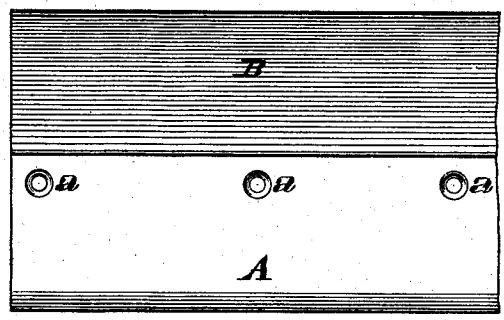
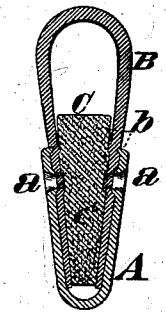


FIG. 2.



ATTEST.

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IMPROVEMENT IN WEATHER-STRIPS.

Specification forming part of Letters Patent No. **194,296**, dated August 21, 1877; application filed December 1, 1876.

To all whom it may concern:

Be it known that I, JOHN H. DAVIS, of St. Louis, Missouri, have invented a new and useful Improvement in Weather-Strips, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

To form my weather-strip I cut thin sheet-rubber into pieces about an inch in width. I fold the rubber strip, and insert between the lapping edges of the rubber a strip of paper, fiber, felt, or other soft material, one-sixteenth of an inch or more in thickness, to keep the rubber folds the thickness of the felt apart. The portion of the folded strip below and extending into the body of the tube thus made is intended, together with the stiffness of the sheet-rubber, to form a tube having a pad or cushion therein, and also to aid in retaining the tube in an expanded, generally oval, form. I attach the folded rubber ends, and the felt pad within, to a back or holder. I introduce the rubber edges, with the felt piece between, into a clamping metallic holder or back. This back I make by bending strips of sheet-zinc or other metal into the form shown in Figure 2, having the edges inturned. I then insert the rubber inclosing the pad into the wide opening of the metallic back while the latter is in a forming-machine. When the rubber is in place another operation presses the metal sides closely up, holding the rubber very firmly. The strip now formed I pass through another operation, which punches and sinks the sides of the metal back at proper distances for the insertion of tacks for holding the strip in place, the indent on each side of the hole made causing the burr edge of the metal to press into the rubber and pad, aiding the inturned edges in holding the strip together. The extension of the pad of felt into the tube forms a cushion, which prevents the rubber from being pressed flat, or, by drawing against the metal edges, from being cut.

The strips when in use are attached to the sash-frames, inside or outside. They fit the parting-strip also, and can be placed in curved or irregular frames or places, from the readiness with which they bend to conform to such shapes, either in windows, doors, transoms, or other joints; neither are they liable to be impaired by weather.

The drawings in illustration of my invention further show, in Fig. 1, a longitudinal view of the weather-strip, A being the back or holder frame; B, the rubber tube; *a*, the sunken holes and indents to aid in retaining the rubber tube in the back, and to receive nails for fastening the former in place.

In Fig. 2, A is also the back or holder, with the inturned edges *b* and the nail-holes and indents. B is the rubber tube, having the laps or folds inclosed between edges of the back. C is the felt pad. C′ is the extension of the felt pad within the tube as a cushion.

I claim as my invention—

The tube B, formed by inclosing within elastic or other cloth the expansion-pad C, both to be firmly held together within the holding-back A by the clamping inturned burred edges *b* and the countersinks *a a*, as and for the purpose shown.

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Witnesses:

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J. E. WARE.