

(No Model.)

J. L. SMITH.
WEATHER STRIP.

No. 578,273.

Patented Mar. 2, 1897.

Fig. 1

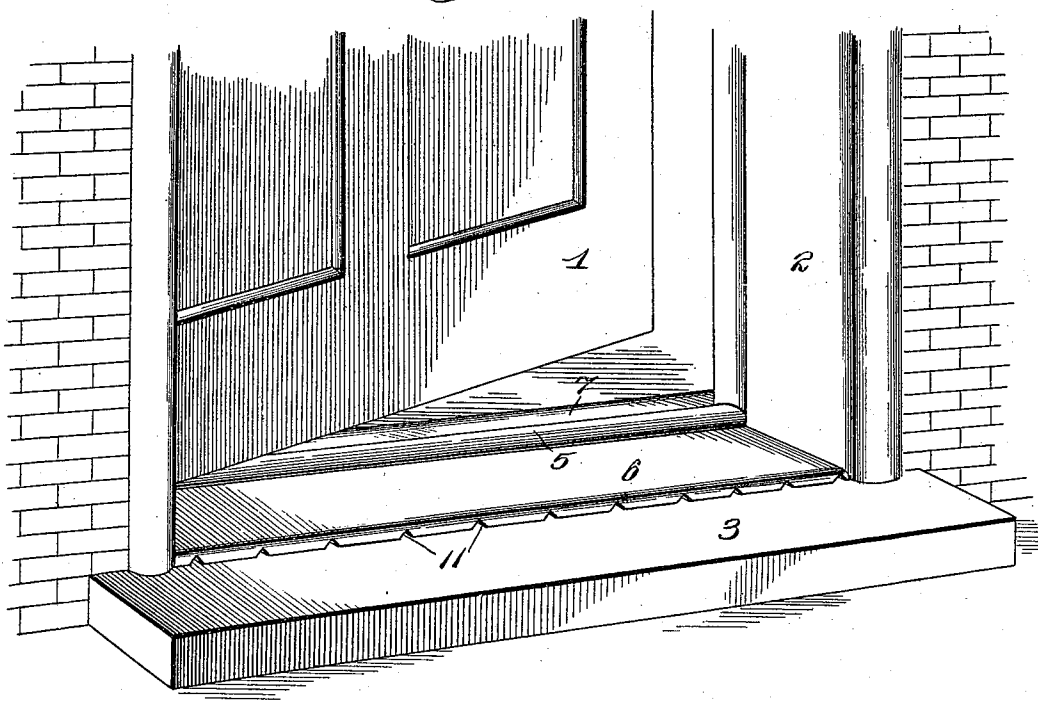


Fig. 2.

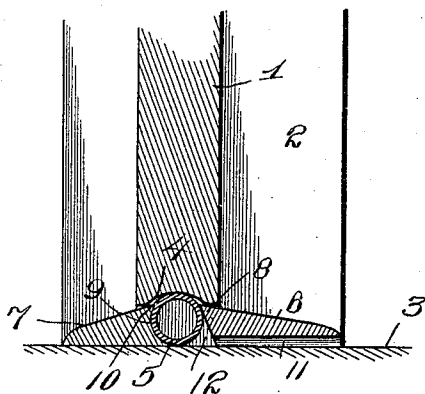
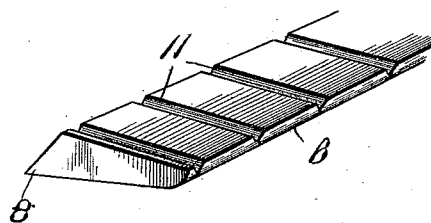


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES L. SMITH, OF PRINCETON, INDIANA.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 578,273, dated March 2, 1897.

Application filed February 14, 1896. Serial No. 579,273. (No model.)

To all whom it may concern:

Be it known that I, JAMES L. SMITH, a citizen of the United States, residing at Princeton, in the county of Gibson and State of Indiana, have invented a new and useful Weather-Strip, of which the following is a specification.

This invention relates to an improvement in weather-strips, and has for its object to provide a simple, durable, and efficient article of the nature referred to, the same being located at the door-sill and confined between the threshold and carpet strips and capable of being easily and quickly removed and replaced when sweeping, the said weather-strip, when in place, being adapted to press against the bottom edge of the door with a yielding pressure and to normally project above the plane of the door-sill and serve as a cut-off for preventing the water, &c., from passing over the sill and obtaining access to the interior of the house.

The invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter described, illustrated in the drawings, and finally pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of a sufficient portion of a door and its casing to illustrate the application of the present improvement. Fig. 2 is a vertical cross-section through the same. Fig. 3 is a reverse perspective view of the threshold-strip.

Similar numerals of reference indicate corresponding parts in the several figures of the drawings.

Referring to the accompanying drawings, 1 designates a door, and 2 the door casing or frame, having the sill 4.

In order to carry out the present invention, the door is provided in its bottom edge with a longitudinal groove, corresponding in shape to or formed in the arc of a circle closely approximating that of a tubular resilient weather-strip 5. The weather-strip 5 is made from a section of rubber tubing of a length corresponding to the width of the door or the length of the door-sill and abuts snugly at its opposite ends against the jambs, so that the bore of the tube is sealed and the air contained therein prevented from escaping. The hol-

low rubber strip 5 is located exactly beneath or in the vertical plane of the door 1, and is held in place between the threshold-strip 6 and the carpet-strip 7.

The threshold-strip 6 is undercut as to its inner edge or that edge which abuts against the rubber weather-strip 5, thus establishing an overhanging edge or lip 8, which bears against the weather-strip at a point above its greatest diameter, as clearly shown in the cross-section, thus serving to hold the said weather-strip securely in place upon that side.

The carpet-strip 7 is formed in its inner edge next to the strip 5 with a longitudinal groove 9, corresponding to the curvature of the said strip and partially embracing the same, as shown. This particular form of groove also establishes an overhanging lip 10, which, taken in connection with the lip 8, binds the weather-strip 5 in place and prevents its accidental displacement, while at the same time the said strip may be easily and quickly removed from its seat for the purpose of cleaning away any dirt or other foreign matter that may have accumulated, or for dispensing with the said strip during the summer season, or for any other purpose.

The threshold-strip 6 is further provided as to its under surface with a plurality of transversely-extending drain-grooves 11, which communicate with the triangular water-space 12 between the threshold-strip and the weather-strip, and lead from thence to the outer edge of said threshold-strip, opening out thereat. The water that runs down the surface of the door and the door-frame will accumulate in the water-space 12, and will afterward flow out through the drain-grooves 11 and escape.

From the foregoing description it will be apparent that a very simple, durable, and efficient weather-strip is obtained, and that the same may be easily and quickly removed when desired and as easily replaced. When the door is being closed, the weather-strip by reason of its resiliency will be depressed, and after the door has been entirely closed the said strip will spring upward and occupy the groove in the bottom edge of the door and thereafter effectively exclude rain, snow, cold air, &c. The strip 5 acts not only by its own resiliency, but added to this is the pressure

of the air contained within the tubular strip, which, when the door is in the act of being closed, is compressed. A very close contact is thus preserved between the door and strip 5 5, and by reason of the weather-strip projecting above the plane of the upper surface of the threshold and carpet strips it is impossible for water, &c., to gain entrance to the interior of the house. Another advantage 10 resides in the fact that the strip may be reversed or partially turned to present a new wearing or contacting surface. On account of the same body of air being always retained within the strip, the latter is not so liable to 15 become frozen and inoperative.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

In combination, a carpet-strip having in its

outer edge a concaved seat, a resilient tubu- 20 lar weather-strip seated therein, and a threshold-strip located outside of the tubular strip and having its abutting edge undercut on a straight bevel from top to bottom to form an elevated lip for engaging the upper portion 25 of the tubular strip and also to provide a water-space at the side of the tubular strip, the said threshold-strip being provided on its bottom side with transverse drain-grooves 30 leading from the water-space outward, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JAMES L. SMITH.

Witnesses:

JOHN R. MCCOY,

WM. N. TICHENER.