N. SMITH.
Weather-Strip.

No. 209,839. Patented Nov. 12, 1878.

Fig. 1.

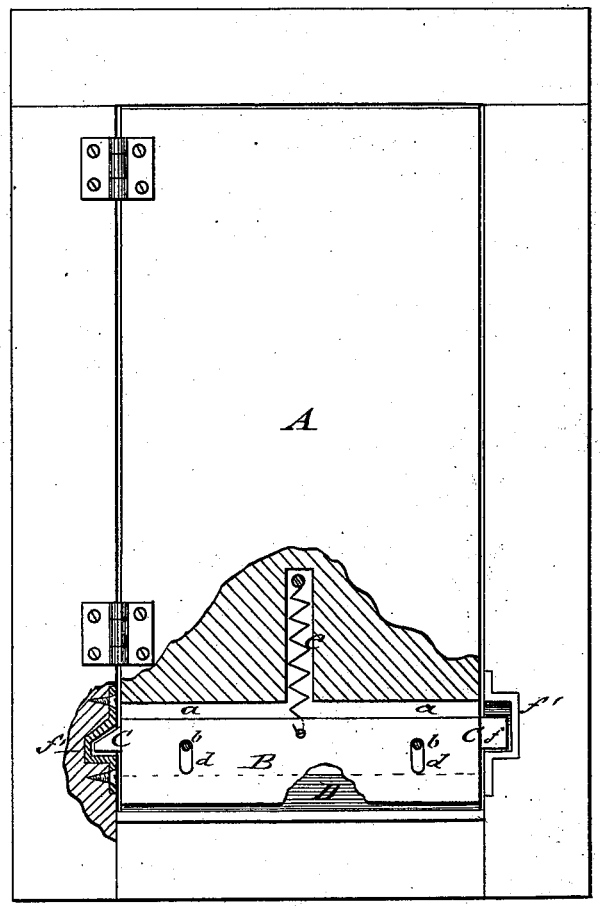
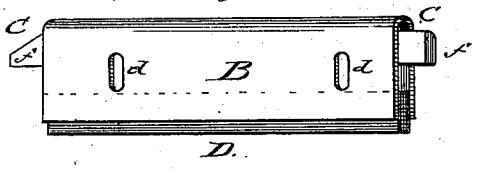


Fig. 2.



WITNESSES:
Henry N. Miller
J. N. Scarborough.

INVENTOR:
N. Smith.
BY Munn & Co
ATTORNEYS.

UNITED STATES PATENT OFFICE.

NELSON SMITH, OF VINTON, IOWA.

IMPROVEMENT IN WEATHER-STRIPS.

Specification forming part of Letters Patent No. **209,839**, dated November 12, 1878; application filed August 5, 1878.

To all whom it may concern:

Be it known that I, NELSON SMITH, of Vinton, in the county of Benton and State of Iowa, have invented a new and Improved Weather-Strip, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a front elevation of a door with my improved weather-strip shown with part broken off; and Fig. 2 is a perspective view of the weather-strip, shown detached from the door.

Similar letters of reference indicate corresponding parts.

This invention relates to an improved weather-strip of cheap and simple construction, that is tightly applied to the door-sill when the door is closed, so as to shut out draft and rain, and which is raised to be off the carpet when the door is opened.

The invention consists of a weather-strip formed of a U-shaped piece of sheet metal bent around a bar that projects beyond both ends of the U-shaped piece and enters, respectively, into inclined recesses in the jambs of the door-casing.

A strip of rubber is clamped between the lower ends of the U-shaped weather-strip, and extends below the latter, to bear tightly on the sill when the ends of the weather-strip are engaged by the inclined recesses of the door-casing.

Referring to the drawing, A is a door, which is provided with a longitudinal recess, *a*, on the lower part, into which the weather-strip B is placed. The weather-strip is guided in the recess of the door by means of guide-pins *b* and short slots *d*, and is drawn back into a raised position by one or more spiral springs, *c*, arranged into socket-recesses on the door above the weather-strip.

The weather-strip B is of less width than the recess of the door, so as to work up and down thereon by the spring or springs. The weather-strip B is formed of a piece of sheet metal that is doubled over an iron bar, C, so as to be in the shape of a U, the iron bar being placed at the top or bent portion of the strip, and extended at both ends of the same. The projections are inclined or tapered, so as to readily enter corresponding recesses *f'* in the jambs of the door-casing. The inclined recesses press on the projecting ends of the weather-strip, and press thereby the upper part of the strip close down on the door-sill.

In the lower part of the weather-strip is a piece of rubber, D, that is clamped firmly between the lower edges of the weather-strip, so that when the door is closed and the projecting ends of the strip are acted upon by the recesses of the door-casing, the strip of rubber is pressed tightly on the door-sill, and keeps out thereby effectually draft and rain. As soon as the door is opened the projecting ends clear recesses of the door-casing, and admit thereby the action of the raising spring or springs, which draw back the weather-strip into the bottom recess of the door and lift it over the sill and carpet, so that the door moves readily into open position.

I am aware that it is not new for weather-strips to be held up from the thresholds of doors by springs when the door is open.

I am also aware that a vertically-operating weather-strip and supporting-spring have been combined with a reversible bolt having inclined face at inner end; also, that a door and strip have been combined with a spring having an end bracket and roll, and a cam-plate fastened to the door-frame; also, that a folded metallic clamping-strip provided with diagonal slots, rubber packing, and pin, have been combined with an offset-plate, pins and springs; but

What I claim is—

A weather-strip formed of a U-shaped piece bent around a bar, C, the latter being made to project beyond the former at each end, so as to enter inclined recesses in the jambs of the door-casing, as described.

NELSON SMITH.

Witnesses:

G. M. GREGG,

C. N. MILLER.