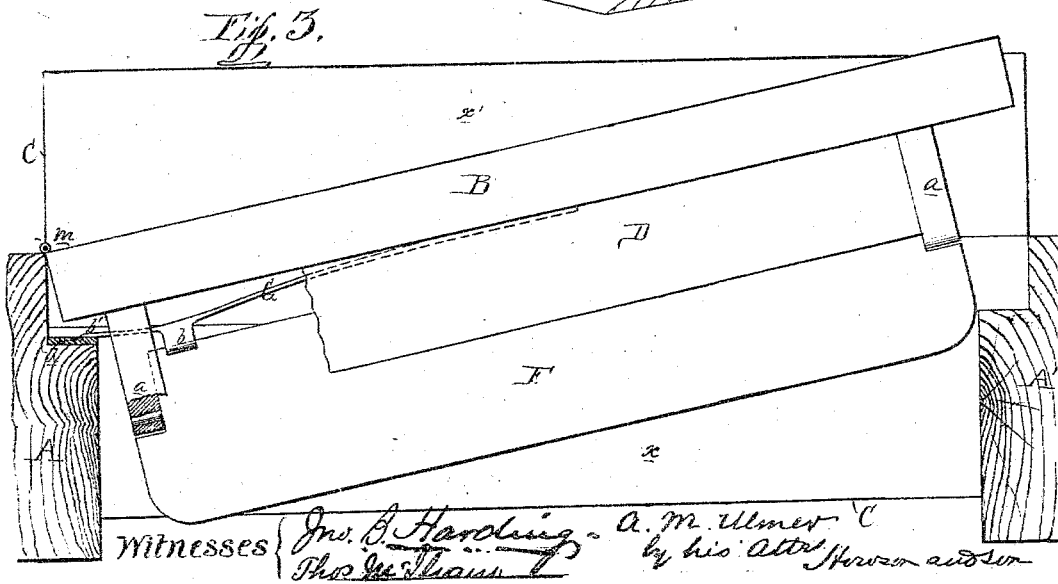
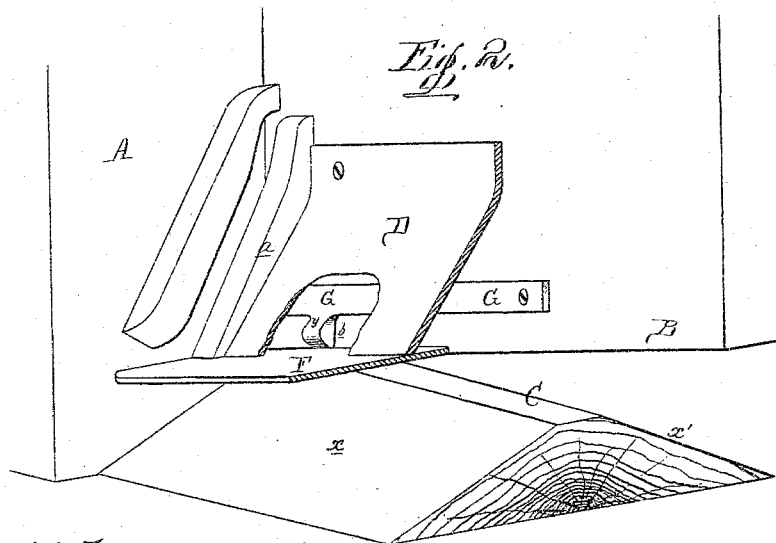
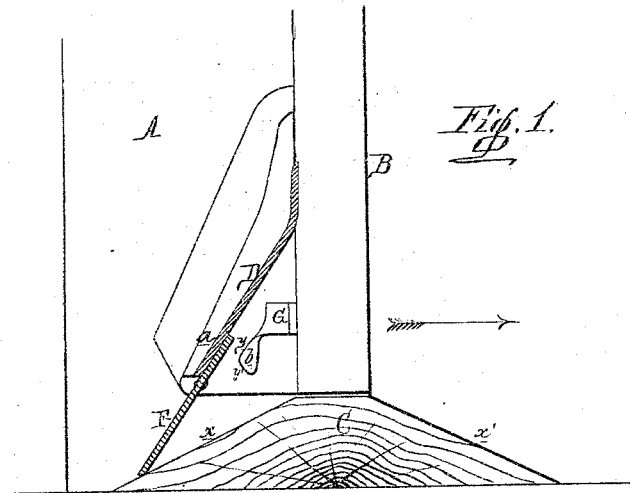


A. M. ULMER

Improvement in Weather Strips.

No. 115,545.

Patented May 30, 1871.



UNITED STATES PATENT OFFICE.

AMOS M. ULMER, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN WEATHER-STRIPS.

Specification forming part of Letters Patent No. 115,545, dated May 30, 1871.

I, AMOS M. ULMER, of Philadelphia, county of Philadelphia, State of Pennsylvania, have invented an Improvement in Weather-Strips, of which the following is a specification:

Nature and Object of the Invention.

My invention consists of a weather-strip hinged to the outside of a door, above an inclined sill or carpet-strip, and combined with a spring, as hereafter described, so that when the door is opened the said strip shall be raised by the inclined sill and caught and held in its raised position by the spring, and so that when the door is closed the said strip shall be released by the spring and be permitted to fall by its own weight onto the sill.

Description of the Accompanying Drawing.

Figure 1 is a transverse sectional view of a door and sill with my improved weather-strip; Fig. 2, a sectional perspective view of the same; and Fig. 3, a sectional plan view.

General Description.

A and A' represent the opposite sides of a door-frame; B, a door hinged to the same at *m* in the usual manner; and C, a raised and inclined sill or carpet-strip secured to the floor beneath the said door. The weather-strip is attached to the outside of the door, at the lower edge of the same, and consists of three main parts, namely, a fixed plate, D; a hinged plate, F, which forms the weather-strip proper; and a spring, G, arranged as hereafter described, to operate in conjunction with the door frame and sill to raise and release the said weather-strip. The plate D is secured at its upper edge to the door, and is inclined outward, as shown in Figs. 1 and 2, and the movable weather-strip F extends beneath the said plate D and is hinged to brackets *a a*, as best observed in Fig. 3. The hinge is so close to the rear edge of the strip that the latter, unless held up by the spring G, as hereafter described, will by its own weight fall to the inclined position shown in Fig. 1, and rest upon the inclination *x* of the sill C. The spring G is secured to the door beneath the plate D, has a double inclined projection, *b*, arranged

to act on the rear edge of the weather-strip F, and a tongue, *b'*, Fig. 3, which, when the door is closed, bears against and is pushed back by a plate, *d*, on the post A of the door-frame.

The operation of the above-described device is as follows: When the door is closed, as shown in Fig. 1, the spring G is held back of the weather-strip by reason of the pressure of its tongue *b'* against the plate *d* on the door-frame, so that the said weather-strip bears by its own weight against the sill or carpet-strip C, and remains in close contact with the latter, even if the door is slightly moved, as when shaken by the wind, &c. When the door is opened in the direction of the arrow, Fig. 1, the spring G will be released, and will move slightly toward the weather-strip, and the latter, in being drawn over the upwardly-inclined surface *x* of the sill, will be raised to the horizontal or nearly horizontal position shown in Fig. 2, its rear edge first striking the inclined portion *y* of the projection *b* of the spring, and then passing slightly beneath the latter until the inclined edge *y'* of the spring bears upon the strip, as shown in Figs. 2 and 3. The spring, when thus acted on by the strip, will perform its duty of holding up the latter until the door is again closed, when the tongue *b'* of the spring will strike and be pressed back by the plate on the door-frame, so as to release the weather-strip, the latter falling, as before, by its own weight, and not by the pressure of a spring, as in other arrangements of this class, until it rests upon the sill.

In case the weather-strip should be accidentally depressed and released from the spring when the door is opened, it would, in closing the door, be raised so as to pass over the sill by the inclined surface *x'* of the latter.

It is not absolutely necessary that the plate *d* should be secured to the post A of the door-frame, as it may be arranged on the post A', against which the door is closed; provided, however, that the spring G be reversed.

Claim.

A hinged weather-strip, arranged to be raised

by an inclined door-sill, and to be caught and held in its raised position by a spring, G, when the door is opened, and to be released by the said spring so as to again fall by its own weight onto the sill, when the door is closed, all substantially as herein set forth.

In testimony whereof I have signed my name

to this specification in the presence of two subscribing witnesses.

AMOS M. ULMER.

Witnesses:

WM. A. STEEL,
HARRY SMITH.