

(No Model.)

A. M. EWERS.
WEATHER STRIP.

No. 481,229.

Patented Aug. 23, 1892.

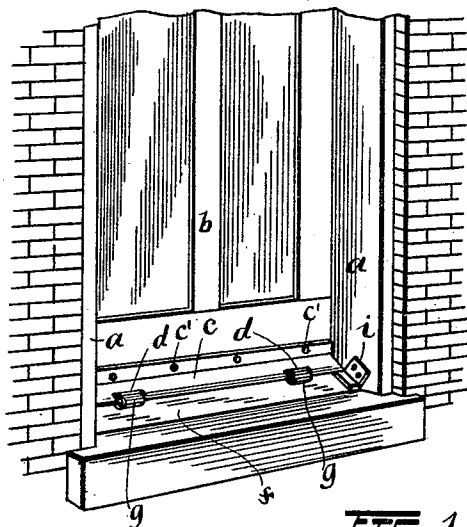


FIG. 1

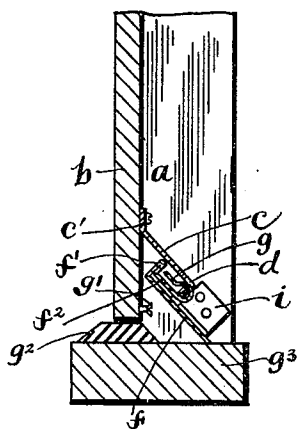


FIG. 2

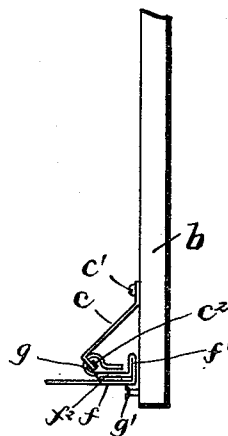


FIG. 3

Witnesses
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UNITED STATES PATENT OFFICE.

AMMON M. EWERS, OF EDISON, OHIO.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 481,229, dated August 23, 1892.

Application filed January 2, 1892. Serial No. 416,894. (No model.)

To all whom it may concern:

Be it known that I, AMMON M. EWERS, a citizen of the United States, residing at Edison, in the county of Morrow and State of Ohio, have invented a certain new and useful Improvement in Weather-Strips, of which the following is a specification.

My invention relates to the improvement of weather-strips of that class particularly adapted for use on doors.

The objects of my invention are to provide an improved weather-strip of this class of superior construction and arrangement; to provide improved means for normally supporting the hinged section above the door-sill and prevent contact of said hinged section and sill-cleat when the door is closed; to provide superior means for hinging the two strip-sections; to so construct and arrange said weather-strip sections as to prevent the entrance of water or snow, and to construct said device in a simple, neat, and inexpensive manner. These objects I accomplish in the manner illustrated in the accompanying drawings, in which—

Figure 1 is a view in perspective of a portion of a doorway, showing a closed door therein, said door having an improved weather-strip thereon. Fig. 2 is a vertical section of the same; and Fig. 3 is an edge or side elevation of a lower portion of a door, showing an end view of my improved weather-strip in the position which it occupies when the door is open.

Similar letters refer to similar parts throughout the several views.

a represents a door-frame, and *b* the door hinged therein in the usual manner. I preferably form my improved weather-strip entirely of metal, although other material may be employed, if desired.

c represents the upper weather-strip section, which, as shown, is in the form of an oblong plate, the outer portion of which is adapted to be secured by screws or otherwise, as shown at *c'*, to the lower portion of the door *b*. From the line of connection of said strip *c* with the door said section is inclined outward and downward until opposite a point slightly above the lower end of the door. The lower edge portion of the plate or section *c* is, as shown in the drawings, bent or inclined in-

ward from the body thereof to form a lip *c*², said lip being doubled upon itself to attain greater strength or rigidity. At the angle formed by the production of the lip *c*² I provide the plate *c* with two or more slotted openings, (indicated at *d*.)

f represents the lower strip-section or plate which, as hereinafter described, is jointly connected or hinged to said upper section. This lower section *f* consists of a thin metallic plate of corresponding length with the upper plate *c*, said plate having its rear portion bent upward to form throughout its length a lip *f'*, said lip portion being doubled and the overturned or doubling wing thereof being bent to extend outward from near the base of the lip, and said out-turned portion being doubled under itself and pressed firmly against the rear portion of the body of the plate *f*, as indicated at *f*².

Formed at proper intervals with the outer edge of the folded or doubled portion *f*² are upward and rearward inclined hook-shaped tongues *g*, which are adapted to loosely enter the slotted openings *d* of the plate-section *c*, and thus connect or hinge said plate-sections. Owing to the partial double and partial triple thickness of the rear portion of the plate *f*, it will readily be seen that the increased weight imparted thereto will result in the rear portion of said plate-section *f* dropping downward by gravity. In order, however, that the body of said plate-section *f* may be normally retained in a horizontal position when the door is closed, I provide one or more suitable stop-pins *g'*, which project from the outer side of the door *b* in close proximity to the lower edge thereof, said stop-pins serving, as shown in Fig. 3 of the drawings, to form rests for the weighted rear portion of the lower strip-section. Upon the inner side of one of the vertical side pieces of the door-frame *a*, near the outer face thereof, I affix one wing of an angular guide-plate *i*, the remaining wing of which projects from said door-frame and is inclined outward. In closing a door provided, as described, with my improved weather-strip the normal position of the weighted section *f* is such as to admit of said sections passing over the usual door-sill cleat *g*² without contact therewith. When, however, the outer edge of the lower plate *f*

comes in contact with the under side of the guide-plate *i*, said outer edge of the plate *f* will be deflected downward, so that when the door is closed it will be in contact with the upper face of the door-sill *g*³. As shown in Fig. 2 of the drawings, this tipping of the plate-section *f* will result in said lip *f*¹ being brought into contact with the outer plate-section *c*, thus closing the sections together and preventing any possibility of the entrance of rain or snow, which may be blown or driven beneath the upper plate.

From the construction shown it will be seen that but few parts are employed in producing my improved strip, and that the same may be constructed in a simple and inexpensive manner. It will also be seen that the peculiar formation of the rear portion of the lower strip-section is such as to provide a weight for said strip-section and thus obviate the necessity of employing springs, as has been done heretofore in this class of weather-strips. The construction of my improved weather-strip further admits of said strip being readily attached to or detached from the door when desired.

Having now described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a weather-strip, the combination, with the inclined section *c*, adapted to be rigidly

connected with the door, as described, a lip *c*² on said section *c* and slotted openings *d* therein, of the lower strip-section *f*, having an upturned lip on its rear portion adapted when its body is inclined to meet the under side of the plate *c*, said plate *f* having its rear portion doubled, as described, and hinge-tongues *g*, formed integral with said doubled portion and engaging with said slotted openings *d* of the section *c*, substantially as and for the purpose specified.

2. In a weather-strip, the combination, with the inclined section *c*, adapted to be rigidly connected with the door, as described, a lip *c*² on said section *c* and slotted openings *d* therein, of the lower strip-section *f*, having an upturned lip on its rear portion, adapted when its body is inclined to meet the under side of the plate *c*, said plate *f* having its rear portion doubled, as described, one or more stop-pins *g*¹, adapted to form a rest for the rear portion of said plate *f*, and hinge-tongues *g*, formed integral with said doubled portion and engaging with the slotted openings *d* of the section *c*, substantially as and for the purpose specified.

AMMON M. EWERS.

In presence of—

J. G. MILES,
I. T. McLAIN.