(No Model.)

D. E. VANVACTOR.

WEATHER STRIP.

No. 524,427. Patented Aug. 14, 1894.

Fig. 1.

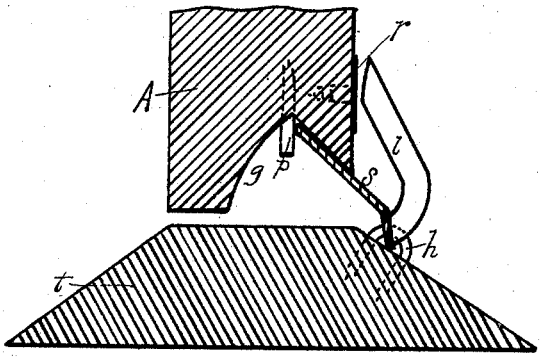
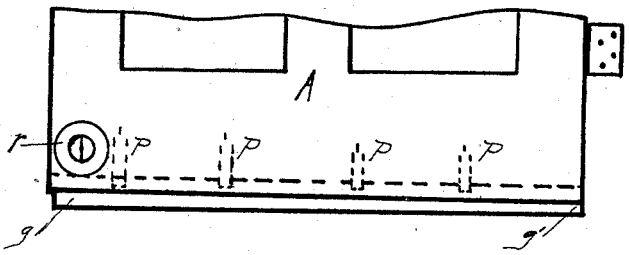


Fig. 2.



Witnesses.

R. C. Williss

L. J. Hess

Inventor.

David E. Vanvactor

UNITED STATES PATENT OFFICE.

DAVID E. VANVACTOR, OF ARGOS, INDIANA.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 524,427, dated August 14, 1894.

Application filed February 12, 1894. Serial No. 499,849. (No model.)

To all whom it may concern:

Be it known that I, DAVID E. VANVACTOR, a citizen of the United States, residing at Argos, in the county of Marshall and State of Indiana, have invented a new and useful Improvement in Weather-Strips, of which the following is a specification.

My invention relates to that class of weather strips in which a metallic plate is hinged to the threshold by one of its edges so that it may lie flat when the door is open and have the free edge raised into a groove in the bottom of the door when it is closed for the purpose of excluding rain, snow, dust and air from the house at the joint between the door and the threshold. This arrangement is secured by a tilting-arm fastened to the end of the strip corresponding to the latch side of the door which lifts the free edge of the strip by contact with the closing door to such a point as to be engaged by spurs, projecting from the groove in the lower edge of the door, which raise and hold it tight against the outer lip of the groove as hereinafter more fully described.

Figure 1 of the drawings is a cross-section of the lower part of a door and threshold showing my invention applied. Fig. 2, is a perspective view of the lower part of the door viewed from the outside showing the groove cut deeper at the latch-side of the door.

Referring to the drawings A represents an ordinary door, of a dwelling-house, with groove, *g*, in its lower edge which is provided with two or more spurs, *p*, the number and distance apart to be determined by the width of the door. The spurs, *p*, consist of headless nails driven into the door along the line of the deepest cut of the groove and to project farthest at the latch-side of the door and to diminish in projection toward the hinge-side, and none to be driven close to the hinge-side, as the relative movement of that part of the door is much less than the latch-side, it is evident they would interfere with the edge of the strip, *s*, when raised by the arm, *b*. A rub-plate, *r*, is secured to the door on the latch-side to prevent the tilting-arm from wearing the door at point of contact.

s is a metallic strip, of the same length as the opening for the door, which is bent its whole length to conform to the contour of the threshold, *t*, to which it is hinged by staples, *h*. It is provided with a tilting-arm, *l*, fastened to that end corresponding to the latch-side of the door.

When the door is closed the rub-plate, *r*, strikes the tilting-arm, *l*, which raises the loose edge of the strip, *s*, to where the spurs, *p*, engage it and raise it into the grooves, *g*, and hold it tight against the outer lip of groove, *g*, which is cut at such an angle that contact takes place at the extreme outer edge or sharp angle of the lip making a close joint at that point and also acting as a fulcrum for forcing the lower hinged edge of the strip, *s*, close to the beveled face of the threshold, *t*, and making a tight joint there. The groove, *g*, is cut slightly deeper at the hinge-side, as shown in Fig. 2, so that when the strip, *s*, is raised in closing the door contact between the strip, *s*, and the outer lip of the groove, *g*, takes place first at the hinge-side, *g'*, and is forced into contact the full length of the groove, *g*, by the spurs, *p*. This insures a tight joint at the hinge-side, by the spring of the strip, *s*, where no spurs can be used for the reasons hereinbefore set forth. When the door is opened the strip, *s*, falls to a lowered position on top of the threshold and protects it from wear.

I am aware that other weather strips have been constructed and used having a metallic strip hinged to the threshold and raised into a groove in the bottom edge of the door by the act of closing it and do not claim this broadly, but

What I do claim as new, and wish to secure by Letters Patent, is—

In combination with metallic strip, *s*, bent to conform to the contour of threshold, *t*, hinged thereto with staples, *h*, having tilting-arm, *l*, a door having a groove, *g*, cut into its lower edge slightly deeper at the latch-side and having spurs, *p*, driven therein along the line of the deepest portion of groove, *g*, projecting farthest at latch-side and diminishing in projection toward the hinge-side, all substantially and for the purpose set forth.

In testimony whereof I hereto affix my signature.

DAVID E. VANVACTOR.

Witnesses:
R. C. O'BLENIS,
L. J. HESS.