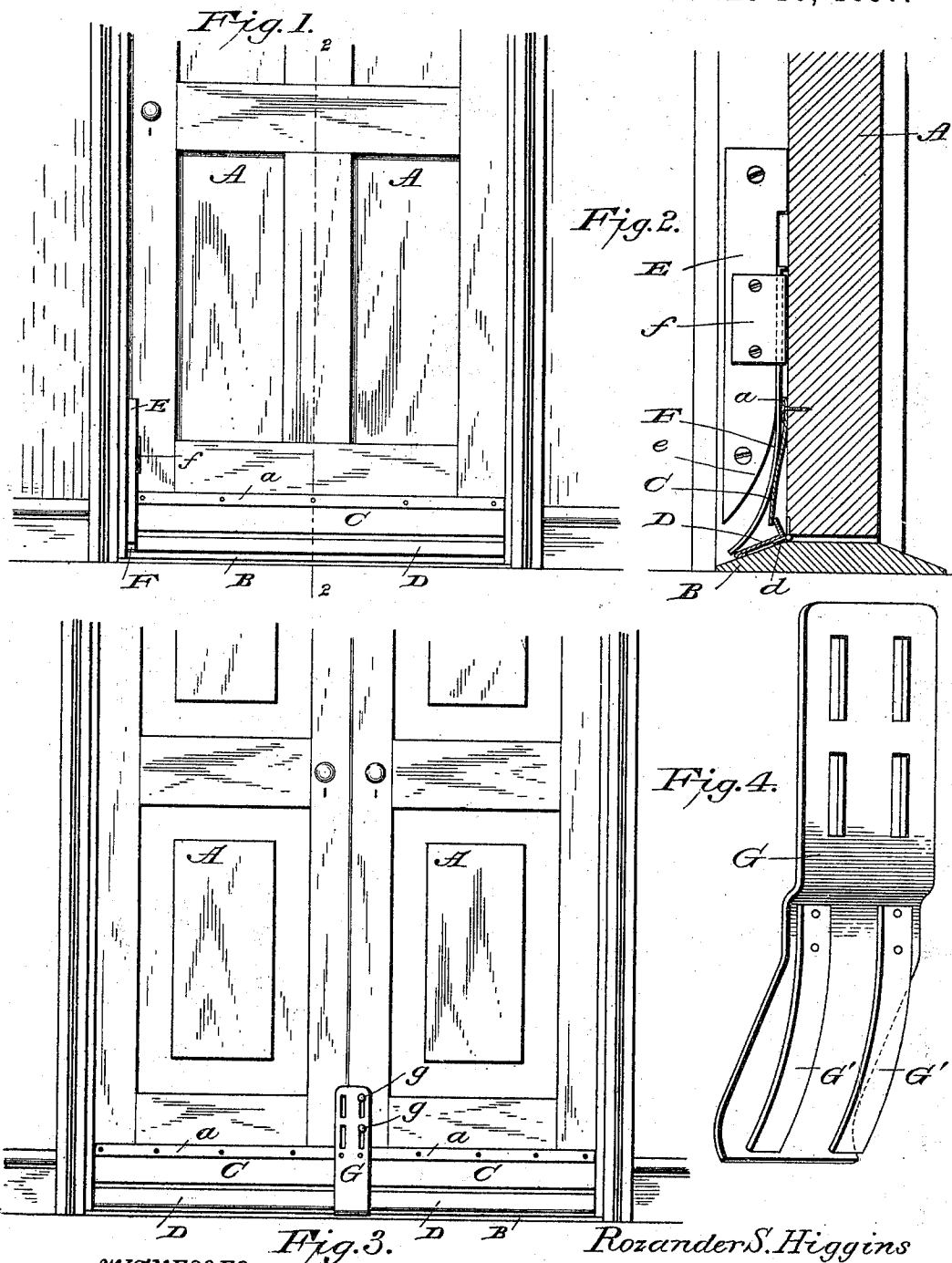


(No Model)

R. S. HIGGINS.
WEATHER STRIP FOR DOORS.

No. 584,636.

Patented June 15, 1897.



WITNESSES
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WEATHER-STRIP FOR DOORS.

SPECIFICATION forming part of Letters Patent No. 584,636, dated June 15, 1897.

Application filed January 25, 1897. Serial No. 620,553. (No model.)

To all whom it may concern:

Be it known that I, ROZANDER S. HIGGINS, a citizen of the United States of America, residing at Neoga, in the county of Cumberland and State of Illinois, have invented certain new and useful Improvements in Weather-Strips for Doors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to an improvement in weather-strips for doors, and is applicable to both single and double doors.

The object in view is to provide a simple and effective weather-strip which can be applied to both single and double doors without changing the sill or water-table thereof or in any way altering the configuration of the door-frame; also, to provide means for holding the strip which engages with the sill raised when the door is opened as well as when the use of said strip is unnecessary.

A further object of my invention is to provide means for forcing the strip upon the sill with such pressure as may be desired and in providing an effective spring-stop for the door.

My invention consists in the combination, with a swinging door which carries a resilient plate which engages with an angular strip hinged to the lower edge of the door to effect the elevation of the projecting portion of said hinged strip, of an adjustable spring-bar against which the projecting portion of the hinged strip abuts to force the same upon the sill or water-table.

The invention further consists in the combination, with the normally-raised strip, of a vertically-adjustable spring, with which the strip engages to effect contact of the same with the sill, as will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a front elevation showing the application of my invention to a single door; Fig. 2, a vertical section; Fig. 3, a front elevation showing the application to double doors, and Fig.

4 a perspective view of an adjustable stop which is attached to one of said doors.

In the accompanying drawings, A refers to the door or doors which are hinged to the door-frame in the usual manner, and at the base of the door-frame is a sill, water-table, or threshold B of the ordinary type.

To the door or doors A, I attach, by means of a transverse strip *a* and fasteners, as screws, a plate C of resilient sheet metal, which extends nearly to the lower edge of the door, the spring tendency of said plate being toward the door.

D refers to an angle-strip which is attached to the lower edge of the door by hinges *d*, the leaves thereof being secured to the door and to the outwardly-projecting part of the angular strip D. The outer edge of the strip D is bent back upon itself to provide a roll which gives great rigidity to said strip as well as a finish to the exposed edge. The lower edge of the plate C bears upon the upwardly-projecting portion of the angular strip and by its spring-pressure holds the same against the door, so that the part having the rolled edge will be normally maintained in a horizontal position and will be out of contact with the sill.

In order to effect the depression of the strip, I attach to the jamb of the door, preferably on the side opposite the hinges, a block E, the upper end of which is of substantially the same width as the jamb. This block has its lower end curved, as shown at *e*, and is cut away on one edge for the reception of a vertically-adjustable spring F, the upper end of which is bent outwardly at right angles, the lower portion also being bent to follow the lines of the curved lower end of the block. The lower end of said spring extends inwardly, so as to provide an elliptical portion, against which the plate on the door will abut to provide a spring-stop. The lower end of the spring will force the hinged strip upon the sill, the effectiveness and tightness of the joint being determined by the relative position of the spring F to the other parts.

The block E carries a plate *f*, which is bent to embrace the spring F and contact frictionally therewith, the upper end thereof limiting the downward movement of the spring by en-

gement with the outwardly-bent upper end of the spring, which projecting portion provides convenient means for grasping the spring to raise or lower the same.

5 When it is desired to apply my improved weather-strip to double doors, I attach to the outer edge of one of said doors, by means of bolts *g g*, a plate *G*, said plate having slots, as shown, to provide for vertically adjusting, 10 and this plate is bent outwardly and downwardly from a point about opposite the strip which secures the plate *C* to the door. The plate *G* carries springs *G' G'*, which serve the same function as the spring *F* hereinbefore 15 described; but in the former instance the spring *F* is vertically adjustable, while in the present instance the plate *G*, which carries the springs, is adjustable.

It is obvious that when the plate *G* is used 20 the door carrying said plate cannot be opened unless the plate is raised so that it will clear the sill.

When the spring *F* is employed, the block *E* acts as a guard or protector, and the plate 25 *G* answers the same purpose.

It has been hereinbefore mentioned that the springs will provide a spring-stop for the door. The construction shown also involves another function, to wit: The hinged strip may be 30 used to hold the door or doors open, and when it is desired to make such use of the strip the projecting portion is depressed sufficiently to disengage its upwardly-projecting part from the plate *C*, so that the other portion may 35 depend and engage with the floor, such contact holding the door open.

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

40 1. The combination, with a swinging door

and sill of ordinary construction, of an angular strip hinged to the door, one part thereof projecting outwardly and the other upwardly, together with a resilient plate attached to the door for engagement with the upwardly-pro- 45 jecting portion of the hinged strip, and a vertically-adjustable spring, curved at its lower end for engagement with the outwardly-projecting portion of the strip to effect the engagement thereof with the sill, and the pro- 50 jection of the resilient plate, for the purpose set forth.

2. A weather-strip for swinging doors, consisting of a transverse plate of resilient material, a strip bent at right angles and hinged 55 to the door so that one edge will be between the door and the lower edge of the plate, a block having its lower end curved; together with a vertically-adjustable spring carried by the block, said spring being bent for engagement with the angular strip, and with the 60 plate, to provide a spring-stop for the door and a weather-strip substantially as shown.

3. In a weather-strip for doors, the combination of an angular strip hinged to the door, 65 means substantially as shown for holding the portion of the strip which engages with the sill raised, of a block attached to the door-jamb, and provided with a loop or bent plate, together with a vertically-adjustable spring, 70 which is held in frictional contact with the block by said loop, substantially as shown and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ROZANDER S. HIGGINS.

Witnesses:

M. A. EWING,

W. KIRKPATRICK.