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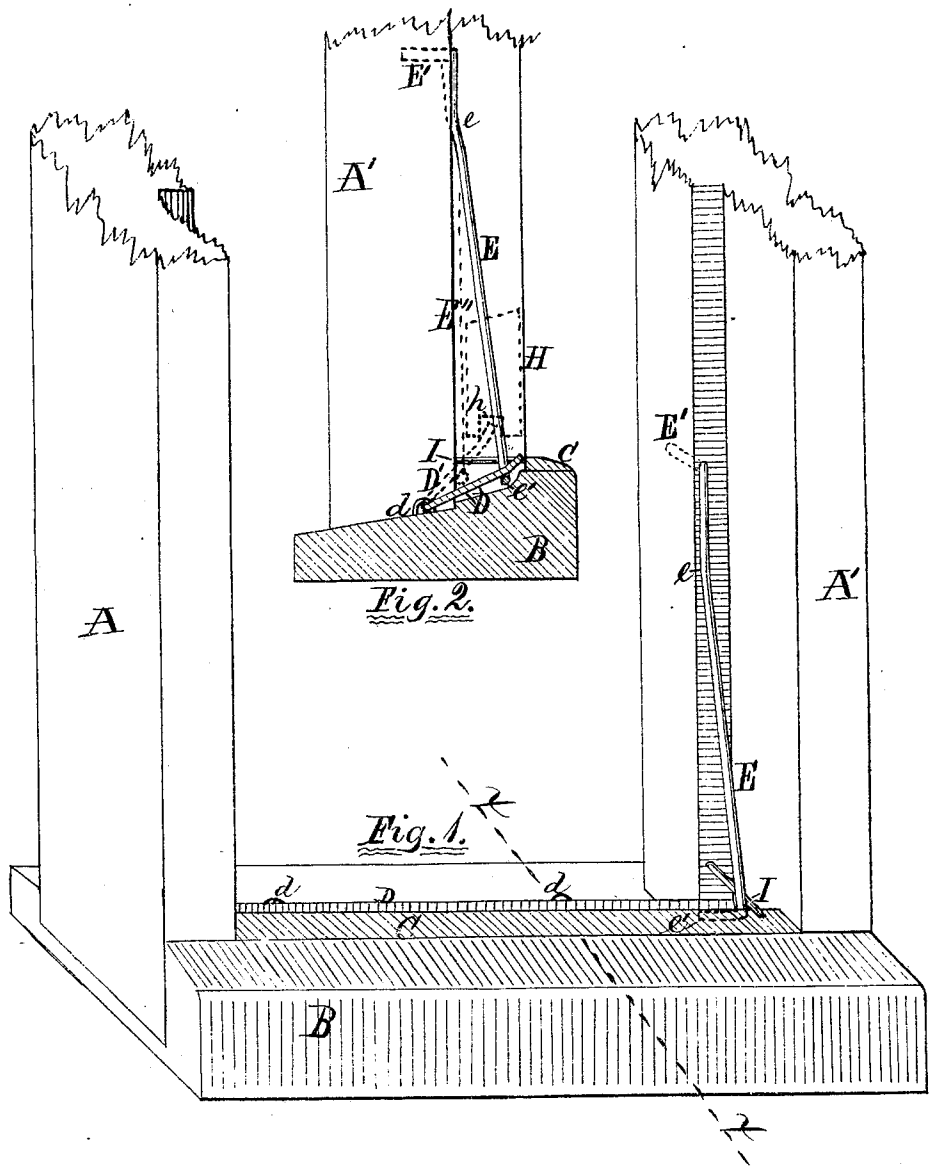
JOHN THOMSON.

Improvement in Weather Strips.

No. 121,912. Patented Dec. 12, 1871.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN THOMSON, OF ALEDO, ILLINOIS.

IMPROVEMENT IN WEATHER-STRIPS.

Specification forming part of Letters Patent No. 121,912, dated December 12, 1871.

To all whom it may concern:

Be it known that I, JOHN THOMSON, of Aledo, in the county of Mercer and State of Illinois, have invented certain Improvements in Weather-Strips for Doors, of which the following is a specification:

The nature of my invention relates to that class of weather-strips in which a metallic plate is hinged to the door-sill, one edge of which is thrown up into a recess in the bottom of the door by the act of closing it; and the invention consists in the arrangement of a spring in the rabbet of the latch-side of the door-frame, so constructed that it will raise one edge of a metallic strip hinged to the door-sill when the door is closed, all as hereinafter fully described.

Figure 1 is a perspective view of the lower part of a door-frame, showing my invention from the side to which the door opens. Fig. 2 is a cross-section of Fig. 1 on the line *x x*.

A A′ represent, respectively, the hinge-side and latch-side of an ordinary door-frame. B is the door-sill, and C the threshold-board. D is a metallic plate extending from frame A to A′, and hinged at *d d* to the door-sill B, so that its free edge falls by its own gravity and rests against the edge of the threshold-board C. E is a spring-bar, its upper end bent at right angles and driven into the frame A′, as shown by dotted lines E′, in order to secure the spring in place in the rabbet, into which the latch-side of the door shuts, in the frame A′. The spring E is bent a short distance from its upper end so as to throw its lower portion out from the door-frame A′, as plainly shown in the drawing at *e*. The lower end of the spring E is bent at right angles, as shown by dotted lines *e′* at Fig. 1, and rests beneath the free edge of the plate D when the door is open, as shown at Fig. 2. The dotted lines H show the lower part of the door when closed. *h* is a groove in the lower part of the door H. I is a stay and guide-rod for the lower end of the spring E.

The operation of my invention is as follows: The door H being open the lower end of the spring E takes its normal position, as shown by full lines at Figs. 1 and 2, and allows the plate D to drop into the slightly-inclined position shown at Fig. 2 by full lines, in which position it presents no obstacle to an unobstructed passage over it. When the door H is closed it will press the spring E into position, shown by dotted lines E″ at Fig. 2, passing into which position its lower end *e′* will impinge against the lower side of the plate D and raise its free edge into the position shown by dotted lines D′ at Fig. 2, in which position it will be plainly seen that its free edge will be pressed into the groove *h* in the lower end of the door H and form a nearly-vertical strip between the door and door-sill, which will effectually keep out rain or snow and very nearly exclude the wind. As soon as the door H is opened the spring E will again resume its normal position, and the strip D drop into the position shown by full lines at Figs 1 and 2.

I claim as my invention—

In combination with the frame A′, sill B, door H, and rod I, the spring E, secured to the frame A′ and bent into the form shown, for the purpose of operating the strip D in the manner set forth.

JOHN THOMSON.

Witnesses:

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