

(No Model.)

N. SHIDLER.
WEATHER STRIP.

No. 461,922.

Patented Oct. 27, 1891.

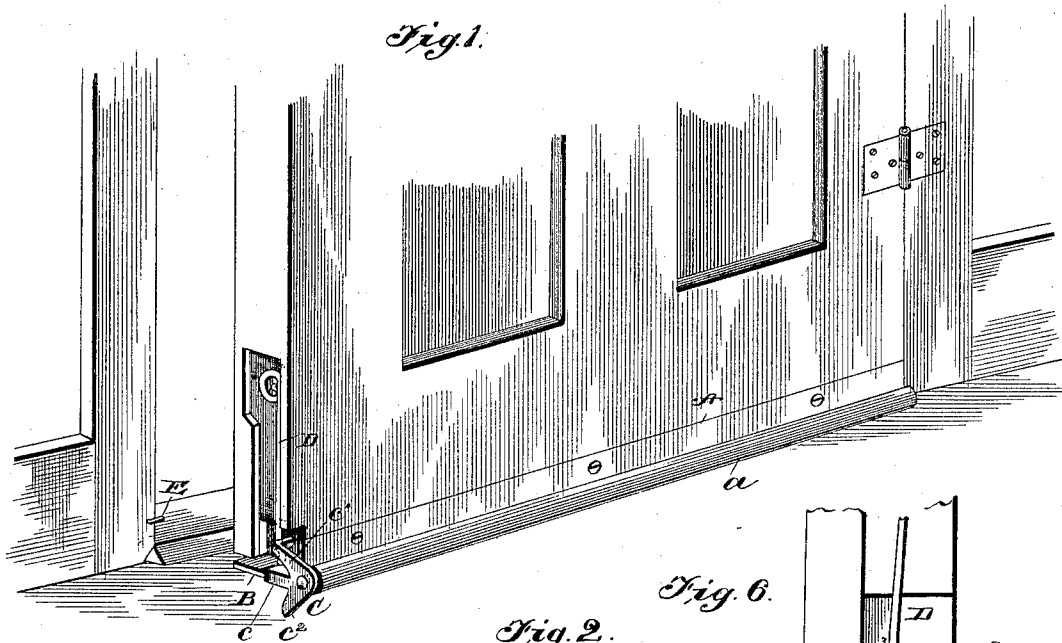


Fig. 6.

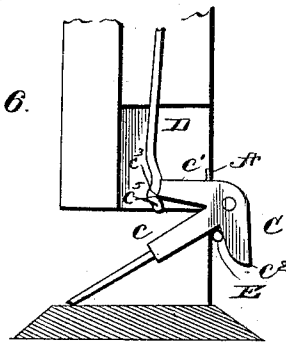


Fig. 2.

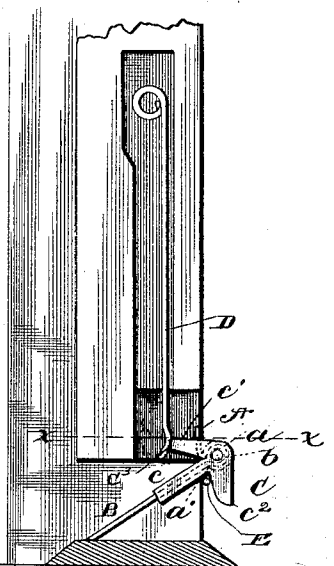


Fig. 3.

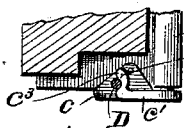
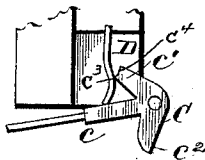


Fig. 7.

Fig. 4.

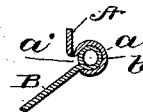
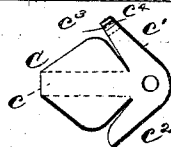


Fig. 5.



Witnesses

John D. Mure
Marcus Bellay.

Inventor

Noah Shidler

By his Attorneys

Houbday & Bliss

UNITED STATES PATENT OFFICE.

NOAH SHIDLER, OF LOUISVILLE, OHIO.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 461,922, dated October 27, 1891.

Application filed November 7, 1890. Serial No. 370,658. (No model.)

To all whom it may concern:

Be it known that I, NOAH SHIDLER, a citizen of the United States, residing at Louisville, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Weather-Strips, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to that class of weather-strips in which the strip is hinged to the bottom edge of the door and is held up by a spring when the door is opened and down when the latter is closed.

In the drawings, Figure 1 is a perspective of a door partly open, showing the strip held up by the spring. Fig. 2 is a side view, partly in section, showing the strip resting on the sill. Fig. 3 is a partial side view showing the strip raised. Fig. 4 is a section of the strip and its support. Fig. 5 shows the lever as it is stamped from the metal. Fig. 6 is a modification. Fig. 7 is a partial section on line x , Fig. 2.

The object of my invention is to provide a weather-strip which is simple and can be cheaply and easily made, and which can be attached to doors of the ordinary sort. I accomplish this result in a manner to be hereinafter set forth.

Referring to the drawings, A represents a support preferably formed of a sheet of metal and secured to the lower edge of the door, and which is shaped to have a hinge-bearing a with an open slot a' extending its entire length. The pintle or hinge portion b of the weather-strip B fits in the part a , these parts forming a hinge-joint, which permits the weather-strip to swing freely. One end of the strip B is secured by rivets, soldering, or in any suitable way to the central arm c of the lever C, which has also the arms c' c^2 . This lever is preferably stamped from sheet metal by a die into the shape shown in Fig. 5, the arm c being bent to receive the strip B. A spring D is secured to the edge of the door and bears against the arm c' and holds it in the position shown in Figs. 1 and 3, the arm c' being bent inward at the end, so as to engage with the spring D. In the door-frame is secured a pin or projection E, which en-

gages with the arms $c c^2$ of the lever C. When the door is open, the spring bearing on arm c' holds the weather-strip parallel or nearly so to the lower edge of the door. When the door is being closed the strip passes above the projection E, which engages with the arm c^2 of the lever and forces the strip down until its lower edge is resting upon the sill, where it is held by the pressure of the spring on the arm c' . On opening the door again the projection E, bearing against the arm c , forces the strip B up into its normal position. (Shown in Fig. 1.) It will be seen that I provide the strip with but a single spring, which acts to hold it in either of its two positions, there being two stops for the spring, one to engage with it when the strip is down and one when it is up. These stops are provided by the arms c and c' , which are, as aforesaid, mounted on and swinging with the door. There is a socket or groove c^4 in the arm c' , (see Figs. 3 and 7,) in which the curved portion of the spring seats itself when the spring is down, and holds said strip stationarily in place. The other stop is provided by the arm c , which abuts against the end of the spring D when the strip is up, the latter being held up by the pressure of the spring against the grooved edge c^3 of arm c' . (See Fig. 5.) In Fig. 6 the stops are substantially the same, except that to assist the spring in seating itself in the proper position in the groove c^4 there is a bent portion c^5 of the spring, against which the lower edge of the arm c' abuts when the strip is down.

What I claim is—

1. The combination of the door, the support A, secured to the lower edge of the door and having the continuous unbroken cylindrical portion a , the weather-strip B, having the cylindrical portion b , adapted to fit in said portion a , the lever C, having the arms $c c' c^2$, and the pin or projection E, secured to the door-frame and adapted to engage with two arms of the lever C, substantially as set forth.

2. The combination of the door, the support A, secured to the lower edge of the door, the strip B, hinged to said support A, the lever C, secured to one end of the strip B and having the arms $c' c^2$, and the spring D, adapted to

bear against the lever and hold the strip B in either of two positions, substantially as set forth.

3. The combination of the swinging weather-strip with the door, the spring adapted to hold the strip in two positions, and the two stops carried by the door and adapted to bear alternately against said spring, one when the strip is in one of said positions and the other

when it is in the other position, substantially as set forth.

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

NOAH SHIDLER.

Witnesses:

OZIAS CLARK,
AMOS RINEHART.