H. DIERKES & H. BUSSMANN.

Improvement in Weather-Strips.

No. 131,430. Patented Sep. 17, 1872.

Fig. 1.

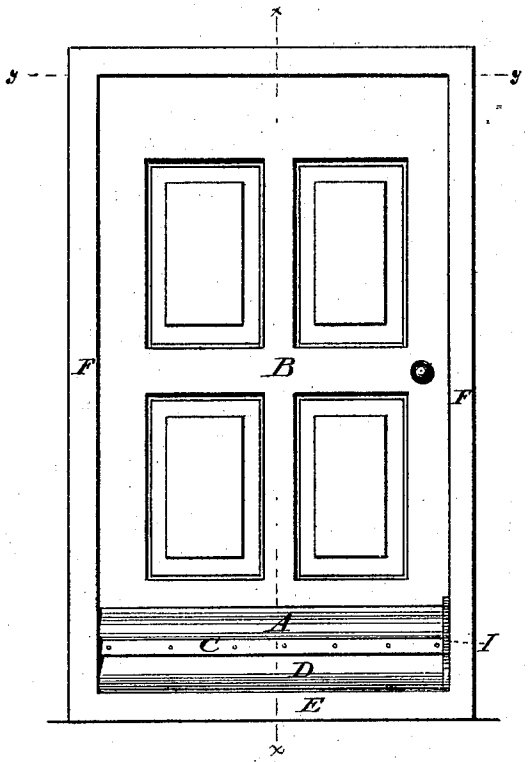


Fig. 2.

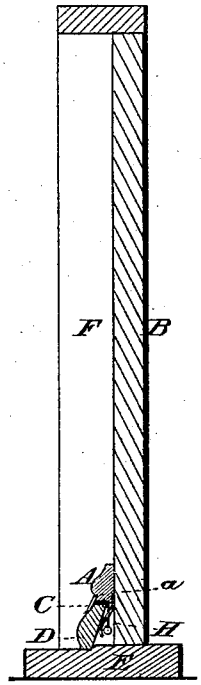


Fig. 3.

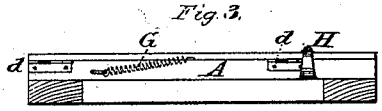


Fig. 4.

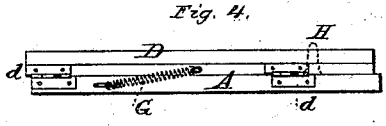


Fig. 5.

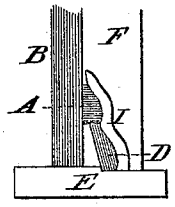
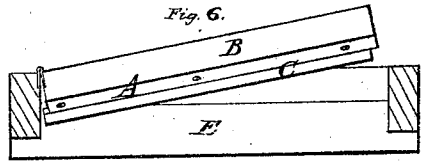


Fig. 6.



Witnesses.

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UNITED STATES PATENT OFFICE.

HENRY DIERKES AND HERMANN BUSSMANN, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN WEATHER-STRIPS.

Specification forming part of Letters Patent No. **131,430**, dated September 17, 1872.

To all whom it may concern:

Be it known that we, HENRY DIERKES and HERMANN BUSSMANN, of Syracuse, in the county of Onondaga and in the State of New York, have invented certain new and useful Improvements in Weather-Strips; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a front elevation of a door having attached to its lower edge our improved device. Fig. 2 is a vertical central section of the same on the line *x x* of Fig. 1. Fig. 3 is a plan view of the lower edge of the door with the hinged portion of the weather-strip removed. Fig. 4 is a plan view of the lower side of said weather-strip complete and detached from the door. Fig. 5 is a partial edge view of the door as closed, showing the weather-strip and its closing stop; and Fig. 6 is a plan view of the door swung partially open, with the frame removed, upon the line *y y* of Fig. 1.

Letters of like name and kind refer to like parts in each of the figures.

Our invention is an improvement upon a weather-strip for which application for Letters Patent was filed October 16, 1871; and it consists in the combination of sliding hinges with the vertical swinging portion of the device, substantially as and for the purpose hereinafter specified.

In the annexed drawing, A represents a strip of wood or other suitable material having the form in transverse section shown in Figs. 2 and 5, and so secured to or upon the outer face and near the lower edge of a door, B, as that its fluted portion shall be uppermost and its rabbeted portion in front and downward. Within the rabbet *a*, or upon its nearly vertical face, is secured a strip of metal, C, which corresponds in length to the length of the strip A, and extends downward somewhat below the lower edge of the same. Hinged to or upon the lower front edge of the strip A is a second strip of wood, D, having the form shown in Figs. 2 and 3, which extends downward and forward, so as to bring its lower edge upon a line horizontally with the lower edge of the door and cause it to pass immediately over the sill E whenever said door is closed. In length the hinged strip D corresponds to the length of the fixed strip A, and each to the space between the upright portions F of the frame; but in order that said hinged strip may conform to the varying relative positions of said frame and door as the latter is opened or closed, the hinges *d* are so constructed as to permit their leaves to move a certain distance longitudinally upon their axial rods, by which means a corresponding movement of said hinged strip is obtained. A spiral spring, G, having its ends connected to or with the fixed and hinged strips, draws the latter longitudinally toward the hinged edge of the door, while a flat spring, H, attached to said fixed strip and extending downward and forward, with its free end bearing against the rear side of said hinged strip, presses the latter forward and upward.

As thus constructed the operation of the device is as follows: Upon closing the door the inner end of the hinged strip strikes against the corresponding jamb and is forced endwise upon its hinges until its opposite end passes within its jamb, after which a stop I, seen in Fig. 5, arrests the forward movement of said strip and forces it downward until its lower edge rests upon the outer or lower portion of the sill, by which means the space between the lower edge of the door and the sill is closed and the inward passage of air or water effectually prevented.

The especial advantages obtained by this attachment of the movable strip is that it enables the employment of wood instead of metal, as in the device heretofore named.

Having thus fully set forth the nature and merits of our invention, what we claim as new is—

In combination with the fixed strip A and movable strip D, the sliding hinges *d*, substantially as and for the purpose specified.

In testimony that we claim the foregoing we have hereunto set our hands this 8th day of January, 1872.

HENRY DIERKES.
HERMANN BUSSMANN.

Witnesses:
WILLIAM GILBERT,
HENRY B. WELLS.