(No Model.) 2 Sheets—Sheet 1

W. GATHANY.

AUTOMATICALLY CLOSING WEATHER STRIP FOR DOORS.

No. 566,162. Patented Aug. 18, 1896.

Fig. 1.

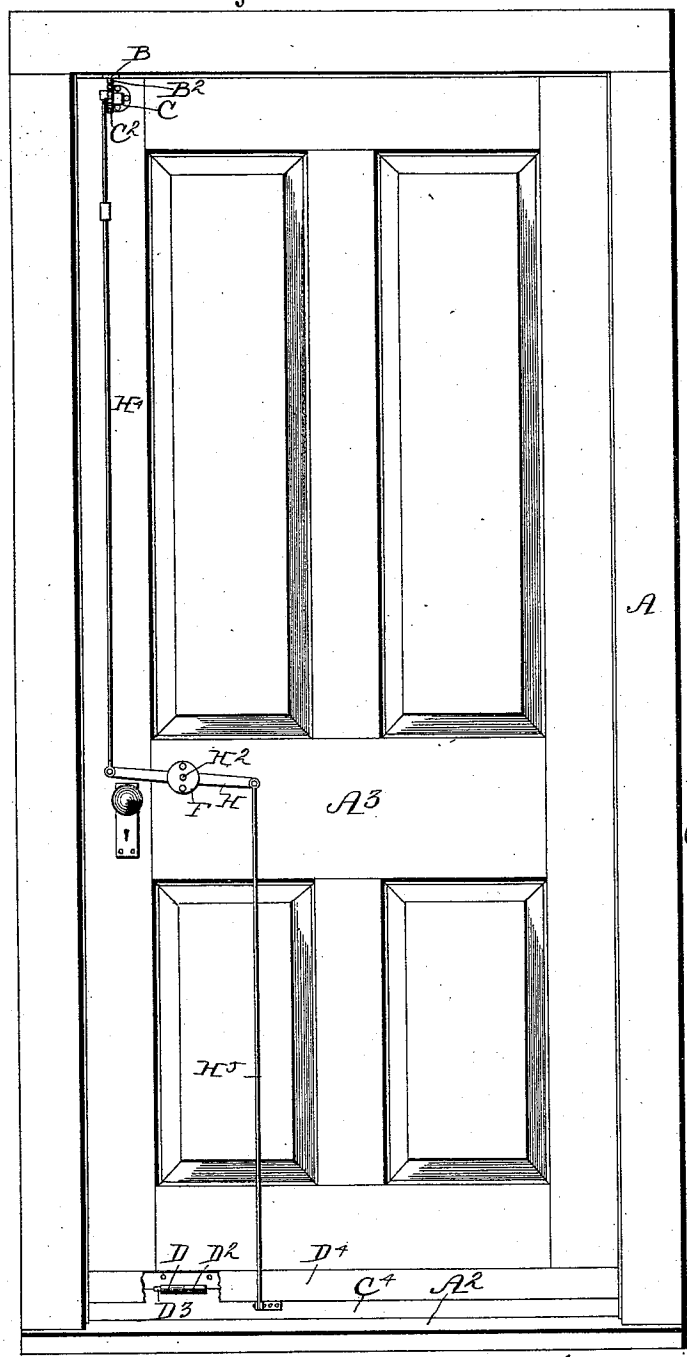


Fig. 2.

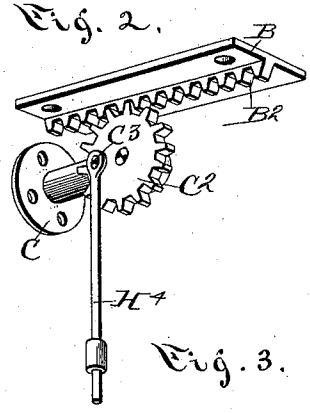


Fig. 3.

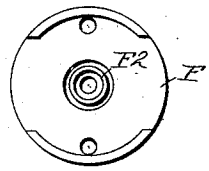


Fig. 4.

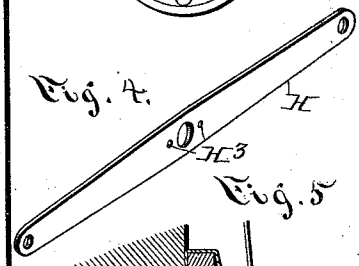


Fig. 5

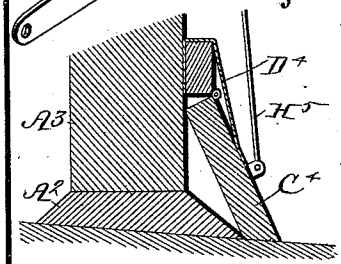
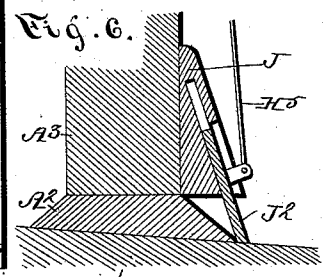


Fig. 6.



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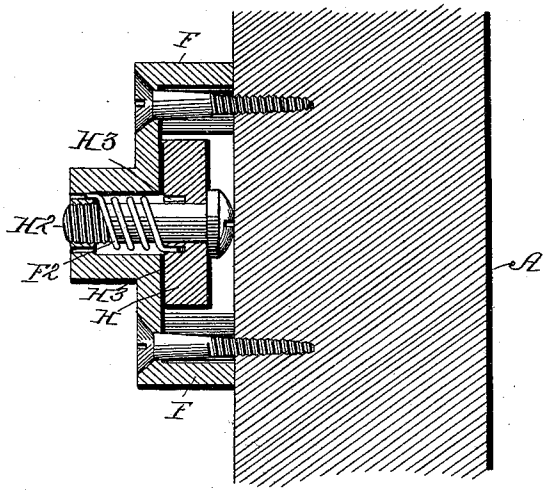
(No Model.) 2 Sheets—Sheet 2.

W. GATHANY.

AUTOMATICALLY CLOSING WEATHER STRIP FOR DOORS.

No. 566,162. Patented Aug. 18, 1896.

Fig. 7.



Witnesses:
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UNITED STATES PATENT OFFICE.

WILLIAM GATHANY, OF CHURDAN, IOWA.

AUTOMATICALLY-CLOSING WEATHER-STRIP FOR DOORS.

SPECIFICATION forming part of Letters Patent No. 566,162, dated August 18, 1896.

Application filed April 13, 1895. Serial No. 545,662. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GATHANY, a citizen of the United States of America, residing at Churdan, in the county of Greene and State of Iowa, have invented an Improved Automatically-Closing Weather-Strip for Doors, of which the following is a specification.

The object of this invention is to provide a simple, strong, and durable weather-strip to be attached to the exterior of a storm or other door and to provide positively-actuated means whereby a weather-strip may be automatically made to overlap the threshold when the door is closed and the strip elevated when the door is opened, so as not to interfere with the movement of the door and at the same time provide a strip that will tightly close the spaces between the door and threshold, even though the threshold should be worn near its central portion.

My invention consists in certain details in the construction, arrangement, and combination of the various parts of the device, as hereinafter set forth, pointed out in my claim, and illustrated in the accompanying drawings, in which—

Figure 1 is a front view of a door having the devices applied thereto as in practical use. Fig. 2 is a perspective view of the device for operating the strips when the door is moved. Fig. 3 is a detail view of the device for normally elevating the weather-strip. Fig. 4 is a detail perspective view of the lever. Fig. 5 is a sectional view of the bottom of a door and the hinged strip connected therewith, and Fig. 6 is a like view showing a modified form of strip. Fig. 7 is a sectional view of the frame for holding the pivoted lever and accompanying parts.

Referring to the accompanying drawings, the reference-letter A is used to indicate the door-frame, A^2 the threshold, and A^3 the door, all of the ordinary construction.

B indicates a plate having a rack B^2 formed on its under surface and adapted to be secured to the under surface of the top of the door-frame.

C indicates a frame adapted to be secured to the top of a door in proximity to the rack B^2 and having a pinion C^2 pivoted therein, with a crank-pin C^3 fixed thereto.

C^4 indicates a weather-strip hinged to the lower edge of a door and adapted, when extended downwardly, to overlap the threshold of the door, so as to tightly close the door at the bottom, even though the center of the threshold is worn. The hinges are each composed of parts D and D^2, with the pintle D^3 of the one part projecting through and beyond the other, so that the strip may be moved longitudinally a slight distance. When the door is opened, the end of the strip will engage the frame of the door and be moved toward the hinged edge of the door, and when the door is closed the strip will be moved back by engaging the door-frame.

D^4 indicates a piece of oilcloth or other fabric with one edge secured between the weather-strip and door and its other end secured to the hinged part of the weather-strip, thus preventing the admission of air through the space between the two parts of the strip.

The following means are provided for pressing the strip C^4 downwardly when the door is closed:

F indicates a frame adapted to be secured to the door and having an annular depression in its central portion, a central screw-threaded opening, and a smaller opening close to the central opening. F^2 is a coil-spring placed in said depression and having an end in said smaller opening.

H indicates a lever having a central opening whereby it may be connected with the frame by a screw H^2, and also two smaller openings H^3, adapted to admit one end of said spring. Providing two of said openings permits the same lever to be used on doors opening either way. It is obvious that this spring will normally elevate the strip D. This lever is connected with the crank-pin C^3 by means of a rod H^4 and so arranged that when the door is opened the rod will be pushed downwardly. A rod H^5 connects the opposite end of the lever with the strip C^4.

In the modified form shown in Fig. 5 a strip J is attached to bottom of the door and is provided with a groove adapted to admit a sliding strip J^2 and projects outwardly

through a slot in the strip J. When extended downwardly, this strip J overlaps the threshold, and when drawn upwardly will clear the same and permit the door to be opened or closed.

I claim as my invention—

An automatic weather-strip for doors, comprising a weather-strip connected with the bottom of a door and capable of overlapping the exterior of a threshold and of being elevated to pass over the threshold, a frame secured to the outer surface of a door and having a recess therein to receive a spring and an opening to admit one end of a spring, a lever fulcrumed in said frame and having an opening on each side of its pivotal point, a spring in said recess having one end in the opening in the frame and the other in one of the openings in the lever, a rod connecting one end of the lever with the weather-strip, a rack secured to the door-frame at its top or sides, a pinion mounted on the door to engage the rack, and a rod connecting the pinion and the opposite end of the lever, substantially as and for the purposes stated.

WILLIAM GATHANY.

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