

(No Model.)

R. H. CUTLER.
WEATHER STRIP.

No. 508,504.

Patented Nov. 14, 1893.

Fig. 1.

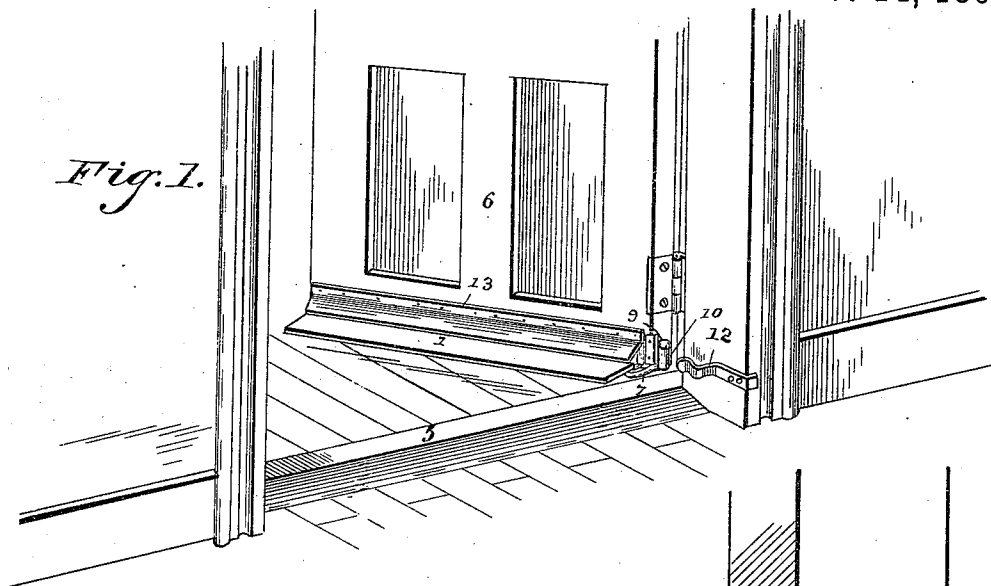


Fig. 2.

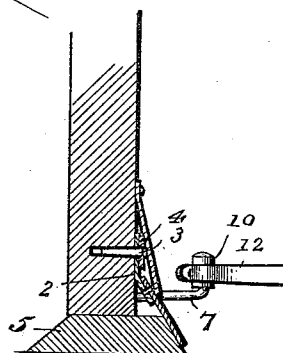


Fig. 3.

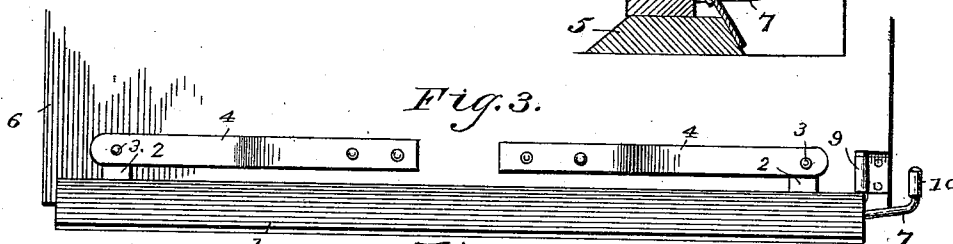


Fig. 4.

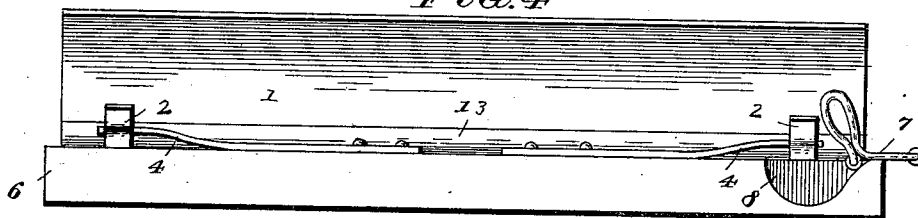
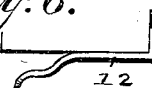
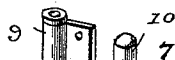


Fig. 5.

Fig. 6.



Witnesses

J. Ulke
N. H. Piley

By his Attorneys.

Richard H. Cutler,

CA Snow & Co.

UNITED STATES PATENT OFFICE.

RICHARD H. CUTLER, OF LANCASTER, IOWA, ASSIGNOR OF ONE-HALF TO
CHARLES MCKINNIS, OF SAME PLACE.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 508,504, dated November 14, 1893.

Application filed May 22, 1893. Serial No. 475,017. (No model.)

To all whom it may concern:

Be it known that I, RICHARD H. CUTLER, a citizen of the United States, residing at Lancaster, in the county of Keokuk and State of Iowa, have invented a new and useful Weather-Strip, of which the following is a specification.

The invention relates to improvements in weather strips.

10 The object of the present invention is to improve the construction of hinged weather strips, and to provide an efficient one which will be held elevated above the sill and out of contact with the floor when the door to
15 which it is applied is opened, and which will be automatically dropped upon the sill when the door is closed.

20 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended.

25 In the drawings—Figure 1 is a perspective view of a weather strip constructed in accordance with this invention and shown applied to a door, the latter being partially open to show the weather strip elevated. Fig. 2 is a vertical sectional view, the door being closed. Fig. 3 is an elevation of the lower portion of
30 the door the guard strip being removed to show the arrangement of the springs. Fig. 4 is a reverse plan view. Fig. 5 is a detail perspective view of the bell-crank lever. Fig. 6 is a plan view of the guide.

35 Like numerals of reference indicate corresponding parts in all the figures of the drawings.

1 designates a weather strip, constructed of any suitable material and secured to the lower
40 portions of angle plates 2, which have perforations, and which receive supporting pins 3 of springs 4. The angle plates, when the door is closed, have their upper portions resting flat against the outer face of the door, and
45 their lower portions inclined at an angle to hold the weather strip in proper position upon the sill 5 of the door 6. The supporting pins 3 are arranged horizontally in sockets of the door; and the springs to which the pins are
50 secured are disposed horizontally on the door, and have their inner ends secured thereto,

and their outer ends free and engaging the upper portions of the angle plates. This construction forms a sufficient hinge connection to enable the weatherstrip 1 to swing upward
55 when the door is open.

The weather strip is forced upward against the action of the springs and maintained in that position to carry it clear of any obstructions by a bell-crank lever 7 disposed horizontally at the bottom of the door and having
60 one arm extending beneath the door, which is provided with a recess 8, and its other arm arranged to engage the adjacent door jamb, when the door is closed, to disengage its other
65 arm from the weatherstrip to permit the latter to fall upon the sill. The bell-crank lever is provided at its angle with a vertical pivot 9; and its door jamb engaging arm is provided with a vertical spindle extension, on
70 which is journaled a roller 10 to enable it to engage the door jamb without friction. When the door is being opened the roller of the bell-crank lever engages an angularly disposed
75 guide 12, which is secured to the door frame, whereby the roller 10 is held to roll against the jamb, and the bell-crank lever is turned on its pivot to swing its weather strip
engaging arm outward to lift the weather
80 strip and to form a support for the same until the door is closed, when the support will be withdrawn by reason of the roller coming in contact with the door frame.

The upper edge of the weather strip and the hinged connections are covered and protected by a guard strip 13. The outer end of
85 the angularly disposed guard 12, which consists of a bent plate, is curved outward to enable the door to be closed without the guard strip coming in contact with it.
90

It will be seen that the weather strip is simple and comparatively inexpensive in construction and efficient in operation, and that it is automatically raised and lowered as the
95 door is opened and closed.

Changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the details of this invention.

What I claim is—

1. The combination with a door and its frame, of a weather strip hingedly connected
100

with the door, and a bell-crank lever pivoted on the door in a plane at right angles to the hinging of the strip and arranged beneath the weather strip and having one arm to engage the same for supporting the weather strip in an elevated position, and having its other arm extended outward to engage the door frame to disengage the lever from the weather strip, and a guide arranged to engage the bell-crank lever while the door is being opened, substantially as described.

2. The combination with a door and its frame, of a weather strip hingedly connected thereto, a bell-crank lever pivoted on the door in a plane at right angles to the hinging of the strip and arranged beneath the weather strip, and having one arm to engage the same and provided at the outer end of its other arm with a vertical roller for engaging the door frame, and a guide secured to the door frame and arranged to engage the roller while the door is being opened, substantially as and for the purpose described.

3. The combination with a door provided with sockets, and a door-frame, of springs disposed horizontally on the door and provided with pins arranged in the sockets, a weather strip, and angle plates secured to the weather strip and extending upward therefrom and provided with perforations receiving the pins

and arranged between the springs and the door and engaged by the former, substantially as described.

4. The combination with a door provided with sockets, and a door frame, of a weather strip, springs disposed horizontally on the door and secured at their inner ends thereto and provided at their outer ends with inwardly extending pins located in the sockets, angle plates secured to the weather strip and extending upward therefrom and provided with perforations and arranged on the pins between the springs and the door, a bell-crank lever arranged beneath the weather strip and provided with a pivot and fulcrum on the door and having one arm for engaging the weather strip and provided at the outer end of its other arm with a vertical spindle, a roller journaled on the spindle, and a guide extending outward from the door frame at an angle, substantially as and for the purpose described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

RICHARD H. CUTLER.

Witnesses:

JAMES M. SWEARINGEN,
F. M. ABEL.