(No Model.)

F. FOURNIER.

WEATHER STRIP FOR DOORS OR WINDOWS.

No. 575,224. Patented Jan. 12, 1897.

Fig. 1.

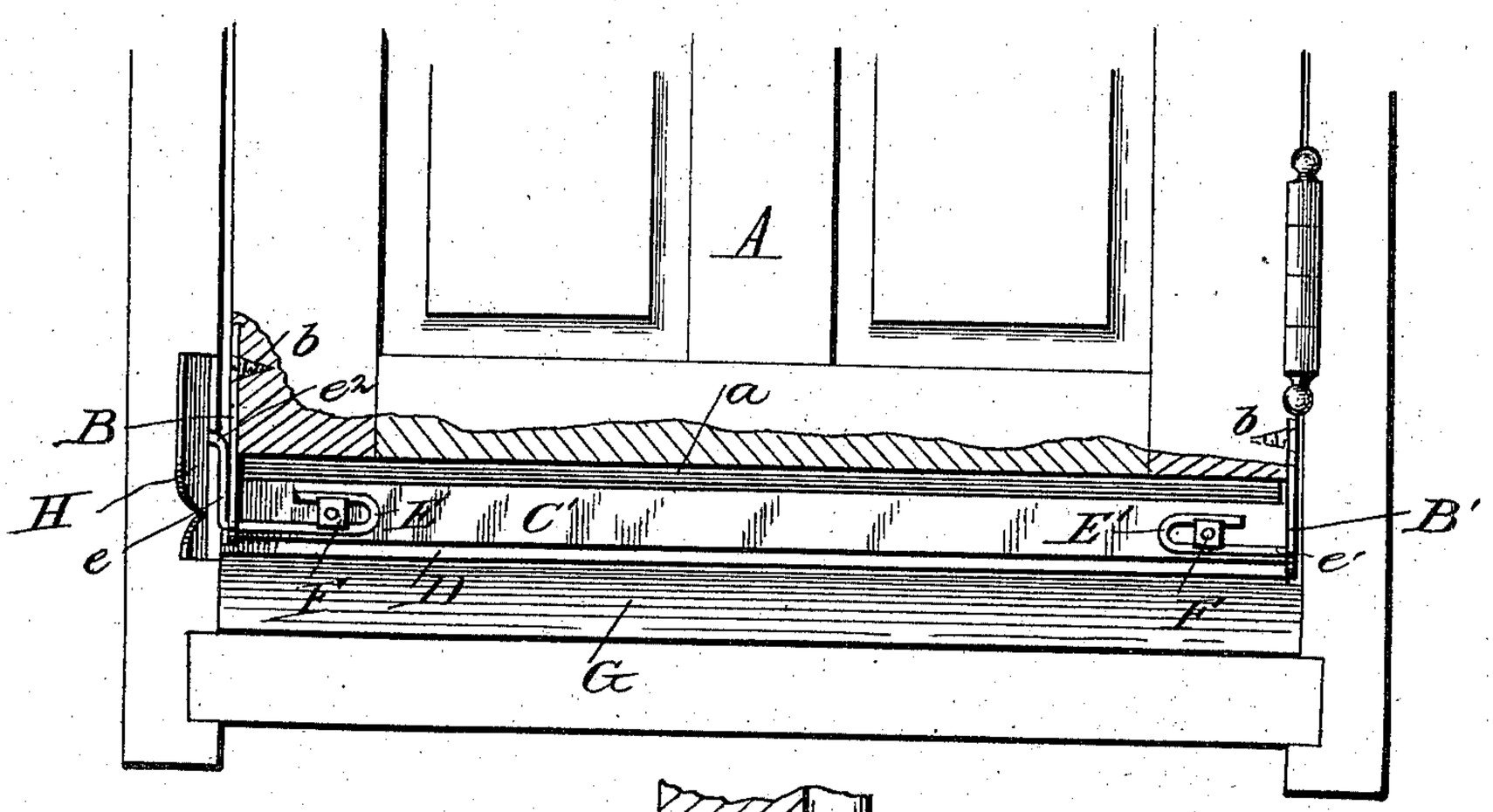


Fig. 2

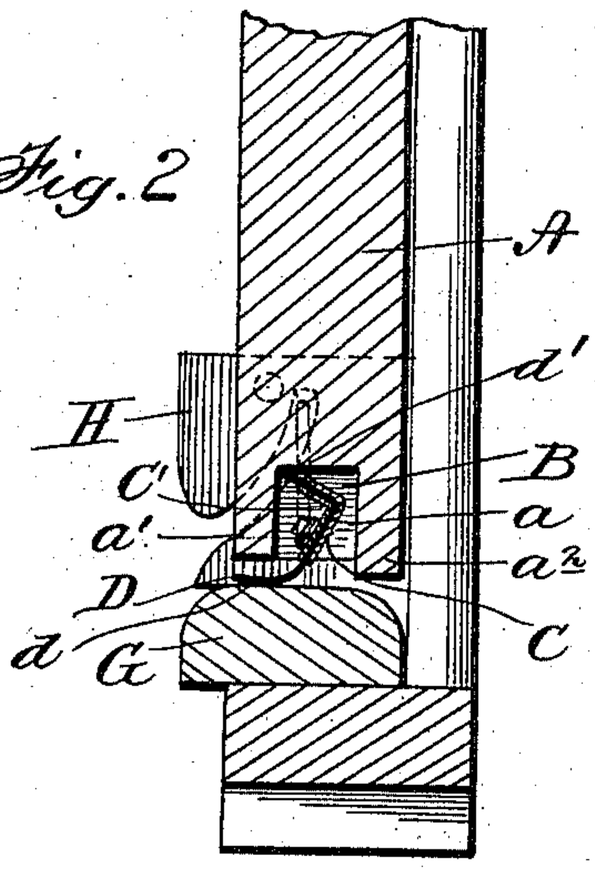


Fig. 4

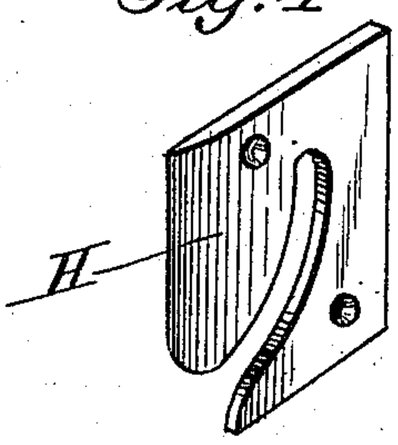


Fig. 5

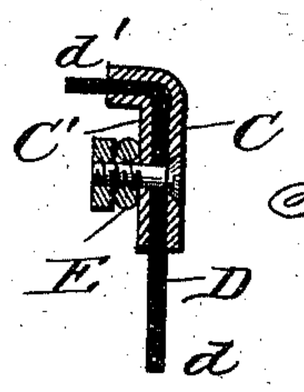
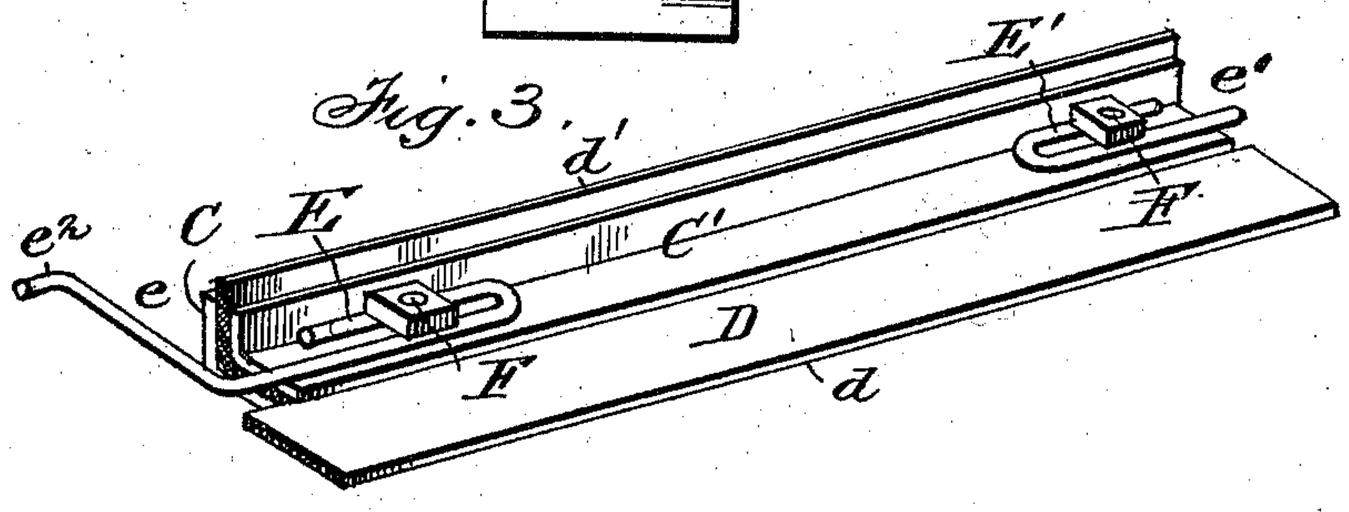


Fig. 3.



Witnesses:
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Attorney.

UNITED STATES PATENT OFFICE.

FREDERICK FOURNIER, OF CHICAGO, ILLINOIS.

WEATHER-STRIP FOR DOORS OR WINDOWS.

SPECIFICATION forming part of Letters Patent No. 575,224, dated January 12, 1897.

Application filed March 28, 1896. Serial No. 585,273. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK FOURNIER, a citizen of the United States, residing at Chicago, in the county of Cook, State of Illinois, have invented certain new and useful Improvements in Weather-Strips for Doors or Windows; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in weather-strips for doors, windows, and the like.

The invention will first be described in connection with the accompanying drawings, and then particularly pointed out in the claims.

In the drawings, Figure 1 is a detail elevation showing the lower inner portion of door broken away, having my device applied. Fig. 2 is a transverse section of the lower rail and the weather-strip device. Fig. 3 is a perspective view of the weather-strip device removed from the door. Fig. 4 is a detail elevation of the cheek-plate and guard-piece. Fig. 5 is an enlarged cross-sectional view of the weather-strip.

Referring to the drawings, A represents a portion of a door which has a rabbet or recess a in its lower edge, thus forming an outer lower portion a^2 and an inner lower portion a', the said inner lower portion being somewhat shortened, so that it does not extend downward quite so far as the outer lower portion. At the end of the recess or rabbet a and serving to close the ends of the same are plates B B', let into the door so as to be flush with the side edges of the same, the plates being secured to the edges of the door by screws b, as shown.

C C' are two angle-strips located in the rabbet a, between which strips is placed a flexible strip D, firmly held in place by the strips C C' when the latter are clamped together, as hereinafter described. The flexible strip D projects beyond the angle-strips C C', as shown at d d'.

E E' are links formed of wire and provided with projecting portions e e', forming bearings which are capable of rotation in the holes formed in the plates B B', one, E, of the links having its projecting end extended and bent to form a crank-arm e^2 for a purpose hereinafter described. The links are secured to the strips C C' and the latter are clamped together to hold the flexible strip D by means of two nuts and bolts F, which are passed through the angle-strips and flexible strip, the ends of said bolts also projecting through the openings in the links, whereby when the nuts are screwed on the links will be held in place solidly against the strips.

It will be plain from the description thus far that the angle-strips are, in fact, trunnioned in the plates B B' and are capable of rotation or oscillation in the recess, the amount of such oscillation being limited in one direction by one of the sides of the innermost angle-strip C striking against the inner portion a' of the door, and in the opposite direction by one edge of the opposite side of the other angle-strip striking against the said inner portion a'. In the latter position the portion d of the flexible strip projecting below the angle-strip will be pressed against the threshold G or sill of the door or window, while in the former position it will be swung up so as to clear the floor as the door swings in closing and opening. This is the normal position of the device, the strips being held in such normal position by the weight of the crank-arm and the angle portion of the strips, the links E E' being secured to one side of the center of the said strips.

In order to force the device out of its normal position, so that the flexible strip will press downward against the threshold or sill G, I provide a slotted cheek-plate H, secured to the side of the door-casing I at the lock side of the door, the outer margin of which is arranged to be flush with the foot-block, this cheek-plate having a curved slot extending from the projecting edge of the plate backward and upward and widened somewhat at its marginal or open end, in order to receive the extreme projecting end of the crank-arm and force the same upward as the door closes, thus swinging the angle-strips, so as to bring the flexible strip against the sill. When the flexible portion d is pressed against the threshold G, the other projecting portion d' of the flexible strip will be forced

against the inner surface of the rear wall of the recess, and will thereby prevent wind or rain from passing above the weather-strip.

By my construction when the door or window is closed it is packed tightly at the bottom edge, so that rain or wind cannot pass, yet when opened the flexible strip is raised and will clear the floor.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a door or window recessed at its lower edge, of a weather-strip pivotally secured in said recess, the same consisting of a flexible strip clamped between and projecting each way beyond a pair of angle-strips, the free edges of said flexible strip being movable, a crank-arm attached to the weather-strip at one end and extending beyond the door, and a slotted plate secured to the door or window with which the crank-arm engages to automatically throw the weather-strip into or out of engagement, substantially as described.

2. The combination, with a door or window recessed at its lower edge, of a weather-strip pivotally secured at its ends in said recess, the same consisting of a flexible strip clamped between and projecting each way beyond a pair of angle-strips, the lower portion of said angle-strips being substantially the width of said recess, and the free edges of said flexible strip being movable, one of which is arranged to engage the inner portion of said recess and the other the sill of the door, a crank-arm attached to the weather-strip at one end and extending beyond the door, and a slotted plate secured to the door or window with which the crank-arm engages to automatically throw the weather-strip into or out of engagement with the door and sill, substantially as described.

3. The combination, with a door having a rabbet in its lower edge, and a pair of angle-strips located in the rabbet, of a flexible strip between and projecting each way beyond the angle-strip, a pair of plates secured to the door, a pair of links journaled in said plates, one of the links having a crank-arm projecting beyond the door, a bolt passing through each link and through the angle-strips and a cheek-plate secured to the door-casing and provided with a slot arranged to engage and actuate the crank-arm, substantially as described.

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

FREDERICK FOURNIER.

Witnesses:

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