(No Model.)

# J. G. O'KELLY.

## WEATHER STRIP FOR DOOR SILLS.

No. 282,109. Patented July 31, 1883.

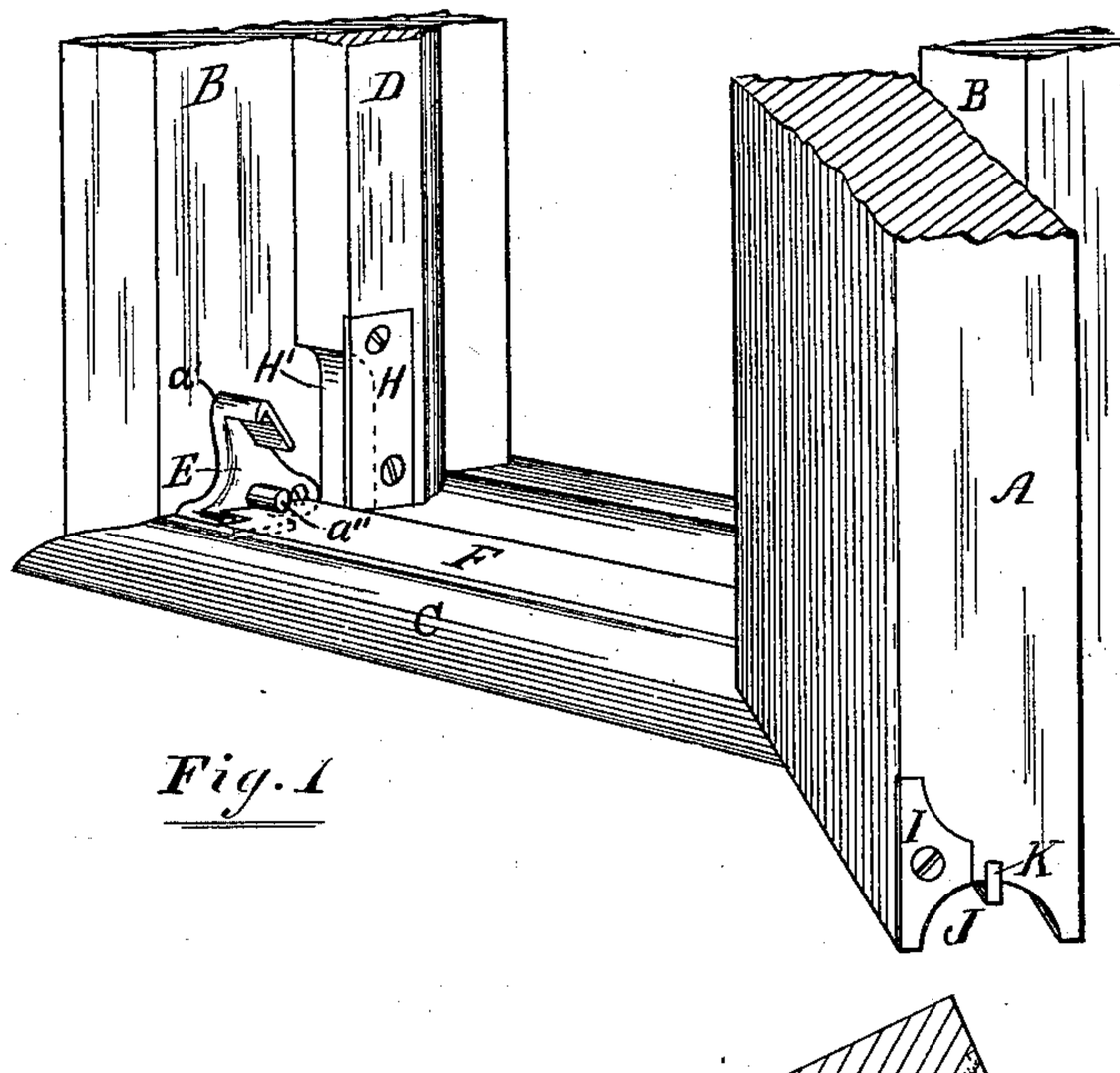


Fig. 1

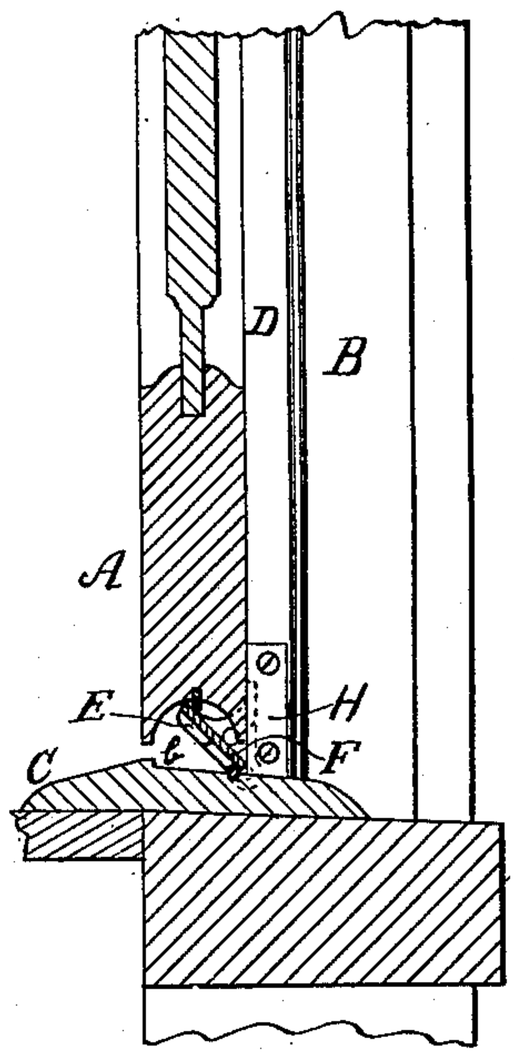


Fig. 3

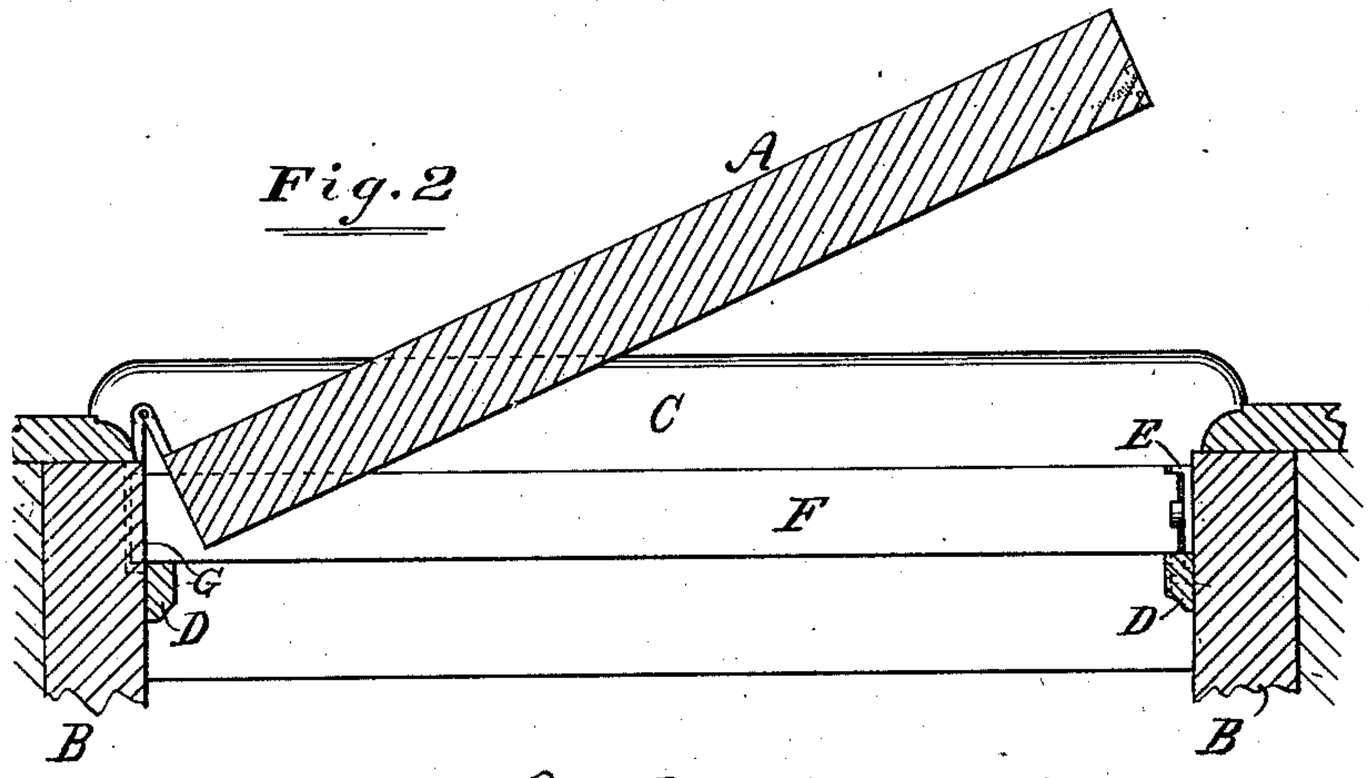


Fig. 2




Fig. 5

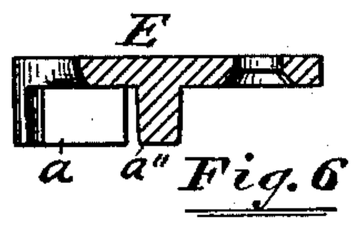


Fig. 6

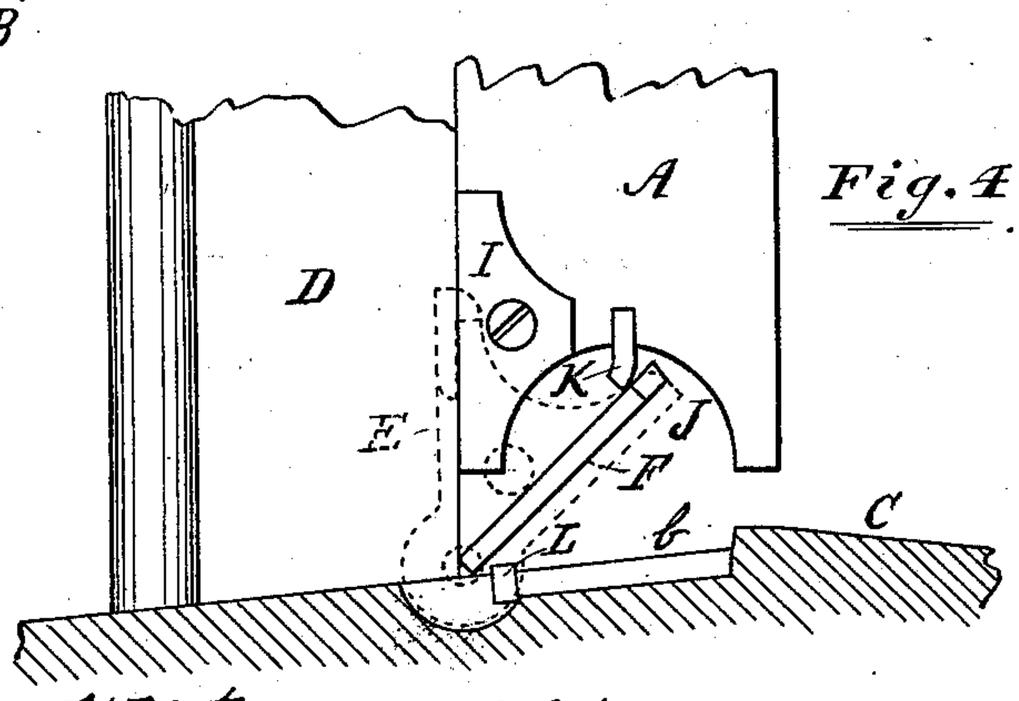


Fig. 4

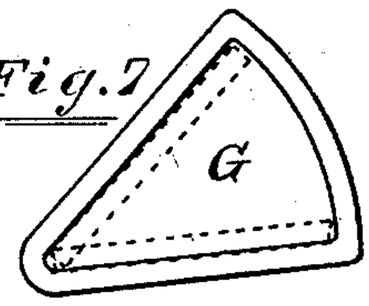


Fig. 7

Witnesses:
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T. B. Halpenny.

Inventor:
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per F. F. Warner
his Attorney.

# UNITED STATES PATENT OFFICE.

JOSEPH G. O'KELLY, OF CHICAGO, ILLINOIS.

## WEATHER-STRIP FOR DOOR-SILLS.

SPECIFICATION forming part of Letters Patent No. 282,109, dated July 31, 1883.

Application filed April 17, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH G. O'KELLY, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Weather-Strips for Door-Sills, of which the following, in connection with the accompanying drawings, is a specification.

In the drawings, Figure 1 is a perspective representation of a weather-strip embodying my invention, showing the door open. Fig. 2 is a horizontal section of the same. Fig. 3 is a vertical central cross-section. Fig. 4 is an edge view of the door and weather-strip, enlarged, and showing their relation to each other, the sill, and the door-frame. Fig. 5 is a detail, being a side view of one of the plates employed. Fig. 6 is a section on the plane of the line *x x*, and Fig. 7 is a detail of the fixed plate.

Like letters of reference indicate like parts.

A represents the door; B, the door-frame; C, the door-sill, and D D′ the door-stops.

E is a plate, pivoted at one end or corner to the frame B, and located to tilt or rock between the frame and the free edge of the door when the door is closed, as is clearly indicated in Fig. 1. The plate E has angular flanges *a* *a′* and a pin or post, *a″*, projecting from its exposed face laterally into the door-opening.

F is the weather-strip.

In practice I cut away the sill C, as shown at *b*, so that the strip F, when not raised, will be flush or nearly flush with the upper side of the sill. One end of the strip F passes underneath the pin *a″* and rests on the flange *a*.

G is a fixed plate set into the frame A, so as to be located at the lower corner of the closed door, and is flanged laterally to receive the other end of the strip F.

H is a plate on the lower end of the stop D, and H′ is a recess behind or at the side of part of the plate H.

I is a plate on the front edge of the door.

J is a deep groove in the lower edge of the door, and K is a strip of rubber therein.

L is a strip of rubber in the door-sill.

The operation is as follows: When the door is closed it strikes the flange *a′*, tilts up the plate E, and the strip F is thereby tilted up into the position shown in Figs. 3 and 4, when, as will be perceived, it will completely shut out the wind and rain. When the door is opened the strip F falls into the recess *b*, and serves as a part of the sill, and prevents wear, as I intend to make the strip F, in practice, of iron.

The plates E and G are interchangeable—that is, may be located on either side of the frame, according to the direction in which the door opens. The plate I may also be used on either lower corner of the door, and performs the function of preventing the door from being worn by striking the flange *a′*. The plate H is employed as an aid in forming the recess H′, and serves as a metallic bearing for the edge of the strip F.

The rubber strips K and L, as will readily be perceived, produce a tight joint when the door is closed. It will also be observed that the position and inclination of the strip F, when raised, are such that its action will not be likely to be impeded by snow and ice in winter weather. The strip F may be employed and removed with facility. It will also be perceived that the strip F extends from one side of the frame B to the other, and the lower edge of the door may be high enough above the sill to prevent it from wearing or sticking in case of the settling of the door, and at the same time wind, rain, and snow will be prevented from entering.

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

1. The combination of the door-sill, the tilting strip F, the pivoted plate E, having thereon the flanges *a* and *a′*, and the door A, having the deep groove J in its lower edge, substantially as and for the purposes specified.

2. The combination of the sill C, having therein the groove or channel *b*, the tilting strip F, the pivoted plate E, having thereon the flanges *a* and *a′* and the stud *a″*, and the door A, having therein the groove J, substantially as and for the purposes set forth.

3. The combination of the grooved door, the grooved or channeled sill, the tilting plate E, the tilting strip F, and the fixed plate G, substantially as described.

4. The combination of the grooved door, the rubber strip K, plate I, the plate H, and recess H′, the tilting strip F, the tilting plate E, and the fixed plate G, substantially as described.

JOSEPH G. O'KELLY.

Witnesses:
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