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L. A. PAYTON & C. M. POWELL.

WEATHER STRIP FOR DOORS.

APPLICATION FILED AUG. 17, 1905.

Fig. 1.

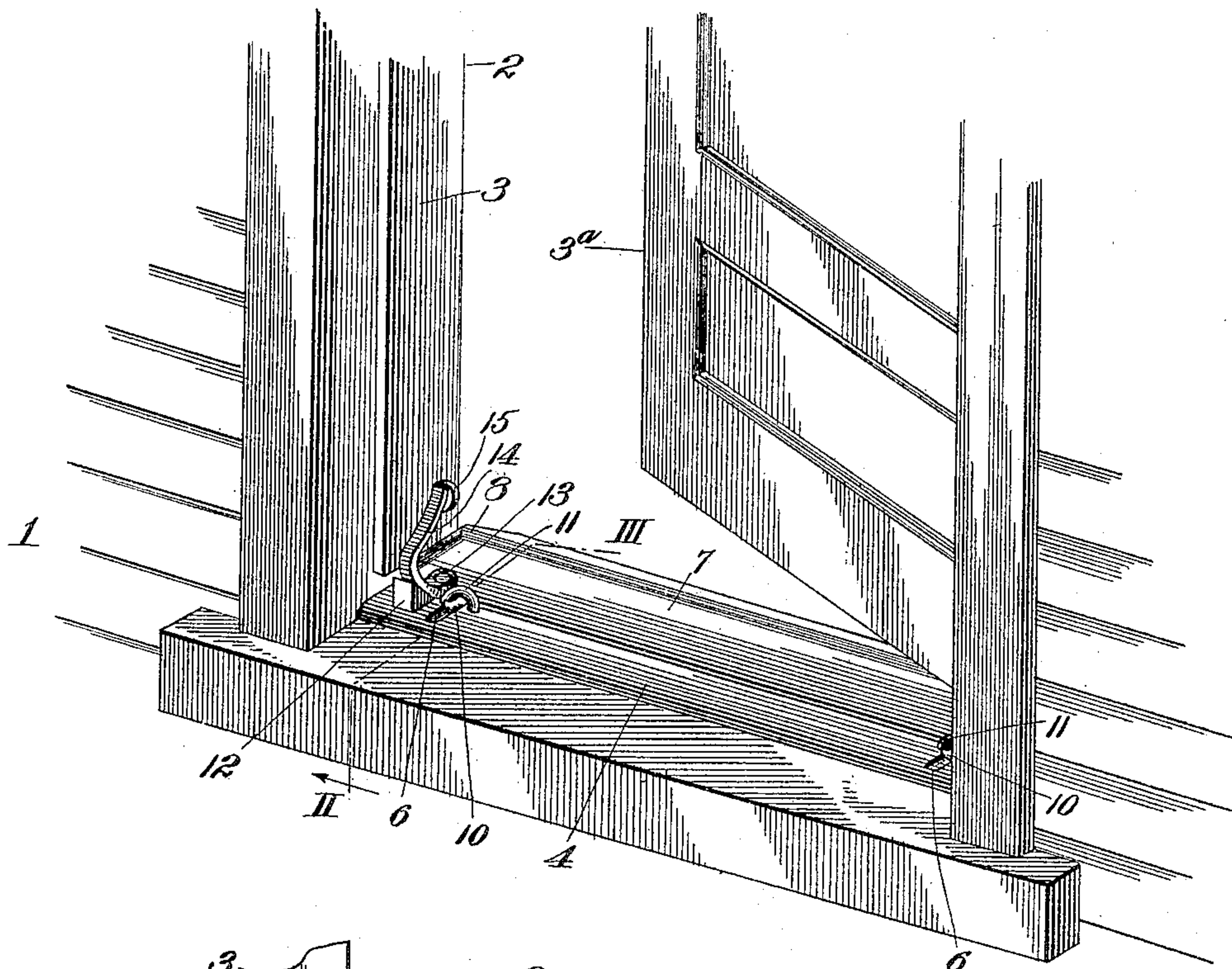


Fig. 2.

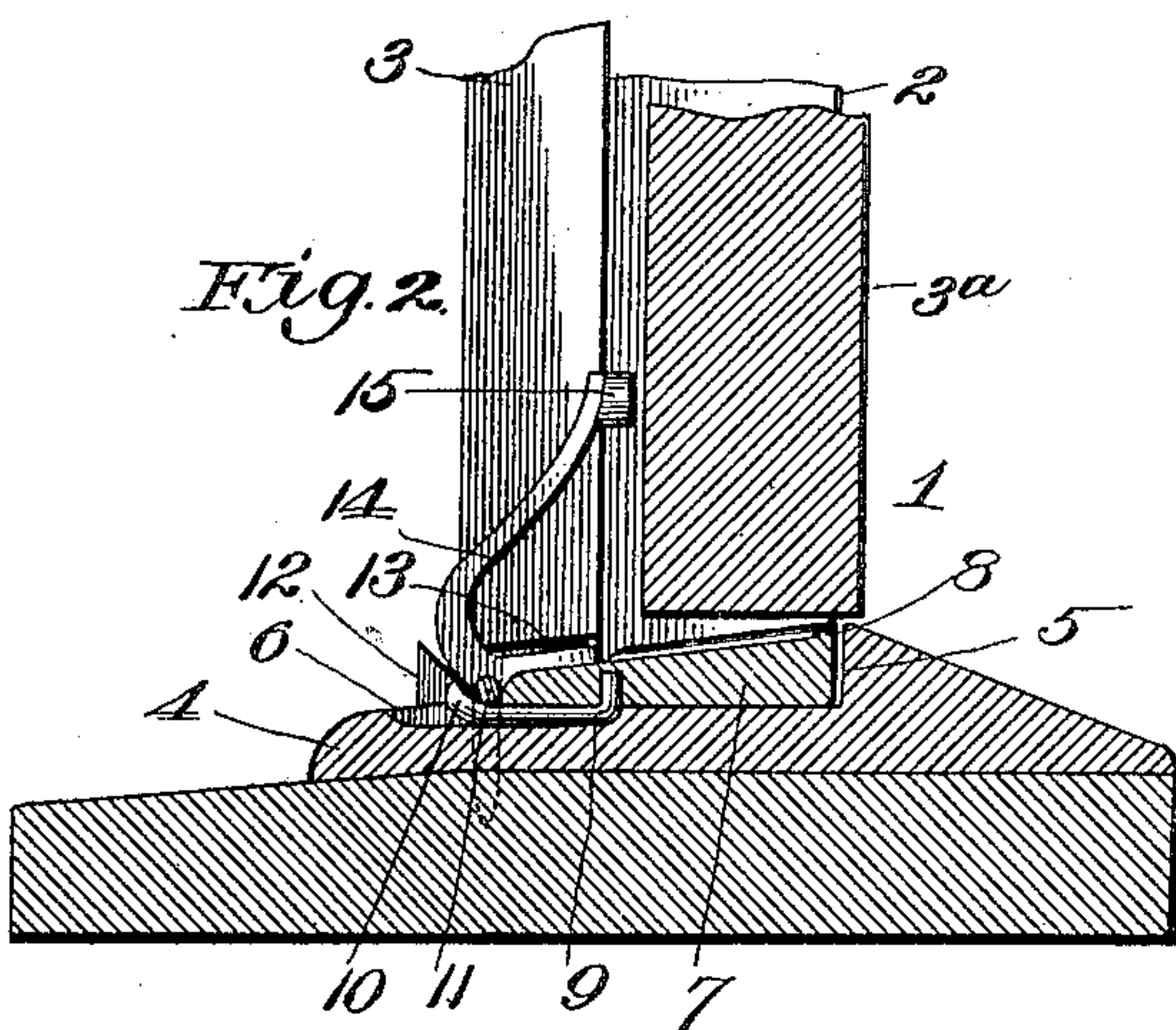
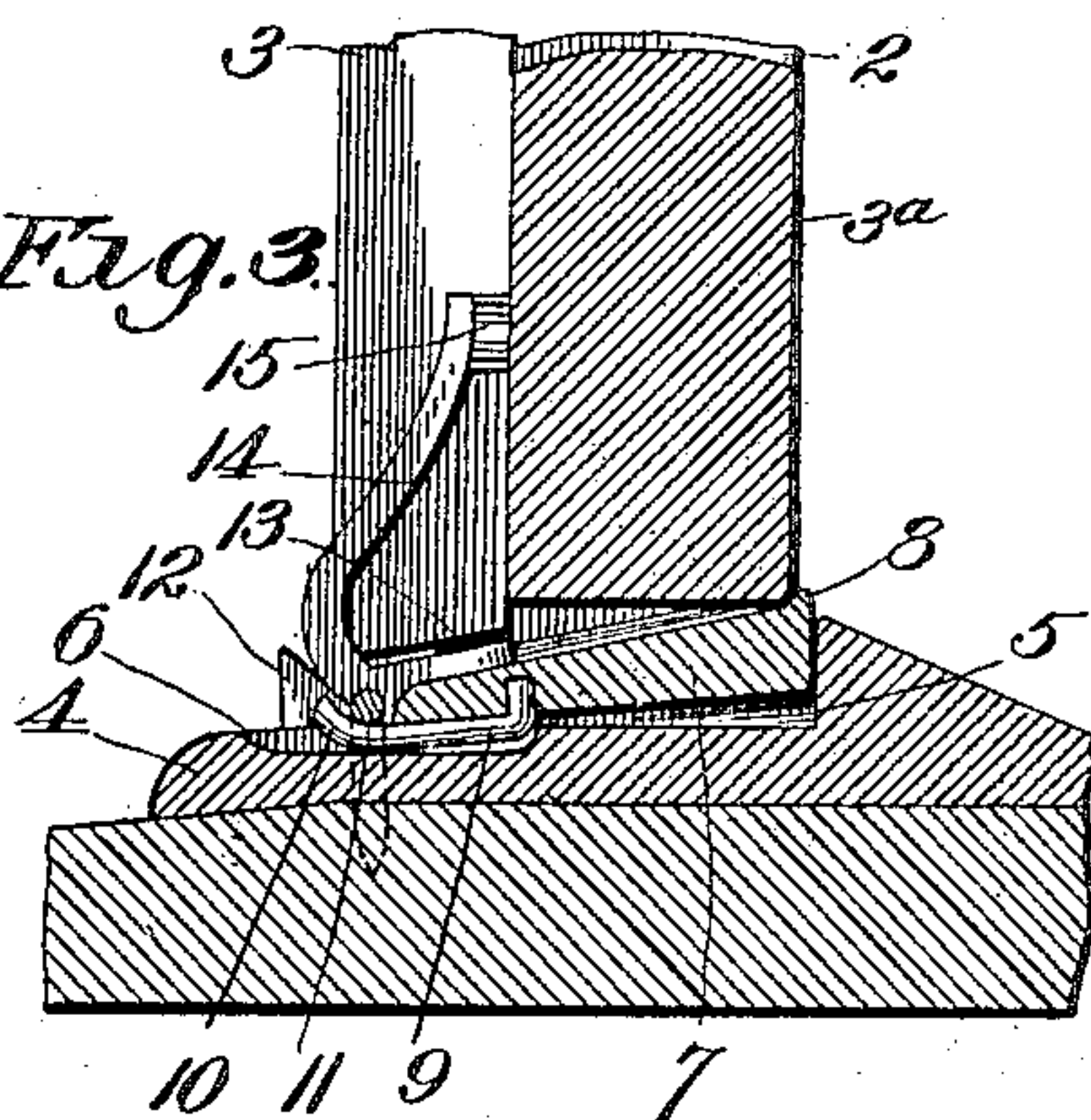


Fig. 3.



Witnesses

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LEWIS A. PAYTON AND CHARLES M. POWELL, OF ELLENDALE, OKLAHOMA TERRITORY, ASSIGNORS OF ONE-THIRD TO ORA E. POWELL, OF ELLENDALE, OKLAHOMA TERRITORY.

WEATHER-STRIP FOR DOORS.

No. 818,464.

Specification of Letters Patent.

Patented April 24, 1906.

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To all whom it may concern:

Be it known that we, LEWIS A. PAYTON and CHARLES M. POWELL, citizens of the United States, residing at Ellendale, in the county of Woodward and Territory of Oklahoma, have invented certain new and useful Improvements in Weather-Strips for Doors, of which the following is a specification.

This invention relates to weather-strips for doors, and more especially to that class which rest upon the door-sill below the door and are caused by the latter when closed to swing up against the bottom of the door for the purpose of closing the passage below it to the entrance of wind and moisture, and thus render the house more habitable in windy or wet weather.

Our object is to produce a weather-strip which can be applied in operative position to any door and which will perform the function of closing the space below the door efficiently and reliably.

A further object is to produce a weather-strip of simple, strong, durable, and cheap construction.

To these ends the invention consists in certain novel and peculiar features of construction and organization, as hereinafter described and claimed, and in order that it may be fully understood reference is to be had to the accompanying drawings, in which—

Figure 1 is a perspective view of the lower portion of a door-casing and door equipped with a weather-strip embodying our invention and showing the latter in the position it occupies when the door is opened. Fig. 2 is an enlarged vertical section taken on the line II-III of Fig. 1, with the door almost closed. Fig. 3 is a sectional view on the same line with the door closed and the weather-strip occupying the position which results in excluding the wind and moisture from the house.

In the said drawings, 1 indicates a portion of a building, 2 the door-casing thereof, and 3 the usual vertical stop secured to the inner side of the casing at the side opposite to the hinge-point of the door, so as to limit the closing movement of the door 3^a. 4 indicates the threshold-strip, secured upon the sill of the casing in any suitable manner and provided with a recess 5 for its full length and also provided near each end with transverse

channels 6, the threshold-strip by preference sloping downward from each side of the recess 5, though more sharply at the inner than at the outer side of the door.

7 indicates the weather-strip, the same occupying recess 5 and partly bridging channels 6 and also of such form in cross-section that it tapers from its inner toward its outer edge. At its inner edge and ends it is provided with an upwardly-projecting bead or flange 8, the side bead sloping downward and outward at its outer side, as shown most clearly in Figs. 2 and 3, for a purpose which hereinafter appears, and secured to or formed integral with said weather-strip are hinge-arms 9, which occupy channels 6 and curve upward at their outer ends, as at 10, so as to engage the loops or staples 11, bridging channels 6 at the outer edge of strip 7, and by preference extending down through the threshold-strip and into the door-sill.

Between the channels 6, contiguous to the free edge of the door when it is closed and the detachable side of the casing, the threshold-strip is provided with a cam-shoulder 12, and resting against said shoulder and secured, as shown at 13 or otherwise, rigidly to the door-strip is a lever 14, which curves upward and outward and by preference terminates in a head or enlargement 15, which when the door is open is held by the weight of the strip projected beyond the outer edge of the strip 3, as shown most clearly in Fig. 2, and in this connection it will be noticed by reference to the same figure that recess 5 of the threshold-strip is of sufficient width to permit of a slight lateral play therein of strip 7.

When the door is closed, as will be apparent by referring to Figs. 2 and 3, it strikes the head or enlargement 15 of lever 14 and tends to push said lever and strip 7, connected thereto, outwardly through the doorway. Such movement, however, is very limited, because the lever fulcrums on the shoulder 12 and is caused thereby to slide forward slightly and at the same time cause the strip 7 to swing upwardly on its hinges—viz., arms 9 and loops 11—until as the door is completely closed the bead 8 laps the lower inner edge of the door, as shown in Fig. 3, with its inclined surface engaging the door. In this position it obviously excludes practically all wind and moisture from the house as far as

passage below the door is concerned, and it will also be apparent that because of the slight lateral movement inward of the strip its lower inner edge binds against the inner wall of recess 5, and thus prevents the wind and moisture entering the house below the strip. As soon as the door is again opened the weight of strip 7 causes it to drop back to its original position, and in so doing the headed end of the lever is reprojected inward of strip 3, and in such opening movement it will be noticed that the strip does not interfere with the door movement, because the pressure of the latter against the inclined bead 8 insures instant downward movement of the elevated end of said strip.

It will be understood that the weather-strip and threshold-strip can be readily detached from each other and that by having the arms, loops, and lever also detachable any of the parts can be easily and cheaply replaced in case of breakage.

From the above description it will be apparent that we have produced a weather-strip which possesses the features of advantage enumerated as desirable and which obviously may be modified in minor particulars—such, for instance, as the omission of the end beads 8 of the weather-strip when the door fits close at its hinged and free edges when closed—without departing from the spirit of the invention.

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

1. The combination with a door-casing and the door thereof, of a threshold-strip upon the sill of the casing provided with a recess, and with a cam-shoulder, a weather-strip occupying said recess, and a lever projecting from the weather-strip and resting upon the cam-shoulder whereby said lever is given a sliding rocking movement to bring the weather-strip inward and upward against the bottom of the door when the door is closed.

2. The combination with a threshold-strip having a recess extending its full length and a cam-shoulder, outward beyond the recess, of a weather-strip occupying said recess and hinged at its outer edge to the threshold-strip, and provided with a curved lever resting slidably upon the cam-shoulder, said lever extending outward and upward from the weather-strip and having its free end disposed inward of and above said cam-shoulder.

In testimony whereof we affix our signatures in the presence of two witnesses.

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CHARLES M. POWELL.

Witnesses:

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F. K. TUCKER.