

No. 696,335.

Patented Mar. 25, 1902.

B. F. HIGGINS.  
WEATHER STRIP.

(Application filed Nov. 18, 1901.)

(No Model.)

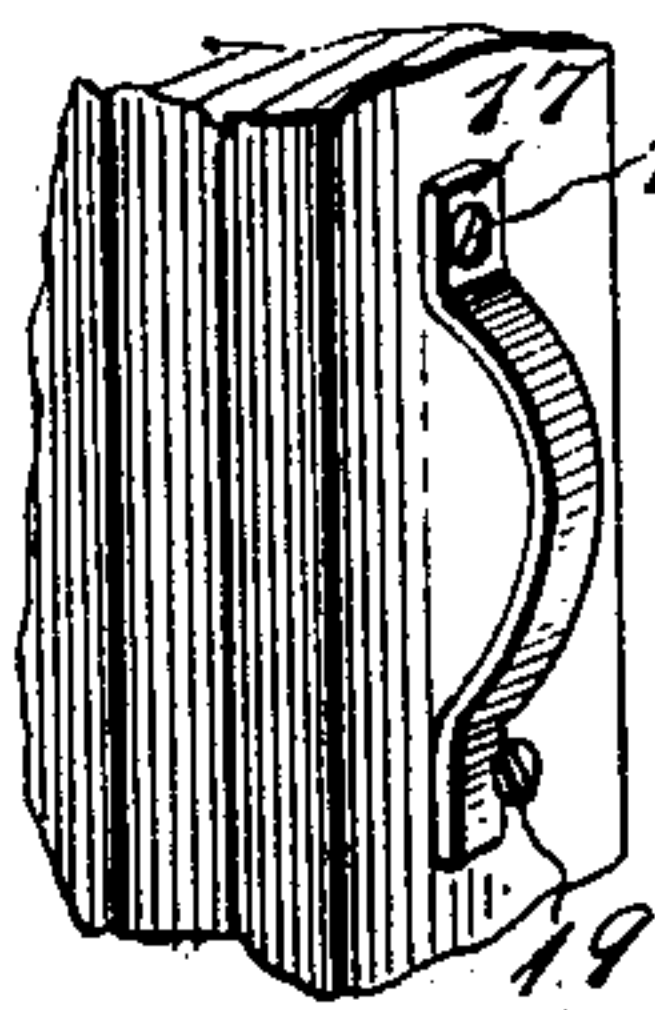
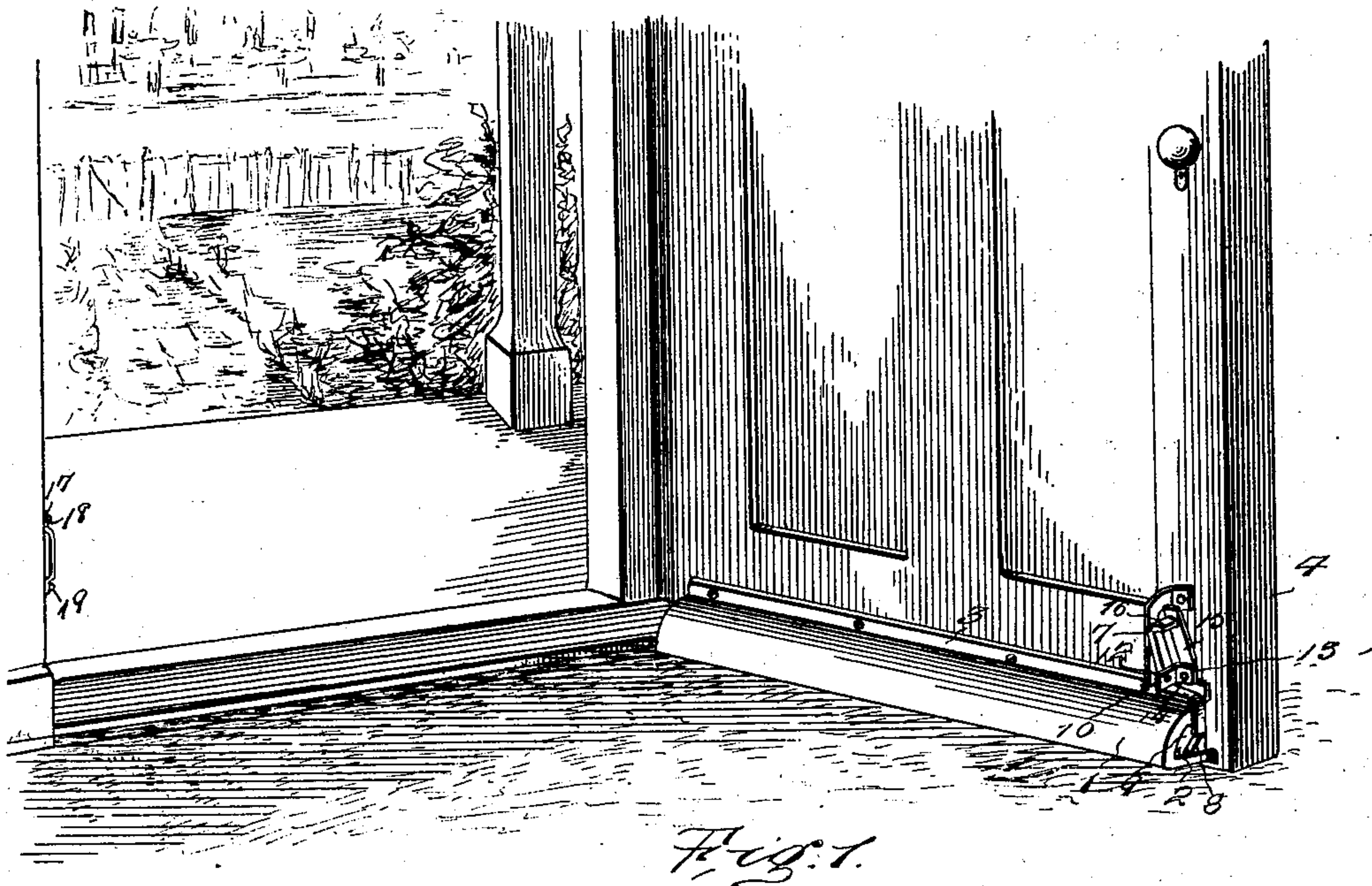


Fig. 4.

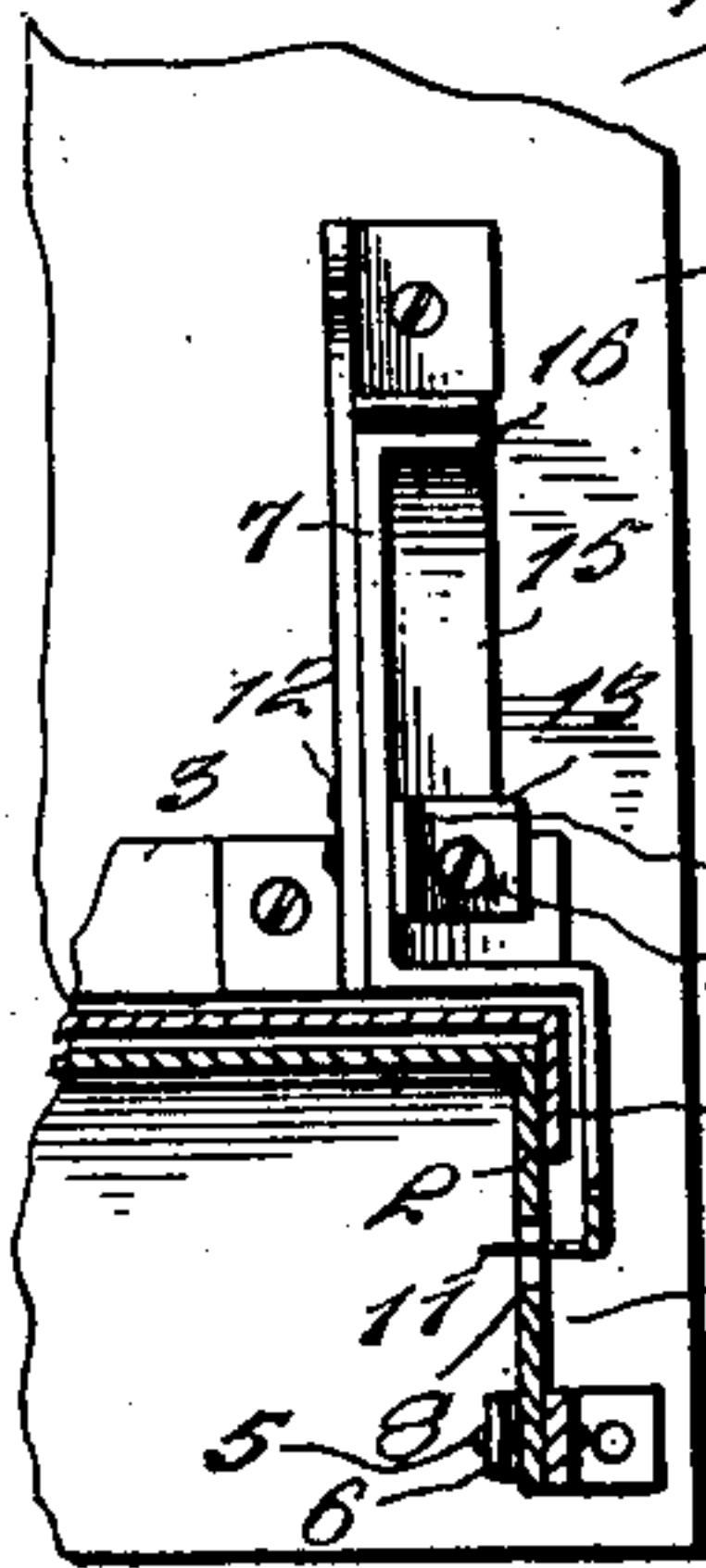


Fig. 5.

Witnesses

*Wm Simpson*  
*J. J. Riley*

Fig. 2

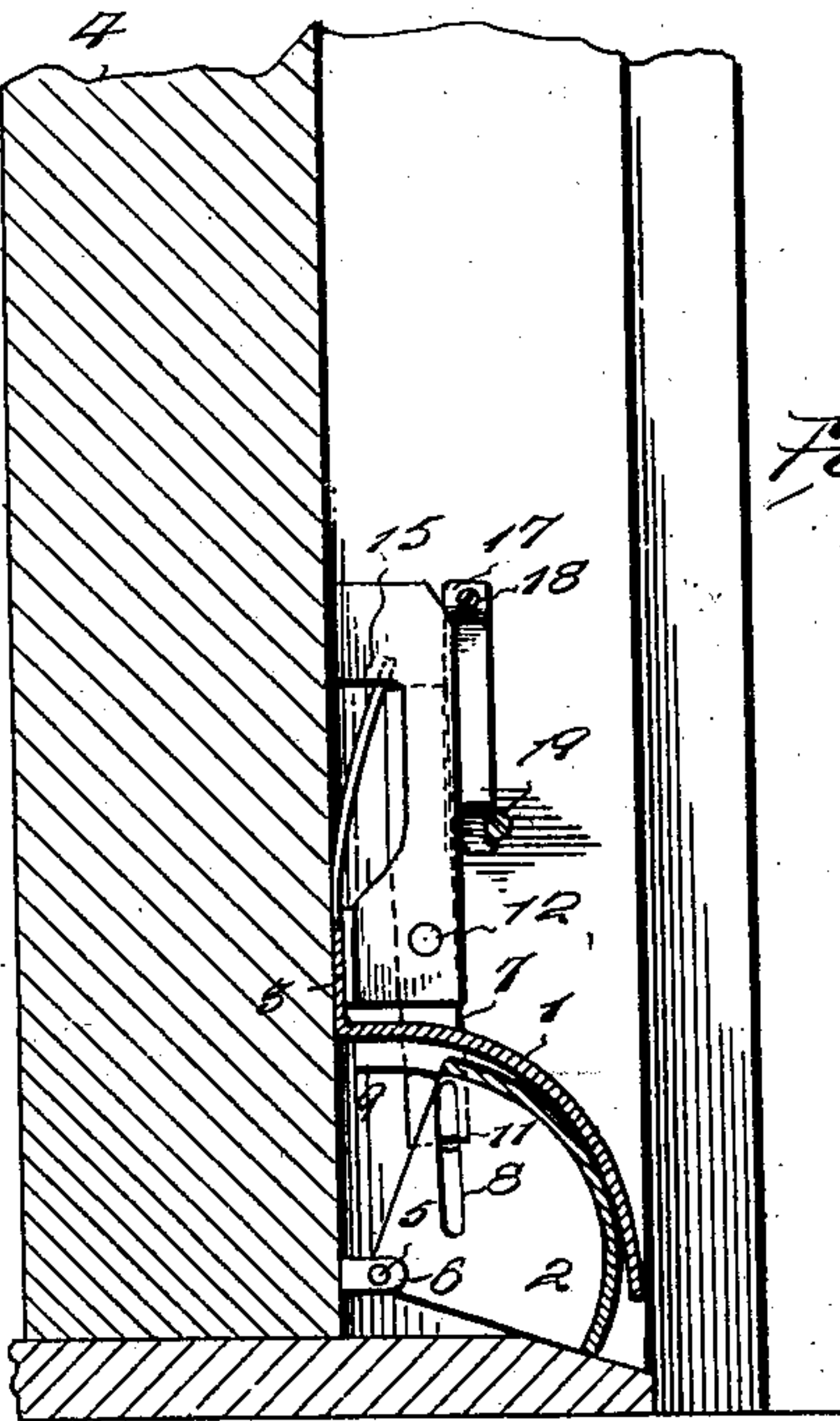
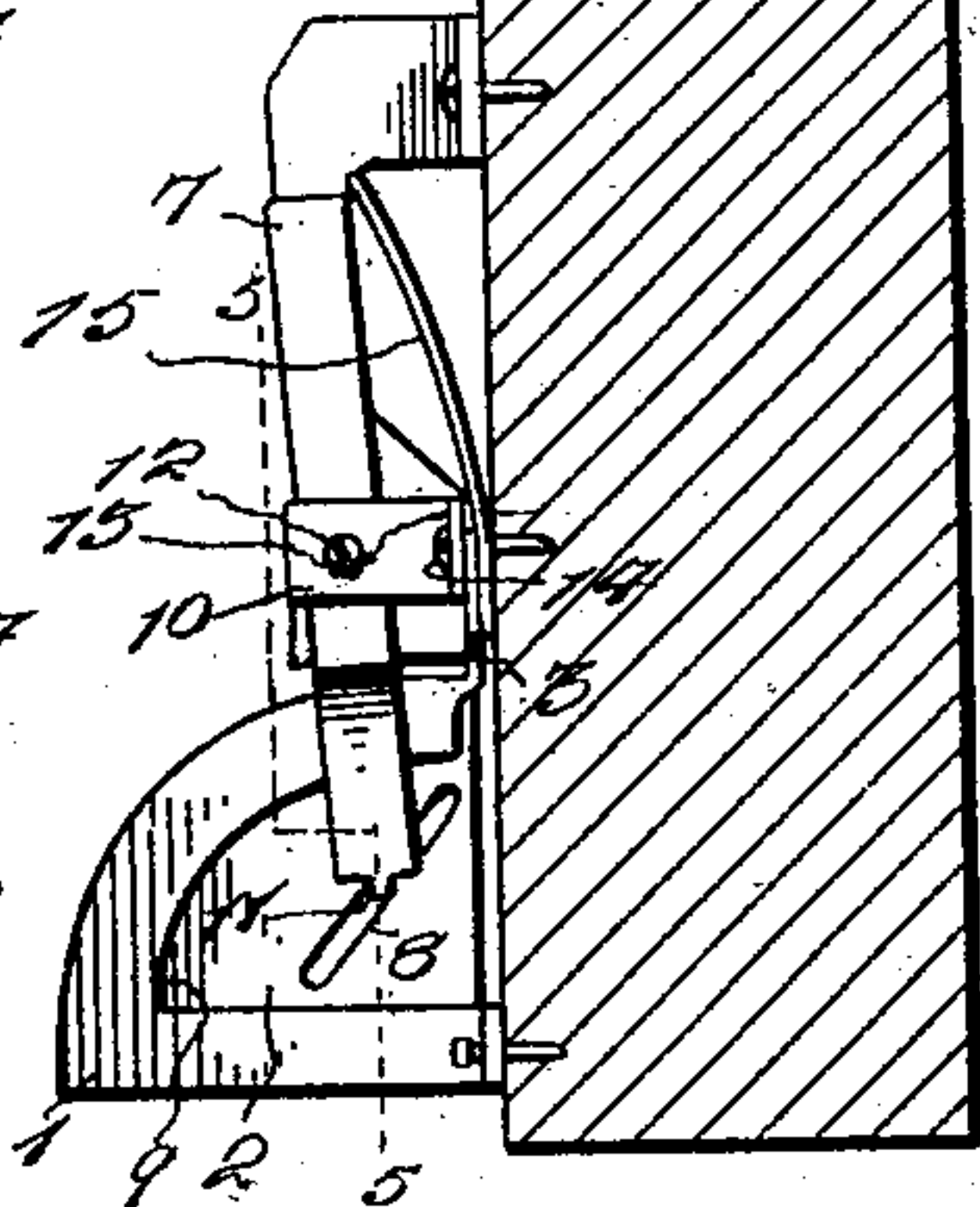


Fig. 3.

by

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# UNITED STATES PATENT OFFICE.

BENJAMIN F. HIGGINS, OF CENTRALIA, ILLINOIS, ASSIGNOR OF ONE-HALF  
TO CHARLES W. BRUMFIELD, OF CENTRALIA, ILLINOIS.

## WEATHER-STRIP.

**SPECIFICATION** forming part of Letters Patent No. 696,335, dated March 25, 1902.

Application filed November 18, 1901. Serial No. 82,710. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN F. HIGGINS, a citizen of the United States, residing at Centralia, in the county of Marion and State of Illinois, 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 weather-strips and to provide a simple, inexpensive, and efficient one adapted to be readily applied to a door and capable of being automatically operated by the opening and closing of the door and of effectually excluding air, dust, and moisture when it is closed or in engagement with the door-sill.

20 A further object of the invention is to provide a weather-strip of this character which when applied to a door will not require any recessing of the same or the sill and which may be readily thrown into and out of operation when desired.

25 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.

30 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. Fig. 2 is a vertical sectional view partly in elevation, the door being open. Fig. 3 is a vertical sectional view, the door being closed. Fig. 4 is a detail perspective view of the pivoted stop. Fig. 5 is a detail sectional view on the line 5 5 of Fig. 2.

40 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a casing constructed of sheet metal or other suitable material and forming a housing for a pivoted weather-strip 2, which is adapted to be partially rotated to swing it downward against the sill of a door and to raise it to permit the door to be opened. The sheet-metal casing is substantially quadrant-shaped in cross-section and is provided at the top with a longitudinal flange 3, which is perforated for the reception of screws or other

suitable fastening devices for securing the weather-strip to the door 4. The weather-strip, which is arranged within the casing, is substantially quadrant-shaped in cross-section and consists of a longitudinal body portion and quadrant-shaped ends, which are pivoted at 5. The pivots, which may be arranged in any suitable manner, are mounted on the ends of the casing and are supported by pivots or ears 6, arranged at the inner faces of the ends of the weather-strip, as clearly shown in Fig. 3. The casing 1 is open at the outer end to permit a lever 7 to be connected with the weather-strip, which is provided with a slot 8. The opening 9 of the end of the casing is approximately quadrant-shaped, but may be of any desired configuration, and the lever, which is fulcrumed between its ends on a bracket or support 10, is provided with an L-shaped lower arm, having an inwardly-extending finger 11, arranged horizontally and projecting into the slot of the weather-strip. The bracket 10 is inwardly offset from the end of the casing and is provided at its ends with perforated lugs or ears, which are secured to the door. The L-shaped arm of the lever extends outward from the base of the bracket and downward at the end of the casing, and the pivot 12, upon which the lever is mounted, passes through a perforation of the bracket and is supported by an L-shaped plate or knee 13. The plate or knee 13 is secured to the door by a fastening device 14, which also passes through a spring 15, extending upward from the plate or knee and engaging a laterally-extending lug or projection 16 of the upper end of the lever. The spring is adapted to throw the upper end of the lever outward, and the finger, which is moved inward by the spring, engages the weather-strip at the inner side of the slot and holds the same elevated. The weather-strip is automatically operated when the door is opened and closed, and the upper end of the lever when the door is closed engages a pivoted stop 17, mounted on the door-frame and adapted to be swung upward and downward to arrange it in the path of the lever and to carry it therefrom. The upper end of the stop is perforated for the reception of a screw 18, and the lower end abuts against a screw 19, which holds the stop



rigidly in position when arranged as shown in Figs. 1 and 3. The stop is bowed outward between its ends to extend it from the door-frame sufficiently to enable it to project into the path of the lever. When the door closes, the upper end of the lever engages the stop and is forced inward thereby, and the lower end of the lever is swung outward, whereby the weather-strip is partially rotated to carry it downward into contact with the door-sill. The weather-strip is adapted to fit snugly and tightly against the door-sill, and it is capable of effectually excluding air, dust, and moisture. The casing is adapted to shed water, and it will cause the same to run outward beyond the weather-strip. The stop is adapted to be swung on the upper screw or pivot to carry its outwardly-bowed central portion out of the path of the laterally-extending lug of the lever, and when in this position the door may be closed without operating the weather-strip.

It will be seen that the weather-strip is exceedingly simple and inexpensive in construction, that the casing forms a shield and housing for the weather-strip, and that the latter is adapted to operate quickly and is capable of being readily applied to a door without cutting the same. It will also be apparent that the slot and the opening may be readily cut at either end of the weather-strip and the casing to enable the same to be applied to a door hung at either edge and that the weather-strip is capable of operating automatically and is also adapted to be thrown out of operation.

What I claim is—

1. In a device of the class described, the combination of a casing designed to be mounted on a door, a weather-strip pivotally mounted within the casing, an upright lever fulcrumed between its ends on the exterior of the door and having its lower arm extended downward at one end of the casing and provided with an inwardly-extending portion connected with the weather-strip, and a stop de-

signed to be mounted on the door-frame and arranged in the path of the upper portion of the lever and adapted to be engaged by the same when the door is closed, substantially as described.

2. In a device of the class described, the combination of a casing designed to be mounted on a door, a weather-strip pivotally mounted within the casing, an upright lever fulcrumed between its ends on the exterior of the door and having its lower arm arranged at one end of the casing and extended into the same and connected with the weather-strip, the outwardly-bowed stop pivoted at one end to the door-frame and arranged in the path of the upper portion of the lever and adapted to be swung out of such position, and a projection mounted on the casing and supporting the free end of the stop when the latter is in position for engaging the lever, substantially as described.

3. In a device of the class described, the combination of an approximately quadrant-shaped casing, a quadrant-shaped weather-strip pivotally mounted within the casing and arranged to swing beyond the same, a lever arranged at one end of the casing and extending through the same and connected with the weather-strip, and means for engaging the lever, substantially as described.

4. In a device of the class described, the combination of a casing having an opening at one end, a weather-strip pivotally mounted within the casing and provided at one end adjacent to the said opening with a slot, a lever fulcrumed between its ends and extending through the opening into the slot, and a spring engaging the lever, substantially as described.

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

BENJ. F. HIGGINS.

Witnesses:

CHAS. W. BRUMFIELD,  
M. DUNCAN.