

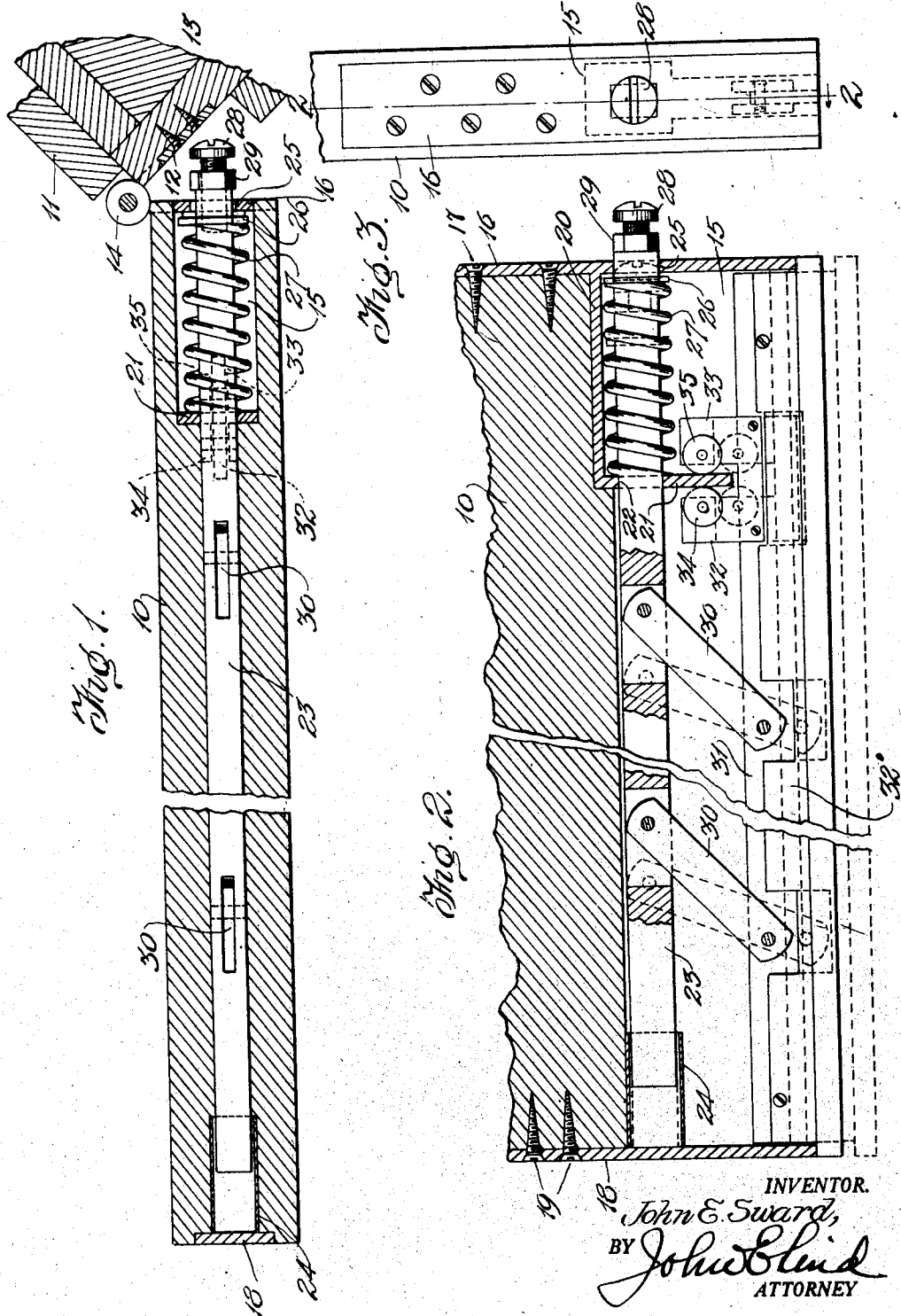
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AUTOMATIC WEATHER STRIP

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AUTOMATIC WEATHER STRIP.

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This invention relates to improvements in weather strip attachments especially adapted for sealing the bottom of doors, although the same is equally applicable to other uses.

5 The object of this invention is to improve and simplify the construction of weather strip attachments in which the weather strips are adapted to be withdrawn into the edge of the door or other device to which they are
10 applied when the same is open and to be projected therefrom into engagement with the floor or sill when the door is closed. In devices of this character the weather strip is guided at its ends and is moved laterally
15 by means of links, toggles or other connections which are secured to and operated by an actuator. In most instances the actuator is located within a casing and has a portion which projects beyond the edge of the door
20 and is adapted to engage with the door jamb as the door is closed. Such engagement with the door jamb serves to move the actuator longitudinally and to thereby act upon the weather strip to move it laterally in the man-
25 ner aforesaid.

A further object of this invention is to provide means whereby the movement of the actuator can be adjusted so that the sealing means will accommodate spaces of various
30 heights.

A further object is to provide new and improved anti-friction means for guiding the movement of the sealing means.

35 With these and other objects in view as will hereinafter appear my invention consists in the construction, arrangement and combination of the various parts of my device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out
40 in my claims and illustrated in the accompanying drawings, in which:

Figure 1 is a horizontal, cross section of my invention;

45 Figure 2 is a vertical, cross section of my invention on the section line 2—2 of Figure 3, and

Figure 3 is an end elevation of a portion of the door.

50 In the drawings like reference characters refer to like parts.

Referring to the drawings 10 indicates a door generally and the door may be either an outside or an inside door. The door jamb is indicated at 11 having the bumper plate 12

affixed thereto by the screws 13 or any other 55 suitable means. The door 10 is hinged at 14 to the door jamb in the usual manner.

A recess is cut in the bottom portion of the door which is T-shaped at one end thereof as shown by the dotted lines 15 in Figure 3. 60 The T-shaped portion extends only to the plate 21 hereinafter described. For the remainder of the door the recess is of the width shown in Figure 1 and the height as shown in Figure 2. The side opening of the recess 65 15 at the hinged end of the door is closed by the plate 16 which is secured to the door by the means 17 of any suitable character. The swinging end of the door is closed by the plate 18 which is secured by the means 19. 70 The plate 16 has projecting therefrom inwardly into the recess 15 a right angular spring retaining member 20 which can be if desired cast integrally with the plate 16. The spring retaining member has a down- 75 wardly depending portion 21. Passing through a slot 22 in the downwardly depending portion 21 is the actuator or slidable bar 23, one end of which slides in the guide 24 and the other end of which passes through 80 an aperture 25 in the plate 16.

The actuator 23 has secured to it a disk member 26 at the end which passes through the plate 16 and located on the inside of the plate so as to serve as a stop member for the 85 helical spring 27 which encircles the actuator 23 and is confined at its other end by the downwardly extending member 21 of the spring retaining member 20.

Into the end of the actuator 23 projecting 90 through the slot 25 in the plate 16 is a bumper screw 28 which is adjustable in the end of the actuator and can be locked in position by the lock nut 29.

The actuator 23 has pivoted to at two or 95 more link members 30 which are also pivoted to the sealing member 31. The sealing member 31 is free to move upwardly and downwardly in the recess 15 and it also carries two spaced upwardly extending supports 32 100 and 33 located upon opposite sides of the member 21. The members 32 and 33 each serve as supports for the rollers 34 and 35 respectively. The supports 32 and 33 carry two rollers each one located upon each side 105 of the support and all of these rollers are in contact with the downwardly extending member 21.

The sealing member preferably carries on the bottom part thereof a rubber seal 32.

The operation of my invention is as follows: The spring 27 constantly urges the actuator into the right hand position as shown in Figure 2. Upon swinging the door shut the bumper screw 28 will contact the plate 12 upon the door jamb and will force the actuator 23 towards the left thereby moving the links and depressing the sealing member 31 so as to thoroughly close the space below the door 10. In the downward movement of the seal the rollers 34 and 35 guide the sealing member noiselessly, to the position desired. This noiseless operation of my sealing means is of extreme importance. There is no possibility of any creaking or other noises.

By means of the screw 28 the extent of movement of the sealing member can be accurately adjusted and when said adjustment has been made further adjustment can be eliminated by locking the lock nut 29. It will be noted that all of the parts are extremely simple and of sturdy construction.

The return movement of the sealing member is accomplished immediately upon the opening of the door by the spring member 28 restoring the parts to their normal position when the door is open.

Some changes may be made in the construction and arrangement of the invention above set forth without departing from the real purpose and spirit thereof, and it is the intention to cover by the following claims, any modified forms of structure or use of equiva-

lents, which may be reasonably included within their scope.

I claim:

1. An automatic weather strip for a door comprising a slidable bar having one end projecting from said door, a sealing member connected to said bar so as to reciprocate transversely thereto, rollers mounted upon said sealing member spaced horizontally with respect to each other and fixed means upon said door cooperating with said rollers for guiding said sealing member.

2. An automatic weather strip for a door comprising a slidable bar having one end projecting from the hinged end of said door, a sealing member connected to said bar so as to reciprocate transversely thereto, means carried by said bar for adjusting the movement of said sealing member, rollers carried by said sealing member and fixed means upon said door cooperating with said rollers for guiding said sealing member.

3. An automatic weather strip for a door comprising a slidable bar having one end projecting from said door, links carried by said bar, a sealing member connected to said links, rollers carried by said sealing member, fixed means upon said door cooperating with said rollers to guide said sealing member transversely to said bar, means urging said bar in a direction so as to raise said sealing means and adjustable means upon said bar adapted to cooperate with the door jamb to lower said sealing means.

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