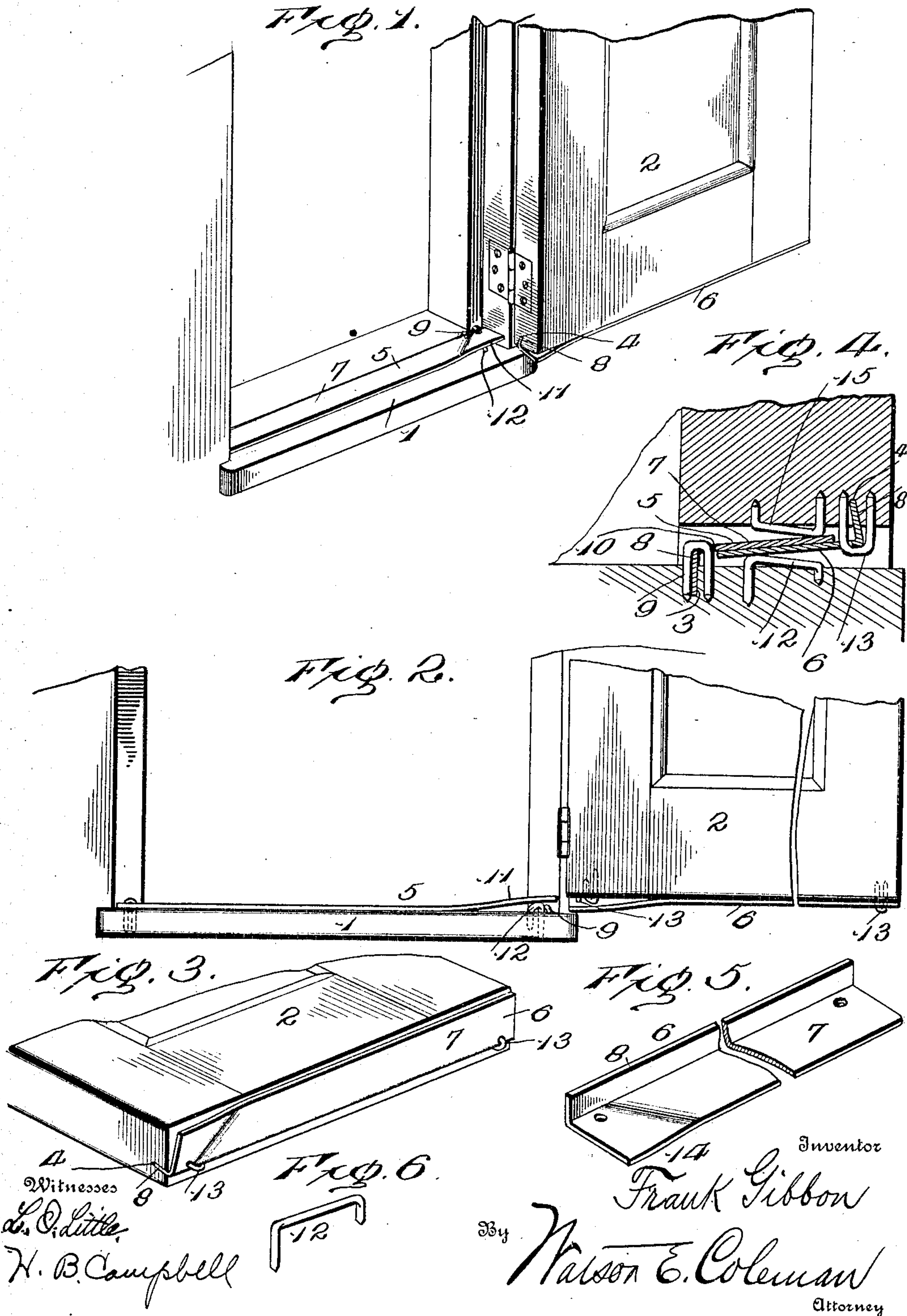


No. 871,334.

PATENTED NOV. 19, 1907.

F. GIBBON.  
WEATHER STRIP.

APPLICATION FILED MAY 15, 1907.





# UNITED STATES PATENT OFFICE.

FRANK GIBBON, OF POCATELLO, IDAHO.

## WEATHER-STRIP.

No. 871,334.

Specification of Letters Patent.

Patented Nov. 19, 1907.

Application filed May 15, 1907. Serial No. 373,781.

*To all whom it may concern:*

Be it known that I, FRANK GIBBON, a citizen of the United States, residing at Pocatello, in the county of Bannock and State of Idaho, have invented certain new and useful Improvements in Weather-Strips, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention relates to weather strips, and more particularly those adapted for use upon doors.

The object of the invention is to provide a simple and inexpensive device of this character which will effectively prevent the entrance of wind, rain and dust between the bottom of the door and the sill and which will be durable in use and not liable to get out of working order.

With the above and other objects in view the invention consists in the novel construction and combination and arrangement of parts hereinafter described and claimed, and illustrated in the accompanying drawings, in which

Figure 1 is a perspective view of a door sill and the lower portion of the door, showing the application of the invention; Fig. 2 is a side elevation of the parts shown in Fig. 1, the door being open; Fig. 3 is a detail perspective of the bottom of the door; Fig. 4 is a vertical transverse section through the lower portion of the door and the sill; Fig. 5 is a perspective view of one of the angle strips; and Fig. 6 is a perspective view of one of the cams or inclined supports for supporting the strips.

Referring to the drawings, 1 denotes the sill and 2 the lower portion of the door. In these parts are formed longitudinally extending grooves 3, 4 adapted to receive angle strips 5, 6 which interlock when the door is closed and effectively close the space between the door and the sill to prevent the entrance of wind, rain dust and the like. Each of said angle strips is of right angular form and has a broad member or flange 7 and a narrow member or flange 8. The flange 8 of the strip 5 is adapted to fit into the longitudinal groove or channel 3 in the sill 1 and it is retained therein by fastenings 9 preferably in the form of staples, one of which is arranged at each end of the strip and has one of its arms passed through an aperture 10 in the broad portion or flange 7, as clearly shown in the drawings. Said flange 7 of the

strip 5 is horizontally disposed and when the door is open rests flat upon the top of the sill. One of its ends 11, which end is adjacent to that side of the door frame on which the door is hinged, is supported a slight distance above the top of the sill by a cam or inclined support 12. The latter, as clearly shown in Fig. 6 is constructed of a metal rod bent into substantially U-form and having its parallel ends sharpened so as to be readily driven into the sill. Its connecting or cross portion is angularly disposed so as to form an inclined support for said end 11 when in position upon the sill as shown in drawings. It will be noted that said support is so disposed that when the door is swung to its closed position it will allow the flange 7 of the strip 6 on the door to pass between it and the corresponding flange of the strip 5.

While the groove 3 in the sill 1 is vertically disposed the corresponding groove 4 in the bottom of the door is arranged at a slight angle to the vertical and is adapted to receive the narrow flange 8 of the strip 6 so that the broad flange 7 of the latter will have a slight downward and outward inclination. The strip 6 is retained upon the door by staples 13 in the same manner in which the strip 5 is retained upon the sill, as will be readily seen upon reference to Fig. 3. The inner end 14 of the strip has a slightly greater inclination than the remaining portion of the same and is held in such angular position by an inclined support 15 which is similar to the support 12. The support 15 is driven into the bottom of the door and is so disposed that the flange 7 of the strip 5 can pass between it and the corresponding flange on the strip 6 as the door is closed. It will be noted that the inclined supports or spacing elements 12, 15 space the inner ends of the flanges 7 of said strips from the sill and door so that when the latter is closed the end 14 of the strip 6 will be guided beneath the end 11 of the strip 5. Owing to the resiliency of the two angle strips the flange 7 on the strip 6 as it slides under the corresponding flange on the strip 5 will elevate said flange to a slight extent and at the same time will be sprung downwardly to a slight extent so that the two flanges 7 will firmly engage each other throughout their length and form an effective closure for the space between the door and sill. By making the strips angular in cross section and seating their narrow flanges, which extend in a substantially ver-



tical plane in the longitudinal grooves in the door and jamb there will be no possibility of the entrance of wind, water or dust between the secured or attached edges of the strips 5 and the parts to which they are attached.

What I claim is:

1. The combination with a door and its sill, of a pair of weather strips, one carried by the door and the other by the sill, and each 10 having a yieldable horizontal flange adapted to engage the corresponding flange upon the other, and means independent of said strips for supporting the inner end of one of said strips, whereby they will be caused to engage 15 with and guide each other, substantially as set forth.

2. The combination with a door and its sill, of a pair of weather strips, one carried by the door and the other by the sill, and each 20 having a yieldable horizontal flange adapted to engage the corresponding flange upon the other, the inner ends of said strips being bent angularly, and supports for holding said angularly bent inner ends of the strips whereby 25 they will engage with and guide each other, substantially as set forth.

3. The combination with a door and its sill each formed with a longitudinally extending groove, of a pair of angle strips, one carried by the door and the other by the sill, the 30 strip upon said sill having a flange to enter said groove and a flange to rest upon the top of the sill when the door is open, the other strip having a flange to enter the groove in 35 the door and a flange to take under the flange upon the top of said sill, and inclined supports upon the door and sill for holding the inner ends of said strips whereby they will engage with and guide each other, substantially as 40 set forth.

4. The combination with a door and its sill, each having a longitudinal groove, of a pair of angle strips each having a substan-

tially vertical flange to enter one of said grooves and a substantially horizontal flange, 45 one strip being carried by the door and the other by the sill, staples for retaining the substantially vertical flanges of the strips in said grooves and an inclined support arranged upon the sill beneath the inner end of 50 the horizontal flange of the strip upon said sill, for the purpose set forth.

5. The combination with a door and its sill, each having a longitudinal groove, of a pair of angle strips each having a substan- 55 tially vertical flange to enter one of said grooves and a substantially horizontal flange, one strip being carried by the door and the other by the sill, staples for retaining the substantially vertical flanges of the strips in 60 said grooves, and inclined supports arranged upon the door and sill, one beneath the inner end of the horizontal flange of the sill strip, and the other above the horizontal flange of the door strip for the purpose set forth. 65

6. The combination with a door and its sill, of a pair of weather strips, one carried by the door and the other by the sill, and each having a yieldable horizontal flange, and a support arranged upon the sill beneath the 70 inner end of the horizontal flange of the strip upon said sill, for the purpose set forth.

7. The combination with a door and its sill, of a pair of weather strips, one carried by the door, and the other by the sill, and each 75 having a yieldable horizontal flange, and a support arranged upon the door above the inner end of the horizontal flange of the strip upon the door, for the purpose set forth.

In testimony whereof I hereunto affix my 80 signature in presence of two witnesses.

FRANK GIBBON.

Witnesses:

B. A. DURAND,

J. M. MASONHEIMER.