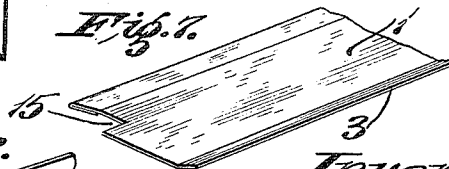
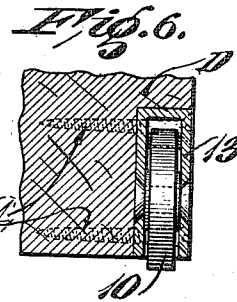
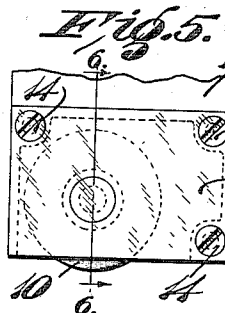
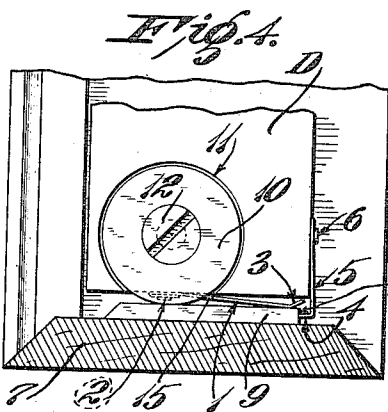
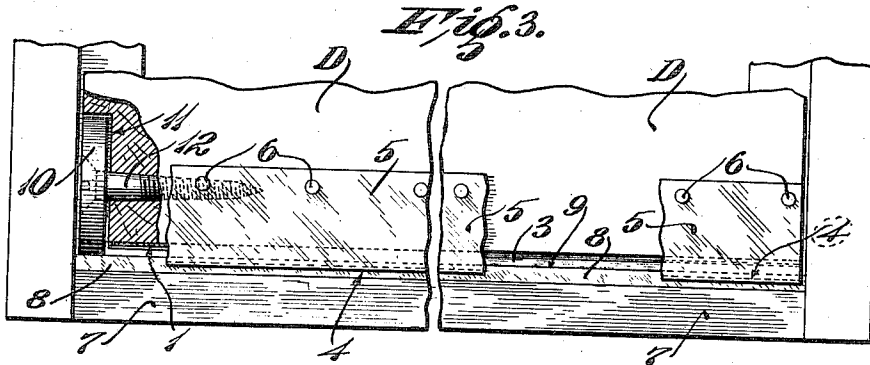
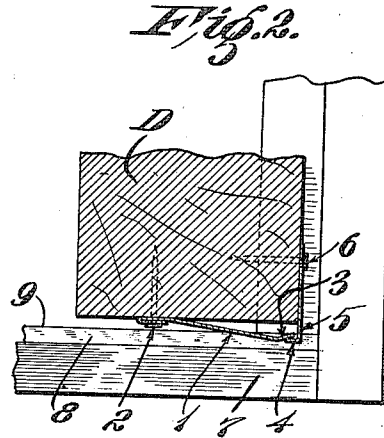
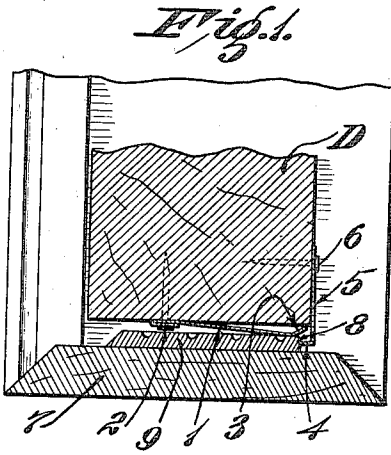


J. D. PIERCE.
 WEATHER STRIP.
 APPLICATION FILED OCT. 16, 1911.

1,049,392.

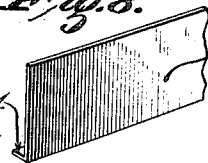
Patented Jan. 7, 1913.



Witnesses: *Fig. 8.*

Edgar T. Harmer.

G. A. Pennington



Inventor:

John D. Pierce

By *Carroll & Co.*
 Attys.

UNITED STATES PATENT OFFICE.

JOHN D. PIERCE, OF ST. LOUIS, MISSOURI, ASSIGNOR TO MONARCH METAL WEATHER STRIP COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

WEATHER-STRIP.

1,049,392.

Specification of Letters Patent.

Patented Jan. 7, 1913.

Application filed October 16, 1911. Serial No. 654,853.

To all whom it may concern:

Be it known that I, JOHN D. PIERCE, a citizen of the United States, and a resident of the city of St. Louis and State of Missouri, have invented a new and useful Improvement in Weather-Strips, of which the following is a specification.

This invention relates to weather strips for the bottoms of doors, casement windows and the like.

It has for its principal objects to produce a simple and efficient device which can be readily applied, to produce a strip which is not easily damaged, and to attain certain other advantages which will hereinafter more fully appear.

The invention consists in the parts and in the arrangements and combinations of parts hereinafter described and claimed.

In the accompanying drawing which forms part of this specification and wherein like symbols refer to like parts wherever they occur, Figure 1 is a fragmentary vertical section through the bottom portion of the door and threshold plate, the door being equipped with a weather strip according to my invention and shown in closed position; Fig. 2 is a view showing the door in open position and the threshold plate in front edge elevation; Fig. 3 is a fragmentary view partly in front elevation and partly in section, the door being closed; Fig. 4 is a view similar to Fig. 1, the door being shown in end elevation; Fig. 5 is a fragmentary end elevation of the door showing the supporting roller journaled in a housing; Fig. 6 is a section on the line 6-6 of Fig. 5; Fig. 7 is a fragmentary perspective view of the resilient strip which is secured to the bottom of the door; and Fig. 8 is a fragmentary perspective view of the strip which is secured to the side face of the door.

As shown in the drawings, a resilient strip 1 is secured along one edge portion to the bottom of the door D, as at 2. Normally, the strip 1 is sprung away from the bottom of the door when the door is opened and its free edge portion 3 rests on an inturned flange or lip 4 at the bottom of a strip 5 which is secured along its upper edge portion to the side face of the door, as at 6. This strip 5 is also preferably resilient and lies normally flatwise against the face of the door when the door is opened.

The threshold plate 7 is provided with a

shoulder 8 which may obviously be formed by rabbeting the threshold plate or, preferably, by securing on said threshold plate a metal wear plate 9 whose edge portion provides the shoulder 8 as shown.

In the closed position of the door, the inturned bottom edge portion 4 of the strip 5 bears against this shoulder 8 and, preferably, said shoulder is located so that the strip 5 is sprung slightly away from the face of the door to insure such contact. As the door is moved into closed position, the free edge portion 3 of the strip 1 rides upon the top face of the wear plate 9, or threshold plate 7, as the case may be, and remains in contact therewith owing to its resiliency.

To prevent the door from sagging and to support the bottom in proper relation to the threshold plate, a roller 10 is journaled at the end away from the hinged end. As shown in Figs. 3 and 4, the door is provided with a circular recess 11 in its end in which the roller 10 is loosely fitted. In this case the roller is journaled on a screw 12; but in Figs. 5 and 6 the roller 10 is shown journaled within a housing 13 which is sunk into the end of the door and secured by screws 14. In practice, the roller is located so that it will project below the bottom of the door so as to ride on the upper face of the plate 9 to prevent the end of the door away from the hinged end from sagging. By this means, the strip 1 will bear uniformly throughout its length on the upper face of the plate 9 and the edge of the inturned portion 4 of the strip 5 will bear along the middle of the edge portion of the plate 9 which provides the shoulder 8.

The strips 1 and 5 may be made to extend throughout the entire length of the door and the only portion of the strip 1 which has to be cut away is at 15 to clear the roller. This cut away portion being only adjacent to the edge which is secured to the bottom of the door, no material is removed from the portion of the strip 1 which contacts with the plate 9. Hence, the strip is effective through its entire length.

The construction is simple and inexpensive, yet effective in closing the space at the bottom of the door, and the liability of damage is minimized. It also obviates the necessity of providing undercut or interlocking portions on the threshold plate to cooperate with the door strip.

Obviously, the device admits of some modification without departing from my invention. Therefore, I do not wish to be limited to the specific construction and arrangement shown.

What I claim is:

1. The combination with a door, of a resilient strip secured along one edge of the door, the free portion of said strip tending to spring normally away from the door, and a strip secured to the side face of the door adjacent to the edge thereof, said second mentioned strip extending beyond the edge of the door and having an intumed portion against which the free edge of said first mentioned strip normally rests.

2. The combination with a door and a threshold having a shoulder portion extending the length thereof, of a resilient strip secured to the bottom of the door, the free portion of said strip being adapted to bear against the adjacent top face of the threshold, and a strip secured to the side face of the door and projecting beyond the bottom thereof and having an intumed portion in coöperative relation to the free edge portion of said resilient strip on the bottom of the door and adapted to support the same when the door is opened and being also adapted to bear edgewise against the shoulder on the threshold when the door is closed.

3. The combination with a door and threshold, of a metal plate secured on the threshold beneath the bottom of the door and extending the entire length thereof, a

resilient strip secured along one edge to the bottom of the door, the free portion of said strip tending to spring normally away from the door and adapted to engage the upper face of the metal threshold plate when the door is closed, and a strip secured to the side face of the door and projecting beyond the bottom edge thereof and having an intumed portion adapted to support the free edge portion of said resilient strip when the door is opened.

4. The combination with a door and threshold, of a metal plate secured on the threshold beneath the bottom of the door and extending the entire length thereof, a resilient strip secured along one edge to the bottom of the door, the free portion of said strip tending to spring normally away from the door and adapted to engage the upper face of the metal threshold plate when the door is closed, and a strip secured to the side face of the door and projecting beyond the bottom edge thereof and having an intumed portion adapted to support the free edge portion of said resilient strip when the door is opened, said intumed portion being also adapted to bear edgewise against the edge of the metal threshold plate when the door is closed.

Signed at St. Louis, Missouri, this 10th day of October, 1911.

JOHN D. PIERCE.

Witnesses:

G. A. PENNINGTON,
A. H. CROISSANT.