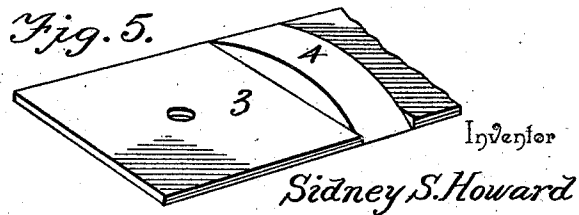
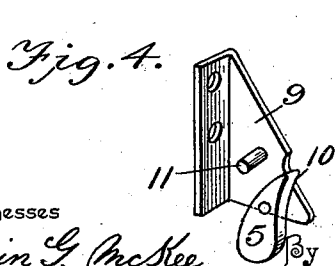
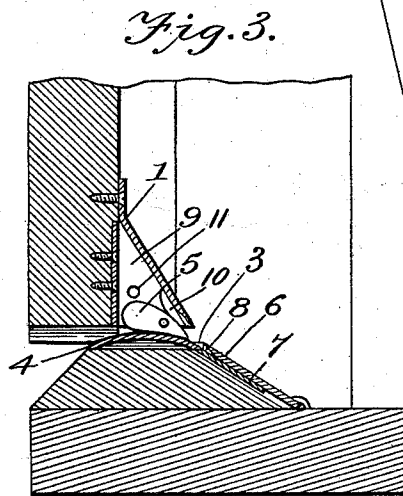
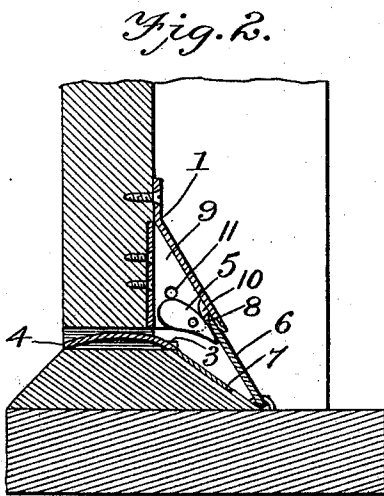
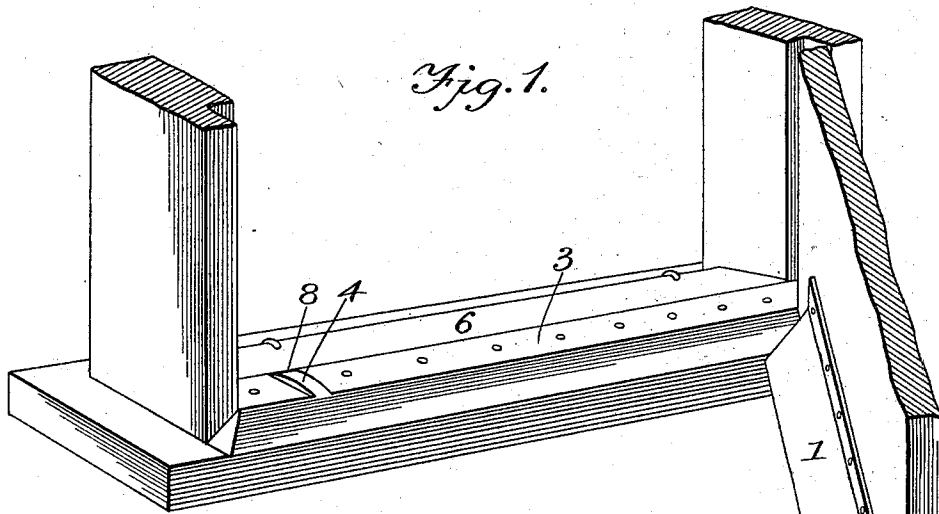


(No Model.)

S. S. HOWARD.
WEATHER STRIP.

No. 585,520.

Patented June 29, 1897.



Witnesses
Edwin L. McKee
V. B. Hillyard.

By his Attorneys,

Chas. Snow & Co.

UNITED STATES PATENT OFFICE.

SIDNEY SEYMOUR HOWARD, OF DANA, KANSAS.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 585,520, dated June 29, 1897.

Application filed March 23, 1897. Serial No. 628,906. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY SEYMOUR HOWARD, a citizen of the United States, residing at Dana, in the county of Phillips and State of Kansas, have invented a new and useful Weather-Strip, of which the following is a specification.

This invention relates to means for securing a close joint between the lower edge of a door and its threshold for excluding wet, dust, and wind, and which will not present crevices and spaces for the accumulation of dirt, and which is readily accessible for repairs, cleaning, and other required purposes.

The invention relates to that class of weather-strips which embody a storm-plate hinged to the door-sill, a shedding-plate attached to the lower portion of the door, and an intermediate means for tilting the storm-plate and throwing its free edge beneath the lower edge of the shedding-plate upon closing the door.

For a full understanding of the merits and advantages of the invention reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of the lower portion of a door and its casement, showing the application of the invention. Fig. 2 is a transverse section showing the relation of the parts when the door is closed. Fig. 3 is a view similar to Fig. 2, showing the relation of the parts when the dog is about to engage with the storm-plate. Fig. 4 is a detail perspective view of the dog and its supporting-bracket. Fig. 5 is a detail view in perspective of the end portion of the threshold-strip provided with the raised portion for tripping the dog.

Corresponding and like parts are referred to in the following description and indicated in the several views of the drawings by the same reference-characters.

The shedding-plate 1 is secured along its

upper edge to the lower portion of the door and has its lower portion deflected to turn the water. An end portion of the plate is bent to close the angular space formed between the plate and the door and acts as a brace and a guard, thereby preventing the clothing or foot from engaging with the thin edge of the plate, as would happen if the end portion were not bent, as indicated at 2.

The threshold-strip 3 is secured to the door-sill and comes beneath the door when the latter is closed and is provided at or near the end remote from the hinge-stile with a raised or cam portion 4 to trip the dog 5, applied to the door, whereby the inner or free edge of the storm-plate 6 is elevated upon closing the door. This raised or cam portion 4 may be provided in any desired manner, and it is not essential that it be an integral part of the threshold-strip, although this construction is preferred. The raised or cam portion is convex on its outer or active face, whereby the dog rides up one end portion and down upon the other end portion and is caused to pass beneath the free edge of the storm-plate. A wear-plate 7 is applied to the door-sill in line with the cam portion 4 for the active end of the dog to travel upon after it leaves the cam 4, and this wear-plate is concealed beneath the storm-plate. The storm-plate 6 is hinged at its outer edge to the door-sill in any convenient way, preferably by staples driven into the door-sill and having a member passing through an opening of the storm-plate adjacent to its outer or hinged edge. This storm-plate inclines upwardly and inwardly, and its inner or free edge makes a close joint with the outer edge of the threshold-strip, thereby obviating any projecting edges. A notch 8 is formed in the inner lower corner of the storm-plate, at a point directly opposite the cam 4, whereby a space is provided for the entrance beneath the storm-plate of the front end of the dog 5 upon closing the door. The notch 8 results in the provision of a knife-edge opposite the cam 4, thereby insuring the passage of the dog beneath the storm-plate when closing the door.

A bracket 9 is secured to the side of the door, having the shedding-plate applied thereto, and is remote from the hinged edge of the door and is located beneath the shedding-

plate and is protected and concealed from view thereby. The outer edge of the bracket conforms to the deflected portion of the shedding-strip, and the lower portion of its outer edge is cut away, forming a space 10, which slightly flares at its lower or receiving end to readily admit of the entrance therein of the storm-plate when closing the door. The dog 5 is pivoted intermediate of its ends to the outer end portion of the bracket, and its inner end is made rounding and heavier than the outer end to hold the outer end of the dog elevated, and the inner end of the said dog projects below the plane of the lower edge of the shedding-plate and door, so as to engage with the cam 4 and cause the front end of the dog to pass beneath the storm-plate. The lower edge of the dog is depressed or concave, and its upper edge is convex, so as to properly direct the storm-plate into the space 10 and beneath the lower edge of the shedding-plate. A stop 11, applied to the bracket, limits the upward throw of the rear end of the dog, which is essential to the successful operation of the invention.

When the door is open, the inner edge of the storm-plate forms a close joint with the outer edge of the threshold-strip, and upon closing the door the heel end of the dog rides upon the cam 4 and depresses the front end of the dog and causes it to enter the notch 8 and pass beneath the storm-plate, and upon pressing the door to the storm-plate will ride upon the upper or convex edge of the dog and pass beneath the shedding-plate, thereby forming a close joint therewith and excluding wind, dust, and rain.

Having thus described the invention, what is claimed as new is—

1. In a weather-strip, the combination of a storm-plate hinged at its outer edge, a shedding-plate secured to the lower portion of the door, a cam applied to the threshold, and a dog provided on the door and concealed beneath the shedding-plate, and having its lower edge depressed or concave and its upper edge convex, the heel portion of the dog adapted to ride upon the said cam and cause the front end of the dog to pass beneath the free edge of the storm-plate, and the upper

edge of the dog directing the free edge of the storm-plate beneath the shedding-plate, substantially as set forth.

2. In a weather-strip, the combination of a storm-plate hinged along one edge, a cam having its active face convex, a wear-plate in line with the cam and coming beneath the storm-plate, a shedding-plate secured to the door, a bracket applied to the door and wholly concealed by the shedding-plate and forming a space therewith, and a dog pivoted to the bracket and having its upper edge convex and its lower edge concave, the rear end of the dog being of superior weight and adapted to ride upon the aforesaid cam to cause the front end of the dog to pass beneath the storm-plate and direct the latter beneath the lower edge of the shedding-plate and into the space formed between the shedding-plate and the outer edge of the bracket, substantially as set forth.

3. In a weather-strip, the combination of a threshold-strip secured to the door-sill and having a cam portion at the end remote from the hinge-stile, a wear-plate in line with the cam, a storm-plate mounted to turn upon its outer edge and having its inner edge forming a close joint with the outer edge of the threshold-strip, and having a notch opposite the cam, a shedding-plate secured to the door and having the space at its outer end closed, a bracket protected by the shedding-plate and having a space between its lower portion and the said shedding-plate, and a dog pivoted to the bracket intermediate of its ends and having its heel end of superior weight and adapted to ride upon the cam and cause the front end of the dog to enter beneath the storm-plate when closing the door and direct the inner edge of the storm-plate beneath the shedding-plate and into the space formed between the shedding-plate and bracket, substantially as set forth.

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

SIDNEY SEYMOUR HOWARD.

Witnesses:

J. S. WILSON,
H. O. HOOVER.