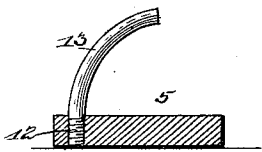
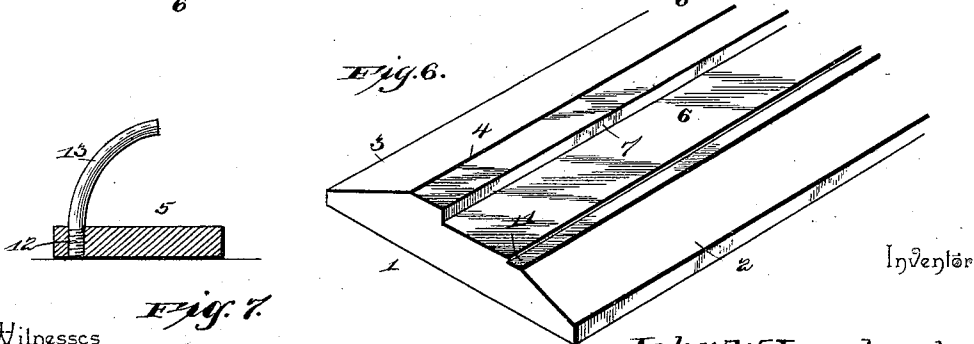
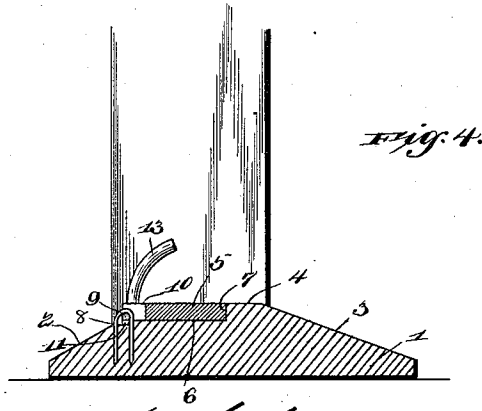
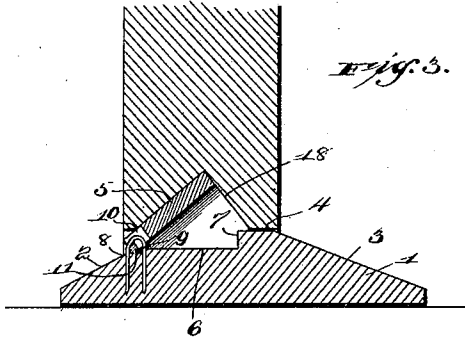
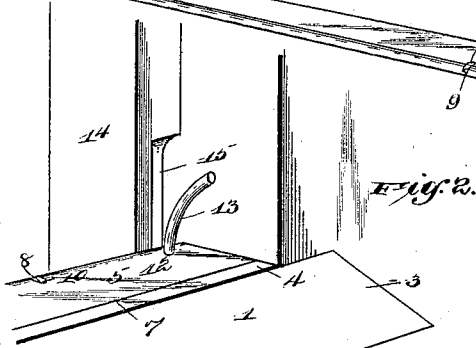
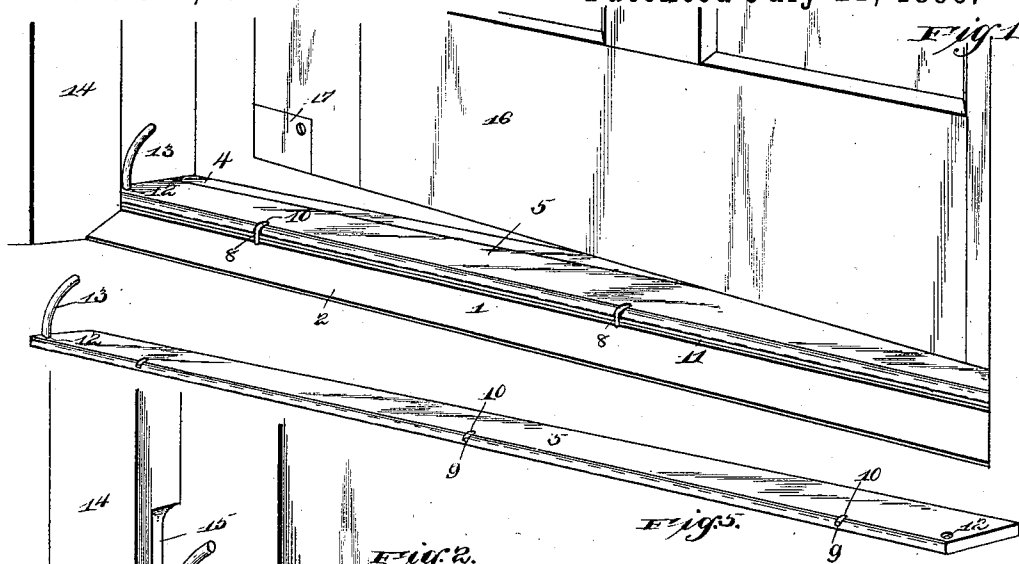


(No Model.)

J. W. LOVELAND.
THRESHOLD STRIP.

No. 564,206.

Patented July 21, 1896.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN WILLIS LOVELAND, OF LINCOLN, ILLINOIS.

THRESHOLD-STRIP.

SPECIFICATION forming part of Letters Patent No. 564,206, dated July 21, 1896.

Application filed January 18, 1895. Serial No. 535,425. (No model.)

To all whom it may concern:

Be it known that I, JOHN WILLIS LOVELAND, a citizen of the United States, residing at Lincoln, in the county of Logan and State of Illinois, have invented a new and useful Threshold-Strip, of which the following is a specification.

My invention relates to a threshold-strip for doors and hinged sashes; and the objects in view are to provide a threshold-strip for use in connection with an ordinary wooden door-sill, which will protect such sill from wear without forming any projection or obstruction above the plane of the sill; to provide a hinged threshold-strip in which the hinges are protected from wear by the travel through the door; to provide means whereby when the threshold-strip is in its operative position, as when the door is closed, the joint between the lower edge of the strip and the contiguous portion of the sill is broken to form an airtight connection; to provide means whereby when the door is open the means for elevating the free edge of the strip is out of the way; and, finally, to provide a simple and inexpensive strip which may be attached to the sill of any ordinary door and which is reversible to suit either a left or right hand door.

Further objects and advantages of the invention will be understood from the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of a threshold-strip embodying my invention, arranged in the operative position upon a door-sill, the same being viewed from the outside of the door. Fig. 2 is a perspective view of one end of the threshold-strip and the contiguous part of the door sill and jamb. Fig. 3 is a transverse section of the threshold-strip and contiguous portion of the sill and door, the latter being closed. Fig. 4 is a transverse section showing the threshold-strip in its horizontal position. Fig. 5 is a detail view in perspective of the threshold-strip. Fig. 6 is a similar view of a portion of the door-sill. Fig. 7 is a detail transverse section of the strip to show the manner of securing the trip thereto.

Similar numerals of reference indicate cor-

responding parts in all the figures of the drawings.

1 designates a door-sill, which is preferably of wood and of the ordinary construction, having the outer beveled surface 2, the inner beveled surface 3, and the top horizontal surface 4. In order to provide for mounting the improved threshold-strip which is shown at 5, I form a horizontal seat 6 in the sill and terminating short of the inner edge of said upper side, thus forming a longitudinal shoulder 7, which is equal in depth to the thickness of the threshold-strip, which is preferably constructed of metal, whereby wearing of the door-sill is prevented by the threshold-strip. This seat 6 is horizontal and is of slightly less width than the threshold-strip, whereby the outer edge of the latter overhangs the outer edge of the door-sill, said outer edge being hinged to the door-sill by means of clips 8, driven into the door-sill and engaging reduced spindles 9, formed by cutting openings 10 in the outer edge of the strip. These spindles are arranged flush with the outer edge of the strip and with the lower surface of the same, but do not extend to the upper surface, whereby the upper or looped ends of the clips are countersunk in the openings 10 and are protected from wear by the feet of passengers.

In the outer beveled surface of the door-sill, under the overhanging or projecting outer edge of the threshold-strip, is formed a shallow rabbet 11, to receive said outer edge of the strip when the latter is raised to an inclined position by the closing of the door, as shown in Fig. 3.

The threshold-strip is provided contiguous to both extremities with threaded sockets 12 for the reception of the threaded shank of a curved trip 13, said trip being disposed in the socket which is adjacent to the free edge of the door, and being in one socket or the other according to whether the device is used in connection with a right or left hand door. The sockets for the reception of the trip are arranged so close to the ends of the strip as to be outside of the plane of the inner surface of the jamb 14, as shown clearly in Fig. 2, and the jamb is provided with a recess or cavity 15 to receive the trip when engaged

by the door, or when the strip is in its inclined or operative position. The door 16 is provided near its outer or free edge with a wear-plate 17, to engage the trip and thus avoid marring the door, and it is further provided in its lower edge with an inverted V-shaped groove or channel 18 to receive the upraised end of the threshold-strip when the door is closed.

By employing the above-described means for adopting the strip for either a right or left hand door the improved strip may be manufactured in a common die, the adjustment of the trip being accomplished at the time of applying the strip to the door. Thus in buying strips it is unnecessary to note whether the doors to which they are to be applied are of the right or left hand type.

This being the construction of the improved threshold-strip, it will be understood that when the door is open said strip lies in the horizontal seat provided for it in the upper side of the door-sill with its upper surface flush with the horizontal upper surface of the sill, the latter being cut to form the seat and the seat terminating short of the inner edge of the sill in order to form a shoulder to cover the inner edge of the strip. It will be seen, furthermore, that the clips, whereby the strip is hinged to the sill, are concealed and protected by reason of their upper looped ends being countersunk in the strip, and that when the strip is elevated at its inner edge, by the contact of the door with the trip, its outer edge drops into the shallow rabbet at the outer edge of the top of the sill, to form an air-tight joint. This action of the strip when elevated is due to the fact that the reduced spindles of the strip are flush with the outer edge and lower surface of the strip and are of less diameter than the interior of the clips. Thus when the strip is in its horizontal position, as shown in Fig. 4, the spindles are in contact with the upper looped ends of the clips and the strip is held from looseness; but when the strip is in its inclined or operative position, as shown in Fig. 3, the spindles are depressed in the clips and occupy positions contiguous to the floor of the rabbet. When the strip is in this position, if it were not pressed outward firmly by means of the door, it could be raised and lowered by the looseness of the spindles in the clips. When, however, the free edge of the strip is elevated by the outward pressure of the free end of the strip, said free edge of the strip is engaged by the surface of the groove or channel in the

lower edge of the door and the outer edge of the strip is pressed firmly against the floor of the rabbet.

The object in using a door-sill of the ordinary construction is that it simplifies the device and lessens the cost; but in addition thereto it should be observed that a metal strip will not become fastened by freezing to a wooden sill, whereas if both parts are of metal they may become so firmly attached as to cause breakage when the door is moved. Furthermore, it will be observed that the device consists, essentially, of a single flat bar of metal cut at intervals in one edge to form the spindles for the clips and at its opposite ends to form sockets for the reception of the trip. The construction aside from this consists in the cutting of the door-sill to form a horizontal seat for the strip when in its horizontal position and a rabbet for the reception of the outer edge of the strip when in its operative position.

It will be observed that the threshold-strip is slidably fulcrumed on the edge of the rabbet; it rocks upon the edge of the rabbet as a fulcrum, and also slides thereon as it is being rocked from its operative into its inoperative position, or vice versa. Thus, in the event of any foreign matter getting beneath the hinged edge of the strip or between such edge and the floor of the rabbet, close contact will still be preserved between the strip and the upper corner of the rabbet, due to the ability of the strip to rise and fall at its hinged edge and adjust itself.

It will be understood that various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, I claim—

A door-sill having a rabbet at one edge, in combination with a flat hinged strip, one edge of which overhangs the rabbet and has reduced spindles below its upper surface, and fasteners with vertically-oblong bearings in which the spindles may turn and slide, whereby said strip is slidably fulcrumed on the edge of the rabbet, 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.

JOHN WILLIS LOVELAND.

Witnesses:

PHIN. B. HUNGERFORD,
FRANKLIN PIPPENGER.