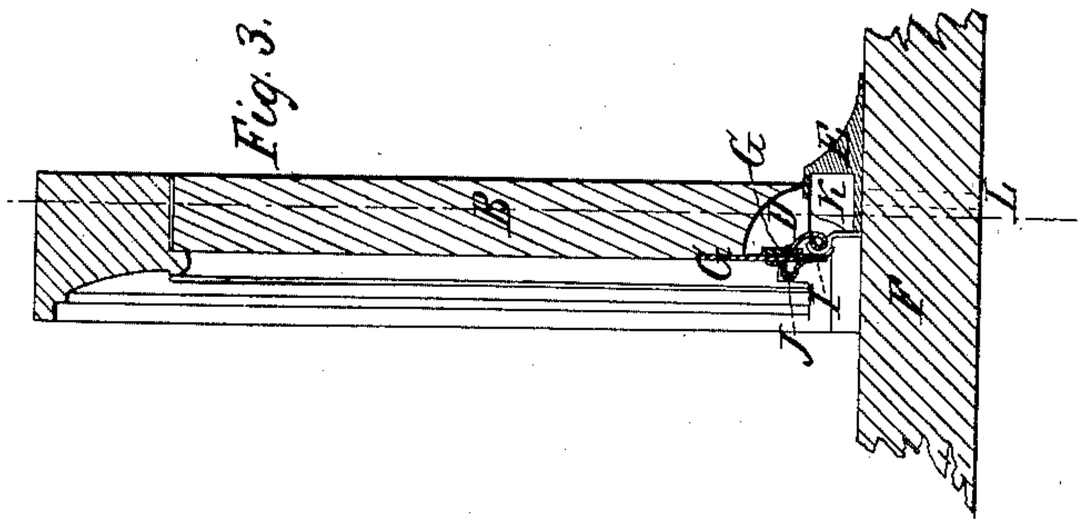
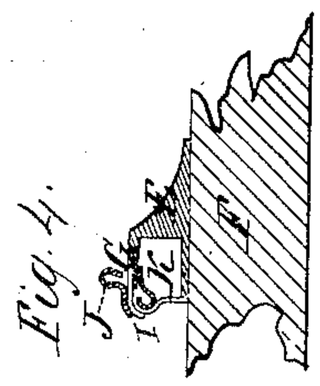
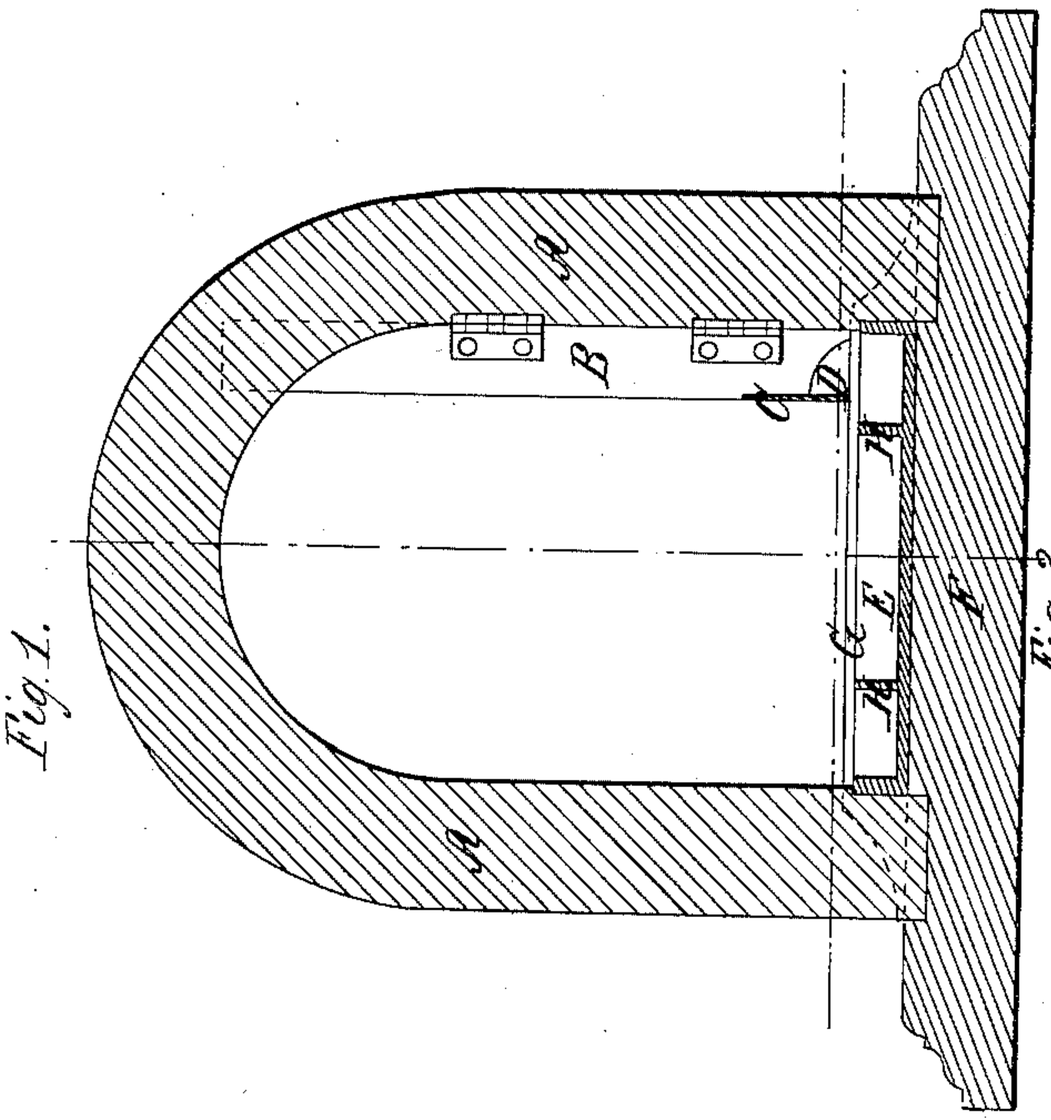
A. Heavener.

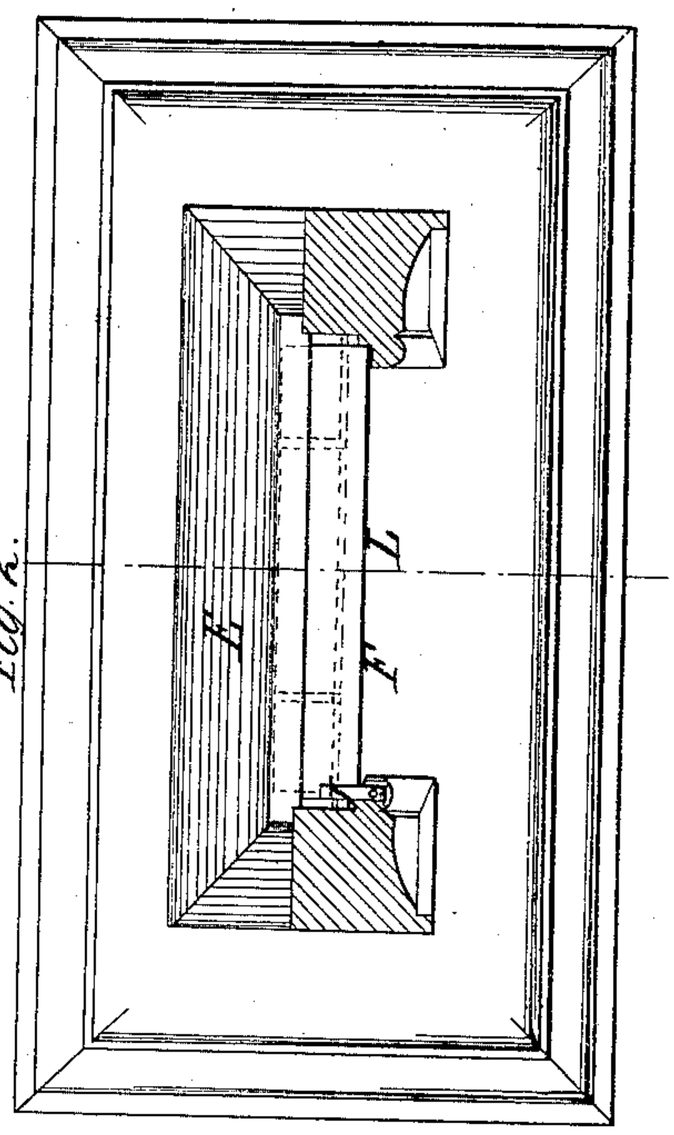
Weather Strip.

No. 36,997. Patented Nov. 25, 1862.









Witnesses;
A Steward
Orrel Guro

Inventor;
A Heavener

UNITED STATES PATENT OFFICE.

A. HEAVENER, OF PLANO, ILLINOIS.

IMPROVEMENT IN WATER-PROOF THRESHOLDS.

Specification forming part of Letters Patent No. **36,997**, dated November 25, 1862.

To all whom it may concern:

Be it known that I, A. HEAVENER, of Plano, in the county of Kendall and State of Illinois, have invented a new and useful Improvement in Thresholds, the purpose of which is to prevent rain from being driven in underneath or at the sides of outside doors, which improvement or invention I term a "water-proof threshold;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a vertical, Fig. 2 a horizontal, and Figs. 3 and 4 are transverse, sections.

The same parts in different sections are shown in different positions by same letters, as follows:

A A are door-jambs; B, edge of door, (open;) C, plate on door; D, cavity in bottom of door; E, threshold; F, door-sill; G, valve, hung to threshold with water-proof hinge; H H, supporters to valve; I, hinge; J, spring on valve; K, groove or channel in threshold under valve; L, hole through threshold.

The nature of my invention consists in a threshold composed of cast-iron or other metal, so constructed that when the door is open it answers all the purposes of an ordinary metal threshold, and when the door is closed it answers for the purpose of excluding rain, as stated above.

I construct my threshold about three-fourths of an inch in thickness, and the shape and width of an ordinary one, and secure it to the door-sill, under the door, as shown at E. Along the top, about one-eighth of an inch from the outside or front of the threshold, running parallel with it, is a groove or channel, as shown at K, say one-half inch deep and three-fourths of an inch wide, leaving the front part about one-eighth of an inch thick and one-half of an inch high, the upper edge of which is made in circular form, to form part of the hinge, as shown at I. Lying upon the top, running parallel with and covering the groove K, is the valve G, the front edge of which is also made in circular form to cover the outside or convex side of the circular portion of the threshold. Upon the under side of the valve G is a plate, secured by rivets or otherwise, extending the entire length of the valve, the front edge of which plate is made in a circular form also, but in an opposite direction to, so as to fit the inside or concave of the circular portion of the valve, with space enough between these two parts to admit of the circular portion of the threshold, these three parts thus forming the hinge, as shown at I. Underneath the valve G, in the groove K, are supporters, as shown at H H, upon which the valve rests when the door is open. About the center of the door, and at the bottom of the groove K, is a hole through the threshold, connecting also with a hole through the door-sill, as shown at L. Upon the top of the valve, at the end opposite the hinges upon which the door hangs, is a spring, secured by a rivet to the valve, as shown at J. The bottom outside corner of the door is planed off in a circular or concave form, as seen at D, which circle is large enough to allow the valve G to rise and fall while the door is closed. Upon the outside of the door, at the bottom, is a metal plate, about one inch wide and extending the whole width of the door.

The operation of my threshold is as follows: When the door is open, it has the appearance of an ordinary threshold, the valve lying down, as shown by Fig. 4. When the door is closed, the plate C strikes the spring J, causing the valve G to turn up into the cavity D, where it is held with the top pressing against the plate C by the spring J, as shown by Fig. 3. Should rain be driven in at the sides of the door, it follows down the rabbet until it reaches the threshold, where it is arrested by the groove or channel K and conducted to the hole L, where it escapes to the outside of the building.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The valve G, with hinge I and spring J, as described.

2. The groove or channel K, as described, and for the purpose specified.

A. HEAVENER.

Witnesses:

A. STEWARD,

ORREL GREEN.