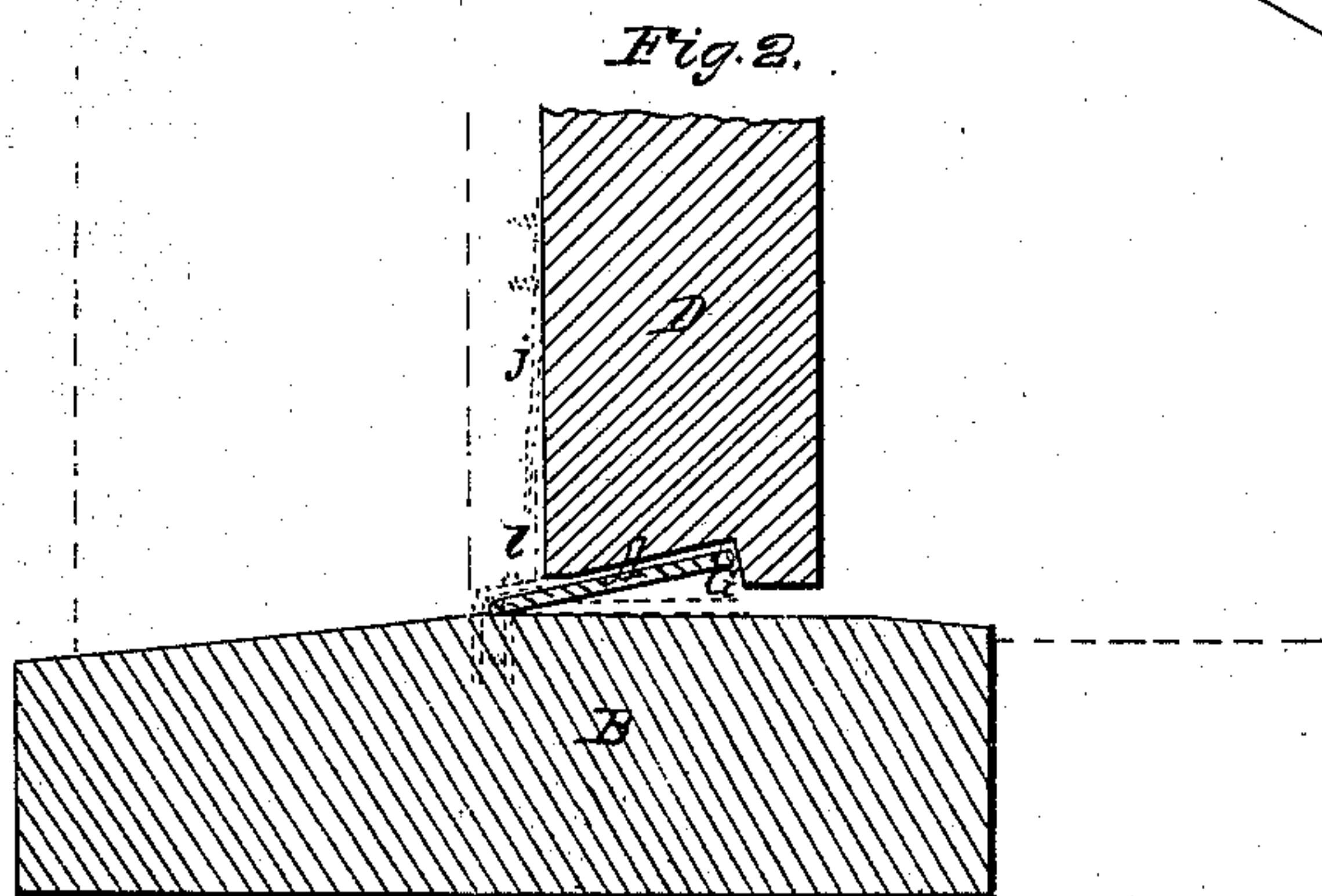
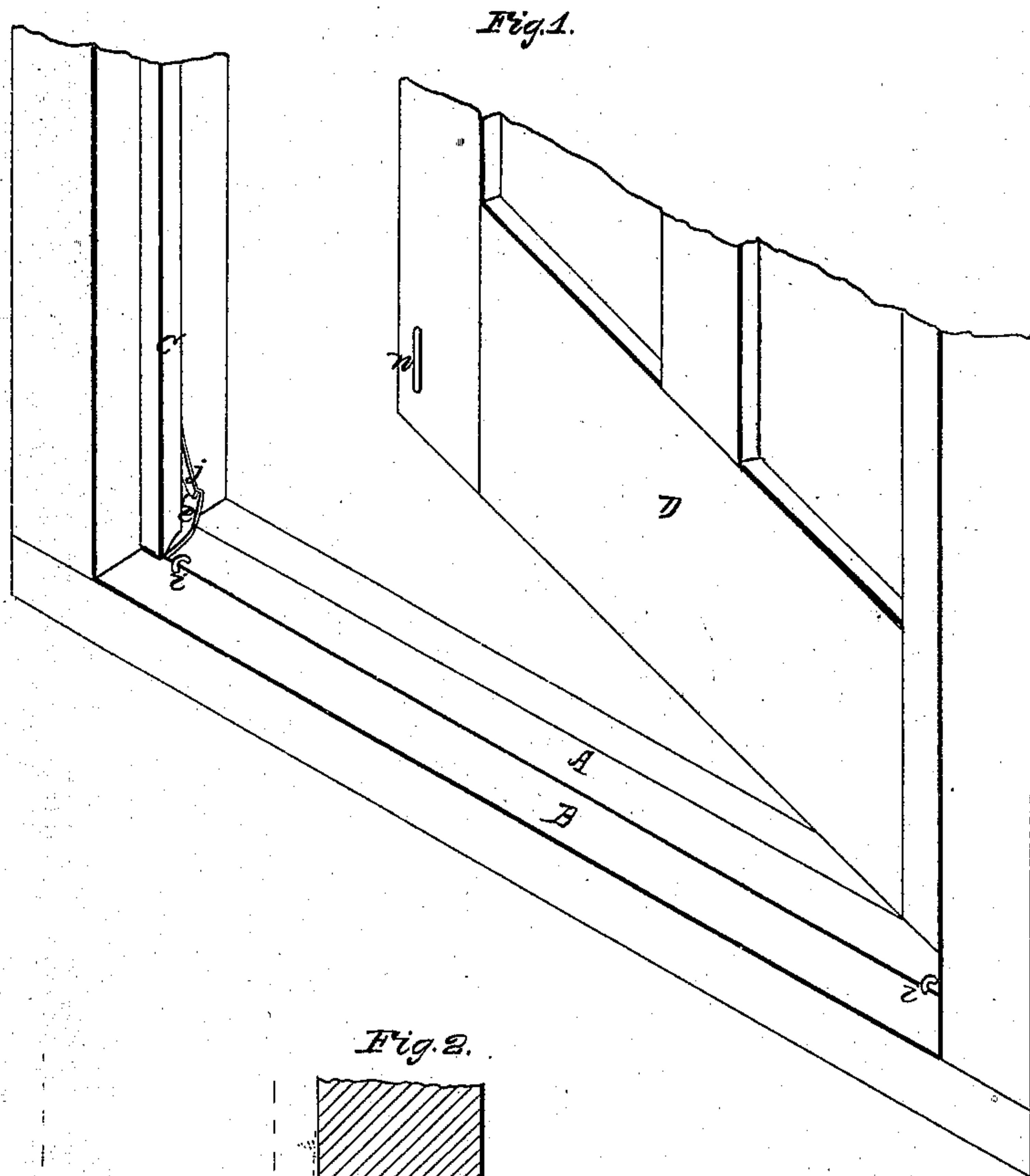


Covey & Birch.

Weather Strip

N^o 103,302.

Patented May 24, 1870.



Witnesses:
George Johnson.
G. Mc Millan

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United States Patent Office.

ERASTUS G. COVEY AND ADDISON BIRCH, OF MARSHALL, MICHIGAN.

Letters Patent No. 103,302, dated May 24, 1870.

IMPROVEMENT IN WEATHER-STRIPS FOR DOORS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that we, ERASTUS G. COVEY and ADDISON BIRCH, both of the city of Marshall, in the county of Calhoun and State of Michigan, have invented a new and useful Improvement in Weather-Strips for Doors; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings making a part of this specification, in which—

Figure 1 is a view in isometrical perspective.

Figure 2 is a cross-section through door-sill, and lower part of door.

Similar letters of reference indicate corresponding parts in both figures.

Our invention is more especially designed to exclude wind, rain, or snow from admission into a building through the clearance space between the lower edge of a door and its sill or threshold, and consists in the peculiar construction, arrangement, and combination of parts as claimed hereinafter; and, the better to enable others skilled in the art to construct and apply our invention, we will now proceed to describe it.

A represents the weather-strip, laying longitudinally along the threshold or sill B of a door-way, which strip we usually construct of sheet metal, but it may be of any other material adapted to the purpose.

We hinge the outer edge of the weather-strip to the sill in any suitable manner, but generally by brass wire staples, (two or more,) in the mode substantially as at *i*, the strip being hinged in such relative position with the shut door as will presently more fully appear.

As the door D is being just closed, it impinges against a short tilting arm, *e*, bent upward at a proper angle, and tilts up the inner side of the weather-strip into an angular recess or groove, which we form by cutting and planing away a central strip of the wood in the bottom edge of the door throughout its entire width, as may be clearly seen at G.

We secure the tilting-arm *e* to the extreme end of the weather-strip, and behind the door-stop C, as to be entirely out of the way; and it will be found necessary to cut away and recess the door-stop a little to receive the thickness of the arm when said arm is pushed back against it by the close shutting of the door, and tilting the weather strip into the door-groove G, as aforesaid.

The extension of strip A behind the stop C has the effect of preventing the entrance of water at this point.

When the door is closed the weather-strip forms an angle with the sill, more or less acute, according to the width of the space to be covered; the outer edge being hinged, so as to form a close joint with the sill, and the inner edge penetrating the body of the door, all rain or snow that may drift against the door is effectually shed and excluded.

Of course, when the door is opened, the weather-strip A will fall back on the sill by its own gravity; but, should it be deemed necessary to hold it down there with sufficient firmness to prevent accidental lifting in passing over the threshold, a properly graduated spring, as at *j*, may be screwed to the door-stop, so as to act against the tilting-arm. This spring, if it have sufficient tension, will prevent the door from rattling by the force of the wind; and, to prevent wearing the door at the point of rubbing contact, a pronged wire or narrow metal strip may be inserted, as at *n*.

Our arrangement preserves the external integrity of the door, is simple and inexpensive, and, if properly erected, seals up the bottom space almost hermetically against the elements.

We do not claim, irrespectively, the lifting a weather-strip by the impingement of the door, in closing, against an arm, or any cam-like projection, for this is not new; but

Having described our invention,

What we do claim as our invention, and desire to secure by Letters Patent, is—

1. The plate A, when extended behind the stop C, and having the arm *e*, arranged as shown, said plate being raised by the closing of the door, and fitting into the recess G, made as shown, all as herein described and represented.

2. In combination with the door-strip, constructed and arranged as described, the spring *j*, as and for the purpose set forth.

ERASTUS G. COVEY.
ADDISON BIRCH.

Witnesses:

GEORGE JOHNSON,
O. McMILLAN.