

(No Model.)

P. P. NEGROPONTE.
WEATHER GUARD FOR DOORS.

No. 370,207.

Patented Sept. 20, 1887.

Fig. 1.

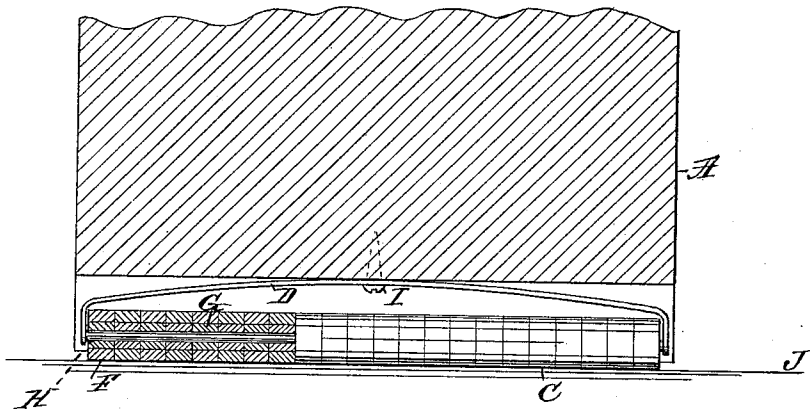
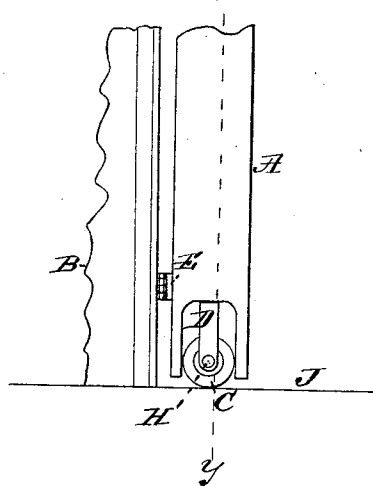


Fig. 2.



WITNESSES:

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WEATHER-GUARD FOR DOORS.

SPECIFICATION forming part of Letters Patent No. 370,207, dated September 20, 1887.

Application filed February 18, 1887. Serial No. 228,049. (No model.)

To all whom it may concern:

Be it known that I, PAUL P. NEGROPONTE, of the city, county, and State of New York, have invented a new and useful Weather-Guard for the Bottoms and Sides of Doors, Meeting-Rails of Windows, and such like Joints; and I hereby declare that the following is a full, clear, and exact specification and description of the same, taken in connection with the accompanying drawings, forming part of the same.

I am aware that various elastic strips have been used for the purpose of preventing the passage of drafts, &c., between joints; but I am not aware that revolving strips so arranged that they can assume any desirable angle to conform to the inequalities of surfaces have ever before my invention been devised or used. My invention is designed to accomplish this; and to this end it consists in certain mechanical devices and parts, fully set forth and claimed at the end of this specification and schedule.

In order that persons skilled in the art may construct, use, and thoroughly understand my invention, I will proceed to describe it, referring to the drawings herewith, in which—

Figure 1 is a vertical longitudinal part section of my invention applied to the bottom rail of a door. Fig. 2 is an end view of my invention.

The invention is shown applied to a door.

A is the door.

B is the door-post.

E is the lower hinge.

D is a spring secured in a recess cut in the lower rail of the door by a screw, I. This spring is shown flat and extending endwise, and bent angularly to provide bearings for the ends of the axle-rod H to take into for support and motion.

J is the door-sill or floor-line, as the case may be, against which the spring D presses the rod H, covered by roller C. This roller C extends upon rod H, on which it turns, from end to end of the slot in the bottom rail between the end bearings in spring D, and is of suitable diameter to about fill the width of the slot or recess aforesaid.

The drawings show the roll C subdivided into shorter rolls F, and composite in character, the center portion of each roll being provided with a center part, G, made of some elastic substance, the outer shell being made

either rigid or felt-treated to resist moisture and able to receive slight compression. These rolls F, which compose the whole roll C, are not fitted tightly upon axle H, but are made loose enough to turn upon it when in action. Axle H also is made to turn in the end bearings in spring D, so that the whole roll C may revolve as a unit or by its separate sections, according to circumstances, and that they may lift over minor obstructions on the sill or floor J. The elastic center pieces in each roll F allow of this action in addition to the action of spring D on the roll C as a whole—that is, the spring D allows the whole roll C to assume any angle as to the sill or floor, and the elastic centers G of rolls F allow each roll F to assume any angle individually or to lift over any minor obstruction or unevenness. Of course the resistance of the elastic cores of F will be made less than the greater elasticity of spring D. To still further provide for smaller inequalities, I make, sometimes, the outer shell of rolls F of some impressionable substance; but usually this is not needed, a substantially hard shell being all that is needed.

The operation of my invention will be clearly understood from the preceding description. When the roller C as a whole, or any of its subdivisions, in moving over the floor or sill comes to an angular surface, the spring D yields and allows the roll to assume an angle to correspond, always keeping the roll in contact with said floor-surface to prevent wind or drafts passing between them.

To windows and other places where one member moves past another the same general features of my invention are maintained, and the method of adaptation will be obvious to skilled mechanics.

Having now fully described my invention and the manner in which I have applied and embodied it, what I claim as new, and desire to secure by Letters Patent, is—

In a weather-strip, the combination, with the axle H, of the series of rolls F, provided with elastic centers G, and mounted upon axle H so as to revolve thereon, and the spring D, all arranged to operate substantially as hereinbefore set forth.

PAUL P. NEGROPONTE.

Witnesses:

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