

S. A. PIPER.
Weather-Strips.

No. 153,909.

Patented Aug. 11, 1874.

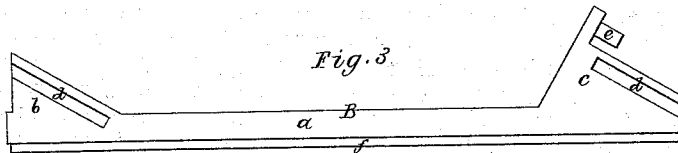
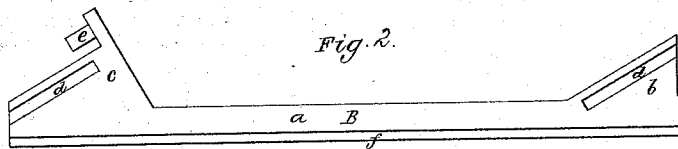
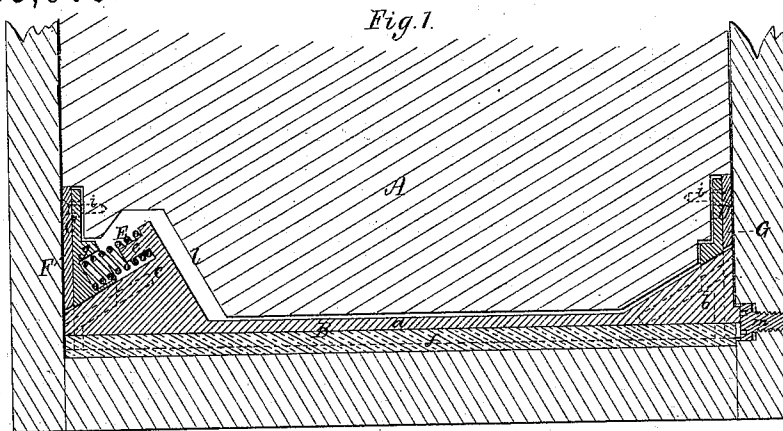


Fig. 4.

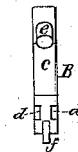


Fig. 5.

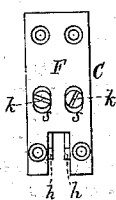


Fig. 6.

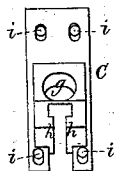


Fig. 7.

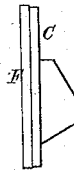


Fig. 8.

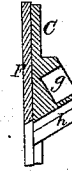


Fig. 9.

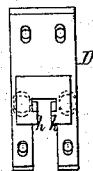


Fig. 10.



Witnesses
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UNITED STATES PATENT OFFICE.

SAMUEL A. PIPER, OF NEWTON UPPER FALLS, MASSACHUSETTS.

IMPROVEMENT IN WEATHER-STRIPS.

Specification forming part of Letters Patent No. **153,909**, dated August 11, 1874; application filed July 15, 1874.

To all whom it may concern:

Be it known that I, SAMUEL A. PIPER, of Newton Upper Falls, of the county of Middlesex and State of Massachusetts, have invented a new and useful Improvement in Weather-Guards for Doors; and do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a vertical section of the lower part of a door provided with my improved weather-guard. Figs. 2 and 3 are opposite side views, and Fig. 4 is an end view, of the guard. Fig. 5 is a front view, Fig. 6 a rear view, Fig. 7 a side view, and Fig. 8 a vertical section, of the front-end supporter of said guard. Fig. 9 is a rear view, and Fig. 10 a vertical section, of its rear supporter.

The door A is chambered at the bottom to receive the guard B, which consists of a metallic bar, *a*, provided with two triangular projections, *b c*, extending upward from it at its opposite ends, as shown. In each of the said projections there are two inclined grooves, *d d*, which are disposed opposite each other, and, in other respects, as represented. From the upper corners of the front projection there is an extension or spring supporter, *e*, formed as shown. The guard is grooved from its lower edge upward, to carry a strip, *f*, of vulcanized india-rubber, all being as represented. The front supporter C of the guard is provided with a socket, *g*, to receive one end of a spring, E, whose other end rests against and is entered by the part *e* hereinbefore referred to. Furthermore, the supporter C straddles the grooved part *c* of the guard, and is provided with two inclined tongues, *h h*, to enter the grooves *d d* of the part within it. The said supporter C is also slotted vertically to receive screws *i i* that fasten a plate, F, to the door. Other screws, *k*, for fastening the supporter to said plate F, go through vertical slots *s s* in the said plate, such admitting of the supporter C with the guard being adjusted vertically as the elastic shoe *f* may require for its proper arrangement from time to time with the threshold of the door-frame.

The rear supporter D of the guard straddles the guard and is furnished with inclined tongues *h h* to enter the next adjacent grooves *d d*, and, like the front supporter, has applied to it a holding-plate, G, which is secured to it and the door by screws, which go through vertical slots in the holding-plate and supporter, the whole being so as to enable the supporter to be adjusted vertically as occasion may require.

This weather-guard, in some respects, is analogous to that recently patented by me, in which the guard was composed of a bar provided with standards and inclined arms extended from such standards, and through screws going upward to the door. This latter guard to be adjusted vertically had first to be removed from the door, in order to gain access to the guide-screws, every adjustment being limited to one or more complete revolutions of each of such screws. With my present invention not only can the adjustment be effected without necessity of removing the guard from the door, but it can be accomplished in an easier or better manner and with all requisite precision.

When the door is open the guard will project a short distance beyond that edge of it which is next its hinges, the rearward movement of the guard being stopped by the front projection bringing up against the part *l* of the recess in the door. While the door may be in the act of being closed the guard will be driven forward by being forced against the door-frame or a back-stop, *m*, therein, and while so moving such guard, by its grooves *d d* and the tongues *h h*, will be forced downward toward the threshold.

I claim—

1. The guard composed of the bar *a* and the projections *b c*, provided with the inclined grooves *d d*, in each of them, all as described.

2. The guard provided with the projections *b c* and grooves *d d*, arranged as described, in combination with the supporters C D, arranged to straddle the guard and having tongues to enter its grooves, as set forth.

3. The guard provided with the projections

b c, grooves *d d*, and spring-supporter *e*, arranged as described, in combination with the supporters *CD*, arranged to straddle the guard and provided with the tongues *h* and the spring-socket *g*, all being as set forth.

4. The combination of the slotted support-plates *F G*, provided with clamp-screws, as

described, with the guard *B* and its supporters *C D*, arranged and applied together and to the door, substantially as specified.

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Witnesses:

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