E. Gurnsey.

Weather Strip.

No. 6,828. Patented Oct. 30, 1849.

Fig. 1

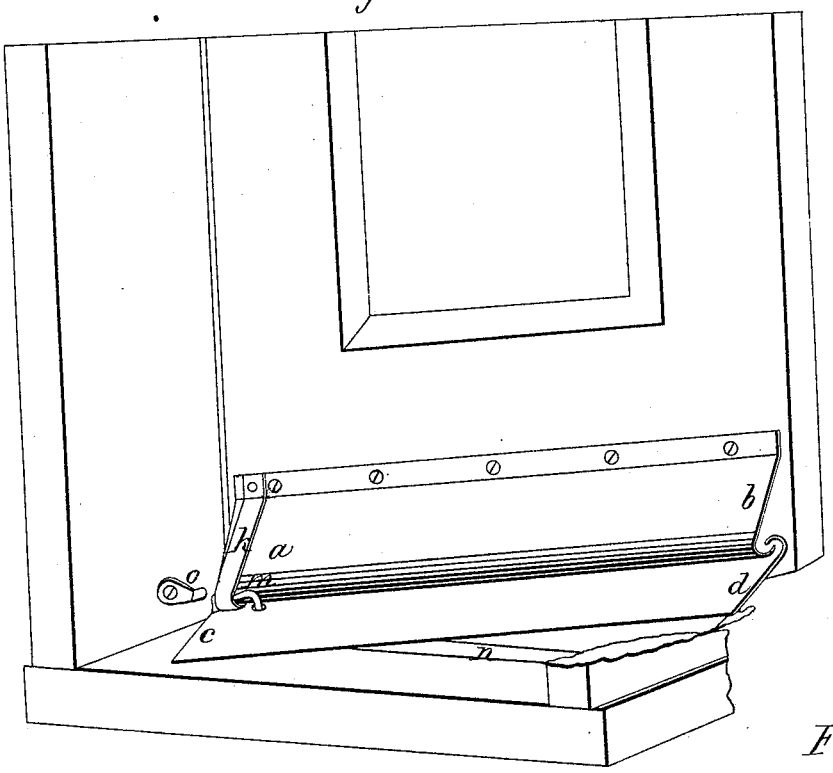


Fig. 3

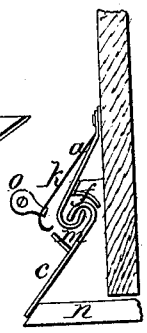
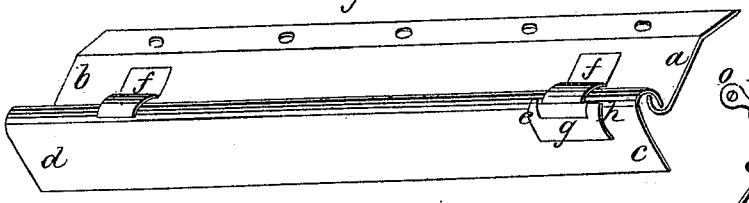


Fig. 2



UNITED STATES PATENT OFFICE.

EBENEZER GARNSEY, OF WATERTOWN, CONNECTICUT.

WEATHER-STRIP.

Specification of Letters Patent No. 6,828, dated October 30, 1849.

To all whom it may concern:

Be it known that I, EBENEZER GARNSEY, of Watertown, Litchfield county, State of Connecticut, have invented a new and Improved Method of Constructing Weather-Strips for Preventing the Passage of Air or Water Under the Bottom of House-Doors, which I call: "Garnsey's Improved Weather Strip;" and I declare the following specification, with the drawings hereto attached as part of the same, to be a full and accurate description thereof.

Figure 1 represents the lower part of a door with jambs, threshold, doorstep in perspective; a part of the right jamb being removed to show the door strip attached to the bottom of the door. Fig. 2 represents the reverse of the door step; to show the mode of securing the separate parts of the strip from changing position to the right or left, when the strip is in use and of detaching the lower part when desired. Fig. 3 is a profile, or cross section of the strip to show how the two parts, hinge one on the other.

Similar letters representing similar parts in all the figures.

I make my weather strips of wood and metal, or of metal alone, which I prefer and which mode of construction I refer to in this specification, consisting of two strips, an upper one *a*, *b* and an under one *d*, *c*, of say one and a quarter inches wide and of sufficient length, to reach the width between the door jambs. The lower edge of the upper strip *a*, *b*, and the upper edge of the lower strip *c*, *d*, are to be turned over in the form of a half cylinder, as shown in Fig. 3, and the edges made fair and straight, and slightly rounded, so that the edge of the one strip, and the hollow of the other in which it plays, shall fit each other, thus excluding air and making an air-tight joint, if desired. To make the hinge secure, and keep its place properly I attach two or more small pieces of metal *f*, *f*, Figs. 2 and 3 fastened to the back of the upper strip and so curved as to pass over and parallel with the curved top of the lower strip extending around one half of its curve—leaving sufficient play between the lower strip and itself. The upper edge of the upper strip is bent slightly in a direction contrary to the curve of its hinge part below, and this being the part by which the strip is to be attached to the door, it is pierced with screw holes for that purpose, so as to throw the hinge off from the door and allow it free play, (see Fig. 1.)

As it is very desirable to be able to remove the lower strip without taking away the whole apparatus, this can, it is manifest, be done by sliding it off in the direction of the outer edge of the door, from *a* to *b*, this however might be productive of mischief, by allowing the said strip occasionally, by accident or oversight to slide out a small distance and be exposed to the injury of a blow between the door and the jamb. To prevent this a stop of metal *g* made in the form represented in Fig. 2 is placed so as to embrace within its jaws *e* and *h*, the metal strip *f*. The jaw *h* is just short enough to be outside of the edge of *f* whenever the strip *c*, *d*, shall be turned up nearly as far as the hinge will allow it to go toward *a*, *b*, but the other jaw *e* is longer than *h;* the consequence of which arrangement is, that by turning up the lower strip, close to the upper one the stop *g* will allow the passage of the lower strip from *c* to *d* and it can be drawn off the door, but under no circumstances after the strips are hinged together, can the lower strip move from *d* toward *c*—nor when the strip is operating on the door, can it be moved to the right or left hand but must keep its place.

It is also very desirable to keep the lower strip from pressing or scraping on the sill, while the door is swinging open or shut, as well as to prevent it from dropping down behind the door sill, this I do by the following device: I attach to the upper inner edge of the strip *a b* as near the inner edge or hinge side of the door as I can, a flat spring *k* (Fig. 1) about three-eighths of an inch in width, and of sufficient length to reach across the strip to about the bottom of its curve, with its lower edge formed into a hook turned inward toward the plate, the curve of the hook being about a quarter circle. To the lower strip I affix a staple *m* so placed that on the opening of the door as the strip *c d* rises over the sill *n* the staple is pressed up against the curve of the hook of the spring *k* forcing the spring outward, until the staple having passed the swell of the hook's curve, the spring snaps down, and in so doing raises the staple and strip free of the sill, and there it remains until the door is shut, when the staple is released from the spring by the detacher, which is a piece of

thin metal *o* about three-fourths of an inch long and five-sixteenths wide. One end is turned up, say for a quarter of an inch, at a right angle and is rounded at its corners and has its edges beveled down; the other part has a hole for a screw fastening, by which it is attached to the door jamb in such position that as the door closes the beveled edge of the metal passes under the spring, lifts and detaches it from the staple when the strip *c d* falls down over the sill.

1. I claim the hinge constructed as set forth in the above specification; in combination with the mode of stopping the same from shifting its position horizontally to the right or left hand when in ordinary use.

2. I also claim the method of detaching the lower strip whenever desired, by the method in this specification described, in combination with the mode of keeping the lower strip suspended above the sill as hereinabove set forth.

EBENEZER GARNSEY.

Witnesses:

MOSES H. PERKINS,

THEODORE S. BUEL.