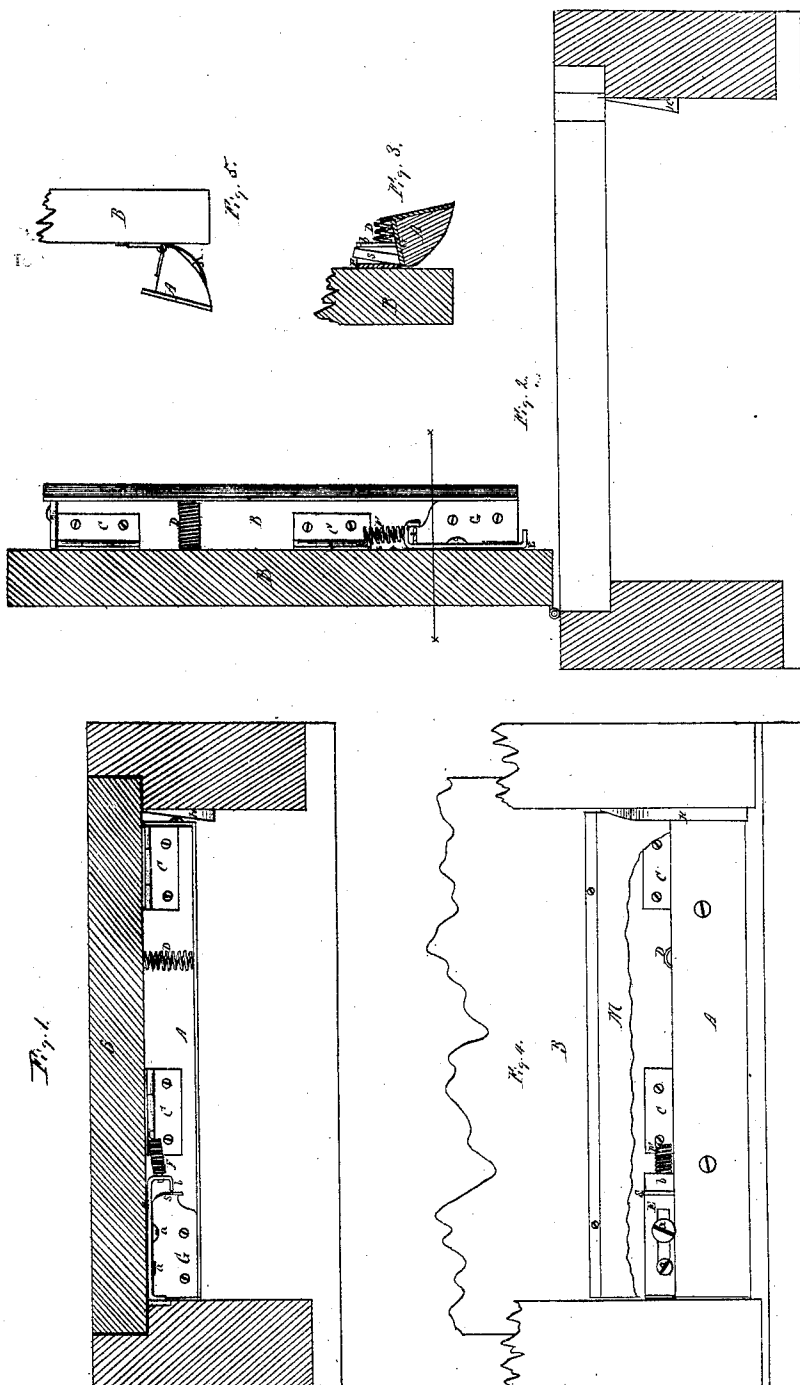


G. H. Collins,
Weather Stript.
No. 51,296. Patented Dec. 5. 1865



Witnesses.
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UNITED STATES PATENT OFFICE.

GILES H. COLLINS, OF WAYNE, MICHIGAN.

IMPROVEMENT IN WEATHER-STRIPS FOR DOORS.

Specification forming part of Letters Patent No. 51,296, dated December 5, 1865.

To all whom it may concern:

Be it known that I, GILES H. COLLINS, of Wayne, in the county of Wayne and State of Michigan, have invented a new and useful Improvement in Weather-Strips; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a top view of the weather-strip with the guard-plate removed and the door and the door-frame illustrated in section, showing the door closed. Fig. 2 is a similar view, with door represented as swung open. Fig. 3 is a cross-section in the line *xx* of Fig. 2, illustrating more clearly the form of the improved catch *s*, which holds up the strip when the door is open. Fig. 4 is a front view of the strip when shut down, having a portion of the guard-plate broken away to show the arrangement of the catch; and Fig. 5 is an end view of the door and strip, showing the position and arrangement of an auxiliary spring.

Similar letters indicate like parts in all of the figures.

The object of my invention is to improve the operation of the weather-strip upon which I have obtained Letters Patent bearing date the 5th day of July, 1864, by the combination therewith of an auxiliary spring, *K*, as well as by a new arrangement and adaptation of the spring-catch, whereby the use of a tumbler in the combination is obviated.

In my present invention the weather-strip *A*, made of a wooden strip, faced with metal, in the usual form, is, as heretofore, pivoted to the lower inner face of the door *B* by means of hinges *C C*.

A spiral spring, *D*, is inserted between the door and the upper portion of the strip, as clearly seen in Figs. 1 and 2, whose power is exerted to elevate the strip clear of the door-sill, as seen in Fig. 2.

Upon the inner end of the door, near its lower edge, is placed a sliding plate, *E*, secured by set-screws *a a*, passing through a slot therein, as clearly seen in Fig. 4. The inner end of this sliding plate is bent outwardly, so as to form a hook, *b*, as illustrated in Figs. 1 and 2, and its outer end is also bent in the same direction, so as to bear against the door-frame when the door is closed.

A spring, *F*, is secured to the top edge of the weather-strip in such a manner as to bear constantly against the inner end of this sliding plate to force it outwardly; hence, when the door is open the outer end of the plate will project somewhat beyond the inner edge of the door, as seen in Fig. 2.

A plate, *G*, is secured upon the top edge of the strip, at its inner end, immediately beneath the sliding plate upon the door, and the inner end of this plate is turned up so as to form a tooth or catch, *s*, as seen in Figs. 3 and 4, in such a position relatively to the hook in the sliding plate *E*, as that it will be caught and embraced by said hook whenever the plate is thrown outwardly by the spring *F*, but will be free therefrom when the plate is forced inwardly against said spring.

A stop plate, *H*, is placed against the door-frame upon that side against which the door closes in such a position as that the end of the strip will strike against it when the door is closed and be thereby forced down upon the sill.

A spring, *K*, Fig. 5, is used in connection with, or in the place of, the spiral spring *D*, to elevate the strip when the door is opened, and the manner of placing said spring *K* is clearly shown in the drawings.

The upper part of the strip, with its springs, &c., is protected by a suitable guard-plate, *M*. (Illustrated in section in Fig. 3, and again as partially broken away in Fig. 4.)

The operation of my weather-strips, as improved by the devices herein described, is as follows: When the door is closed the projecting end of the sliding plate *E*, striking against the inner door-post, is pushed forward so as to disengage and free the projecting catch or tooth *s*, of the plate *G*, and at the same time compress the spring *F*. This automatic action of the sliding plate leaves the strip free to drop down upon the sill, which it is forced to do by striking against the stop-plate *H*, upon the other door-post. When the door is again opened the springs *D* or *K* will immediately elevate the strip, and the end of the sliding plate *E*, being removed from its contact with the door-post, will be forced out by the spring *F* until its hook will catch the tooth *s* of the strip, and thus lock it in its elevated position until again released by the closing of the door,

Having thus described my invention what I claim therein as new, and as an improvement upon my weather-strip, patented July 5, 1864, is—

An auxiliary spring, K, in combination with a weather-strip, A, catch s, and sliding plate E, all substantially in the manner and for the purpose herein set forth.

The foregoing specification of my improvement in weather-strips, signed by me this 20th day of February, A. D. 1865.

GILES H. COLLINS.

In presence of—

S. W. WALKER,

J. BUNTING.