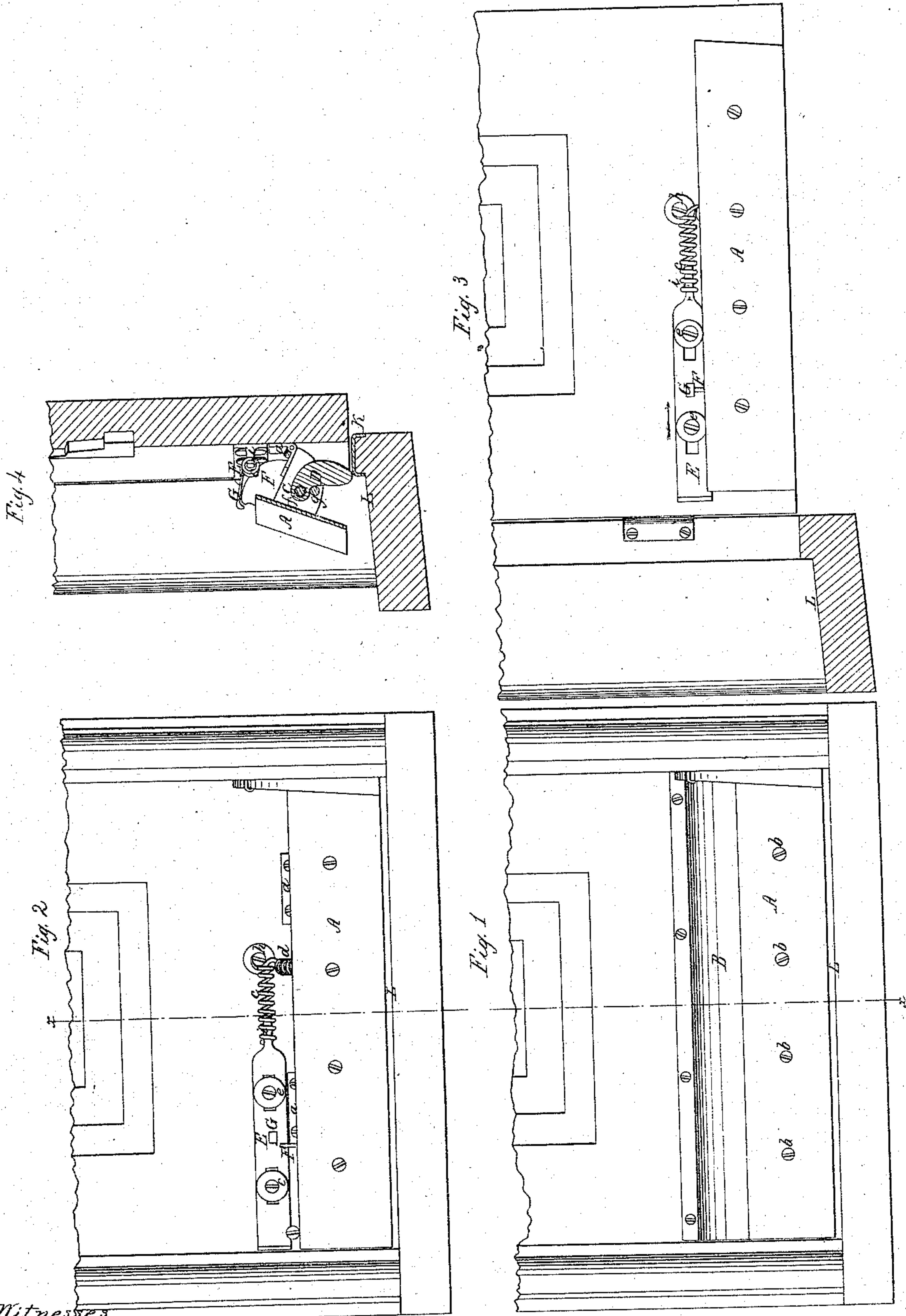


G. H. Collins.

Weather Strip.

N^o 43,394.

Patented Jul. 5, 1864.



Witnesses
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Hing

Inventor
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UNITED STATES PATENT OFFICE.

GILES H. COLLINS, OF WAYNE, MICHIGAN.

IMPROVEMENT IN WEATHER-STRIPS.

Specification forming part of Letters Patent No. 43,394, dated July 5, 1864.

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 certain new and useful Improvements in Weather Strips for Doors; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a front view of the lower portion of a door with my improved weather-strip attached, showing the door in its closed position; Fig. 2, a similar view, with the guard removed, to show the devices by which the strip is operated. Fig. 3 is a view showing the door swung open and the strip elevated, the door-sill being shown in section; and Fig. 4 is a sectional view in the direction of the line *xx*, taken when the door is thrown partly open, showing clearly the operation of the swinging lever D and spring-catch G.

Similar letters indicate corresponding parts in the several figures.

In the accompanying drawings, A represents the weather-strip proper, and B a guard-plate attached to the door by means of screws or otherwise for the purpose of protecting and concealing the mechanical devices by which the strip is operated and of giving a neat finish to the whole. The strip A, which should be of metal, is attached to the door by means of the connecting-bar C, of wood, and the hinges *aa*.

b b represent the heads of the screws by which the strip A is attached to the connecting-bar C.

My invention consists, essentially, in an improved manner of operating this strip, which I will proceed to describe. The door being closed, as shown in Fig. 2, it will be observed that the weather-strip is in close contact with the door-sill, and that the end of the slide E being in close contact with the door-jamb, the spiral spring *c* (one end of which is secured to the button *h*, and the other wound round the tongue *i*, projecting from the slide E) is compressed. Upon opening the door the slide E, being relieved from its contact with the jamb of the door, is thrown back by the action of the spring *c* until the hook-shaped spring-catch G, which is secured to the sliding bar E, is brought into the same vertical plane with the tumbler F, secured to the connecting-bar C, and at the same time the hanging lever D, which is pivoted to the connect-

ing-bar C by means of the pin *f*, is brought into contact with the door-sill, and, as the pin *g* prevents its yielding forward, the effect is to swing the strip upward until the tumbler F is caught by the spring-hook G and the lever D is permitted to swing clear of the door-sill, when the outward movement of the door may be continued, the spring G securely retaining the strip in its elevated position and preventing its contact with the floor. Upon closing the door the end of the sliding bar E is brought into contact with the frame of the door and forced in the direction indicated by the arrow in Fig. 3, carrying with it the spring-catch G, and thereby releasing the tumbler F from its connection therewith, when, by the action of the spring *d*, which extends from the face of the door (where it is attached to the button *h*) to the connecting-bar C, the weather strip is depressed until brought into contact with the door sill, as shown in Fig. 2. A plate of metal, K, is attached to the door-sill at the point over which the swinging lever D plays, to prevent the wearing away of the wood-work.

I am aware that spring-hooks attached to a door and catching in staples fastened to a weather-strip have heretofore been used for the same purpose that I here employ such a device, and that various arrangements of sliding levers projecting beyond the edge of the door and operated by being brought into contact with the door-frame have also been employed, and hence I do not claim either of these features broadly; but,

Having thus fully described an improved manner of operating weather-strips, what I claim as new and of my own invention, and desire to secure by Letters Patent, is—

1. The sliding bar E, having the spring-catch G projecting therefrom, when combined with a door, and operating with reference to a weather-strip, A, and its attachments, substantially in the manner herein set forth.

2. The swinging lever D, when operating in combination with the tumbler F, sliding bar E, and spring-catch G, in the manner herein set forth.

The foregoing specification of my improved weather-strip signed this 6th day of April, A. D. 1864.

GILES H. COLLINS.

In presence of—

GEO. O. ROBINSON,
D. W. BROOKS.