

(No Model.)

A. LA JEUNESSE.
WEATHER STRIP.

No. 452,106.

Patented May 12, 1891.

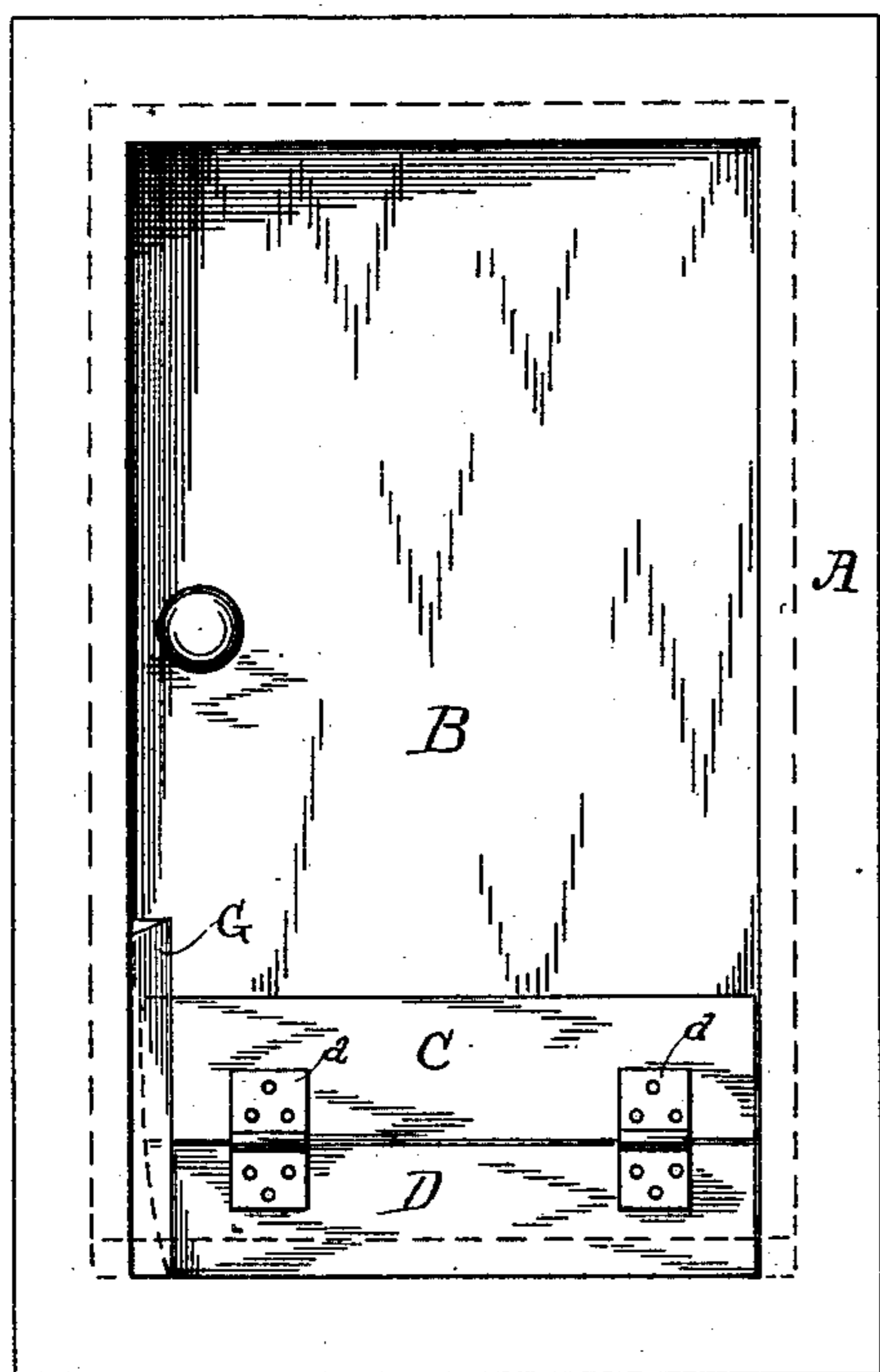


Fig. 1

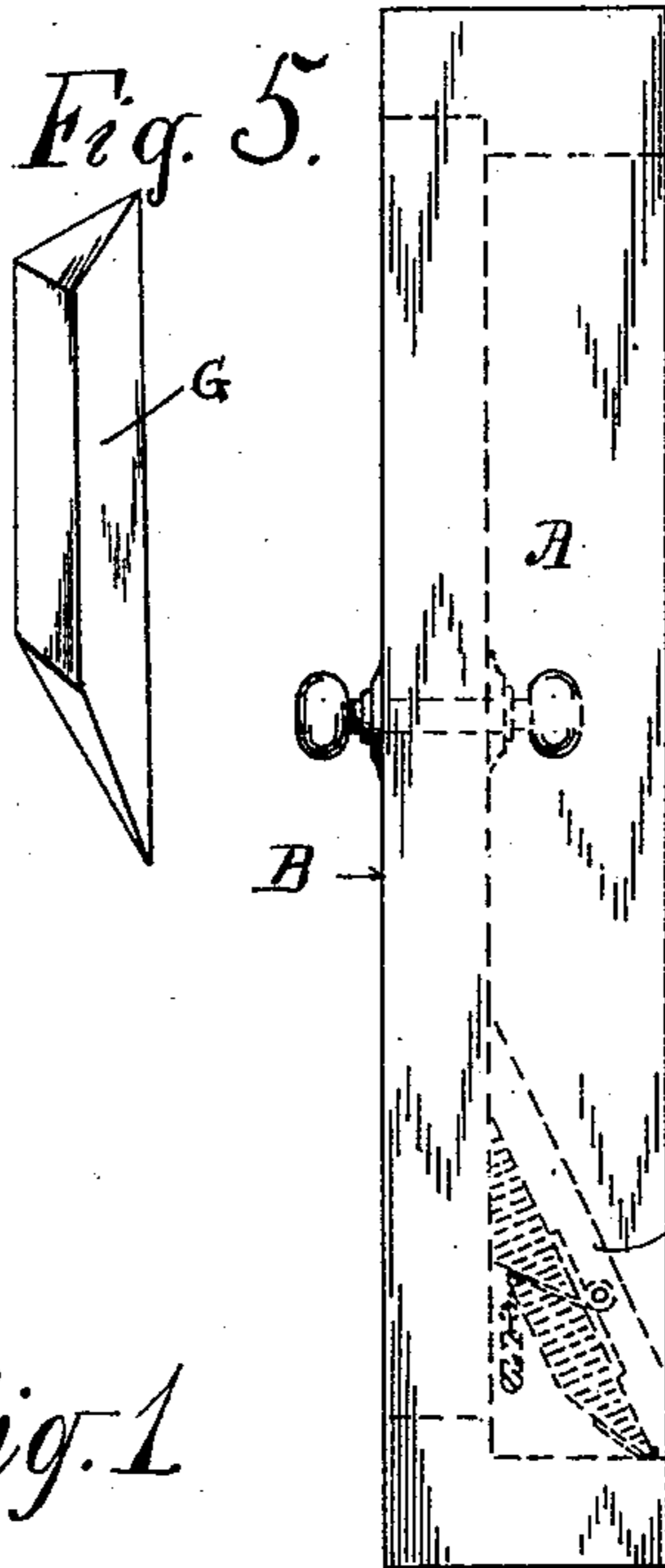


Fig. 2.

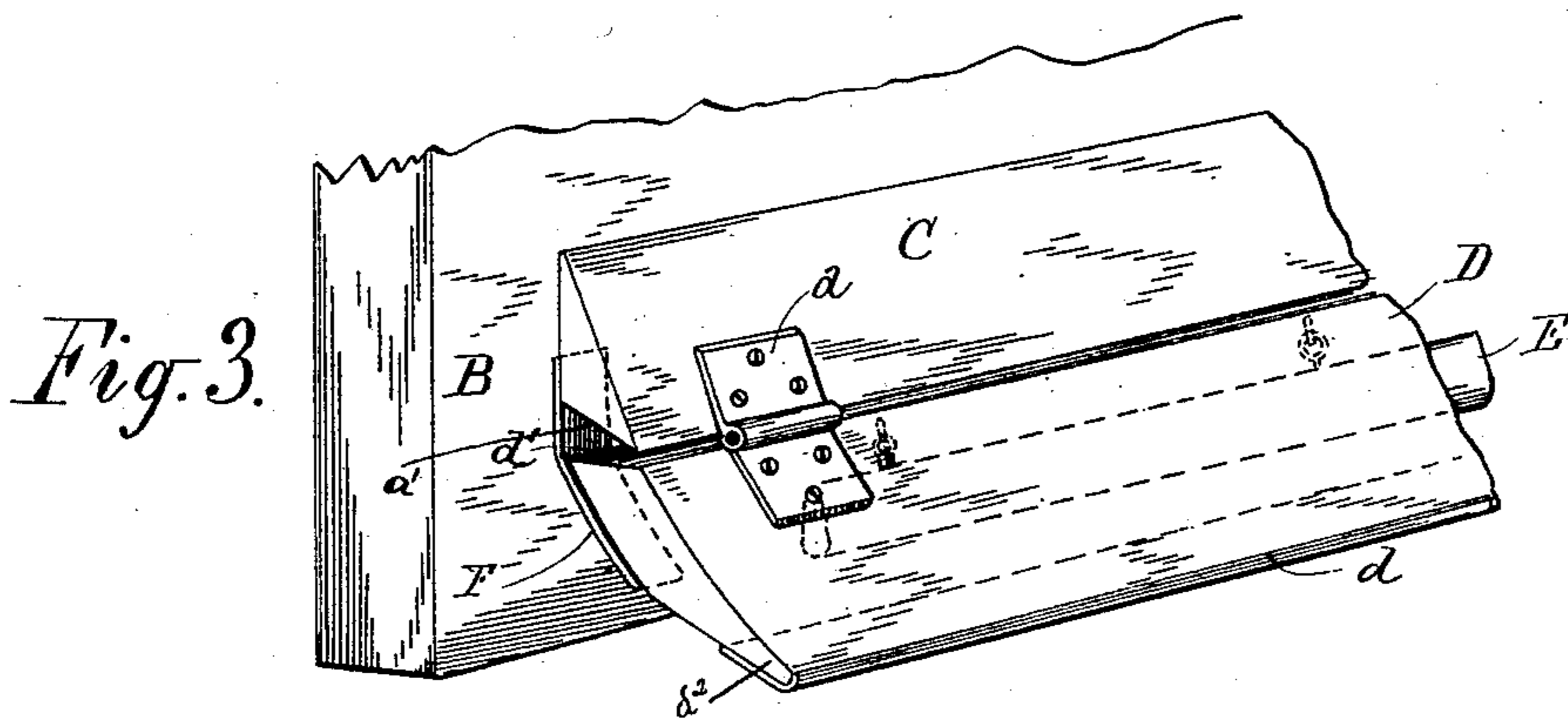


Fig. 3.

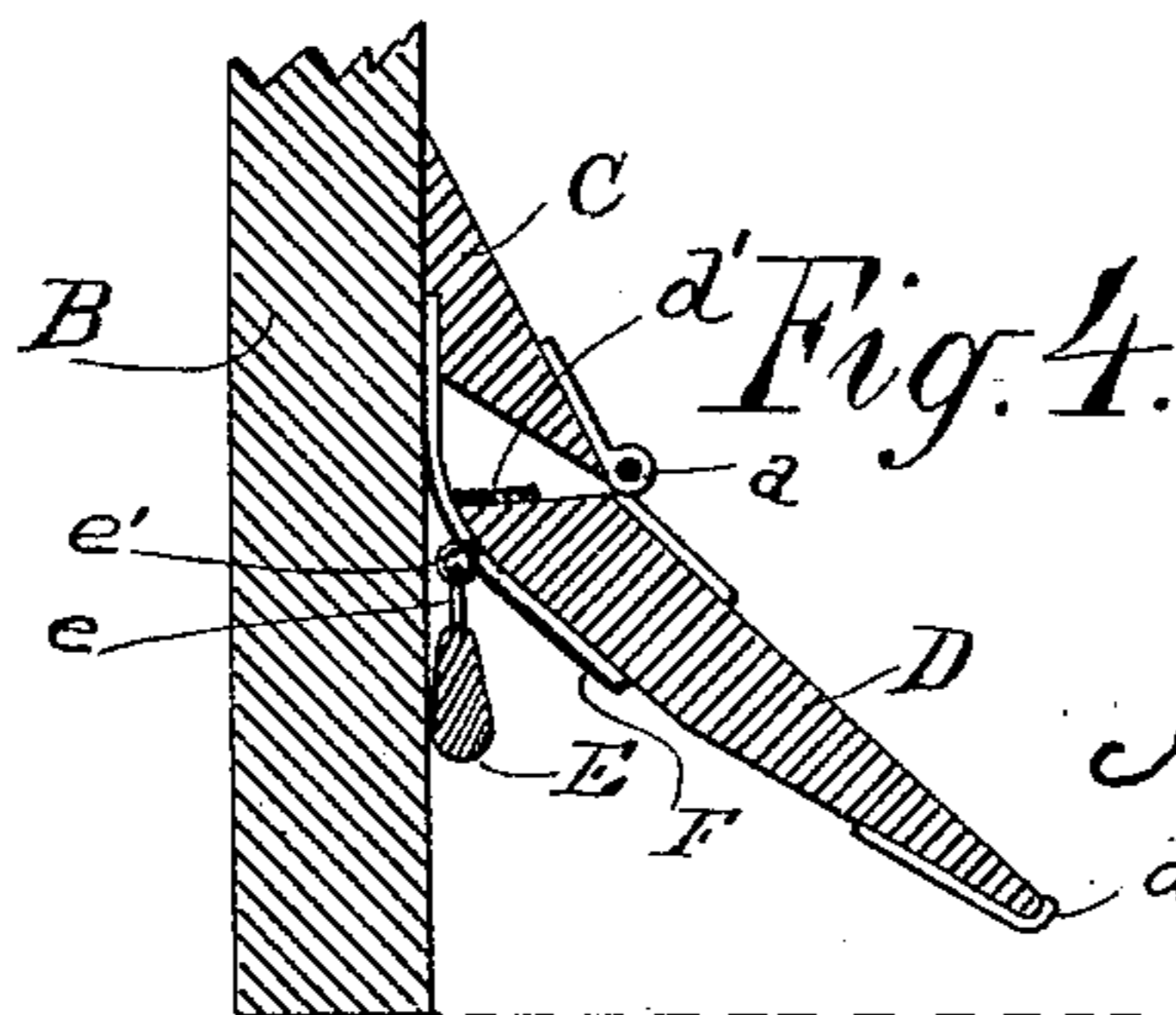


Fig. 4.

Witnesses.

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UNITED STATES PATENT OFFICE.

ADOLPHE LA JEUNESSE, OF ALAMEDA, CALIFORNIA.

WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 452,106, dated May 12, 1891.

Application filed September 17, 1890. Serial No. 365,298. (No model.)

To all whom it may concern:

Be it known that I, ADOLPHE LA JEUNESSE, a citizen of the United States, residing at Alameda, in the county of Alameda and State of California, have invented a certain new and useful Improvement in Weather-Strips, of which the following is a specification.

The object of my invention is to provide a simple, cheap, and convenient device for accurately closing the space between the lower edge of a door and the threshold, and thereby afford an effective protection against air-drafts, moisture, dust, and such other things as are incompatible with the cleanliness of a house or the health of its occupants.

My invention therefore relates to a door-strip; and it consists of certain combinations of parts and peculiar details of construction, which I will now proceed to describe with reference to the accompanying drawings, which form part of this specification.

Figure 1 is a front elevation of a door-case and door provided with my improved device, which appears as shutting down tightly upon the sill. Fig. 2 is an edge view of the same, showing the weather-strip in dotted lines only. Fig. 3 is a broken perspective view of my device as it appears when the door is open. Fig. 4 is a sectional elevation of the same, and Fig. 5 is a detail view of the strip G.

The same parts are indicated by the same letters of reference in the several views.

A represents a door-case, and B a door fitted and swinging therein in the usual manner. To the lower end of door B is nailed, screwed, or otherwise secured a narrow piece of wood or other suitable material C, which constitutes the upper part of my improved strip. This piece extends across nearly the whole width of the door and is beveled upwardly toward the door upon its outer side, while its under or lower edge is correspondingly beveled, as indicated at *a'*.

D is a piece of same material jointed to C by hinges *a* and beveled so as to fit it accurately from below in the sense that both pieces appear as one when they are brought together and the door is closed, their outer face presenting a continuous incline and their inner or lower and upper bevels, respectively, matching perfectly. The outer end of the lower part D is also rounded off, as plainly indicated

by a dotted line in Fig. 1, and by the reference-letters *d*² in Fig. 3, to enable it to clear the door-jamb when swung in or out.

The hinged pieces C and D constitute the weather-strip proper and would of themselves form a good joint with the bottom part of the door-case if properly applied; but to render them still more effective I attach to the under side of the lower piece a band or packing *d*, of rubber or like material. This band, being pliant and elastic, readily adapts itself, when in contact with the door-case, to all the inequalities of its surface and forms a tighter joint throughout. Another band or packing *d'*, of similar material, covers the inner half of the upper face of the piece D and effects a better joint between it and the under side of the top piece C.

The weather-strip is made to clear the threshold, when opening the door, by means of a weight E, made of a rather thin strip of lead, which I place between the door and the weather-strip lengthwise of the latter and hang by hooks *e* to eye-screws *e'* at the upper corner of the piece D. A weight thus made and placed occupies but little room and has a good purchase upon the swinging piece of the weather-strip, which, if well proportioned, it will balance and lift out of the way at the proper time. To prevent the weight from overbalancing the piece D and interfering with its proper working, I bind the backs of the two pieces C and D loosely together by means of straps of leather or other flexible material F, one at each end of the lower strip. In this way the lower part D cannot be tipped over, but is limited in its upward movement, no matter if the weight be too heavy or the strip run against some obstacle. It is advisable, however, to have the weight of such dimensions as to simply balance the part D and not bring too much of a strain upon the straps.

The weather-strip is brought into action through the medium of a stop or bar G, preferably made of wood, and set in an inclined position within the door-case opposite the lower outer edge of the door. It is so placed as to encounter the weather-strip upon the door being closed and force the hinged pieces C and D composing it to meet and assume the position represented at Figs. 1 and 2. It is also beveled, as shown at Fig. 1, and its in-

clination is such as to conform with the steep incline of the closed strip. It will be observed that the hypotenuse of this strip faces outwardly, and the bar is reversible in the sense
5 that it may be applied to either side of the door-case, according as the door swings to the right or left. The lower edge, however, has to be sawed off some, in order to be properly seated on the threshold.

10 It will be observed that my improved weather-strip is peculiarly adapted to the purposes in view, inasmuch as it fills all the requirements of such devices. It is made of but few pieces, easily constructed and put together,
15 and readily applied. Not only does it make a tight joint with the sill, but its composing parts are so shaped and adjusted as to make tight joints with themselves, which is just as important. Furthermore, the beveling and
20 inclination of the stop and strip cause them to act as a water-shed, and this, taken in connection with the inner bevels of the upper and lower parts and the other features of construction, renders my device absolutely im-
25 pervious to water, air-tight, and dust-proof.

I am aware that weather-strips hinged near

the lower edge of a door have been made prior to my invention; but such devices cannot make a good joint unless the door be cut into, which is not always practicable and is always
30 objectionable. Strips made of jointed pieces operated by springs have also been made heretofore.

Having thus described my invention, what I claim as new, and desire to secure by Letters
35 Patent of the United States, is—

In a weather-strip, the combination of an upper stationary piece, a lower piece hinged thereto, screw-eyes projecting from the rear side of the lower piece, a weight running
40 transversely across the rear side of the lower piece and provided with hooks adapted to engage the screw-eyes, and straps having their ends secured to the two pieces, adapted to limit the action of said weight, substantially
45 as set forth.

In witness whereof I have hereunto set my hand and seal.

ADOLPHE LA JEUNESSE. [L. S.]

In presence of—

CHAS. T. STANLEY,

HORACE D. RANLETT.