

No. 627,264.

Patented June 20, 1899.

E. LE MAY.
WEATHER STRIP.

(Application filed Jan. 25, 1899.)

(No Model.)

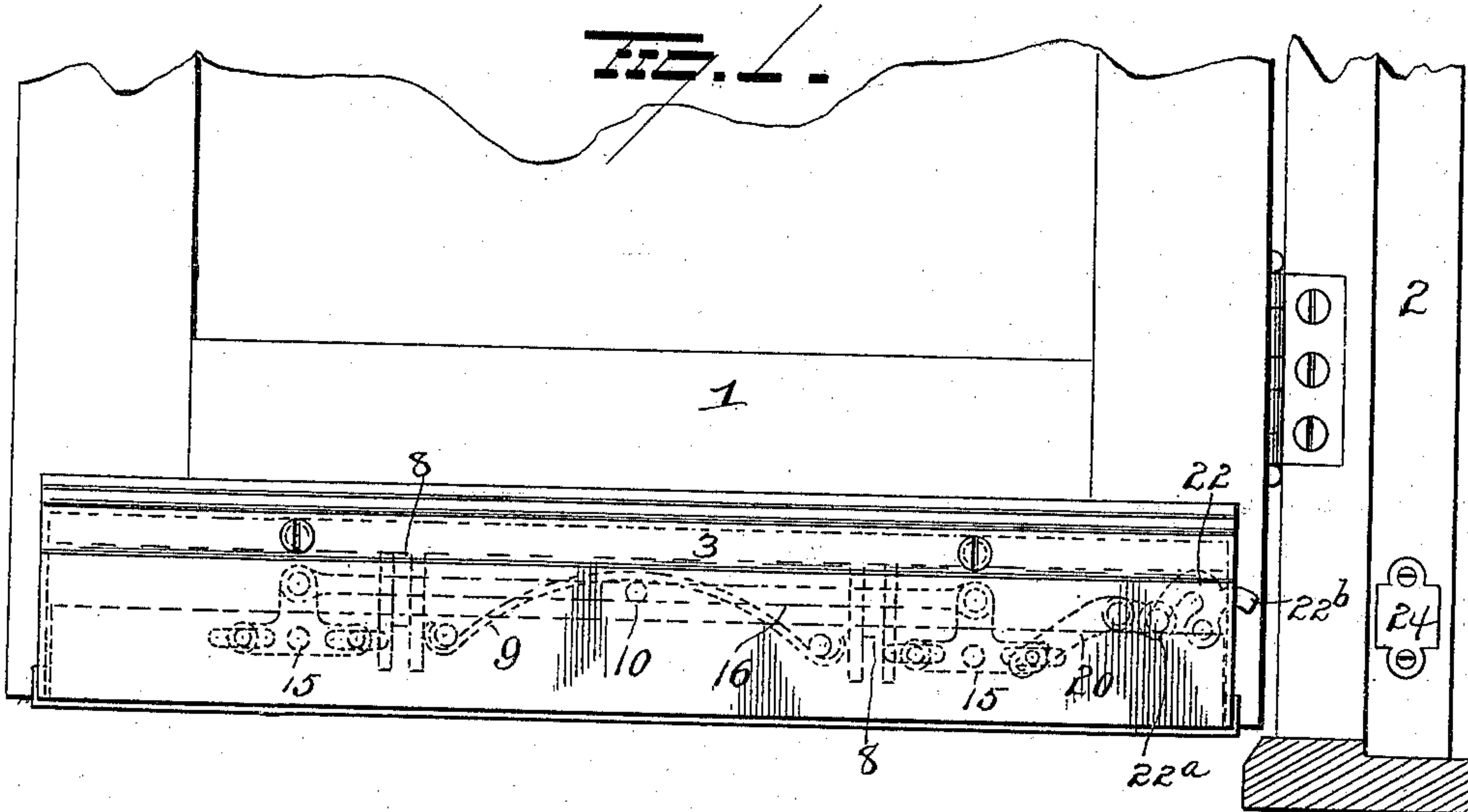


FIG. 3.

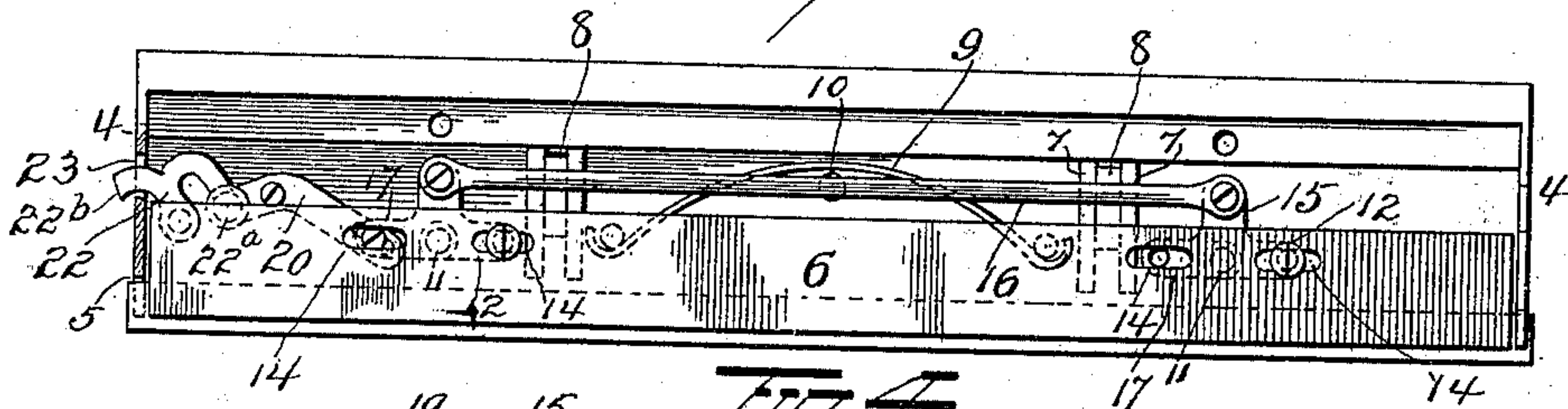


FIG. 4.

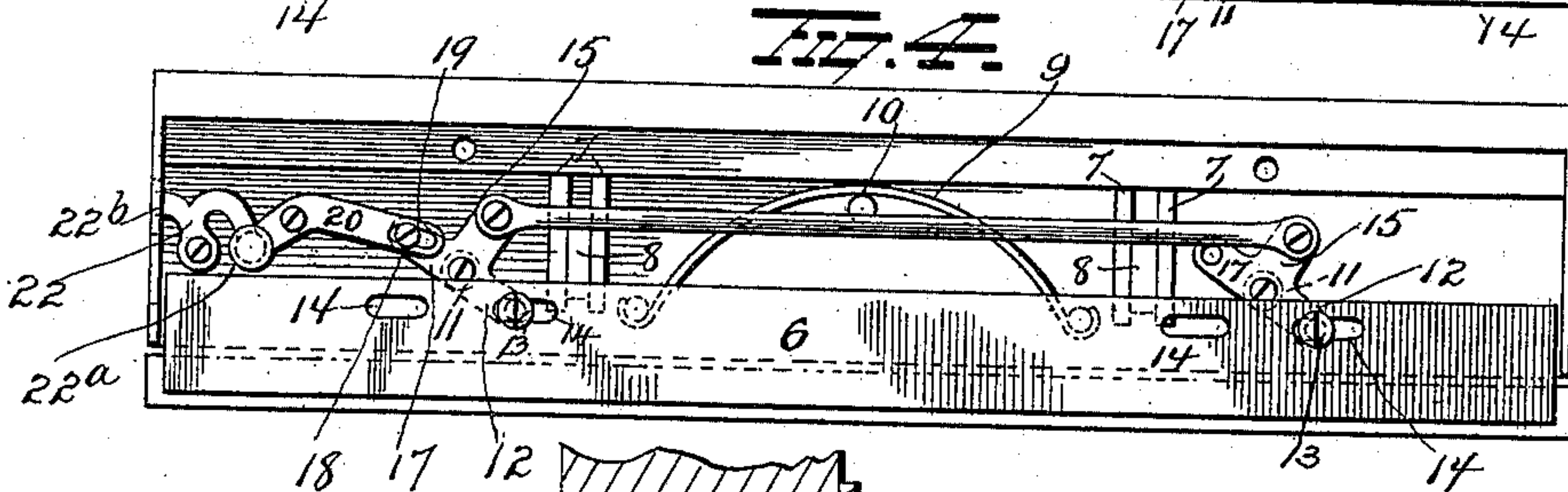
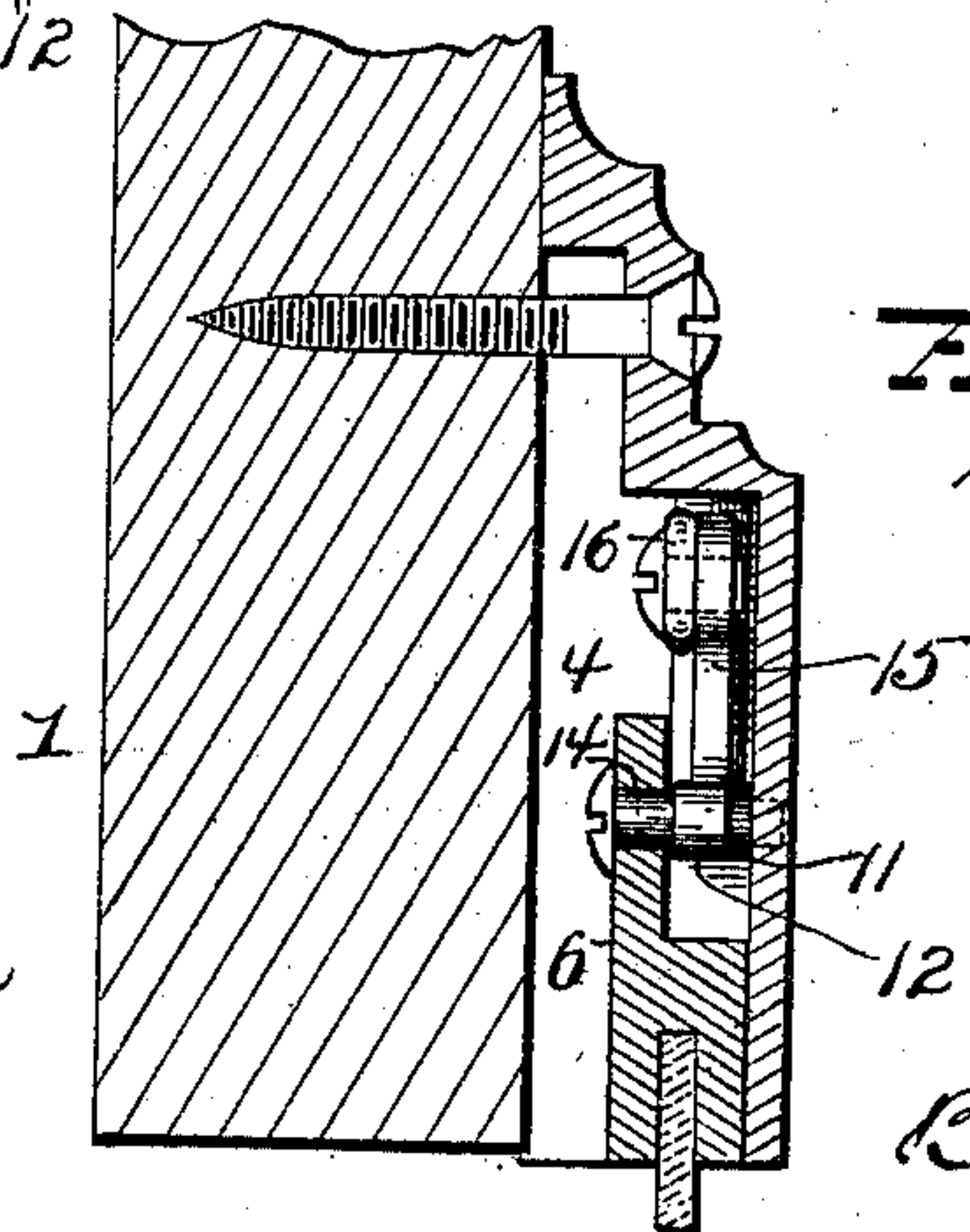


FIG. 2.



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WEATHER-STRIP.

SPECIFICATION forming part of Letters Patent No. 627,264, dated June 20, 1899.

Application filed January 25, 1899. Serial No. 703,373. (No model.)

To all whom it may concern:

Be it known that I, ERNEST LE MAY, a resident of Fall River, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Weather-Strips; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in weather-strips, and more particularly to such as are secured to a door or window and adapted to operate to descend upon the sill of the door when the door is closed and rise automatically when the door is swung open, the object of the present invention being to provide a weather-strip which can be operated to effectually cut off all draft under a door when said door is closed.

A further object is to provide an automatic weather-strip which will be simple in construction, comparatively cheap to manufacture, and most effectual when in operation.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view illustrating my improvements. Fig. 2 is a sectional view. Fig. 3 is a rear face view showing the positions of the parts when the door is open. Fig. 4 is a similar view showing the positions of the parts when the door is closed.

1 represents a door, and 2 a frame therefor. The door 1 is provided at its lower edge with my improved device, which comprises the frame 3, recessed, as shown, and provided with end pieces 4 4, slotted, as at 5, for the reception and movement of the weather-strip 6. The frame 3 is provided on its inner face with parallel flanges 7 to form guides for the reception of ribs or flanges 8 on the strip 6, and the strip 6 is provided at points between its ends with suitable inwardly-projecting pins for the reception of the ends of a suitable spring 9, which bears at an intermediate point on a pin 10, secured to the frame, to normally maintain the strip 6 in its elevated or raised position when the door is open, and

thus permit the door to be swung without liability of said strip dragging, rubbing, or coming in contact with the floor. Levers 11 11 are pivoted to the frame 3, and each of said levers is provided with a horizontal arm 12, movably connected to the strip 6 by means of a screw or pin 13, which projects from said arms 12 and enters a slot 14 in said strip. The levers 11 11 are provided with vertical arms 15 15, connected together by means of a rod 16. Each lever 11 is provided with another horizontal arm 17, disposed in alinement with the arms 12, and said arm 17 on one lever 11 is provided with a lug 18, disposed in the slotted end 19 of a curved arm or lever 20, pivoted near its outer end to the frame 3. The outer end of the lever 20 is adapted to be engaged by a bent lever 22, and the latter is prevented from lateral displacement relatively to the lever 20 by a flange 22^a, which projects from the lever 20 and overlaps the operating-lever 22. The lever 22 is pivoted near its outer end to the frame 3 and provided at its outer end with an arm 22^b, which projects through the slot 23 in the end plate 4 of the frame and is adapted to be forced against a wear-plate 24 on the door jamb or frame 2 when the door is closed, and hence forces the strip 6 tightly against the sill of the door and prevents the admission of air thereunder.

It will be seen that by making the levers 11 exactly alike and providing four slots 14 in the strip 6 instead of two the operating-levers 20 and 22 can be readily moved to the other side of the frame, if desired.

The operation of my improved device is as follows: When the door 1 is open, the strip 6 will be in its raised or elevated position, and when the door is closed the lever 22 will be forced inward by the contact with the jamb, which operation will force down the short arm of the lever 20 and elevate the long arm thereof, thus permitting a great movement of said lever by a slight movement of the lever 22. The movement of the lever 20 will operate the levers 11 11 by means of the rod 16, and the strip 6 will be forced downward against the sill of the frame 1 and completely shut off the admission of air. When the door is opened, the spring 9 will raise the strip 6 and compel the parts to resume their normal positions,

hence permitting the door to be opened without the constant drag of the strip across the carpet, as is so common with the devices now in use.

5 Various slight changes might be resorted to in the general form and arrangement of the several parts described without departing from the spirit and scope of my invention, and hence I would have it understood that I
10 do not wish to limit myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

15 Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a frame and a vertically-movable spring-pressed weather-strip
20 mounted therein, said strip having slots near its respective ends, of two levers pivotally attached to said frame and having arms provided with pins to enter the elongated slots in the strip, a rod connecting said levers, a
25 bent lever pivoted near one end to the frame, a sliding connection between the long arm of said bent lever and one of the first-mentioned levers, and an actuating-lever pivotally connected to the frame at a point near the short
30 arm of the bent lever and having a movable and pivotal connection therewith, said operating-lever having an arm projecting through the end of the frame and adapted to engage the door-jamb to actuate said levers and force
35 the strip down.

2. The combination with a frame and a vertically-movable strip, of levers pivoted to the frame, connected to the strip and connected together, of an operating-lever having two
40 parallel arms and an arm projecting through the end of the frame, said operating-lever pivoted to the frame at the free end of one of said parallel arms, an intermediate pivoted lever having a long and a short arm, the short
45 arm pivotally connected to the free end of the other parallel arm of the operating-lever and a sliding and pivotal connection between the long arm of said intermediate lever and one of the levers connected with the strip, substantially as set forth. 50

3. The combination with a frame and a vertically-movable weather-strip, of two T-shaped levers each pivoted at the juncture of its arms to the frame, the aligned arms of said
55 levers adapted to be interchangeably connected with said strip, a rod connecting said levers, an operating-lever pivoted to the frame and having an arm projecting through the end of the frame, and an intermediate lever
60 pivoted to the frame and having one arm connected to an arm of the operating-lever and having the other arm connected to one arm of one of said T-shaped levers.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses. 65

ERNEST LE MAY.

Witnesses:

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