

No. 757,051.

PATENTED APR. 12, 1904.

W. F. NOLAN.
DOOR STOP.

APPLICATION FILED JUNE 19, 1903.

NO MODEL.

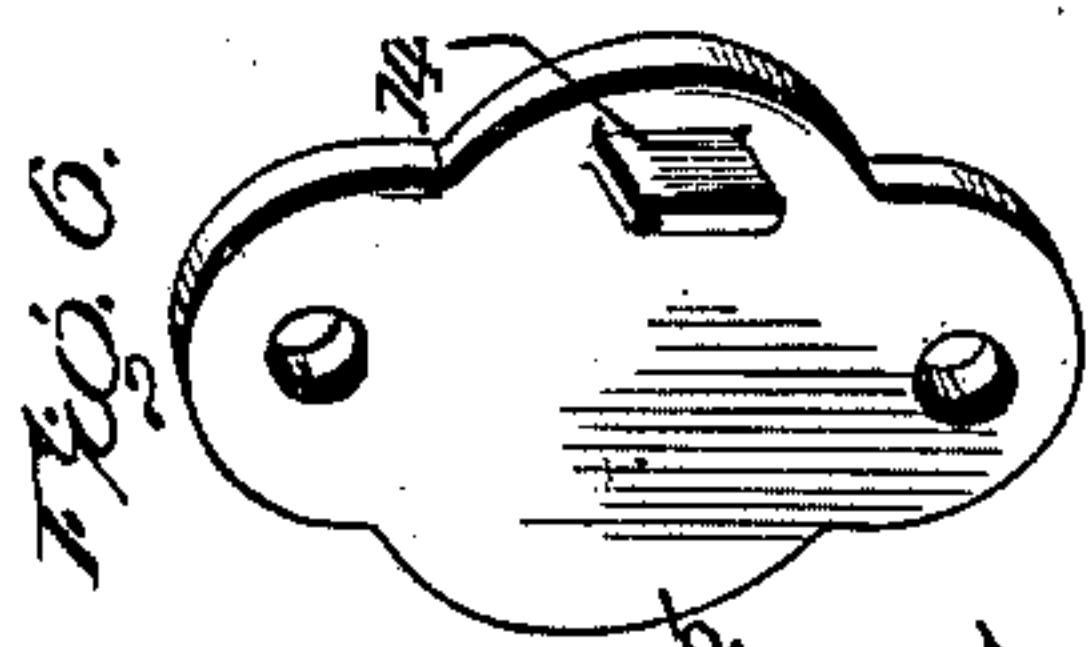
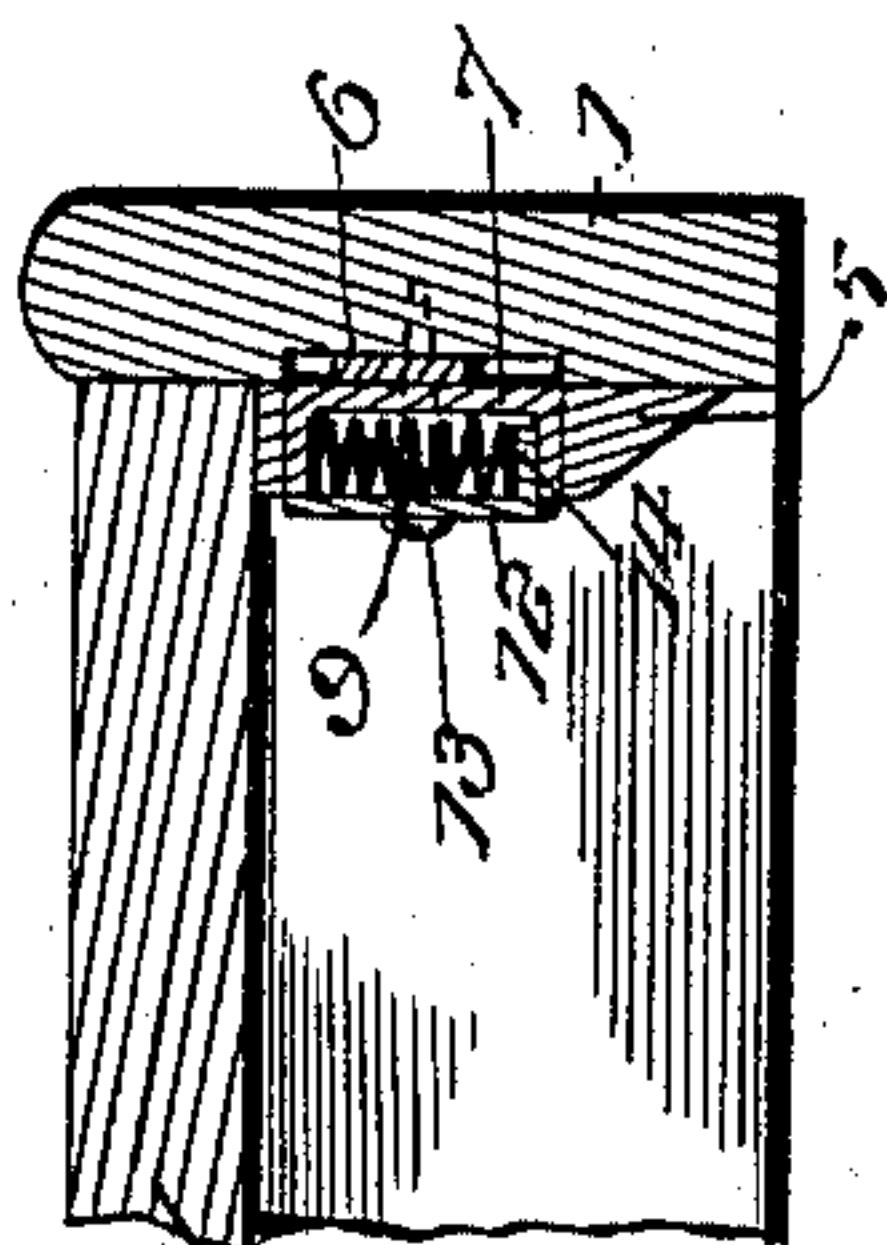


FIG. 2.

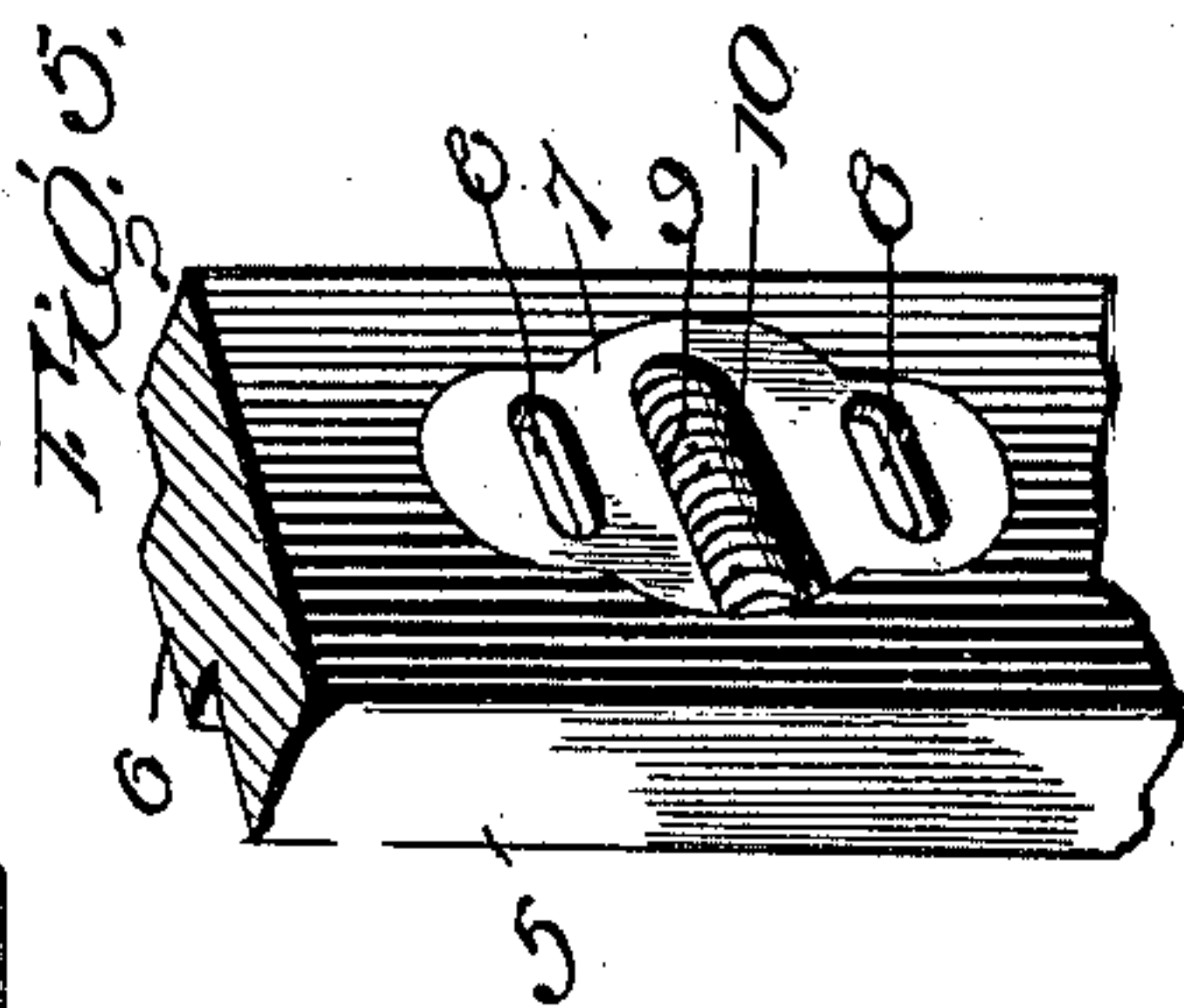
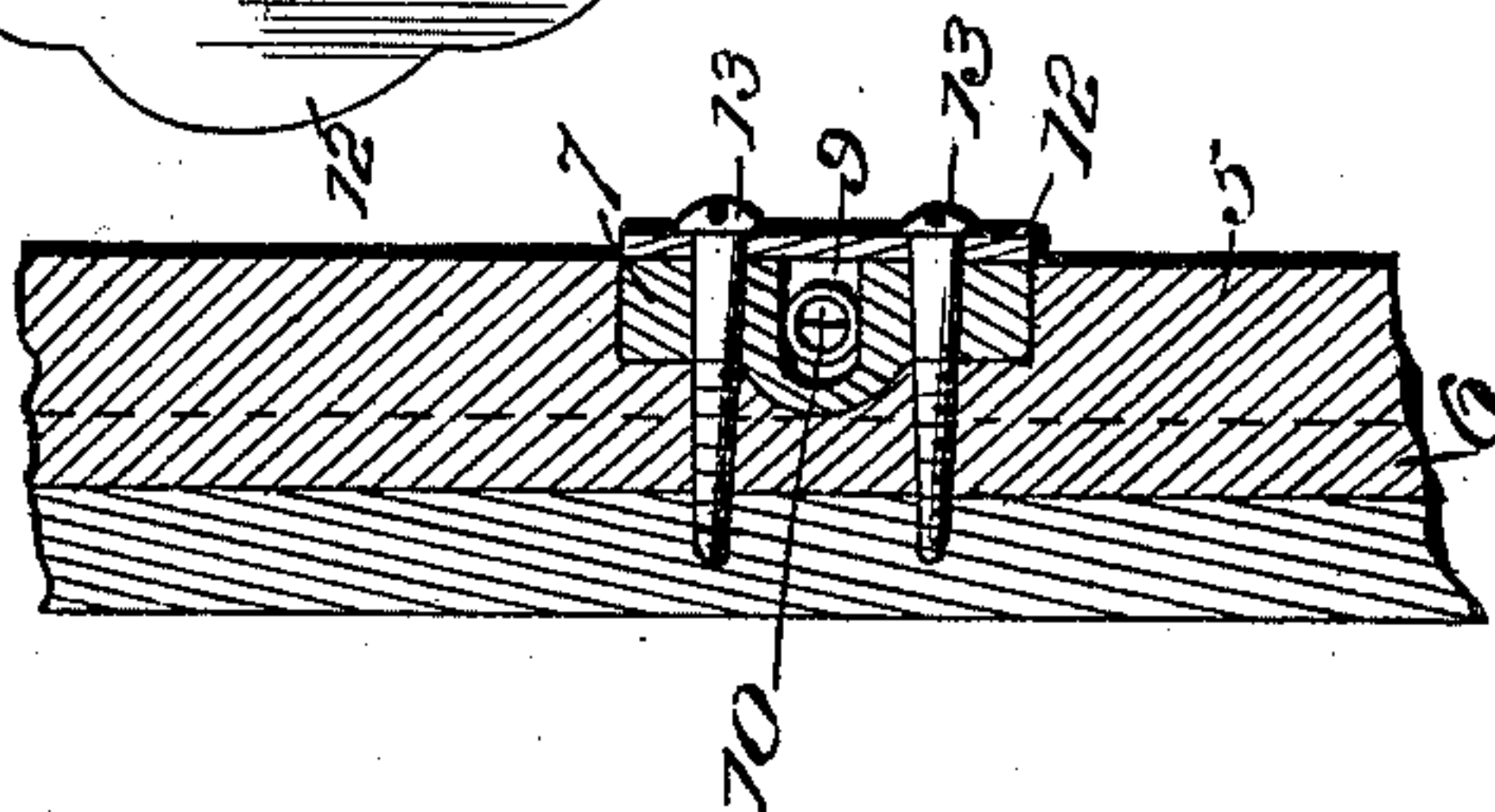


FIG. 4.

FIG. 3.

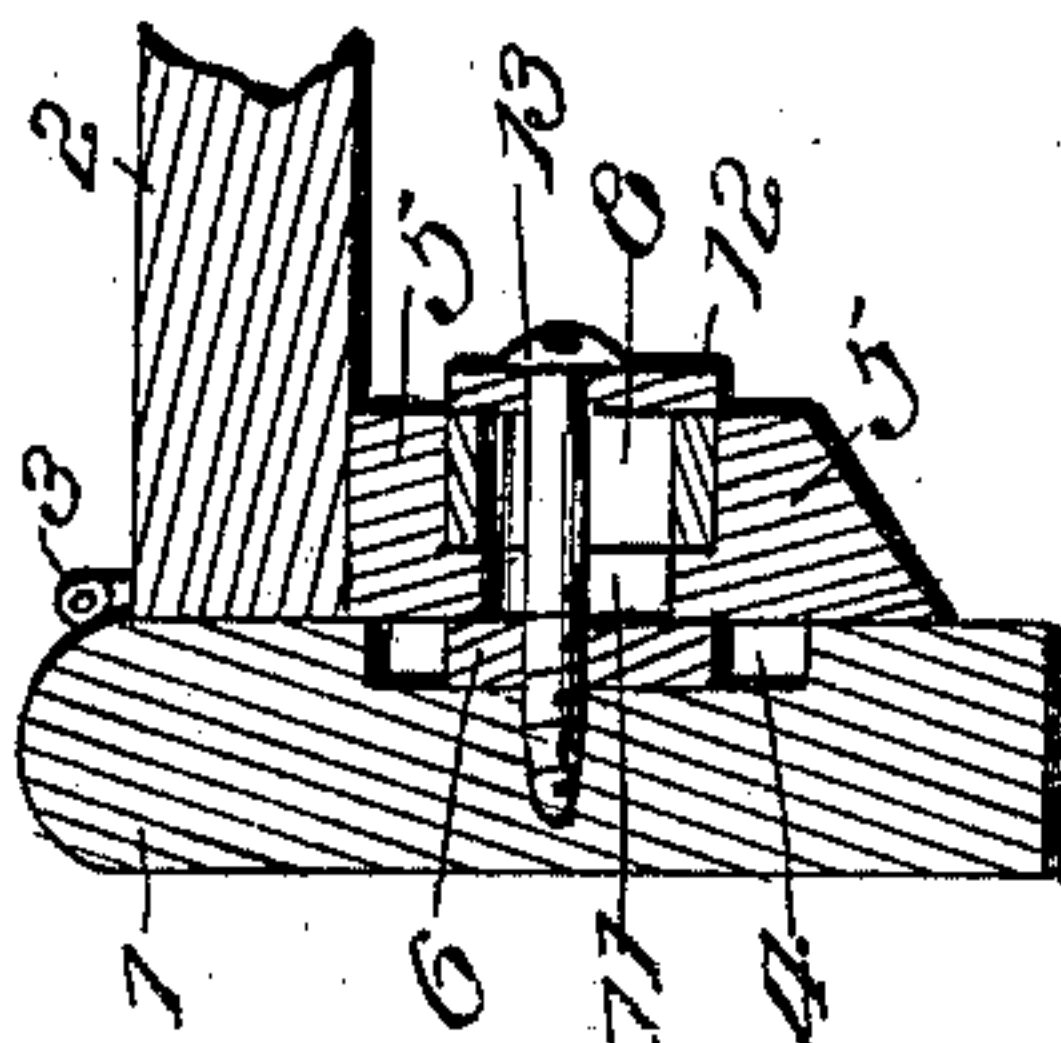
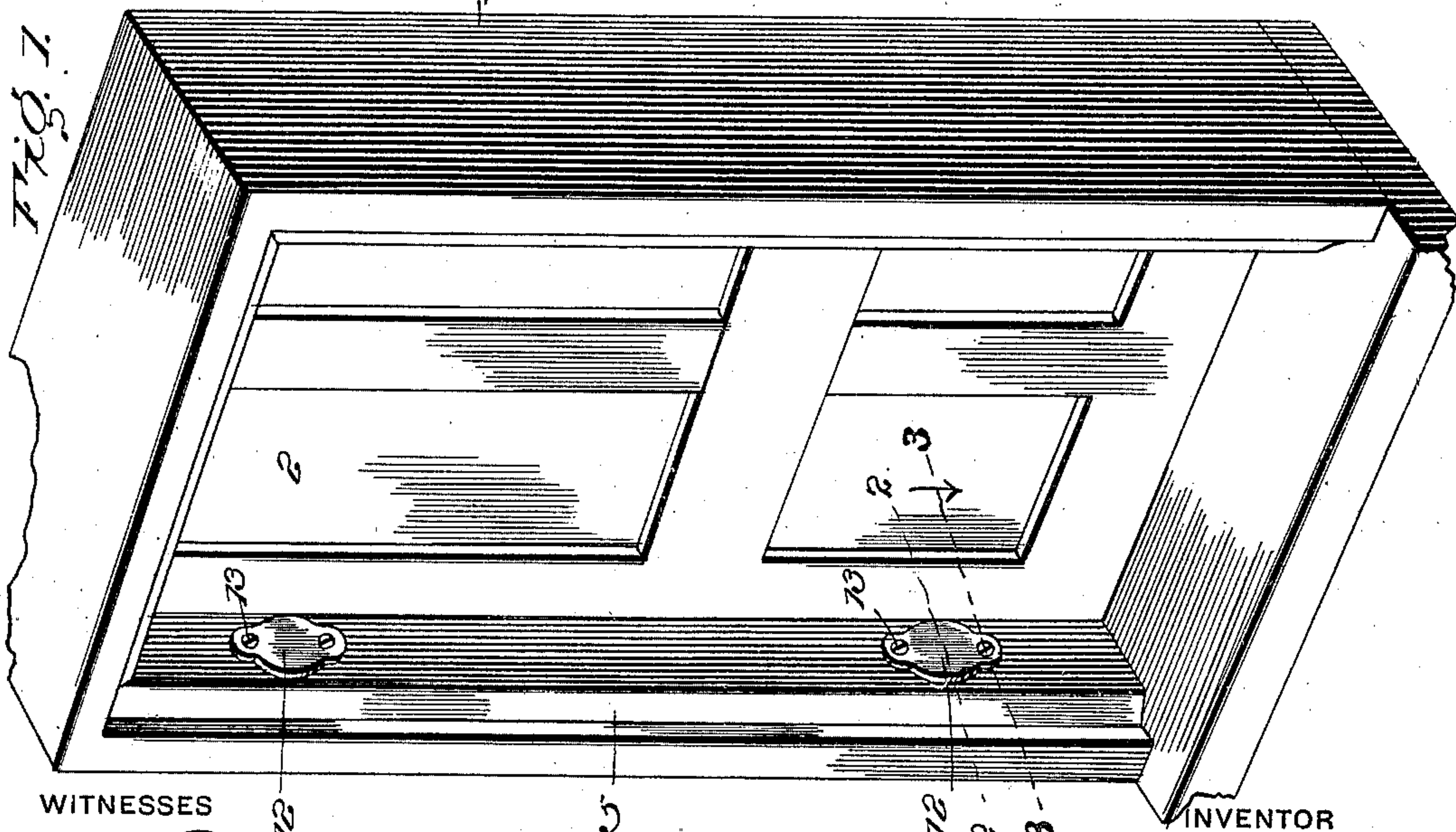


FIG. 1.



WITNESSES

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WILLIAM F. NOLAN, OF BESSEMER, ALABAMA.

DOOR-STOP.

SPECIFICATION forming part of Letters Patent No. 757,051, dated April 12, 1904.

Application filed June 19, 1903. Serial No. 162,163. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. NOLAN, a citizen of the United States, residing at Bessemer, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Door-Stops, of which the following is a specification.

My invention relates to door-stops, and is designed, primarily, to be constructed with the door-frame as the frame is manufactured. However, it may be applied to door-frames already in use.

My invention consists of a door-stop bodily resiliently mounted; and the object of my invention is to provide a stop that will automatically adapt itself to the door whether the door is straight or in "wind;" and with this and minor objects in view my invention consists of the parts and combination of parts, as will be hereinafter more fully set out.

In the drawings, Figure 1 is a perspective view of a door-frame in which is hung a door with my invention embodied. Fig. 2 is a cross-sectional view of the same on the line 2 2, Fig. 1. Fig. 3 is a transverse detail sectional view of my device applied to a door-frame on line 3 3, Fig. 1. Fig. 4 is a vertical sectional view of my invention. Fig. 5 is a perspective view of the stop with my invention applied, the top plate thereof being removed; and Fig. 6 is a detail perspective view.

1 represents the door-frame; 2, a door suitably hung upon the hinges 3. The door-frame is provided with a groove 4, formed in all of its sides with the exception of the sill.

5 is the stop of suitable width and thickness, secured to which is a tongue 6, running the length thereof and adapted to slide within the groove 4. It will be seen from Fig. 3 that the tongue 6 is not as wide as the groove 4, whereby said tongue may slide from one side to the other in said groove.

7 is a plate set in the stop 5 and provided with elongated slots 8 at the top and bottom. In the center of the plate 7 and disposed transverse thereof is a depression 9, in which is positioned a coil-spring 10, said coil-spring in its extended condition being of a length equal to the depression 9. It will be seen in Fig. 3 that the stop is provided with an open-

ing 11 through it, which registers with the elongated slot 8 in the plate 7.

12 is a plate provided with openings through which the screws 13 pass, said plate being secured upon the face of the stop and secured thereto by means of said screws, said screws passing through the elongated slots 8 of the plate 7 and thence into the sides of the door-frame, as clearly shown in Figs. 3 and 4. The plate 12 is provided with a depending lug 14, which projects into the depression 9 of the plate 7, and in this position one end of the coil-spring 10 is seated against said lug, as clearly shown in Fig. 2.

The operation of the device is as follows: The stops 5 around the door-frame are set so that they project slightly beyond the closed position of the door, so that as the door is closed the face of the door will press said stops and force them back, and thereby put tension upon the spring 12. This movement is permitted by means of the elongated slots 8 in the plate 7 and the openings 11 in the stops, so that said stops may be moved bodily in order to adapt them to the closure of the door. From this it will be seen that if a door should be slightly in wind the stops around the three sides will adapt themselves to said wind and insure at all times a tight closure against the door, whereby the ingress of air, rain, snow, &c., is obviated. The tight joint between the door and its frame is further insured by means of the tongues 6, positioned in the groove 4 of the frame.

As will be seen, my invention provides an automatically-movable stop for a door, the stop being rabbeted in the jamb. This automatic self-adjusting door-stop and cushion is adapted for doors, windows, shutters, or covers of any kind—such as ice-boxes, window-sashes, (where its automatic action takes up all shrinkage or gives to any reasonable amount of expansion incident to dampness.) It lessens the noise of doors slamming and, as stated, makes a snow-proof joint with the door when applied to the bottom of a door.

Having thus described my invention, the following is what I claim as new therein:

1. The combination with a frame having grooves in its sides and top, of stops, a tongue

integral with and extending from said stops into the said grooves, in which it moves transversely, a spring connected to the stops, and means fixedly secured to the frame to support
5 the stops to the frame, means connecting said spring and said fixedly-secured means to form a resilient mounting for the stop.

2. The combination with a frame having grooves in its sides and top, of stops, a tongue
10 extending from the stop and projecting into the said grooves constructed to move transversely thereof, a plate secured to said stops provided with elongated slots, a spring se-

cured in said plate, a second plate mounted above the first-named plate, a lug depending therefrom and engaging the spring, and screws
15 passing through the last-named plate and through the elongated slots of the first-named plate, whereby the last-named plate is fixedly
20 secured to the said frame.

I testimony whereof I affix my signature in presence of two witnesses.

WILLIAM F. NOLAN.

Witnesses:

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JNO. R. ADAMS.