

F. J. LEE.
DOOR FASTENER.
APPLICATION FILED MAR. 2, 1909.

966,027.

Patented Aug. 2, 1910.

Fig. 1.

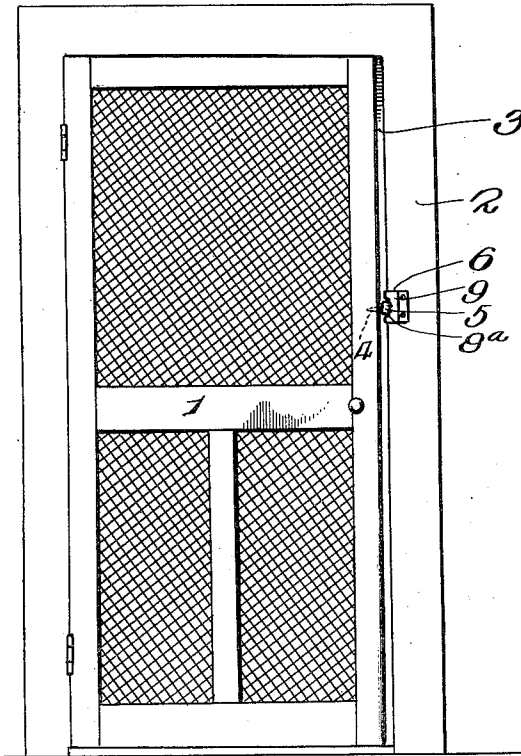


Fig. 4.

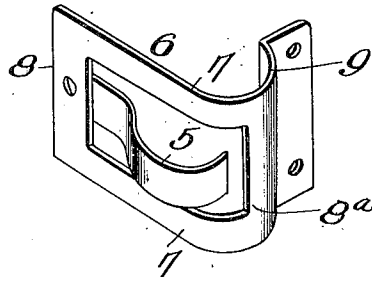


Fig. 2.

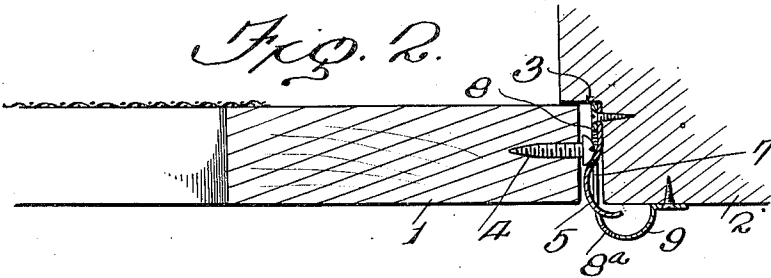
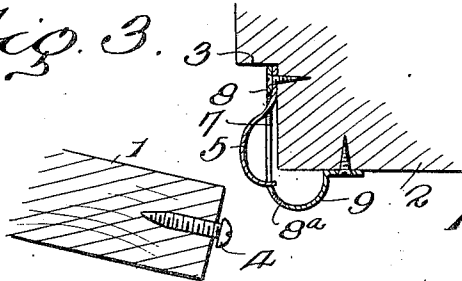


Fig. 3.



Inventor

F. J. Lee

Witnesses

J. M. Tallin

W. H. Woodman

By

W. H. Woodman, Attorney.

UNITED STATES PATENT OFFICE.

FREDERICK J. LEE, OF WICHITA, KANSAS.

DOOR-FASTENER.

966,027.

Specification of Letters Patent.

Patented Aug. 2, 1910.

Application filed March 2, 1909. Serial No. 480,840.

To all whom it may concern:

Be it known that I, FREDERICK J. LEE, citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Door-Fasteners, of which the following is a specification.

This invention comprehends certain new and useful improvements in fastening devices for use in connection with doors or the like, and of that type embodying a spring tongue adapted to yieldingly engage the door in order to maintain the same in closed position and also admit of the door being quickly and conveniently opened from both sides, as desired; and the object of the invention is an improved fastener of this character which is susceptible of application to both right and left hand swinging doors; which may be adjusted to regulate the retaining force of the tongue; which provides a housing for the free end of the tongue; and which embodies to a marked degree the elements of simplicity, durability and efficiency and possesses certain other advantages that render it more attractive than the ordinary devices in general use.

With this and other objects in view that will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of the parts that I shall hereinafter fully describe and then point out the novel features thereof in the appended claims.

For a full understanding of the invention and the merits thereof and to acquire a knowledge of the details of construction, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a front elevation showing my improved door fastener applied to a screen door; Fig. 2 is an enlarged horizontal section thereof illustrating the use of the fastener and showing the door closed; Fig. 3 is a similar view of the door partially open; and, Fig. 4 is a detail perspective view of the guard plate and spring detached.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Referring to the drawing, the numeral 1 designates a hinged door which is of any conventional form and is mounted in a suitable frame 2 and adapted to close against

the shoulder 3 thereof. A stud 4, which in the present instance is in the form of a screw, is adjustably mounted in and out-stands from the swinging edge of the door and is arranged upon the closing thereof to impinge against and ride upon a horizontally disposed spring tongue 5 which is carried at the inner face of the corresponding jamb of the door frame. This spring tongue is preferably mounted in a framelike base plate 6 that consists of spaced side bars 7 and end bars 8 and 8^a, the end bar 8 abutting the shoulder 3 and extending across the fixed end of the spring tongue, which in the present instance is separate from the base plate, although not necessarily so. A nail or other suitable fastening device is inserted through registering openings in the bar 8 and the fixed end of the spring and is embedded in the jamb to hold the parts in position thereon and to detachably connect the parts together. The tongue 5 extends longitudinally between the side bars 7 and is bowed intermediate of its ends, as shown, so as to project through the base plate and toward the free edge of the door, the curved free extremity of the tongue embracing the adjacent edge of the jamb in overlapping relation to the side face thereof, in order to afford sufficient clearance to permit the tongue to be pressed toward the jamb, as required.

The end 8^a of the frame is turned angularly on one side of the plane thereof to constitute an attaching portion which abuts the said side face of the jamb and is designed to be suitably secured thereto. Intermediate of the base portion and the attaching portion, the metal is bowed, as indicated at 9, so as to be spaced from the side face of the jamb to provide a housing within which the free end of the spring works. The housing is an essential feature of the present invention and serves not only to prevent the free end of the tongue from being accidentally broken off, but also to preclude the possibility of such end of the tongue snagging the clothing of persons passing through the doorway.

In the practical use of a fastener constructed in accordance with my invention, it will be observed that as the door is swung into closed position in the door frame, the stud 4 impinges against the bowed spring tongue 5 and rides thereon, so as to press the tongue laterally out of position and toward the jamb. When the door has been

completely closed against the shoulder 3 the stud is moved past the center of the spring tongue, thereby relieving the same of pressure and admitting of the tongue returning substantially to its normal position so that it yieldingly engages the stud and thus maintains the door against accidental displacement. By virtue of this construction the door may be quickly opened from both sides by merely pushing or pulling thereon, as required to swing the door away from the shoulder 3. Attention is also particularly directed to the fact that by adjusting the threaded screw in the swinging end of the door the retaining force of the spring may be readily regulated. Furthermore, the device effectually maintains the door against rebounding, since greater force is necessary to open the door than is required to close it, this being due to the fact that the stud bears against the bowed tongue in proximity to the fixed end thereof during the initial opening movement of the door, while during the initial closing movement the stud abuts the free extremity of the tongue and hence has considerable more leverage thereon.

From the foregoing description in connection with the accompanying drawing, it will be apparent that I have provided an improved door fastener which is particularly applicable to screen doors or the like, although not limited to any such use but susceptible of application generally; which may be employed in connection with both right or left hand swinging doors; which is simple and durable in construction and consists of comparatively few parts that may be readily assembled; and which may be easily and cheaply manufactured, so as to be placed upon the market at a price not too great to prevent its general adoption.

Having thus described the invention what is claimed as new is:

1. As a new article of manufacture, a door fastener including a base portion, an attaching portion, a housing intermediate of the attaching portion and the base portion and connecting the same together, and a spring tongue connected to the base portion and having its free end inclosed by and movable in the housing.

2. As a new article of manufacture, a door fastener embodying a base portion, a bowed spring tongue connected at one end to one end of the base portion, an attaching portion disposed angularly at the other end of the

base portion, and a bowed portion intermediate of the base portion and the attaching portion for inclosing the free end of the tongue and forming a housing therefor.

3. The combination with a door jamb, of a fastening device embodying a base portion secured to the inner face of the jamb, a spring tongue connected at one end to one end of the base portion and bowed away from the jamb, the free end of the tongue embracing an edge of the jamb in overlapping relation to the adjacent side face thereof to permit the tongue to be pressed toward the jamb, an attaching portion disposed angularly at the other end of the base portion and abutting said side face of the jamb and adapted to be secured thereto, and a bowed portion intermediate of the base portion and attaching portion and spaced apart from the side face of the jamb to provide a housing for inclosing the free end of the tongue.

4. The combination with a door jamb, of a fastening device including a frame-like base portion secured to and abutting against the inner face of the jamb and projecting beyond one edge thereof, and a spring tongue connected at one end to the base portion and having its free end portion bowed on the opposite side of the plane of the base portion from the jamb, the free extremity of the tongue being turned laterally and projecting through the base at a point beyond the said edge of the door jamb, whereby to permit the free end portion of the tongue to embrace such edge of the jamb when pressed laterally toward the same.

5. As a new article of manufacture, a door fastener including a frame-like base portion returned longitudinally at one end to constitute a housing disposed on one side of the plane of the base, and a longitudinally extending spring tongue connected at one end to the other end of the base and having its free end portion bowed laterally on the opposite side of the plane of the base from the housing, the free extremity of the tongue projecting through the frame-like base and being substantially inclosed by and movable in the housing.

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

FREDERICK J. LEE. [L.S.]

Witnesses:

J. W. DIN,
H. W. PRIEST.