

924,145.

J. CLOOS.
SLIDING DOOR FASTENER.
APPLICATION FILED FEB. 1, 1909.

Patented June 8, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

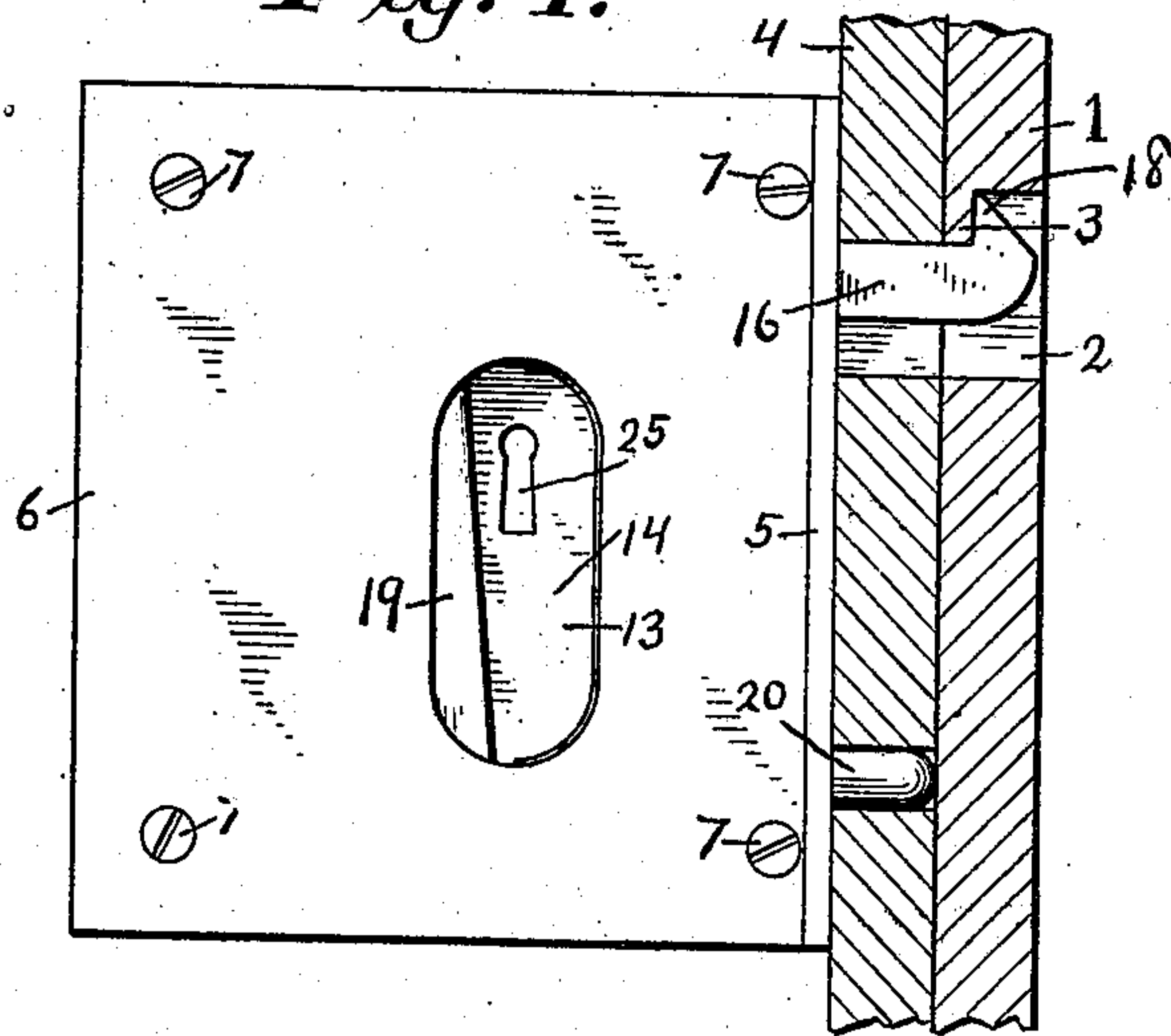


Fig. 2.

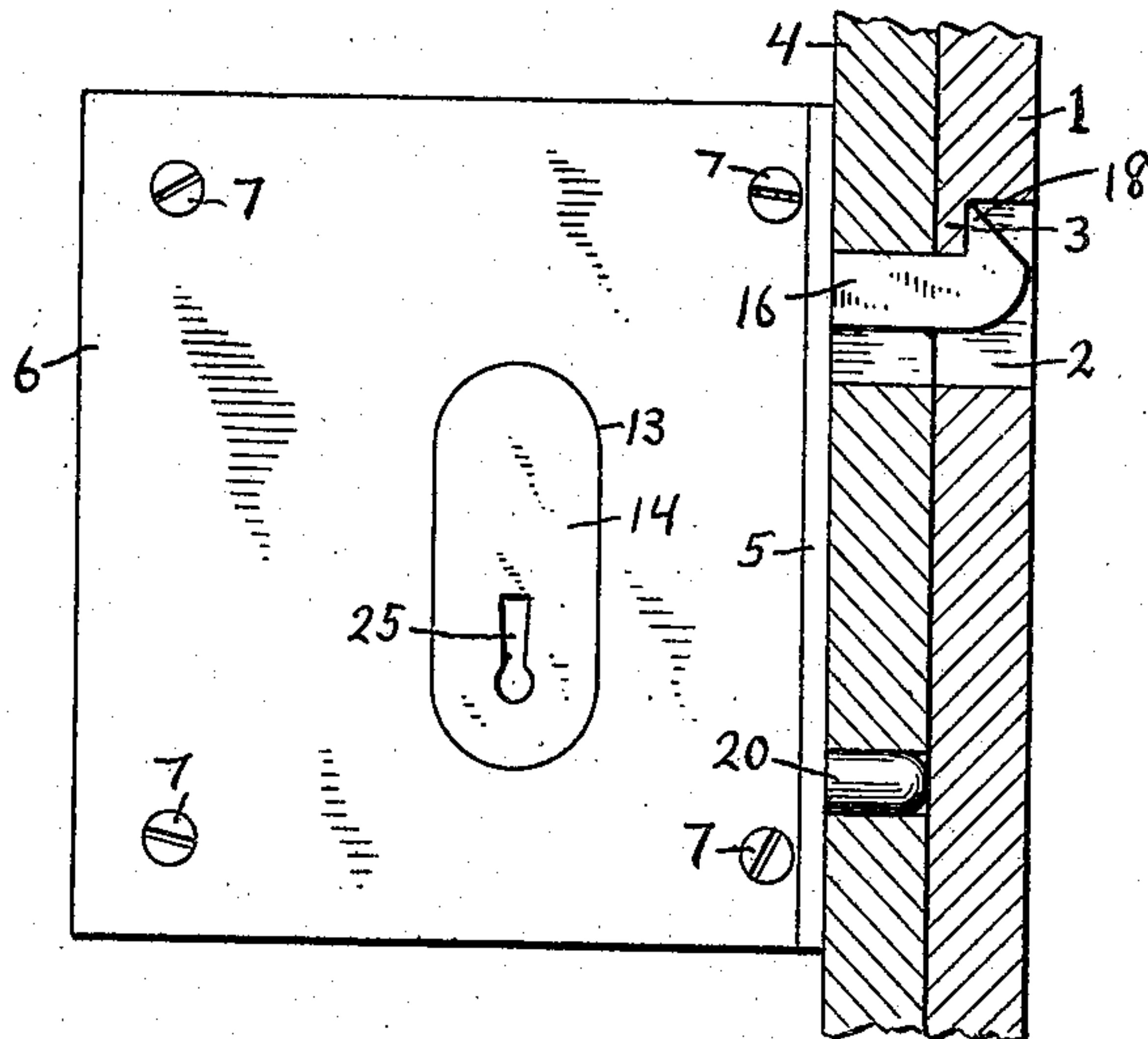
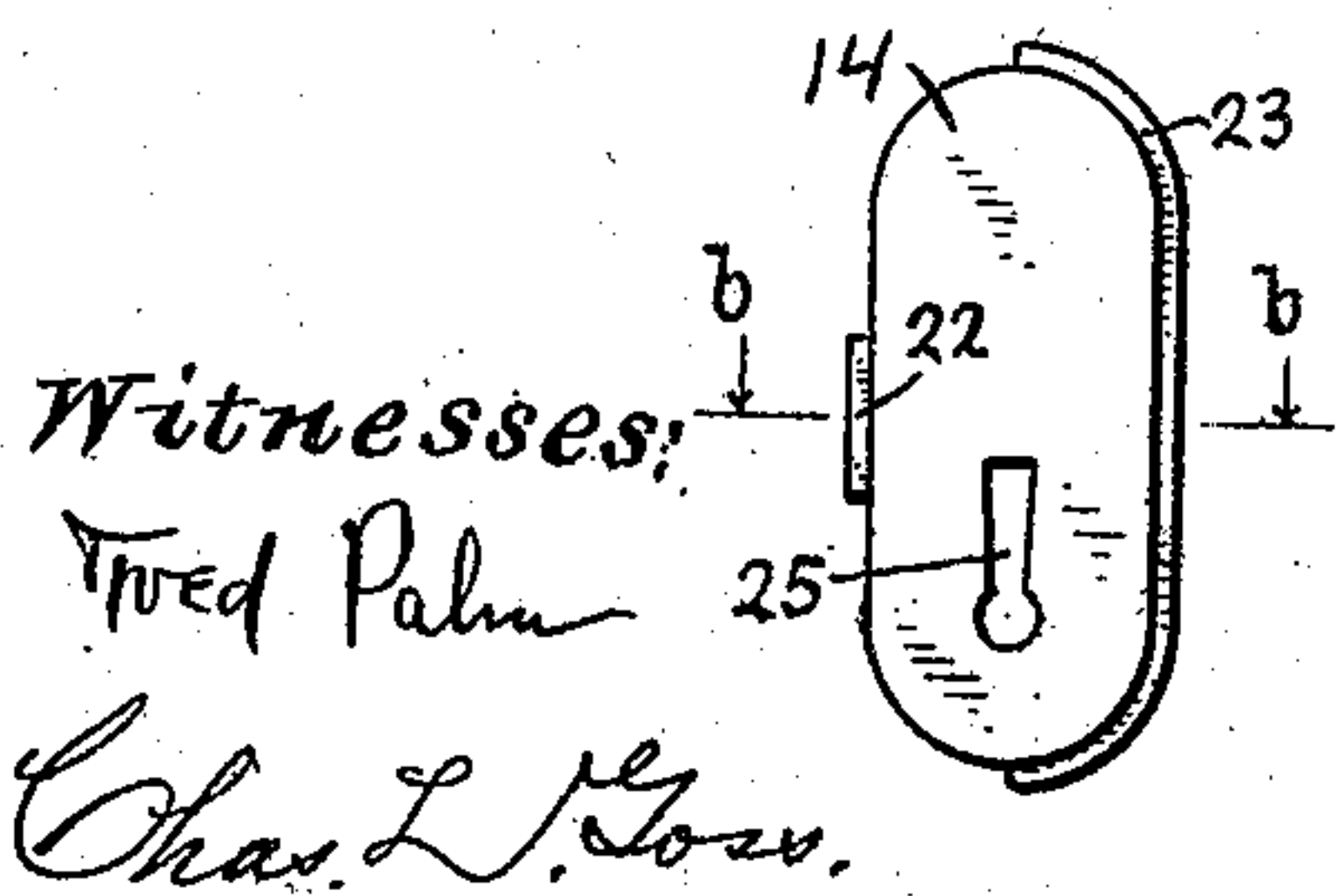


Fig. 6.

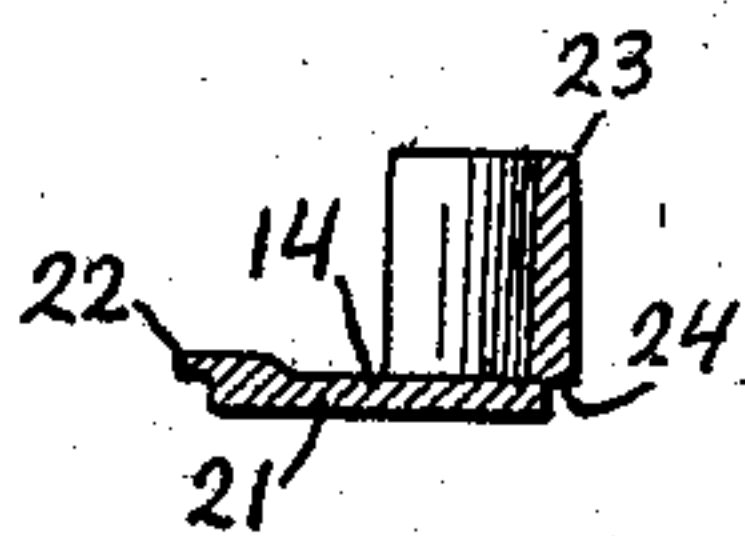


Witnesses:

Wm. Palm

Chas. L. Cloos.

Fig. 7.



Inventor:

Jacob Cloos

By Winkler, Blandens, Bottom, & Fawcett
Attorneys.

J. CLOOS.
SLIDING DOOR FASTENER.
APPLICATION FILED FEB. 1, 1909.

924,145.

Patented June 8, 1909.

2 SHEETS—SHEET 2.

Fig. 3.

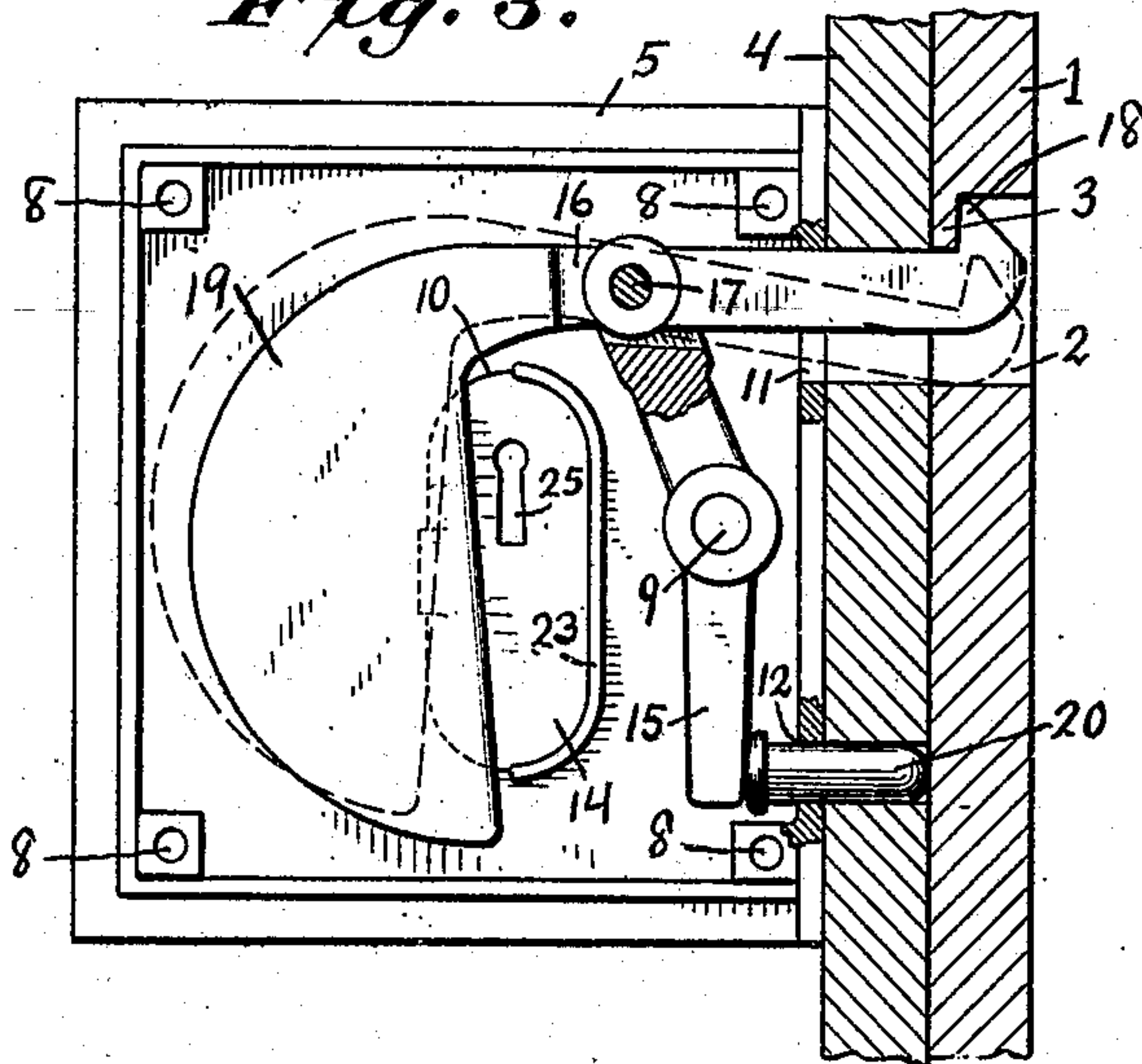


Fig. 4.

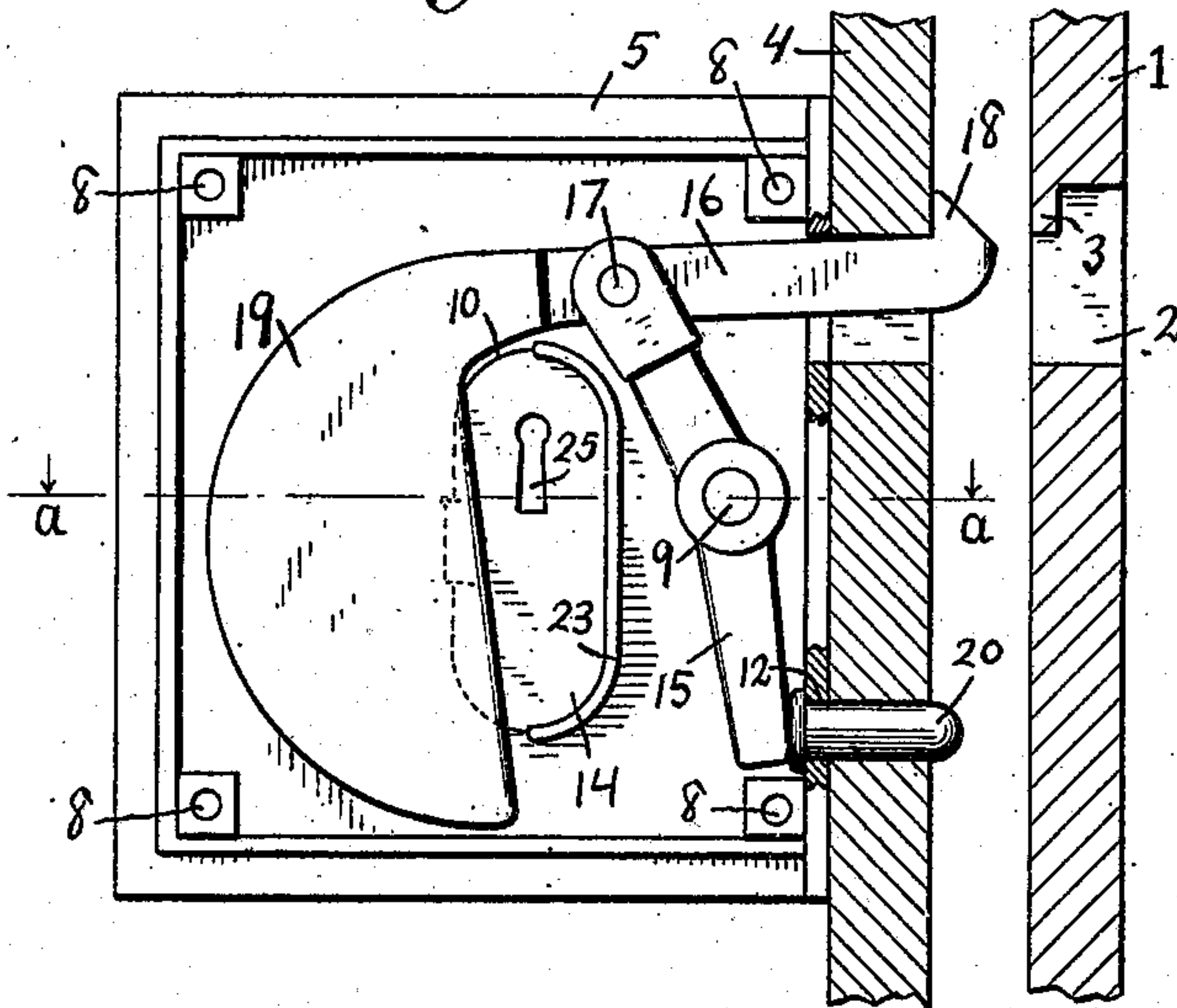
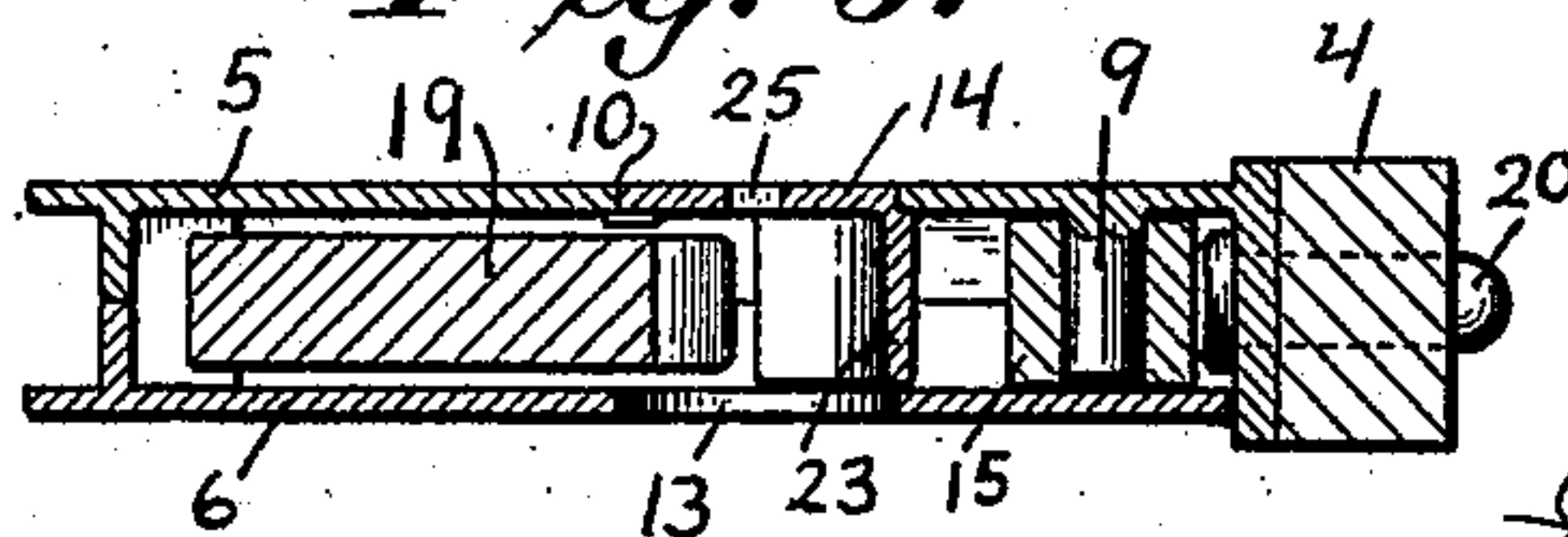


Fig. 5.



Witnesses:

Fred Palm

Chas. L. Goss.

Inventor:

Jacob Cloos.

By Wm. H. Henderson, Bottom & Fawcett

Attorneys.

UNITED STATES PATENT OFFICE.

JACOB CLOOS, OF MILWAUKEE, WISCONSIN.

SLIDING-DOOR FASTENER.

No. 924,145.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed February 1, 1909. Serial No. 475,338.

To all whom it may concern:

Be it known that I, JACOB CLOOS, a citizen of the United States, residing at Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Sliding-Door Fasteners, of which the following is a specification, reference being had to the accompanying drawing, forming a part thereof.

This invention relates to sliding door fasteners, and the object of the invention is to so arrange and support the locking member which is provided with a hook, that when a door to which the fastener is applied is opened, the hook will be retracted, so that there is no liability of clothes or garments being caught thereby. This fastener is capable of being applied to various uses, but it is especially adapted for use in connection with elevator doors which afford access either to the elevator shaft or to the interior of the car.

Referring to the drawings which accompany this specification and form a part thereof, and which illustrate an embodiment of this invention and on which the same reference characters are used to designate the same elements wherever they may appear in each of the several views, Figure 1 is an elevation of a fastener applied to a door, a part of the door and the jamb being shown in section; Fig. 2 is a view similar to Fig. 1, a part of the fastener occupying a different position; Fig. 3 is an elevation of the fastener, parts being shown in section with the cover plate removed and showing the door locked; Fig. 4 is a view similar to Fig. 3, but showing the parts in the position which they assume when the door is unlocked; Fig. 5 is a section of the fastener taken on the line *a—b* of Fig. 4; Fig. 6 is an elevation of the cover plate; and Fig. 7 is a section of the cover plate taken on the line *b—b* of Fig. 6.

Referring to the drawings, the numeral 1 designates the jamb of a door provided with the recess 2 and the strike 3.

The numeral 4 designates a part of a door to which may be secured in any suitable manner the casing 5 of the fastener. To this casing a cover 6 may be secured in any suitable or preferred manner, as for example, by the screws 7, which engage with the screwthreaded apertures 8 of the casing. The casing is provided with a stud 9 which may be cast integrally with the body of the

casing, if the casing is made by casting. The casing is further provided with a hand hole or aperture 10, a bolt aperture 11 and a pin aperture 12. The cover 6 is also provided with a hand aperture 13, and a cover plate 14 is provided, which may be inserted between the casing and the cover so as to close either the hand hole in the casing or the hand hole in the cover.

Pivotally supported upon the lug 9 is the lever 15, upon which the latch bar 16 is pivotally supported by a pivot 17. The latch bar 16 projects out through the aperture 11 in the casing and is provided with an upstanding hook 18, this hook being beveled in the ordinary manner so that it will pass under the strike 3 when the door is closed. The latch bar 16 is also provided with a weighted end 19 which may be formed integrally therewith if preferred, the weighted end 19 being located on the opposite side of the pivot 17 from the hook 18. This construction (in the arrangement of the apparatus shown by the drawings) causes the hook 18 to be elevated on account of the downward movement of the weighted end 19 about the pin 17. The lower end of the lever 16 (in the arrangement shown by the drawings) contacts with a movable, headed pin 20, which extends through the aperture 12 in the casing and through a corresponding aperture in the door, the arrangement being such that when the door is open the pin 20 will normally project beyond the door, while the hook 18 will contact with the door.

It will be readily apparent from the drawings that a hand can be inserted through either of the hand holes 10 or 13, and by pressing against the weighted end 19, the latch bar 16 may be swung about the pivot 17, depressing the hook 18, whereby said hook will be freed from its engagement with the strike 3, and the door can be opened.

It will also be apparent that when the door has been opened and the hand is removed, the weighted end 19 will cause the hook 18 to be elevated until it comes in contact with the upper part of the aperture through which it projects, and the weighted end 19 will cause the lever 15 to turn about the lug 9 and force pin 20 outwardly until further movement is prevented by its head contacting with the casing. This is the position of the parts as shown by Fig. 4 of the drawing.

Referring specifically to Figs. 4 and 3 of the drawings, it will be apparent that if the

door is moved from an open position to a closed position (see Fig. 4) the beveled end of the hook will engage with the strike, forcing the hook down and the projecting end of the pin 20 will contact with the jamb of the door, causing lever 15 to swing about the stud 9 and elevate the latch bar 16 and the weighted end 19.

In order that the door may not be opened by an unauthorized person, the cover plate 14 is provided, which may be inserted between the casing and the cover to close either the hand hole 10 or the hand hole 13, according to the requirements of the door on which the latch is to be used, as by simply changing cover plate 14 from hand hole 10 to hand hole 13, the latch is converted from a right hand fastener to a left hand fastener, or vice versa.

The cover plate 14 is provided with a portion 21, which is adapted to seat in either hand hole 10 or 13, a small lug 22 being provided at one side to prevent the cover plate passing through said hand holes, and a finger guard 23 being provided at its opposite side which is of sufficient height to extend the full distance between the casing and the cover, an offset 24 being provided for the same purpose as the lug 22.

In order that the door may be opened by an authorized person from the side which is protected by the cover plate 14, a key hole 25 is provided in said cover plate, through which a key may be inserted to act against the weighted end 19 to unlock the door, and it will be noticed from an inspection of the drawings that the position of this key hole will be reversed, when the cover plate closes the hand hole in cover 6, from the position it occupies when the cover plate closes the hand hole in the casing, and it will be also noticed that an ordinary form of key when inserted through said key hole 25 will be equally effective to actuate the weighted end 19, whatever the position of the key hole.

What is claimed is:

1. The combination with a casing pro-

vided with a lug, of a lever pivotally supported upon said lug, a latch bar provided with a hook pivoted to and supported solely by said lever, and a pin movably extended out from said casing against which pin said lever is adapted to rest.

2. The combination with a casing provided with a lug, of a lever pivotally supported upon said lug, a latch bar pivotally supported by said lever and provided on one side of its pivotal support with a hook and on the opposite side thereof with a weighted end, and a movable pin against which said lever is adapted to rest.

3. The combination with a casing and a cover, each of which is provided with a hand hole, said casing being provided with a lug, of a lever pivotally supported by said lug, a latch bar pivotally supported by said lever and provided with a weighted end and a hook, and a cover plate adapted to be held between said casing and said cover to close either the hand hole in the casing or the hand hole in the cover to make either a right hand or a left hand fastener.

4. The combination with a casing and a cover, each of which is provided with a hand hole, said casing being provided with a lug, of a lever pivotally supported by said lug, a latch bar pivotally supported by said lug and provided with a weighted end and a hook, and a cover plate adapted to be held between said casing and said cover to close either the hand hole in the casing or the hand hole in the cover to make either a right hand or a left hand fastener, said cover plate being provided with a key hole through which a key may be inserted to actuate said latch bar, whether the cover plate closes the hand hole in the casing or in the cover.

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

JACOB CLOOS.

Witnesses:

CHAS. L. GOSS,
FRANK E. DENNETT.