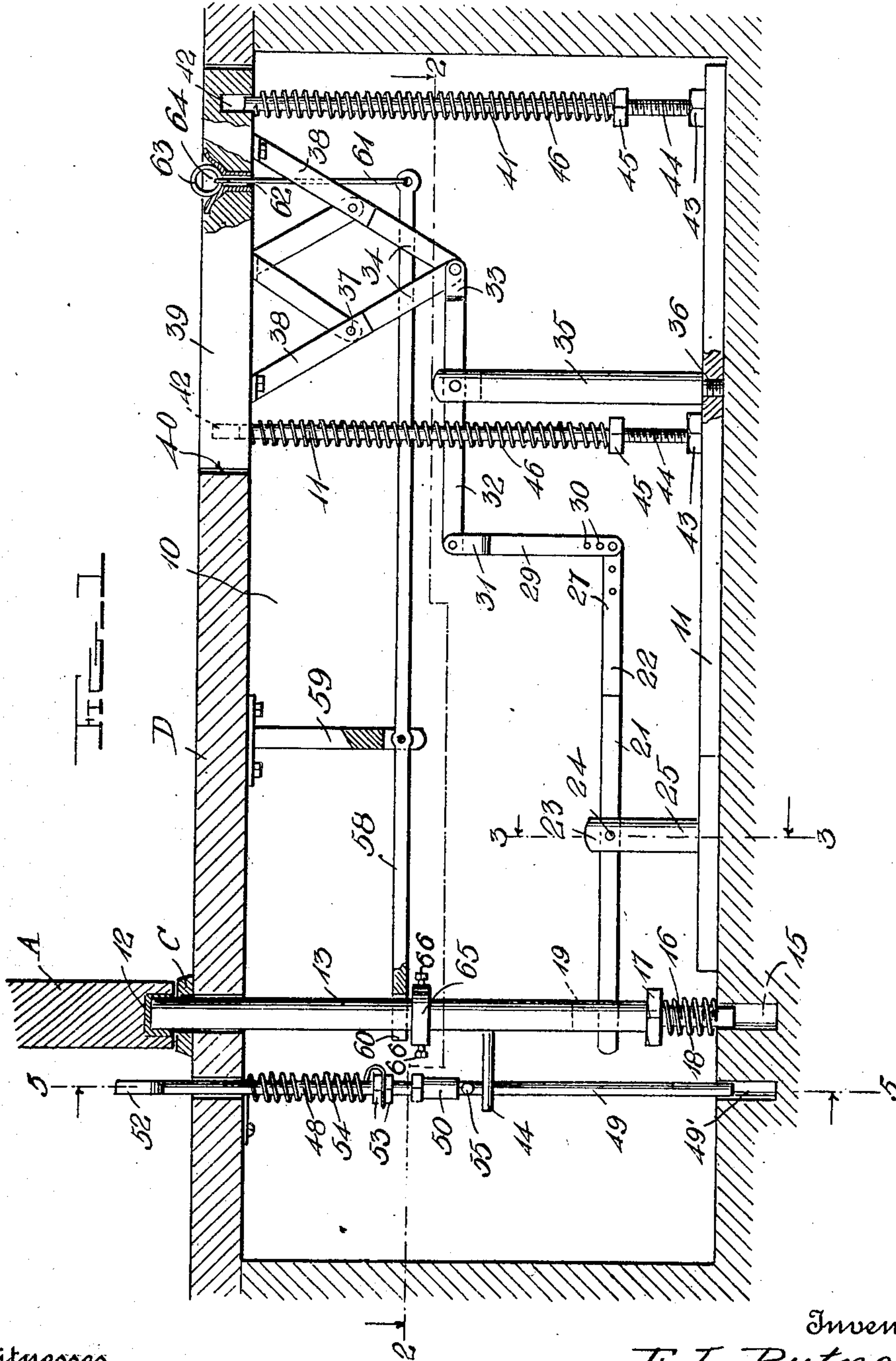


F. L. PUTNEY.  
 LOCKING DEVICE FOR EMERGENCY EXIT DOORS.  
 APPLICATION FILED AUG. 17, 1908.

919,634.

Patented Apr. 27, 1909.

3 SHEETS—SHEET 1.



Witnesses

*[Signature]*

C. H. Giesbauer

Inventor

F. L. Putney

By

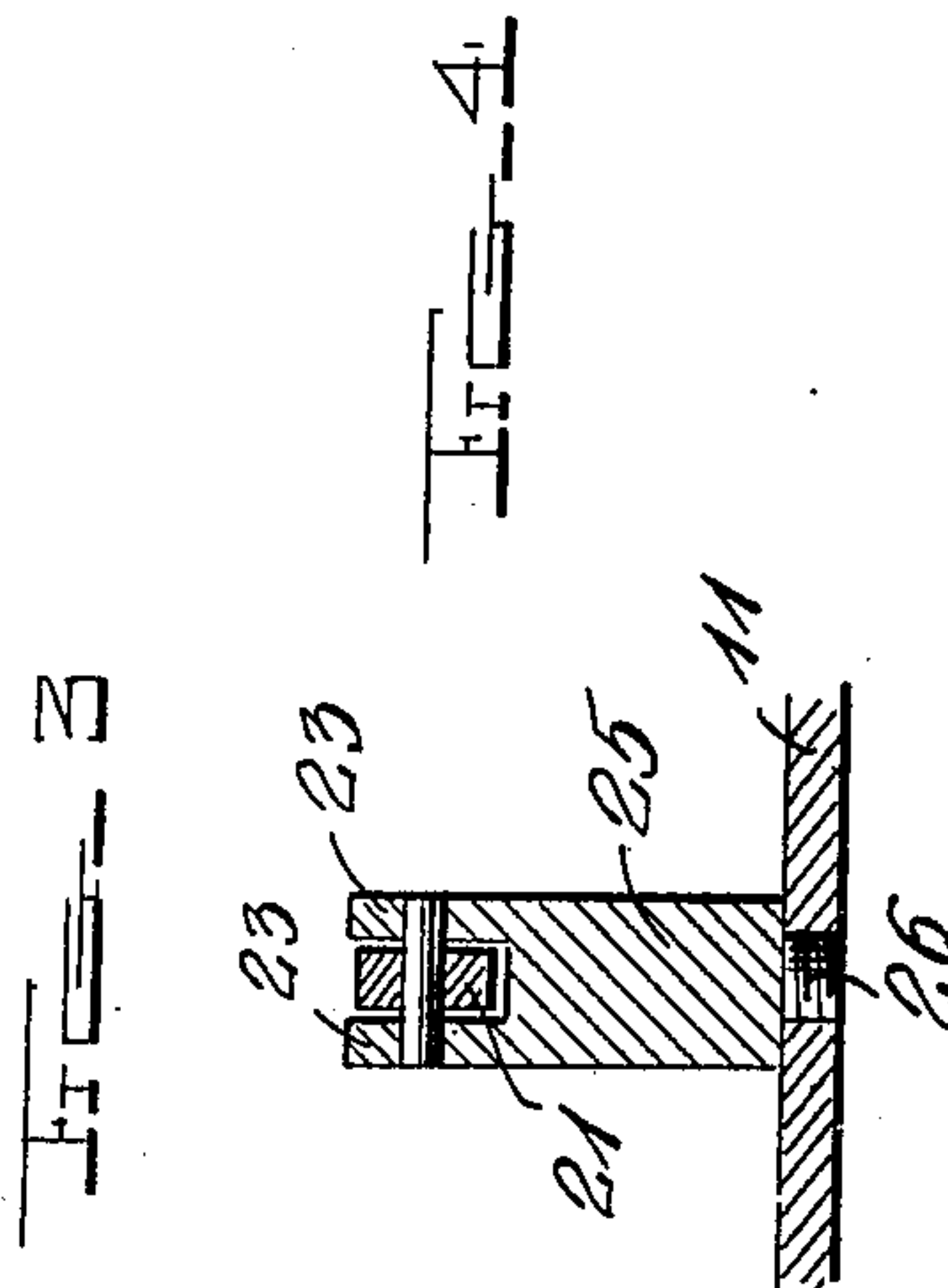
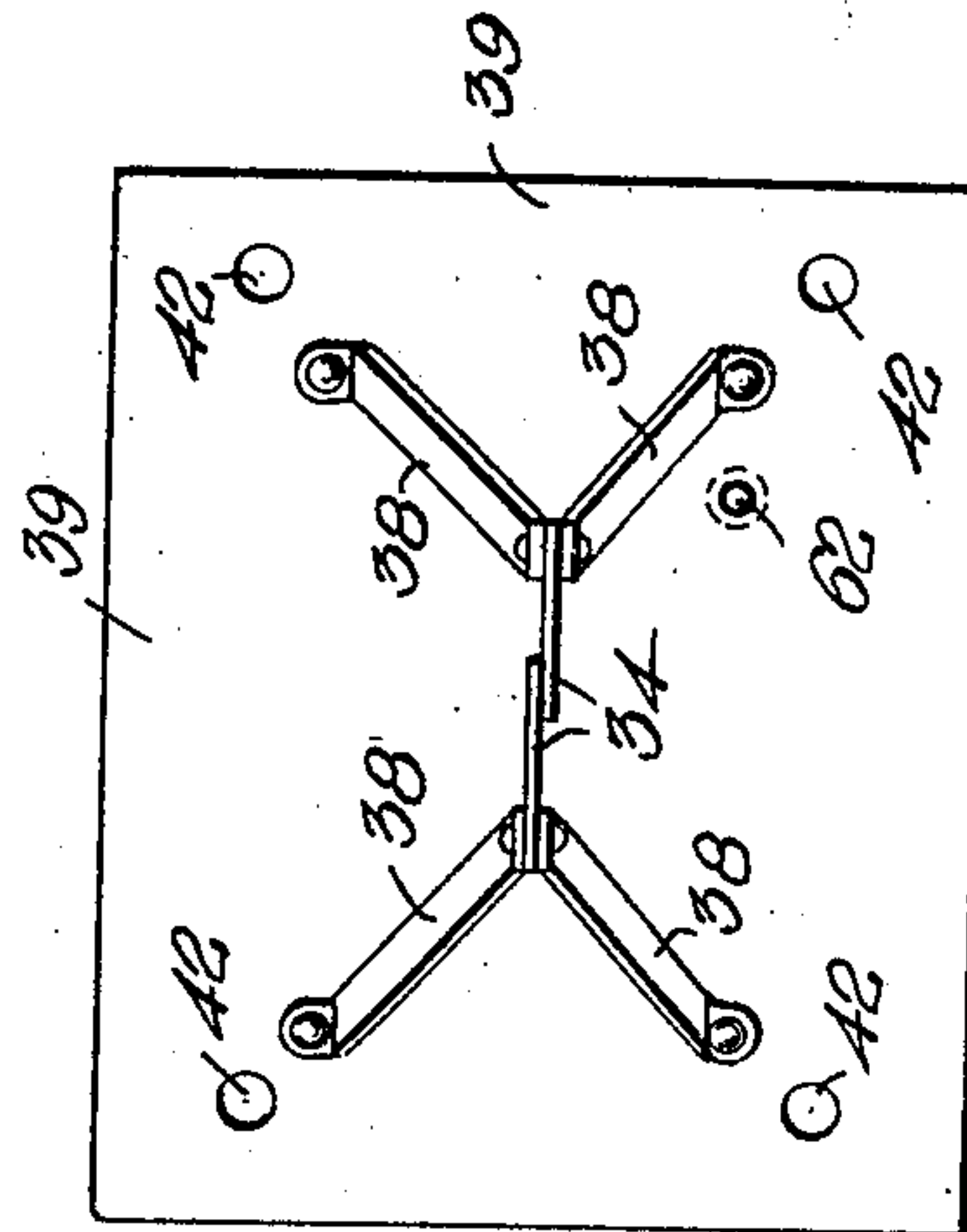
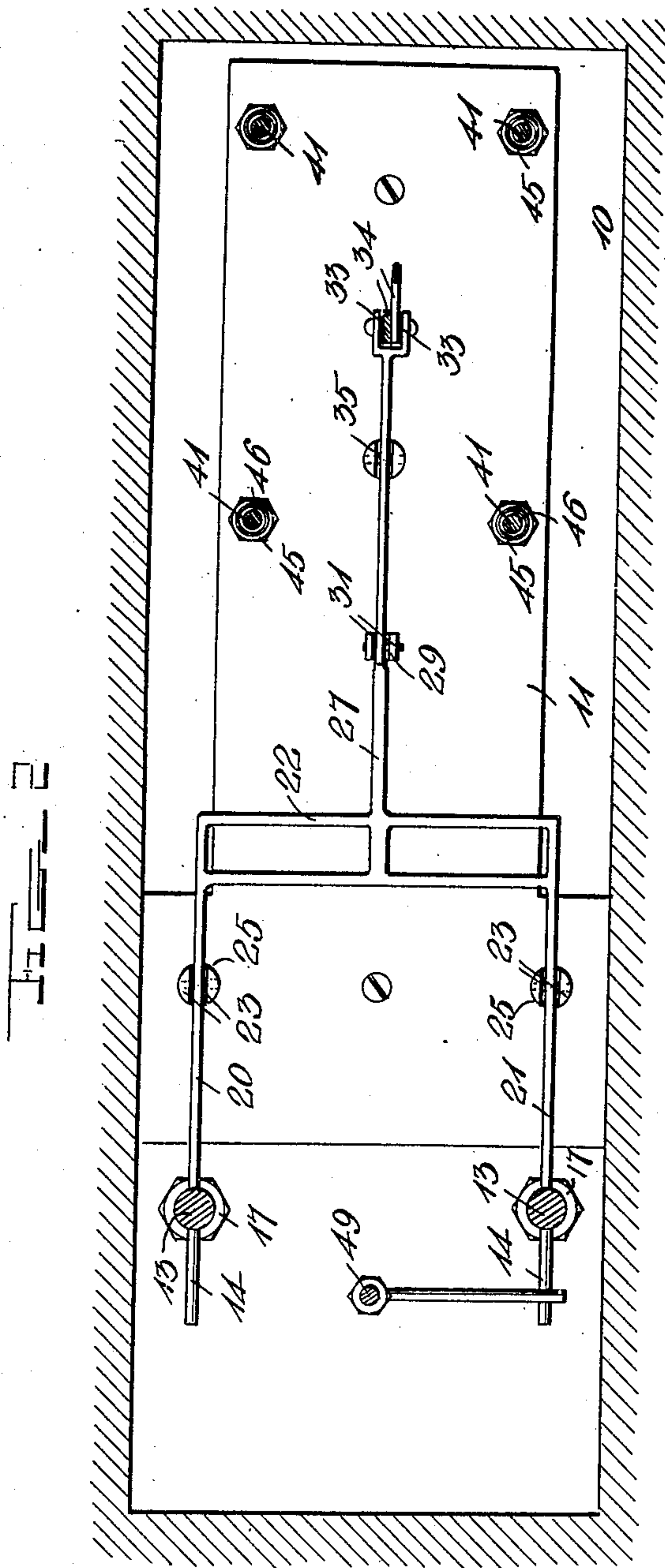
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Inventor  
 F. L. Putney

By *A. B. Wilson & Co.*  
 Attorneys



919,634.

3 SHEETS—SHEET 3.



**Witnesses**

By J. B. Wilson & Co.

Attorneys



# UNITED STATES PATENT OFFICE.

FRANK L. PUTNEY, OF SUNSHINE, WYOMING.

## LOCKING DEVICE FOR EMERGENCY EXIT-DOORS.

No. 919,634.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed August 17, 1908. Serial No. 448,888.

*To all whom it may concern:*

Be it known that I, FRANK L. PUTNEY, a citizen of the United States, residing at Sunshine, in the county of Bighorn and State of Wyoming, have invented certain new and useful Improvements in Locking Devices for Emergency Exit-Doors; and I do 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.

This invention relates to safety door releasing mechanisms, and has for its object to provide means whereby emergency exit doors of theaters or similar places of amusements, apartment houses or large dwellings may be immediately released to permit the same to swing open in the event of fires, panics or similar calamities.

A further object of this invention is to provide a mechanism adapted for use particularly in connection with double swinging doors and to provide means whereby one or both doors may be opened by hand or foot.

With these and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be more fully described and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a longitudinal section through a portion of a floor showing the application of the invention to two swinging doors; Fig. 2 is a horizontal section taken on the line 2—2 of Fig. 1; Fig. 3 is a vertical section taken on the line 3—3 of Fig. 1; Fig. 4 is a bottom plan view of the platform; Fig. 5 is a vertical section taken on the line 5—5 of Fig. 1; Fig. 6 is a detail perspective view of the upper portion of the releasing rod; Fig. 7 is a longitudinal section of the lower end of one of the latch rods; and Fig. 8 is a view of the lower end of one of the upright guides for the platform, illustrating a modified form of the invention.

Referring more particularly to the drawings, a pair of doors A of any ordinary construction are shown which are hinged in position to swing outwardly from the interior of the theater or similar place of amusement, and which are mounted in the usual frame B, including a bottom sill C. A pit 10 is formed beneath the flooring D at the bottom of which is mounted a substantially T-shaped plate 11. Each swinging door is provided

in its lower edge with a metallic ferrule 12 adapted to receive the upper end of a vertical sliding latch rod 13, which extends through the flooring D and which is arranged at one end of the pit 10, each of said latch rods being provided with a laterally projecting pin 14, the purpose of which will be hereinafter set forth. The lower ends of the latch rods, which are of somewhat reduced form, are adapted to slide in corresponding sockets 15 formed in the bottom of the pit 10, each of said latch rods having a thread 16 at the extreme lower end of its enlarged portion to receive a nut 17 between which and the bottom of the pit and around the reduced portion of said rod is disposed a coil spring 18, the function of which is to normally hold the upper ends of the latch rods in the ferrules 12 of the swinging doors, and thereby normally hold the doors in closed position. The lower ends of said latch rods are also provided above said nuts 17 with longitudinal slots 19, which receive the outer ends of the side pieces 20 and 21 of an approximately U-shaped rocking frame 22, the side pieces of said frame being pivotally mounted in the upper forked ends 23 of upright supports 25, provided at their lower ends with threaded studs 26 which screw into the T-shaped plate 11. The rocking frame 22 is provided with a central longitudinally extending arm 27, the outer end of which is connected with either of a vertical series of apertures 30 formed in the lower end of a connecting bar 29, the upper forked end 31 of which is loosely connected with one end of a rocker bar 32 pivotally mounted intermediate of its ends in the upper forked end of an upright support 35, said support having a threaded stud 36 at its lower end to screw into the bed plate 11. The opposite or forked end 33 of the rocker bar 32 is connected with the lower end 34 of a suitable frame having upwardly diverging pieces 38 the upper ends of which are attached to the under surface of a suitable platform 39 mounted in a corresponding opening 40 in the floor D. This platform is normally held in operative position or with its top and bottom surfaces flush with those of the floor, by upright coil springs 46 which are disposed around the greater portions of upright guide rods 41 between nuts 45 which screw upon threads 44 at the lower ends of said rods, and the platform, as clearly shown in the drawings. Said platform is provided in its under surface with vertical sockets 42



to receive the upper ends of the guide rods and to permit predetermined vertical movement of the platform.

In practice, by stepping upon the platform 39 the same will be depressed and through the medium of the connections described will depress the latch rods 13 a sufficient extent to disengage the upper ends thereof from the ferrules 12, thereby permitting the doors to swing into open position.

I will now proceed to describe a manually operated device by means of which either one of the doors may be opened from the outside. This device comprises an upright plunger 15 which passes through the floor on the outside of the doors and which is made in two longitudinal sections 48 and 49 joined by a union 50. Clamping nuts 53 screw upon the lower end of the upper section 48 between which is clamped one end of a coil pull spring 54 disposed around the upper portion of section 48.

The lower end of the lower section 49 works in a corresponding socket 49' in the bottom of the pit and the upper end of said section is provided with a laterally projecting arm 55 which is adapted to engage the pin 14 of either of the latch rods 13, said arm being normally held in a plane above said pins by the pull spring 54. The upper end of the upper section 48 extends through and above the floor D and is provided with a curved foot piece 52.

In practice, either of the doors may be released by depressing the foot piece 52, after having previously turned the plunger a sufficient extent to bring or dispose the arm 55 thereof into a position at right-angles to the pin 14 of either of the latch rods.

From the construction illustrated and described it will be seen that either or both of the swinging doors may be quickly released by depressing the plunger or platform, respectively.

If desired, instead of providing the platform with sockets to receive the upper ends of the guide rods, said ends of the guide rods may be fixed thereto, and the lower ends of the rods mounted to slide in sockets 55' in the bottom of the pit. In this case collars 56 are arranged to receive the lower ends of the guide rods and the coil springs 46 bear on said collars.

I will now describe an arrangement whereby only one door may be opened from the inside to provide exit for only one, two or a few persons. To accomplish this a longitudinally disposed operating lever 58 is pivotally mounted near its outer end in the lower end of a suitable hanger 59 secured to the bottom of the floor, the outer end of this lever terminating in a fork 60 adapted to receive one of the latch rods 13. A link 61 is attached to the opposite end of said operating lever and passes through the vertical opening 62 in the platform. The outer end of said link is

equipped with a suitable ring 63 adapted to fold into a suitable recess 64 in the top surface of the platform. A collar 65 is mounted upon one of the latch rods as a bearing for the fork end of the operating lever 58, said collar being provided with set screws 66 to provide for the adjustment thereof. By means of this construction it will be seen that by pulling upon the link 61, the latch rod 13 engaged by the fork end of the operating lever will be depressed sufficiently to disengage the adjacent door which may be then opened.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention as defined in the appended claims.

Having thus described and ascertained the nature of my invention, what I claim as new and desire to secure by Letters-Patent, is:

1. In combination with a pair of swinging doors, vertically movable latch rods extending through the floor and normally engaging the doors, each of said rods having a laterally projecting portion below the floor and a rotatable plunger mounted to extend through the sill between the latch rods, said plunger having a laterally projecting arm adapted to engage the laterally projecting portion of either of the latch rods.

2. In combination with a pair of swinging members, vertically movable latch rods extending through the floor and normally engaging the bottom edges of said members, said latch rods having longitudinal slots near their lower ends, upright guide rods mounted beneath the floor, a platform mounted in the floor upon said guide rods, springs disposed around said rods to normally hold the platform in elevated position and connections between the latch rods and platform comprising a horizontal rocking frame having portions to extend through the slots of said rods for depressing the latter to release the swinging members by stepping upon the platform.

3. In combination with two swinging members, vertically movable latch rods extending through the floor and normally engaging the bottom edges of said members, upright guide rods mounted beneath the floor, a platform mounted in the floor and having vertical sockets to receive the upper ends of said rods, coil springs around the upper portions of said rods to normally hold the platform in elevated position and connections between the platform and latch rods to depress the latter by stepping upon the former.

4. In combination with two swinging members, vertically movable latch rods extending



through the floor and normally engaging the  
bottom edges of said members, upright guide  
rods mounted beneath the floor, a platform  
mounted in the floor and having vertical  
5 sockets to receive the upper ends of said rods,  
coil springs around the upper portions of said  
rods to normally hold the platform in ele-  
vated position, connections between the plat-  
form and latch rods to depress the latter by  
10 stepping upon the former, said connections  
comprising a horizontal rocking frame hav-  
ing portions to engage the latch rods.

5. The combination with a swinging door,  
of a vertically movable latch rod for engag-

ing the bottom edge thereof, a longitudinally 15  
operating lever pivotally mounted beneath  
the floor, one end of said lever terminating in  
a fork adapted to receive the latch rod, a link  
connected with the opposite end of said lever  
and extending through the floor and a ring at 20  
the outer end of said link.

In testimony whereof I have hereunto set  
my hand in presence of two subscribing wit-  
nesses.

FRANK L. PUTNEY.

Witnesses:

JENNIE PUTNEY,  
R. J. McNALLY.