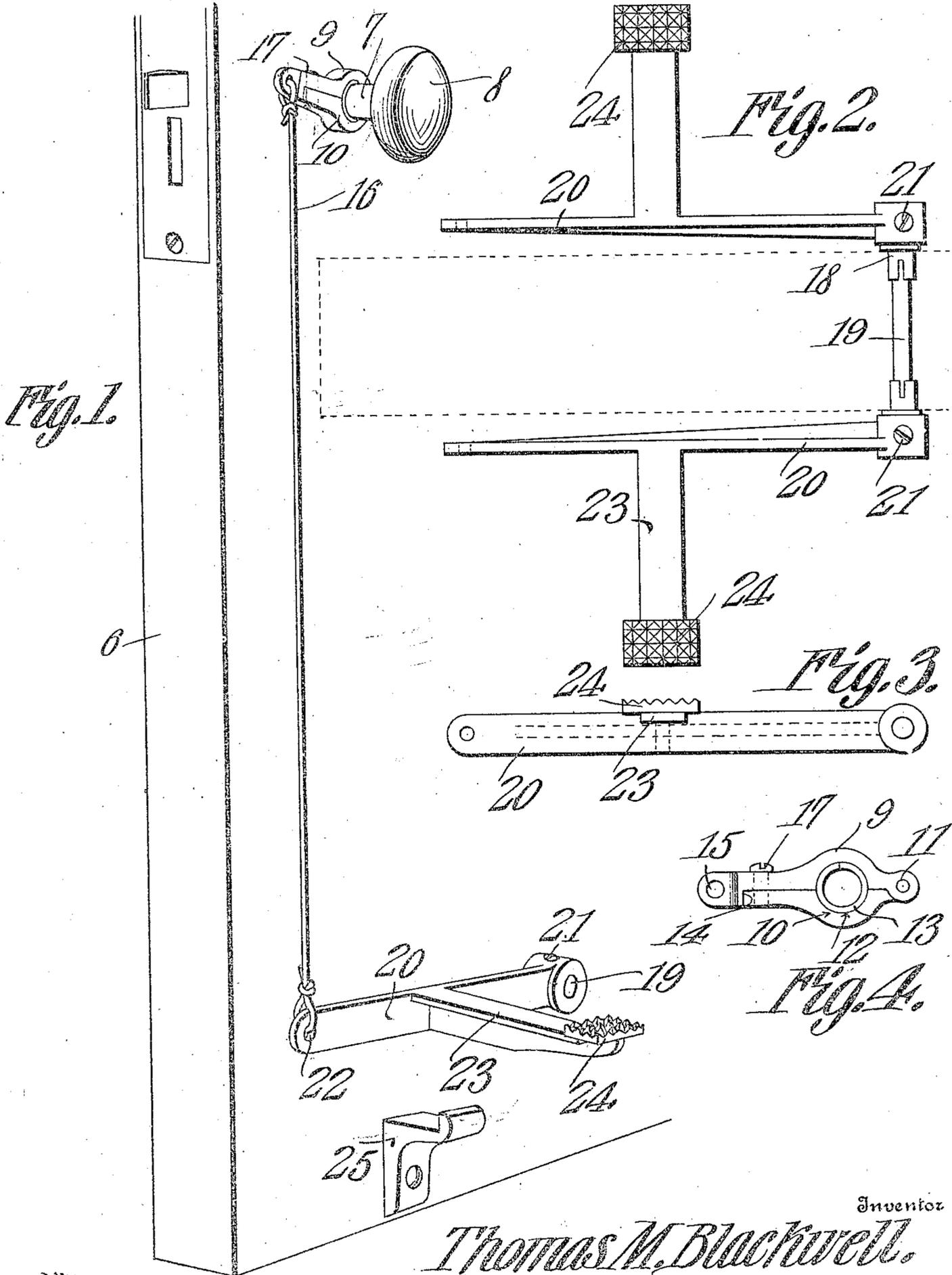


T. M. BLACKWELL.
 ICE FOR OPENING AND CLOSING DOORS.
 APPLICATION FILED MAY 18, 1909.

955,125.

Patented Apr. 19, 1910



Witnesses
E. J. [Signature]
[Signature]

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UNITED STATES PATENT OFFICE.

THOMAS M. BLACKWELL, OF BASIC CITY, VIRGINIA.

DEVICE FOR OPENING AND CLOSING DOORS.

955,125.

Specification of Letters Patent. Patented Apr. 19, 1910.

Application filed May 18, 1909. Serial No. 496,710.

To all whom it may concern:

Be it known that I, THOMAS M. BLACKWELL, a citizen of the United States, residing at Basic City, in the county of Augusta and State of Virginia, have invented a new and useful Device for Opening and Closing Doors, of which the following is a specification.

It is the object of the present invention to provide an improved construction of door opening device and the invention relates more particularly to that class which are adapted for application to the ordinary door and are foot operated. Such devices are designed primarily to provide means whereby the door may be readily opened without employing either hand.

The device broadly speaking consists of a member which is adapted for attachment to an ordinary door knob spindle or shank and a rocking arm which has connection with the member, the arm having an off-set foot piece which may be engaged by the foot whereby to depress the arm, and subsequently to exert a pull which will cause the door to swing open.

In the accompanying drawings, Figure 1 is a view showing the door opening device embodying the present invention applied to an ordinary door. Fig. 2 is a plan view of the actuating mechanism of the device. Fig. 3 is an edge view of this portion of the mechanism. Fig. 4 is a detail view in side elevation of that member of the device which is adapted for connection with the door knob spindle.

In the drawings, there is shown a door indicated in general by the reference numeral 6 and having mounted thereon the usual door knob spindle having the knobs 8.

As heretofore stated the door opening mechanism embodying the present invention embodies a member which is adapted for connection with the door knob spindle and a rocking actuating mechanism and the member which is adapted for connection with the door knob spindle is comprised of a section 9 and a section 10, these sections being pivoted at one end as at 11 and being formed in their opposing faces with concavities 12 in which an elastic or yieldable sleeve 13 is received. The member 9 is recessed as at 14 in its under side adjacent its end opposite its pivoted end and this recess receives the corresponding end of the member 10, the before mentioned end of the

member 9 being formed with an opening 15 through which is connected the upper end of a connecting cord or chain 16. A clamping screw 17 is threaded through the member 9 and into the free end of the member 10 and it will be readily understood that in assembling the device upon a door knob spindle, the sleeve 13, being slit, is disposed about the spindle and the sections are then so disposed upon the sleeve as to embrace the same after which the clamping screw 17 is threaded into place whereby to exert a clamping action on the sleeve and spindle and thereby connect the member with the spindle for turning movement.

The foot actuated member of the device is embodied in several elements which will now be described.

The door 6, at a point below the lock or the knob spindle 7 and adjacent the lower edge, is provided with a bore extending therethrough from side to side and in the ends of this bore are inserted bushings 18 in which bushings is journaled a shaft 19. This shaft projects at its ends beyond the outer ends of the bushings and has secured upon each of its ends an arm 20, which arm is held thereon through the medium of a suitable set screw 21 which is threaded through the arm at one end and bears against the corresponding end of the shaft 19. It will be understood of course that the angular relation of the arm with respect to the shaft may be varied by loosening the set screw 21, adjusting the arm, and then tightening the set screw. The two arms upon the shaft 19 project with their free ends presented toward the free edge of the door and one or both of the arms is formed in its free end with an opening 22, through which may be connected the lower end of the cord 16. Each of the arms 20 is formed with a right angularly directed extension 23 having at its outer end a roughened foot plate 24. The roughened surface of this foot plate of each arm is located in a plane above the plane occupied by the extension 23 and the arm 20 from which it projects, or in other words it is the upper surface of a head at the outer end of the extension.

From the foregoing description of the invention, it will be understood that upon depressing either of the arms 20, a pull will be exerted in a downward direction upon the cord 16 and as a consequence the apertured end of the member 9 will be swung

downwardly thereby rotating the knob spindle 7 to retract the latch bolt. It will further be understood that while both of the arms 20 are here shown as extending considerably beyond their extensions 23, one of the arms may be shortened if so desired inasmuch as it is only necessary to employ one of the members 9 which is attachable to the knob spindle and hence connection is only necessary between this member and one of the arms. It is however necessary to employ two of the extensions 23 so that one will lie to each side of the door 6 whereby the knob spindle may be foot actuated from either side of the said door. Secured upon the door 6, as clearly shown in Fig. 1 of the drawings, at a point below the normal line of extent of the corresponding arm 20, is a stop 25 which is located in the path of swinging movement of the arm and serves to limit the downward movement thereof. It will still further be understood that by upturning the extremities of the extensions 23 of the arms 20, the foot, after having depressed the arms to unlatch the door, may be engaged behind these upturned ends and a pull exerted upon the extensions to swing the door to open position.

While it is intended that the spring of the door lock shall restore the parts to normal position after they have been actuated to retract the latch bolt of the lock, where this spring is not of sufficient strength to secure this result a spring may be connected with any suitable element of the device such for example as with either of the arms 20.

It will further be understood that changes may be made in the form, proportions and

minor details of the device provided such changes fall within the scope of the appended claims.

What is claimed is:—

1. In a device of the class described, a member adapted for connection with a door knob spindle, a rocking arm, connection between the arm and the said member, the arm having a relatively long extension projecting at right angles therefrom in a plane therewith and at a point between the fulcrum for the arm and the point of connection of the connecting means with the arm, and a roughened foot plate at the end of the extension, the foot plate being offset vertically to occupy a plane above the upper side of the extension whereby to permit of the engagement of the toe of the sole of a shoe against the rear edge of the said foot plate after the arm has been depressed.

2. In a device of the class described, a member adapted for connection with a door knob spindle, said member comprising pivoted sections, a sleeve held between the sections and adapted to frictionally grip the door knob spindle, a clamping screw for holding the sections in clamping engagement with the door knob spindle, a rocking arm, and connection between the arm and the said member.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

THOMAS M. BLACKWELL.

Witnesses:

J. FRANK PATTERSON,
SAML. H. ARNALL.