M. B. BURGESS.

KEYLESS LOCK.

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1,302,896.

Patented May 6, 1919.

Fig. 1.

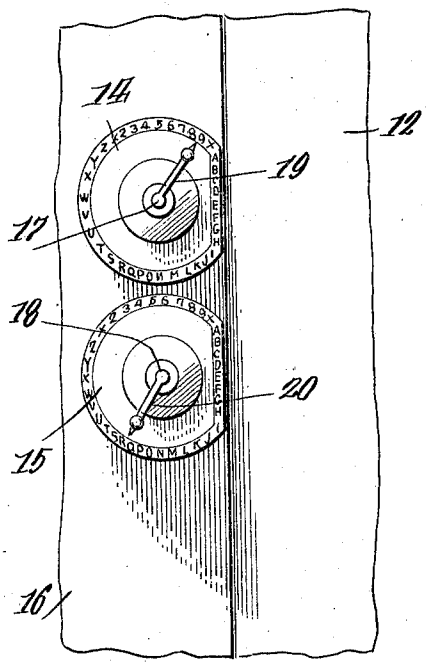


Fig. 2.

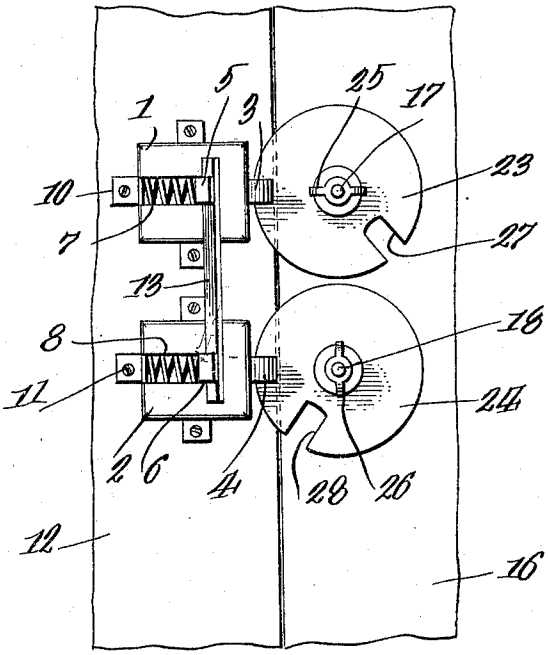


Fig. 3.

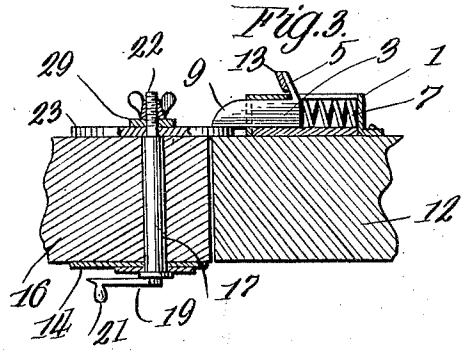
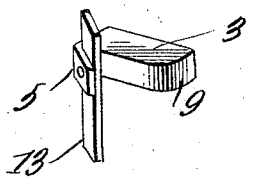


Fig. 4.



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WITNESSES

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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KEYLESS LOCK.

1,302,896. Specification of Letters Patent. Patented May 6, 1919.

Application filed January 29, 1918. Serial No. 214,391.

To all whom it may concern:

Be it known that I, MORTIMER B. BURGESS, a subject of the King of Great Britain, residing at Adelphi, Jamaica, British West Indies, have invented certain new and useful Improvements in Keyless Locks, of which the following is a specification.

This invention relates to locks, and particularly pertains to a keyless lock adapted for use upon doors.

An object of the invention is to provide a keyless lock of the permutation type in which the door post serves as the jamb against which the door-carried part of the lock closes. This is carried out by setting the bolt case and bolt back from the post, and employing a disk on the door which overlaps the meeting line between the edge of the door and the edge of the post.

Yet another object is to provide a structure by which the door bolts may be withdrawn from the locking position by a person on the inside of the door, irrespective of the setting of the disk or plates.

With the above and other objects in view, my invention consists in certain novel features of construction and combination of parts to be hereinafter more clearly set forth.

In the drawings:—

Figure 1 is a fragmentary elevational view taken from the outer side of a door, and door post, having my invention applied thereto;

Fig. 2 is a view similar to Fig. 1 but taken from the inner side of the door;

Fig. 3 is a horizontal sectional view taken through the lock structure; and

Fig. 4 is a fragmentary perspective view to better show the manner of mounting the locking bolts.

The bolt cases 1 and 2 have openings provided through the sides thereof for the reception of the locking bolts 3 and 4, these locking bolts being provided with extensions 5 and 6 which project through slotted openings provided in the outer sides of the bolt cases 2 and 3. Coiled springs 7 and 8 are mounted within the bolt casings 1 and 2 and bear against the rear ends thereof and to project the beveled ends 9 of the bolts, the extensions 5 and 6 acting to limit outward movement of the bolts and to consequently retain the bolts against displacement from the cases.

The bolt casings 1 and 2 have outstanding ears 10 provided thereon, and screws 11, or other suitable fastenings are pased through openings provided in these ears and into the door post 12 so that the casings are mounted closely adjacent the edge of the door post and on the inner side thereof, it however being understood that the casings are kept sufficiently far back from the edge of the door post that the bolts 3 and 4 do not extend beyond the edge. A bar 13 is connected with the extensions 5 and 6 of the bolts 3 and 4, and as this bar is moved toward the left, as shown in Fig. 2, the bolts 3 and 4 will be drawn into the casings 1 and 2 against the pressure exerted by the springs 7 and 8.

On the outer side of the door 16 are secured dial plates 14 and 15 which are substantially circular and have markings around their peripheries, and through their centers opposite the bolts are journaled spindles 17 and 18 whose outer ends carry indexes 19 and 20 and operating knobs or handles 21.

At the inner ends the revolubly mounted spindles 17 and 18 are reduced and are formed into threaded stems 22, the shoulder at the termination of the stems being brought slightly through the door post 16. Circular plates or disks 23 and 24 are provided with openings at their centers to receive the threaded stems 22, and thumb nuts 25 and 26, or other suitable fastenings, are turned upon the threaded stems to draw the disks or plates 23 and 24 tightly down against the shoulders of the spindles to thus lock the disks or plates on the spindles. These disks or plates 23 and 24 have the notches 27 and 28 formed radially in the edges thereof and of sufficient depth to clear the bolts 3 and 4, it being understood that the disks or plates 23 and 24 are of such size that they extend somewhat beyond the edge of the door and engage with the bolts 3 and 4 to force the same in against the pressure of the springs 7 and 8 as the door is closed, following which the bolts 3 and 4 will again be projected by the pressure of these springs and will catch over and lock against the disks or plates 23 and 24, these disks or plates positively holding the door against being forced inwardly.

With the door closed and locked, an operator desiring to release the lock from the

outer side of the door will turn the indexes 19 and 20 to the proper dial markings at which the notches 27 and 28 of the disks or plates 23 and 24 are brought into registry with the bolts 3 and 4, and then the door may be readily opened by pushing on it. To again lock the door, it is only necessary to turn the indexes 19 and 20 sufficiently to throw the notches of the plates or disks 23 and 24 out of alinement with the bolts, and then when the door is again closed the bolts 3 and 4 will be pushed back against the pressure of the springs 7 and 8. When their beveled front ends pass over the edge of the disks, they will spring to distended position to catch over the plates or disks 23 and 24, in which relation of parts the door is securely locked against being forced inwardly or outwardly. If it is desired to change the relative positioning of the indexes with respect to the notches of the associated plates or disks, this can be readily accomplished by loosing the nuts or fastenings 25 and 26, adjusting the plates or disks to the desired setting with respect to the indexes, and again placing the fastenings.

In the actual manufacture of locks after the manner of my invention, two or more of the bolts might be used and it will of course be apparent that where the number of bolts and bolt casings is varied from the showing in the drawings, the relation of the parts will be maintained substantially the same as these parts are mounted upon the door post and upon the door, it being apparent that where three or more bolts are employed the bar 13 can be extended to be connected with each of the bolts.

While, in the foregoing, I have described the specific embodiment of the present invention, it is to be understood that in practice, I do not limit myself to the specific details but may resort to any practical modifications falling within the scope of the invention as defined in the appended claim.

I claim:

In a keyless lock adapted for application to a door and door post, the combination with a plurality of bolt cases secured to the post back from the edge thereof, spring-projected bolts slidably mounted in said cases and each having an outward extension, and a bar connecting the several extensions, whereby the bolts may be retracted simultaneously; of an equal number of spindles rotatably mounted in the door respectively opposite their bolts, and having indexes and handles at their outer ends, dials on the face of said door under said indexes, and disks adjustably mounted on the inner ends of the spindles and of a size to lap over on the door post when the door is closed and to be engaged by said bolts when projected, each disk having a notch in its periphery of a size to permit the passage of the bolt, for the purpose set forth.

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

MORTIMER B. BURGESS.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."