

W. E. BLAIS.
KEYHOLE GUARD.

APPLICATION FILED JULY 12, 1910

1,000,962.

Patented Aug. 15, 1911.

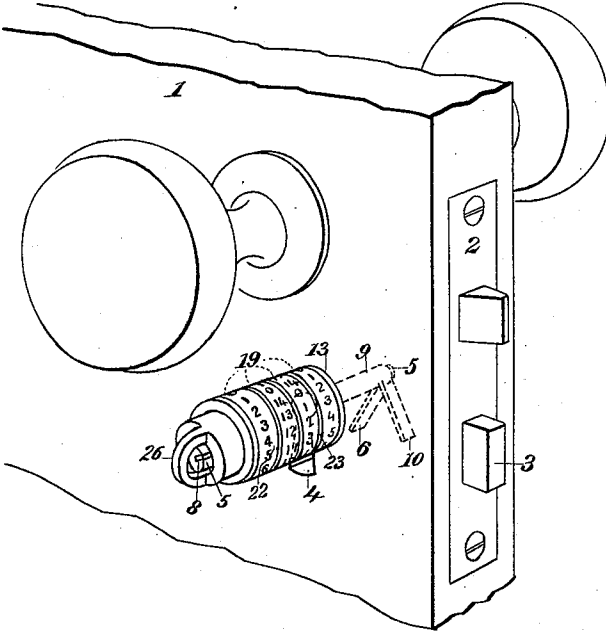


Fig. 1.

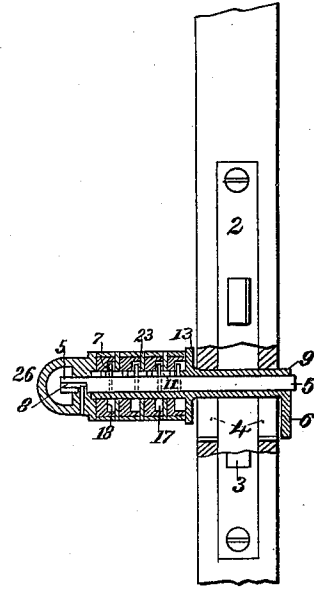


Fig. 2.

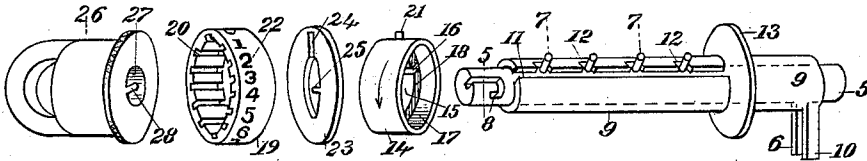


Fig. 3. Fig. 4. Fig. 5. Fig. 6.

Fig. 7.

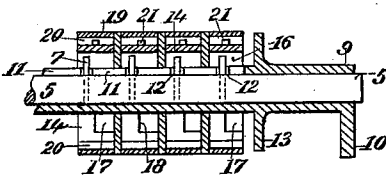


Fig. 8.

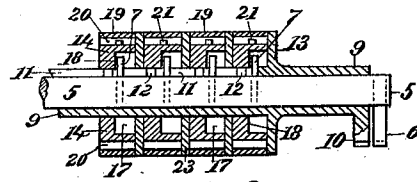


Fig. 9.

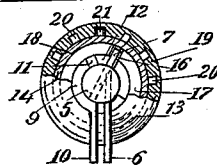


Fig. 10.

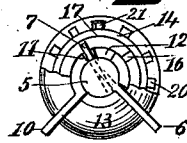


Fig. 11.

Witnesses:
William E. Blais.
Joseph M. Carg.

Inventor:
William E. Blais.
By H. E. Kornick,
his Atty.

UNITED STATES PATENT OFFICE.

WILLIAM E. BLAIS, OF BOSTON, MASSACHUSETTS.

KEYHOLE-GUARD.

1,000,962.

Specification of Letters Patent. Patented Aug. 15, 1911.

Application filed July 12, 1910. Serial No. 571,661.

To all whom it may concern:

Be it known that I, WILLIAM E. BLAIS, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Keyhole-Guards, of which the following is a specification.

My invention relates to improvements in adjustable devices protecting locks from manipulation by unauthorized persons, and the object of my improvement is to provide an implement that will close the keyhole in a manner and to the purpose that the introduction of any instrument therein to retract or actuate the bolt will be impossible without deciphering a secretly formed combination of characters or legends in order to remove the obstruction.

In carrying out my invention I proceed in the manner illustrated in the annexed drawing forming a part of this specification, referring to which—

Figure 1, exhibits in perspective the assemblage of said devices positioned in the keyhole of a door, the bolt being thrown. Fig. 2, is a longitudinal central section of the same in a like position. Figs. 3, 4, 5 and 6, embrace views in perspective of the several elements disconnected but in relative position to better exhibit their formation. Fig. 7, is a perspective of the interior members organized to receive the coöperative parts above mentioned. Fig. 8, is a longitudinal section of the parts assembled in a position to introduce in the keyhole and before adjustment preventing withdrawal from the same. Fig. 9, denotes a similar view after introduction through the keyhole and lock with the parts adjusted to prevent displacement therefrom. Fig. 10, is an elevation partly in section of the end contiguous to, but removed from the lock with rings having differential openings in the position shown in Fig. 8, with the confining bars closed. Fig. 11, designates a rear end elevation with the elements in part positioned as in Fig. 9, with the bars separated.

Corresponding features are designated by similar numerals throughout the drawing, referring to which—

1, indicates the fragment of a door inclosing the lock 2, its bolt 3 being key actuated in the usual manner through the keyhole 4, into which, as an obstruction is introduced by organized invention which I term

a keyhole guard, comprising briefly, an interior stem, an enveloping sleeve, a plurality of rotatable slip rings and enveloping rings, with a series of ring separating disks—and an adjustable end cap, the functions of the various members being subsequently explained and distinctly defined in the claims.

The stem 5 is preferably a solid cylindrical metal piece provided with a confining bar depending at a right angle from the end adjacent to the lock 2 and of such dimensions as to permit its passage through the keyhole as shown in Fig. 2. From the circumference of said stem upon the side opposite said depending bar 6, arise a series of studs 7, the purpose of which will be presently explained, while the end of the stem remote from the lock is furnished with a bayonet slot 8 designed to secure and retain the end cap when the members are organized.

A sleeve or cylinder 9 surrounds the stem 5, and also bears a depending bar 10 similar to, and co-acting with the bar 6 to confine or release the assembled implement from the lock.

The outer surface of said sleeve is provided with a longitudinal slot 11 Fig. 7 one edge of said slot being provided at regular intervals with circumferential reëntering short notches 12, said features receiving the studs 7 during the adjustment of the guard in the door. Said sleeve is further provided with an integral stop plate 13, between which and the bars 6 and 10, sufficient space may be had to accommodate doors of various thicknesses.

Said plate 13 limits the longitudinal movement of the reversible and rotatable slip rings 14 which envelop and are moved about the sleeve 9 while conceiving a protective combination of characters.

The construction of said rings, of which obviously there may be more or less in number than for the purpose of this illustration, will be observed in Fig. 6 the interior opening 15 receiving the sleeve 9 and the lengthwise slot 16 permitting its passage over the studs 7 and also said studs to semi-rotate the bar 6 to the position shown in Fig. 11 thus confining the implement in the lock. The circular cavity 17, Fig. 8 forms the annular shoulder 18 which constitutes a barrier for the stud 7 immediately adjacent, in the final adjustment of the rings, all of which are thus equipped. Surrounding each slip ring

is an enveloping ring 19 provided with internal longitudinal slots 20 co-acting with the stems 21 projecting from each of the slip rings 14 Fig. 6 the perimeters 22 of said rings are provided with arbitrary characters to form combinations of numerals or legends, the elucidation of which is necessary to release the guard from the door.

The separating disks 23 Fig. 5 interpose the slip and enveloping rings 14 and 19 in their final adjustment over the sleeve 9 and are provided with an internal slot 24 and centerwise projecting pin 25 co-acting relatively with the studs 7 and slot 11 when composing a key of private characters.

The adjustable cap 26 is provided longitudinally with a through passage 27 of the diameter of the stem 5 which it receives; through the open end of this cap the exposed end of said stem may be seen (Fig. 2) affording a finger hold for its adjustment. Said cap 26 is further provided internally with a centerwise projecting pin 28 which co-acts with the bayonet lock slot 8 near the end of the stem 5 thus temporarily confining the organized members against the stop plate or shield 13.

In the practical application of my invention, the guard organized as in Fig. 2 is thrust into the keyhole and through the locked door as illustrated, the confining bars 6 and 10 in the position shown in Fig. 10, the studs 7 meanwhile positioned through the notches 12 and in the ring slots 16. Now, rotating the rings to the right—or in the direction of arrow (Fig. 6) simultaneously carries said studs 7 into the longitudinal slot 11 whence they are thrust forward slightly by the manual adjustment longitudinally of the stem 5 until they rest against that portion of said slot 11 midway the notches 12 and in the position depicted in Fig. 9. Here they rest in the ring cavity 17, and are confined from subsequent longitudinal displacement by the interior annular shoulder 18 in the rings 14 while the latter are rotated to carry the slot 16 to a position that will not liberate the studs 7. With the stem 5 in this position, the rings may be further manually rotated in either direction to secure a preconceived legend or combination of characters, a knowledge of which is necessary to restore the members 10 and 6 to the initial position shown in Fig. 7 which permits the withdrawal of the guard from the door, and the subsequent introduction of the key to release the lock.

In the employment of my improved invention an increased number of rings would obviously render the mental solution of the

combination more difficult, but I consider the number substantially as depicted renders any lock secure from unauthorized interference, and while I have described my preferred manner of construction, I desire not to be confined to the strict interpretation herein illustrated but may use such equivalents therefor as will come within the fair scope of my invention.

I claim—

1. A keyhole guard comprising an inner stem having an end confining bar and provided longitudinally with a series of studs, an enveloping sleeve having a depending bar co-acting with the stem bar and provided with a stop plate, a plurality of slotted and character bearing rings of differential diameters encircling the sleeve, said sleeve provided with a longitudinal slot, and circumferential notches opening therefrom adapted to receive the studs, the walls of said slot adapted to actuate the studs to simultaneously separate the confining bars and constructed to be rotatable to maintain their separation in a position to secure the guard within the door.

2. In a keyhole guard an interior stem provided with studs for its rotation, an exterior sleeve provided with means to receive said studs and depending means integral with said stem and to retain the guard in the lock, in combination therewith a series of rings having circumferential openings of different diameters the smaller receiving the sleeve and the larger accommodating the studs, a shoulder in the larger circumference forming a barrier for said studs after insertion through the door and an adjustable cap having means co-acting with the end of said stem to confine said rings in their organized position.

3. In a keyhole obstruction the combination with a plurality of movable rings, a longitudinally and circumferentially slotted cylindrical bearing supporting said rings and a movable stem positioned within said bearing, of an adjustable cap having through passage, means located in said passage to engage the end of said stem so as to retain the several members in operative positions, and means depending from said bearing and stem to secure the organized guard in the keyhole.

In testimony whereof I have affixed my signature, in presence of two witnesses.

WILLIAM E. BLAIS.

Witnesses:

WILLIAM A. BLAIS,
JOSEPH MCCATG.