A. J. MIZE.

GUARD FOR LOCKS.

APPLICATION FILED MAR. 23, 1911.

1,009,548. Patented Nov. 21, 1911.

FIG. 1.

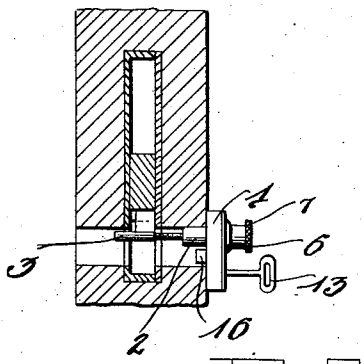


FIG. 2.

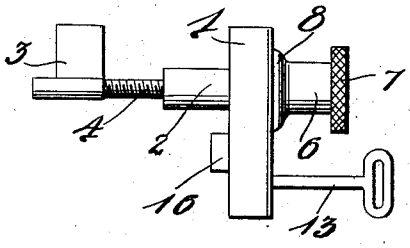


FIG. 3.

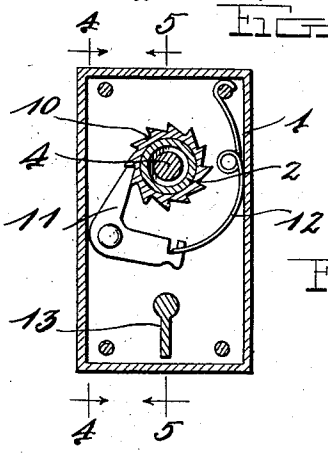


FIG. 4.

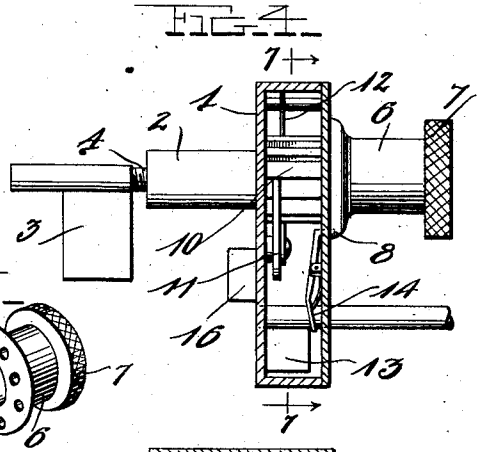


FIG. 6.

FIG. 5.

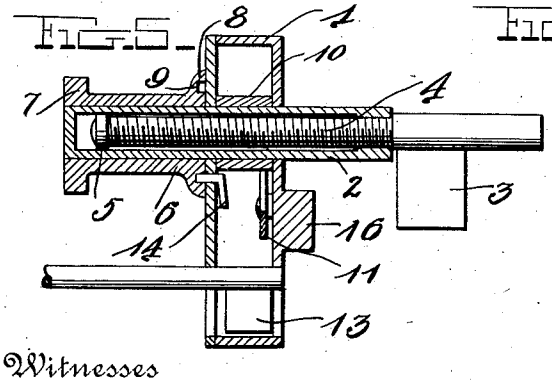
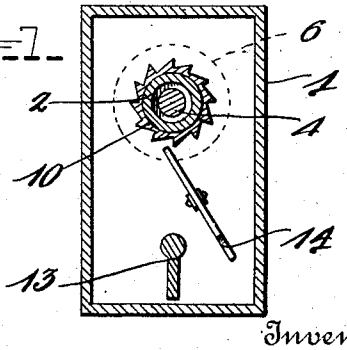


FIG. 7.



Witnesses

J. R. Pierce

L. O. Hilton

Inventor

A. J. Mize.

by A. B. Williamson & Co.

Attorneys

UNITED STATES PATENT OFFICE.

ALLEN J. MIZE, OF CAPITOL HILL, OKLAHOMA.

GUARD FOR LOCKS.

1,009,548. Specification of Letters Patent. Patented Nov. 21, 1911.

Application filed March 23, 1911. Serial No. 616,437.

To all whom it may concern:

Be it known that I, ALLEN J. MIZE, a citizen of the United States, residing at Capitol Hill, in the county of Oklahoma and State of Oklahoma, have invented certain new and useful Improvements in Guards for Locks; 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 improvements in guards for door locks.

One object of the invention is to provide an improved guard for door locks having means whereby the guard is securely fastened into engagement with the lock, thus preventing the insertion of a key or the removal of the guard by an unauthorized person.

Another object is to provide a guard of this character which may be applied to any form of lock and which when not in use may be readily carried in the pocket.

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

In the accompanying drawings:—Figure 1 is a vertical sectional view through a door lock showing the application of my improved guard; Fig. 2 is an enlarged side view of the guard removed from the lock; Fig. 3 is an enlarged central vertical longitudinal sectional view of the guard; Fig. 4 is a vertical cross section on the line 4—4 of Fig. 3, looking in the direction of the arrow; Fig. 5 is a similar view on the line 5—5 of Fig. 3, looking in the opposite direction from Fig. 4; Fig. 6 is a detail view of the operating head of the guard showing the arrangement of the locking notches therein. Fig. 7 is a vertical sectional view on the line 7—7 of Fig. 4.

My improved lock guard comprises a lock mechanism consisting of a casing 1 in the upper portion of which is revolubly mounted the tubular inner portion 2 of a stop member, the outer portion of which is in the form of a key 3 which preferably corresponds to the regular key of the door lock or is adapted to turn in said lock. The inner portion of the key 3 is in the form of a threaded shank 4 and has a threaded engagement with the reduced interiorly threaded inner end of the tubular portion 2 of the stop member. On the inner end of the threaded shank 4 is formed a head or enlargement 5 which is adapted to slidably engage the tubular portion 2 of the stop member when said threaded portion of the shank is screwed inwardly and outwardly in the inner end of said tubular member.

On the outer end of the tubular member 2 of the stop member is arranged an operating head 6 having on its outer end a milled flange 7 and on its inner end an annular locking flange 8, in the inner side of which is formed an annular series of locking notches or recesses 9 with which is adapted to be engaged a locking pawl hereinafter described.

Fixedly mounted on the tubular member 3 of the guard within the casing 1 is a ratchet gear 10 with which is adapted to be engaged a stop pawl 11 having a spring 12 whereby the same is held in operative engagement with the ratchet teeth to prevent the reverse or retrograde movement of the stop member. The pawl 11 is pivotally mounted in the casing and is preferably of right angular or bell crank formation. The pawl is pivoted in the casing 1 in such a manner that the free end of the pawl is disposed across the casing in position to be engaged by a pawl releasing key 13 which is adapted to be inserted in a suitable key hole formed in the outer side of the casing as shown whereby said pawl may be locked to disengage the opposite end thereof from the teeth of the ratchet gear, thus permitting the key of the guard to be turned in a reverse direction.

In addition to the pawl and ratchet mechanism for the guard key, I also preferably provide a spring projected locking pawl 14 which is pivotally secured to the inner side of the outer plate of the casing and is adapted to work through an opening formed in said plate and to engage one of the annular series of notches or recesses formed in the inner side of the locking flange 8 of the head 6 whereby said head is fastened against movement in a reverse direction. The pawl 14 has its inner end formed to project into the casing in position to be engaged by the ward of the pawl re-

leasing key 13 when the latter is turned to release the pawl 11 from the ratchet gear 10. On the inner plate of the guard lock casing 1 is formed a stop lug 16 which is adapted to engage the key hole of the door lock or door when the casing is drawn up into engagement therewith.

In using the device, the door is locked and the regular key removed from the door lock after which the threaded shank is screwed outwardly from the tubular inner portion of the guard key until the head 5 on the inner end of said shank is drawn into tight engagement with the reduced threaded end of the tubular portion 2 whereupon the extended inner end of the guard key is inserted in the door lock and turned to bring the ward on said extended end of the shank out of alinement with the key hole in the lock after which the tubular inner end of the stop member together with the casing thereon is turned in the proper direction to again screw the same up onto the threaded shank until the casing of the guard lock is in engagement with the lock plate or side of the door and the ward on the inner end of the shank of the key, thus drawn into tight engagement with the inner side of the door lock. When thus drawn up the stop lug 16 on the inner side of the lock casing 1 is engaged with the key hole in the door or door lock which will prevent the casing 1 of the guard from turning while the pawl and ratchet mechanism of the guard key will prevent a reversing or unscrewing movement of said key until said ratchet locking mechanism is released by the pawl releasing key of the guard as hereinbefore described.

To remove the guard, the pawl releasing key is inserted in the key hole of the guard lock casing and turned to engage and release the locking pawl from the ratchet gear thereby permitting the tubular member of the guard key to be turned in a reverse direction or unscrew from the shank 4 until the head on the shank is again brought to the reduced end of the tubular member 2 and thus secured, whereupon the entire guard key may be turned back into the door lock and readily removed therefrom. A lock guard constructed as herein shown and described may be readily applied to a lock and will effectually prevent the insertion of a pass key or the picking or opening of the lock by an unauthorized person and when not in use the guard may be readily carried in the pocket.

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 the invention claimed.

Having thus described my invention, what I claim is:—

1. A guard for locks comprising a guard lock casing, a guard key comprising a tubular inner member revolubly mounted in said casing and having a reduced threaded inner end, an operating head formed on the outer end of said tubular member, an inner key member comprising a threaded shank adapted to be screwed into and out of said tubular inner member, a head formed on the inner end of said shank whereby the latter is fastened when screwed outwardly to an operative position, and means whereby said guard key is locked against reverse movement in said casing.

2. A guard for locks comprising a guard lock casing, a guard key comprising a tubular inner member revolubly mounted in said casing and having a reduced threaded inner end, an operating head formed on the outer end of said tubular member, an inner key member comprising a threaded shank adapted to be screwed into and out of said tubular inner member, a head formed on the inner end of said shank whereby the latter is fastened when screwed outwardly to an operative position, a ratchet gear fixedly mounted on said tubular member of the guard key within said guard casing, a locking pawl arranged in said casing and adapted to engage said ratchet gear whereby said guard key is held against reverse movement in the casing, and a key adapted to be engaged with said guard casing to release said pawl whereby the guard key may be reversed.

3. A guard for locks comprising a guard lock casing, a guard key comprising a tubular inner member revolubly mounted in said casing and having a reduced threaded inner end, an operating head formed on the outer end of said tubular member, an inner key member comprising a threaded shank adapted to be screwed into and out of said tubular inner member, a head formed on the inner end of said shank whereby the latter is fastened when screwed outwardly to an operative position, a locking mechanism arranged in said casing to hold said guard key against reverse movement, an operating head arranged on the inner end of said tubular member of the key, said head having on its inner end a flange, said flange having in its inner side an annular series of notches, a spring projected pawl arranged in said casing and adapted to be engaged with said notches whereby said head is locked against retrograde movement, and a pawl releasing key adapted to be inserted in said casing and engaged with said key locking mechanism and with said pawl whereby said key and head are released.

4. A guard for locks comprising a guard lock casing, a guard key comprising a tubular inner member revolubly mounted in said casing and having a reduced threaded inner end, an operating head formed on the outer end of said tubular member, an inner key member comprising a threaded shank adapted to be screwed into and out of said tubular inner member, a head formed on the inner end of said shank whereby the latter is fastened when screwed outwardly to an operative position, a stop lug arranged on the inner side of said casing and adapted to engage the key hole in the door lock or door, a pawl and ratchet locking mechanism arranged in said casing and engaged with the tubular member of the guard key whereby the latter is locked against reverse movement, a head arranged on the outer end of said tubular member of the key, said head having on its inner end an annular series of locking notches, a pawl arranged in said casing and adapted to engage said notches, a pawl releasing key adapted to engage said pawl and ratchet locking mechanism and said head locking pawl, whereby said parts are released to permit the guard key to be turned in a reverse direction.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALLEN J. MIZE.

Witnesses:
J. F. REAVES,
R. A. WOODRUFF.