

APPLICATION FILED APR. 8, 1911.

Patented Sept. 19, 1911.

2 SHEETS—SHEET 1.

Karl Teurich

S. H. Lybrand
R. Q. Hoden

By *Victor J. Evans*
Attorney

K. TEURICH.
LOCK.

APPLICATION FILED APR. 8, 1911.

1,003,823.

Patented Sept. 19, 1911.

2 SHEETS-SHEET 2.

Fig. 3.

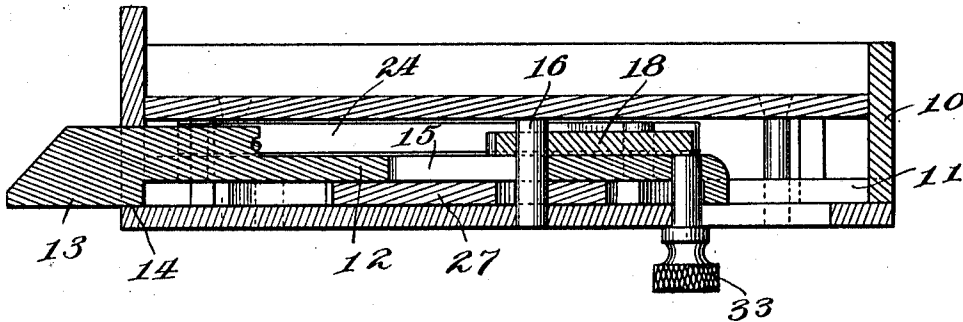


Fig. 4.

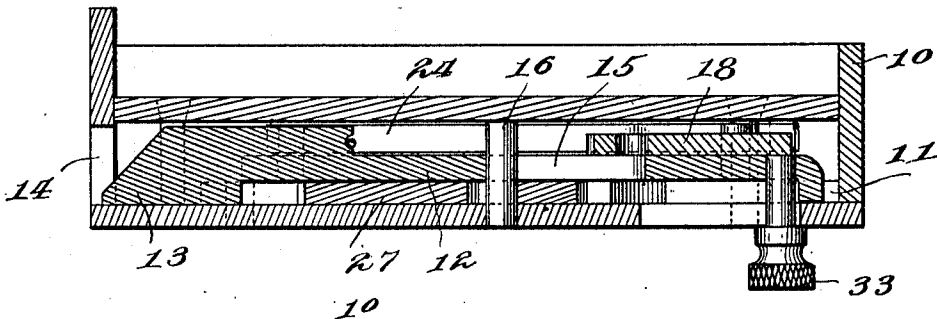
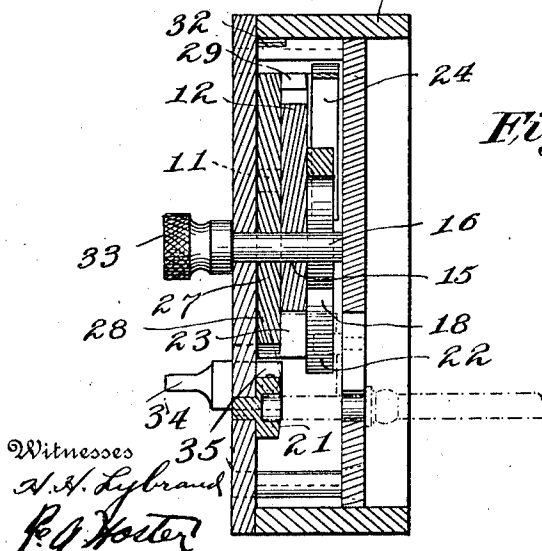


Fig. 5.



Inventor

Karl Teurich

By *Victor J. Evans*

Attorney

UNITED STATES PATENT OFFICE.

KARL TEURICH, OF CHICAGO, ILLINOIS.

LOCK.

1,003,823.

Specification of Letters Patent. Patented Sept. 19, 1911.

Application filed April 8, 1911. Serial No. 619,752.

To all whom it may concern:

Be it known that I, KARL TEURICH, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Locks, of which the following is a specification.

An object of the invention is to provide a lock for attachment to closures and the like to releasably lock the said closures relatively to the casings thereof and to prevent other than the proper persons from opening or unlocking the said closure. For the purpose mentioned, use is made of a casing, a main plate slidably mounted in the casing provided with a bolt for engagement with the casing of a closure, a locking tumbler pivotally mounted on the said main plate, a locking plate pivotally mounted on the said lock casing and adapted for engagement with the said main plate and a key for insertion in the said lock casing to operate the said main plate, thus actuating the said bolt to lock the closure to which the said lock casing is secured, relatively to the closure casing thereof so that the bolt can only be disengaged from the closure casing by the person acquainted with the precise operation and combination of the various parts of the lock.

Reference is to be had to the accompanying drawings constituting a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a rear elevation of my lock and showing the back plate broken away to disclose the underlying structure, the lock being in locking position. Fig. 2 is a similar view of my lock but showing the same in unlocked position. Fig. 3 is a vertical section taken on the line 3—3 in Fig. 1. Fig. 4 is a vertical section taken on the line 4—4 in Fig. 2, and Fig. 5 is a horizontal section taken on the line 5—5 in Fig. 1.

Referring more particularly to the various views I provide a casing 10 for attachment to a closure adapted to be releasably locked to the closure casing thereof and formed in the said casing is a guide 11 over which is adapted to slide a main plate 12 having a bolt 13 secured thereto and slidably extending through an aperture 14 in the casing 10. The main plate 12 is provided with a slot 15 adapted to receive therethrough a pin 16 extended over the

inner side of the casing 10 and pivotally mounted on a pin 17 on the main plate 12 is a locking tumbler 18, the said locking tumbler having an integral hook 19, a slot 20 being formed between the outer end of the said hook and the main portion of the locking tumbler 18 and the said slot having received therethrough the outer end of the pin 16. Secured to the inner side of the casing 10 is a key bearing 21 adapted to receive one end of a key and the locking tumbler 18 has an integral locking lug 22 extending downwardly therefrom to within a distance of the bearing 21 so that when the key is inserted in the said bearing it will engage the mentioned locking lug 22. At the lower end of the main plate 12 a key lug 23 is integrally formed and also extends within a distance of the bearing 21 to be engaged by the key when the same is inserted in the said bearing and turned. Secured to the main plate 12 at the upper end thereof is a leaf spring 24, the said spring extending toward the rear of the casing 10 and having its outer end in engagement with the locking tumbler 18 to normally position the same and mounted on a pin 25 secured to the casing 10 is a spring 26 having its outer end engaging the end of the bolt 13 to normally hold the said bolt in its outermost position.

Pivotally mounted on the casing 10 in the rear of the main plate 12 is a locking plate 27 having its lower end 28 extending downwardly to within a distance of the bearing 21 and below the lower end of the main plate 12, the said locking plate 27 being provided with a locking lug 29 adapted to engage the main plate 12 in spaced indentations 30 and 31 thereof. Secured to the locking plate 27 at the upper end thereof is a leaf spring 32 having its outer end adapted to abut against an edge of the casing 10. Extending through a slot in the front side of the casing 10 is a knob 33 having its inner end secured to the main plate 12, the said knob being slidable relatively to the casing 10 and movably mounted on the casing 10 is a catch 34 extending interiorly of the casing 10 and provided with a catch lug 35 adapted to engage the main plate 12 in indentations 36 and 37 formed thereon. The casing 10 is provided with apertures 38 adapted to receive bolts therethrough for securing the said casing to a closure, the bolt 13 being slidable in the casing 10 to extend

outwardly therefrom and engage the casing of the closure as will be hereinafter more fully disclosed.

In the operation of my device a key is inserted through a keyhole in the casing 10, the inner end of the key being received in the bearing 21. The key is now turned in the usual manner and the bit thereof engages the lower end 28 of the locking plate 27, thus moving the same upwardly and disengaging the locking lug 29 from locking engagement with the plate 12. As the key is turned still farther around, the locking lug 29 reengages the main plate and the bit of the key also engages the tumbler lug 22 of the tumbler 18. As the key passes beyond the tumbler and out of engagement therewith the tumbler 18 actuated by the spring 24 re-assumes its normal position and in doing so a faint click is produced. Now the operator upon hearing the mentioned click immediately reverses the motion of the key so that the bit thereof reengages the tumbler lug 22, thus moving the hook portion 19 out of engagement with the pin 16 and the bit of the key simultaneously engages the lower end of the locking plate 27, thus moving the same upwardly and disengaging the locking lug 29 from the plate 12 in the indentation 30 so that the main plate 12 will be released from locking position and by grasping the knob 33 and sliding the same rearwardly the bolt 13 will be disengaged from the casing of the closure, thus unlocking the closure relatively to the casing. As the plate 12 is slid rearwardly by operating the knob 33 the locking plate 27 having reassumed its normal position owing to the action of the spring 32, the locking lug 29 will be disposed to engage the plate 12 in the indentation 31 thus retaining the bolt 13 within the casing 10 and in unlocked position, so that the key can be removed from the lock and the same will still remain in unlocked position. To relock the bolt relatively to the casing of the closure, thus locking the closure with respect to the casing, the key is inserted in the casing and received in the bearing 21 and is turned in an opposite direction to the original direction in which the key was turned when the bolt was moved to unlocked position. By turning the key as mentioned the bit thereof will engage the lower end of the tumbler lug 22 and will simultaneously engage the lower end 28 of the locking plate 27, thus moving both the locking plate and the tumbler lug upwardly and disengaging the locking lug 29 from the plate 12 so that the plate will be reestablished in locking position by the action of the spring 26 tending to force the bolt outwardly from the casing 10. By employing the key lug 23, when the key is turned to release the plate and permit the same to reassume a locking position, the bit of the key will engage the lug 23 to

move the bolt outwardly thus facilitating the action of the spring 26.

As will be seen in Fig. 2, when the plate is moved to unlocking position the key lug 23 will be disposed immediately over the bearing 21 so that should a key be inserted to relock the plate 12 and the bolt 13 relatively to the casing of the closure, it will be impossible to release the plate if the key is turned in the wrong direction. By providing this provision on my device any tampering of the lock by an amateur when the same is in unlocked position will not release the lock so that it will assume a locking position. The catch 34 can be operated at any time to engage the plate 12 in either of the indentations 36, 37 when the plate is in unlocked position and when the said catch is operated to engage the plate as mentioned, it will be impossible to actuate the lock with any key until the catch is first released from engagement with the plate 12. The catch 34 may also be operated when the plate is in locking position and when this is done the inner lug 35 of the catch 34 will abut against the rear end of the plate 12, thus preventing the same from being moved to unlocking position with the aid of a key and the said catch must first be disengaged from the plate before the plate can be operated by a key to move the same into unlocking position.

From the foregoing description it will be readily understood that my device can only be operated by one who is familiar with the exact operation of the mechanism, it being at all times essential for the operator to know that the key must be reversed after the first faint click is heard to open the lock when it is desired to move the same into unlocked position. It will be further understood that by providing a device of the character described and securing the same to a closure to lock the closure relatively to the casing thereof it will be possible to efficiently retain the closure in either locked or unlocking position relatively to the casing and the same cannot be tampered with by amateurs or persons not familiar with the combination and arrangement of the various parts of my device.

Although for the purpose of describing my device I have shown a particular construction thereof, I do not limit myself to the mentioned construction, and various details may be departed from without destroying the spirit of the invention, the scope thereof being defined in the appended claims.

Having thus fully described the invention, what I claim as new, is:—

1. A lock comprising a casing for attachment to a closure, a main plate slidably mounted in the said casing and having a longitudinally extending slot therein, a bolt secured to the said main plate and adapted

to extend outwardly therefrom, to engage the casing of the said closure, a locking tumbler mounted to swing on the said plate, a pin secured to the said casing and extending
 5 through the slot in the said plate, the said pin being adapted to be releasably engaged by the said locking tumbler, a locking plate mounted to swing in the said casing, a locking lug formed on the said
 10 locking plate and adapted to releasably engage the said main plate and a tumbler lug integrally formed on the said locking tumbler and adapted to be engaged by a key inserted in the said casing, the said
 15 key being adapted to engage the said locking plate and the said tumbler lug to operate the locking plate and the said locking tumbler and disengage the tumbler from locking engagement with the said main
 20 plate so that the said main plate and said bolt can be operated in the said casing.

2. A lock comprising a casing for attachment to a closure, a main plate slidably mounted in the said casing, a bolt secured
 25 to the said main plate and extending outwardly from the said casing to engage the casing of the said closure, a locking plate mounted to swing in the said casing and releasably engaging the said main plate, a
 30 locking tumbler pivotally mounted on the main plate, a pin secured to the said casing and extending through a slot in the main plate, a hook integrally formed on the locking tumbler and having an end spaced there-
 35 from to form a slot in the locking tumbler, the said slot being adapted to receive there-through the said pin, a tumbler lug integrally formed at one end of the said locking tumbler, the said locking tumbler being
 40 adapted to be disengaged from the said pin when a key is inserted in the said casing to operate against the said tumbler lug, the said locking plate being adapted to be disengaged from the said main plate by the
 45 said key operatively engaging the said lock-

ing plate, the said main plate being slidable within the said casing when the said locking tumbler is released from engagement with the said pin and the said locking plate is released from engagement with the said
 50 main plate, and means on the said locking plate and adapted to engage the said main plate to releasably retain the said main plate in rigid position within the said casing.

3. In a lock the combination of a main
 55 plate slidably mounted within a casing, the said main plate being normally held in rigid position, a bolt secured to the said main plate and extending outwardly through the said casing, a pin secured to the said casing
 60 and extending through a slot in the said main plate, a locking tumbler pivotally mounted on the main plate and normally engaging the said pin, a locking plate pivotally mounted on the said casing, a locking
 65 lug formed on the said lock plate and adapted to normally repose in indentations formed on the said main plate, a bearing formed on the inner side of the said casing, a key for insertion in the said bearing and adapted
 70 to engage the said locking tumbler to disengage the same from the said pin and engage the said locking plate to disengage the said locking lug from the said main plate and permit the said main plate to be
 75 operated in the said casing, a knob disposed exteriorly of the casing and extending there-through to engage the said main plate for moving the same in the casing and means disposed exteriorly of the casing and extend-
 80 ing therethrough to slidably engage the said main plate and releasably retain the same in rigid position relatively to the said casing.

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

KARL TEURICH.

Witnesses:

JOHN O. KRAUSE,
 ROBERT A. SCHIEWE.