K. CWIKLINSKI.

LOCK.

APPLICATION FILED DEC. 29, 1917.

1,275,403. **Patented Aug. 13, 1918.**

FIG. 1.

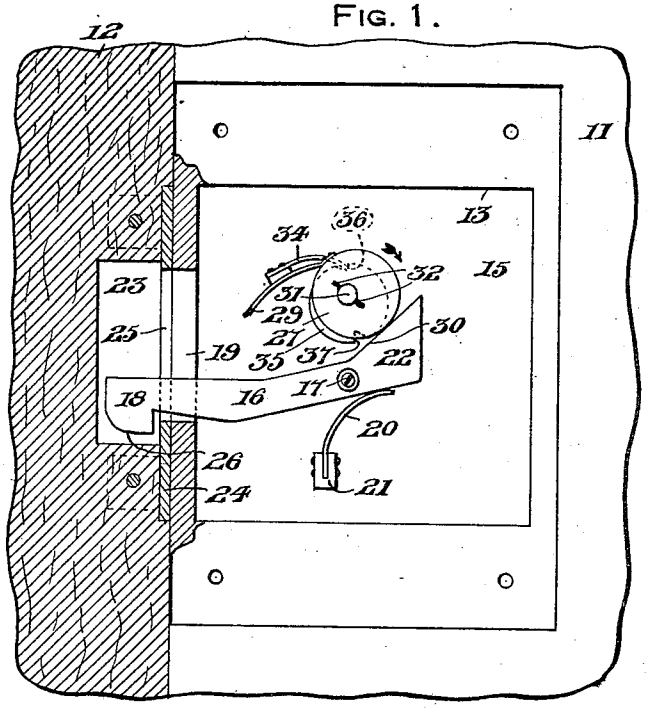


FIG. 3.

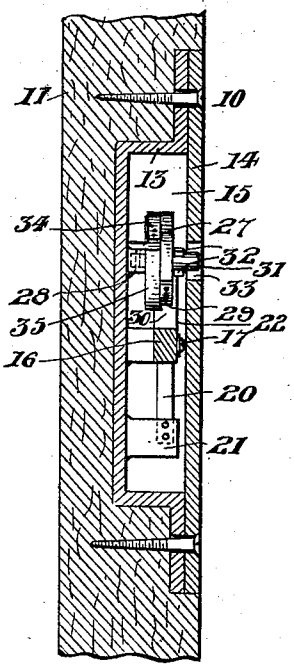


FIG. 2.

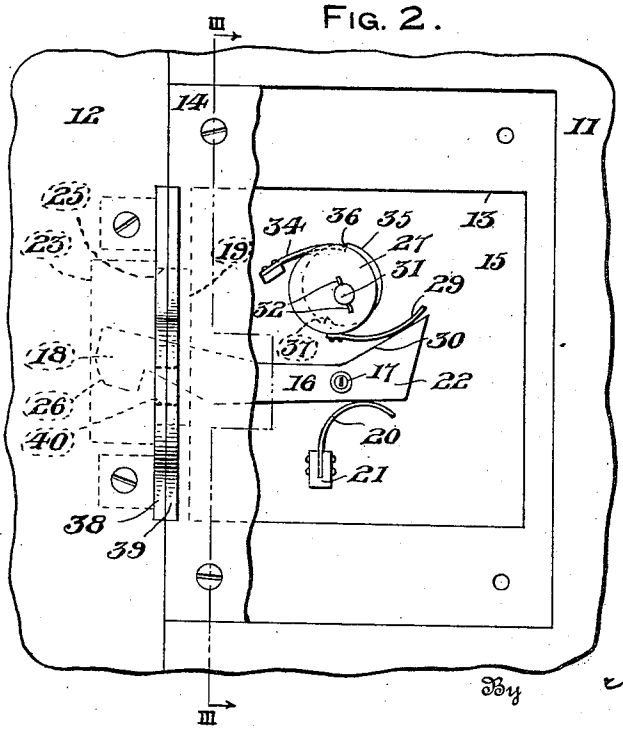
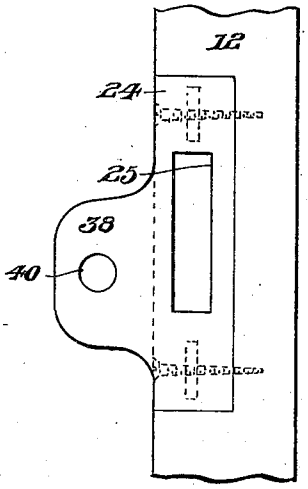


FIG. 4.



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LOCK.

1,275,403. Specification of Letters Patent. Patented Aug. 13, 1918.

Application filed December 29, 1917. Serial No. 209,467.

To all whom it may concern:

Be it known that I, KAŹIMIRZ CWIKLIŃSKI, a citizen of Russia, having declared my intention to become a citizen of the United States of America, residing at Blue Island, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Locks, of which the following is a specification.

This invention relates to certain new and useful improvements in locks.

The primary object of the invention is the provision of a lock especially adapted for sliding doors, the same being operable by a key for locking and releasing while the structure may be employed as a snap lock when desired.

A further object of the invention is to provide a lock for sliding doors adapted for automatically securing the door when the latter is closed, the lock mechanism being positionable, however, in its released arrangement when desired so that the door will remain unlocked when closed.

A still further object of the invention is to provide a lock for sliding doors arranged with securing mechanism resiliently locked and also resiliently unlocked by an actuating key member adapted for rotation in but a single direction.

In the drawing forming part of this application and in which like designating characters refer to corresponding parts throughout the several views,

Figure 1 is an elevational view of the lock with the face plate removed in its operative locking position.

Fig. 2 is a similar elevational view showing the device unlocked.

Fig. 3 is a transverse sectional view taken upon line III—III of Fig. 2, and

Fig. 4 is an edge view of a door showing the keeper mounted thereon.

Referring more in detail to the drawing, it will be understood that the lock shown at 10 may be mounted upon either a stationary wall member 11 or a sliding door as desired, the lock being adapted for securing engagement with a coöperating member 12 which is either a sliding door or a stationary wall member. In other words, the lock may be employed for detachably connecting two sliding doors together or may be carried by a sliding door for locking the same to a fixed member or may be carried by a fixed member for locking a sliding door thereto.

The device provides a casing 13 countersunk within the wall member 11 and arranged with a face plate 14 for covering the mechanism chamber 15 within the casing. A latch or bolt 16 is pivoted as at 17 within the casing 13 and is provided with a hooked end 18 projecting through a slot 19 in the forward side of the casing 13 and forwardly of the adjacent edge of the wall member 18.

A leaf spring 20 is anchored as at 21 within the casing 13 and constantly bears against the lower face of a substantially triangular-shaped heel 22 provided at the inner end of the latch 16. It will be understood that the spring 20 normally maintains the heel 22 elevated and the hook 18 in its depressed locking position.

A receiving socket 23 is provided in the adjacent edge of the door 12 for receiving the hooked end 18 of the latch 16 and a keeper plate 24 is secured from the socket 23 having an entrance slot 25 in the said plate through which the latch hook 18 extends for engagement with the plate 24 as best illustrated in Fig. 1 of the drawing. The lower forward edge 26 of the latch hook 18 is of suitable curvature for permitting the latch to be elevated when the plate 24 engages said latch edge 26 for automatically seating within the socket 23 after the manner of a snap lock. With the elements arranged as illustrated in Fig. 1 of the drawing, the closing of the door 12 against the wall member 11 automatically locks the device with the door secured to the wall member by means of the latch 16.

A disk 27 is journaled for rotation within the casing 13 upon a suitable hub 28 provided with a leaf spring 29 adapted to wipe the inclined upper edge 30 of the latch heel 22 during the rotation of the disk in the direction indicated by the arrow in Fig. 1 of the drawing. A post 31 projects from the disk 27 having suitable lugs 32 thereon adapted for receiving a suitable key, not shown, when the key is positioned through a keyhole opening 30 in the face plate 14 of the lock casing.

By turning the disk 27 as noted, the spring 29 engages the heel face 30, depressing the heel 22 and elevating the latch hook 18 to its released position as shown in Fig. 2 of the drawing. The disk may be permitted to remain in this position with the latch hook elevated if desired, it being noted that a

reverse movement of the disk is prevented by means of a detent 34 secured within the casing 13 and wiping upon an annular side portion or hub 35 of the disk 27 for engaging a shoulder 36 of such hub when the spring 29 is in its depressing releasing position.

In a similar manner, the detent 34 is adapted to engage a notch 37 in the hub 35 for preventing a reverse rotation of the disk 27 when the latch 16 is in its locked arrangement as shown in Fig. 1 of the drawing.

It will be seen that the lock possesses great simplicity although being perfectly operable and serving its function of securing the members 11 and 12 together when desired and readily collapsible in the manner set forth. Forwardly projecting ears 38 and 39 may be carried by the keeper plate 24 and the casing 13 respectively if desired each arranged with a similar perforation 40 adapted for alinement with each other to receive a padlock or other similar device, not shown, if greater security is desired.

What I claim as new is:—

1. A lock comprising a casing, a latch pivoted therein having a triangular-shaped heel at its inner end and an outer hooked end projecting from the casing, a normal positioning spring for the latch engaging the lower side of the heel, a key operated disk journaled within the casing adjacent the heel, a spring carried by the disk having depressing wiping engagement with the adjacent upper side of the heel during the rotation of the disk, a sliding door having a socket in the adjacent edge thereof, a keeper plate overlying said socket having a slot therein adapted for the reception of the said hook when the door is closed, the said disk having a hub portion arranged with notches and a detent secured within the casing adapted for engaging the said notches for preventing a reversal of movement of the said disk.

2. A lock comprising a casing, a latch pivotally mounted in the casing and having a triangular-shaped heel at its inner end the upper side of which inclines rearwardly and upwardly, the outer terminal of said latch having at a hooked end projecting from the casing, a spring rigidly secured within the casing and bearing against the lower side of the heel to normally hold the hook into the latch in operative locking position, a hub secured in the casing above said latch, a disk mounted for rotation on the hub, a spring carried by the disk and adapted to have wiping engagement with the inclined side of the heel when the disk is rotated by depressing the heel portion of the latch to move the latter into unlocked or inoperative position, said hub provided with recesses at diametrically opposite points and a detent rigidly secured to the casing and adapted for engagement with the notches of the hub to hold the latter against reverse rotation, and key-receiving lugs formed on the projecting end of the hub whereby the latter may be turned.

In testimony whereof I affix my signature.

KAŹIMIRZ CWIKLIŃSKI.

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