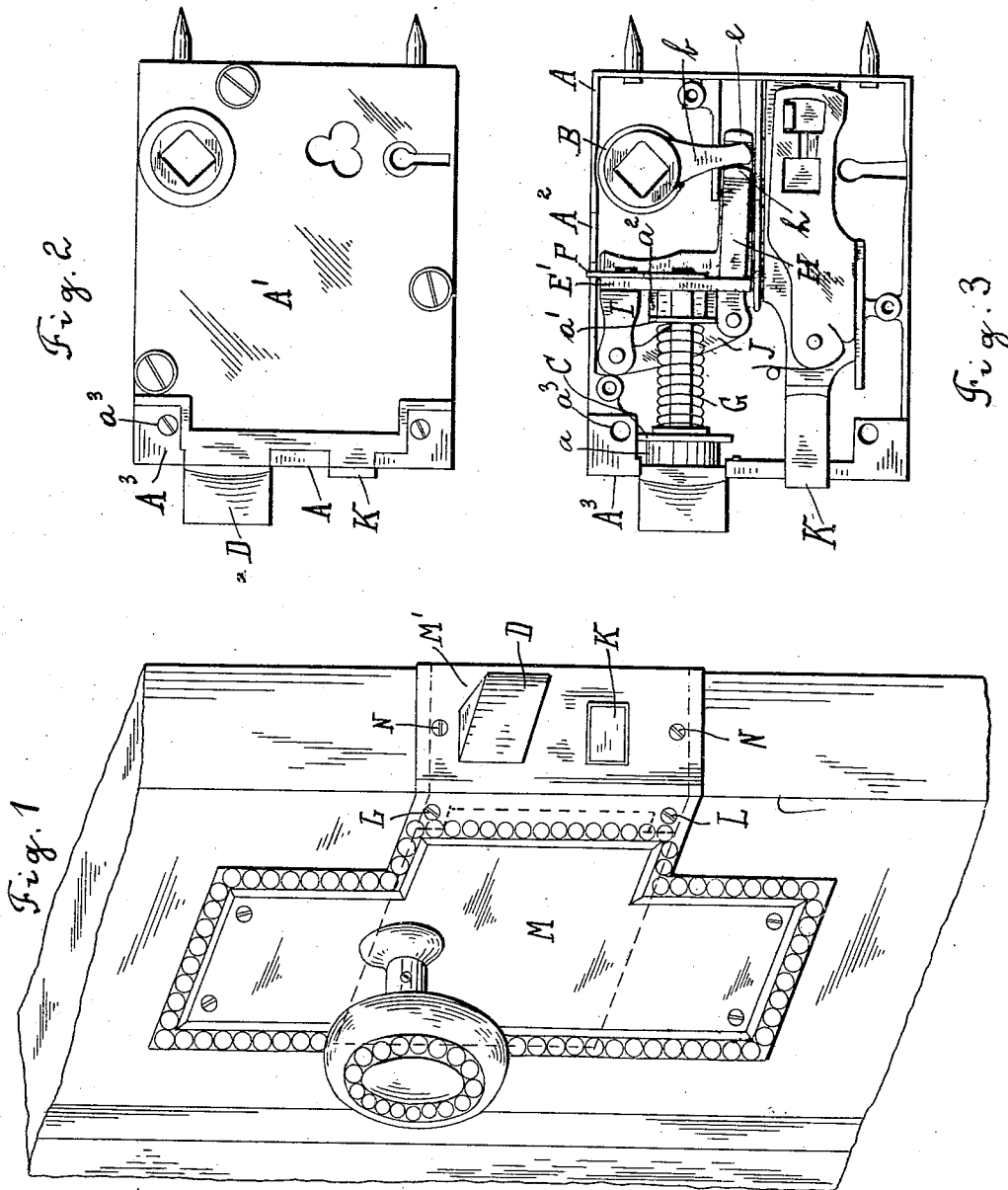


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LOCK.

APPLICATION FILED SEPT. 3, 1907.

936,134.

Patented Oct. 5, 1909.
2 SHEETS—SHEET 1.



WITNESSES
S. Herzog
S. Birnbaum

H. F. Keil INVENTOR
BY J. O. Fowler
ATTORNEY

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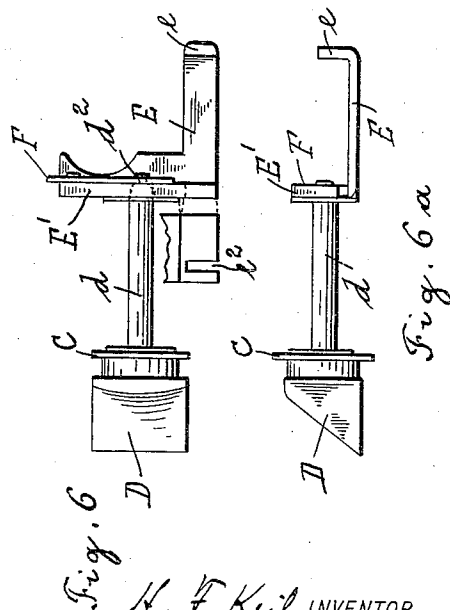
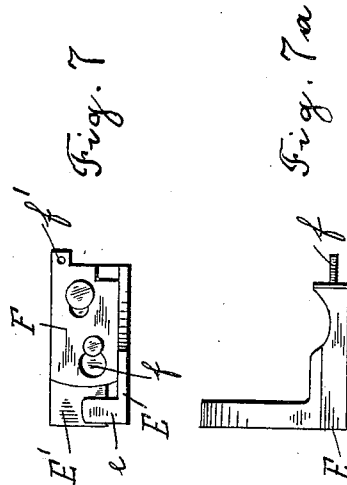
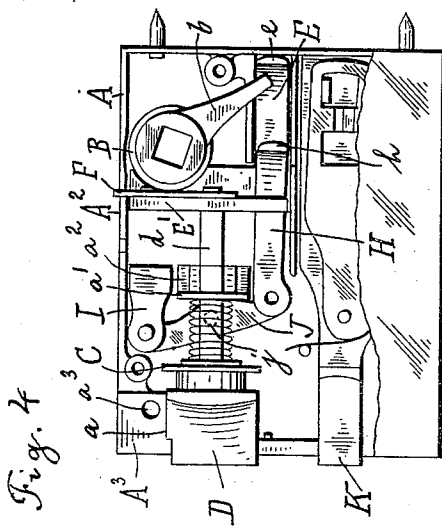
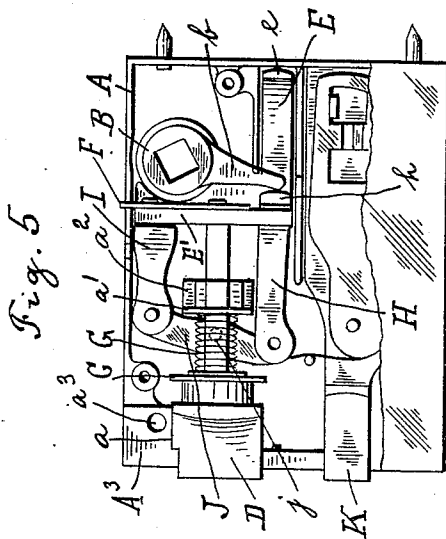


Fig. 6a

WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY FRANCIS KEIL, OF BRONXVILLE, NEW YORK, ASSIGNOR TO FRANCIS KEIL & SON, OF NEW YORK, N. Y., A FIRM.

LOCK.

936,134.

Specification of Letters Patent.

Patented Oct. 5, 1909.

Application filed September 3, 1907. Serial No. 391,229.

To all whom it may concern:

Be it known that I, HENRY FRANCIS KEIL, a citizen of the United States of America, and a resident of Bronxville, in the county of Westchester and State of New York, have invented a certain new and useful Lock, of which the following is a specification, the same being a full, clear, and exact description of the invention, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to locks, and particularly to locks of that type which have a combined escutcheons and lock face, and are primarily adapted to be inserted in a notch or recess ordinarily located in the stile of a door, and it has for its object to simplify the parts and to reduce the number thereof, thereby producing a compact and comparatively inexpensive lock mechanism, the advantages of which will be understood by one skilled in the art by reference to the following specification of the invention in which are embodied certain novel features of combination and arrangement of parts of simple construction and efficient in operation, all of which will be hereinafter specifically described and fully illustrated in the drawings.

In order to enable the invention to be fully understood I will proceed to explain the same by reference to the drawings, illustrative of one embodiment of the invention, which accompany and form a part of this specification, and in which—

Figure 1 represents a perspective view of a door equipped with my lock; Fig. 2 is a side elevation of the lock casing; Figs. 3, 4 and 5 are views of the same, the cover being removed to show the lock mechanism in different positions; and Figs. 6, 6^a, 7 and 7^a, are views in detail of some of the working parts of the lock.

Like letters of reference indicate like parts in all the views.

Referring more particularly by reference symbols or characters to the drawings, A denotes the lock casing, and A' the cover thereof.

B is the lock hub carrying a roll back *b*, and having a preferably angular orifice therethrough, through which the knob spindle passes.

The latch bolt or head D has a cylindrical

portion carrying a guide plate C, and also is formed with a shank *d*, which is made so as to have a peripheral groove *d*² cut therein near the preferably rounded extremity thereof.

A latch slide E has, at its rear end, a lug *e*, and is formed at its front face with a wide plate E' constructed and arranged to lie adjacent to the cover A'. The plate E' carries slidable thereon a lock plate F for the latch, the said lock plate having an elongated orifice *f* narrowed at one, ordinarily the upper, end thereof, in order that the edge of the same may lie in the groove of the lock shank *d* when the parts are in their normal positions. The latch and the latch slide are thus securely held or attached together in working relation, and the whole is kept in a normal forward position, as shown in Fig. 3, by means of a spring G encircling the latch shank and held between the cylindrical portion of the latch head D and the plate *a'* resting against two lugs *a*² projecting inwardly from the lock casing.

The lock plate F extends up through the lock casing and works in a slot A² formed in the same. The purpose of the lock plate F is to change the latch from a right hand latch to a left hand one, and vice versa. In order to do this, the lock plate F is lifted up by the insertion of a tool in the orifice *f* thereof, whereupon the end of the latch shank *d* will enter the larger portion of the orifice *f*, thereby allowing the latch head to be pulled out of the lock casing a short distance, after which it may be turned half around and then replaced in its normal position again, the lock plate F being pushed down so that the edge of the narrowest part of the orifice *f* will enter the groove of the latch shank. The guide plate C works in a recess *a* of the lock casing, thereby preventing the complete withdrawal of the latch when its shank is released from the lock plate F.

The roll back *b* serves when moved in a rearward direction to engage the lug *e* of the latch slide E and to draw the latch inwardly or rearwardly, as shown in Fig. 4.

A latch slide H having at its rear end a lug *h* is constructed and arranged to lie upon and to work on the latch slide E, through a slot *e*² formed in the plate E'. The forward end of the slide H is pivoted to one end of a lever J fulcrumed at *j*, to the lock

casing the other extremity of the lever being pivoted to a dog I the free end of which normally lies against the plate E'. When the roll back *b* is moved in a forward direction, it engages the lug *h* of the latch slide H, and thereby moves the lever J and causes the dog I to press the plate E', and consequently the latch head, in a rearward direction.

10 K is the lock bolt which may be actuated and controlled by any suitable key and bolt retaining mechanism.

The lock casing is formed at its forward portion with preferably solid abutments A³, ordinarily of greater thickness than the rest of the casing, so as to lie flush with the exterior of the cover thereof. The said solid abutments have threaded orifices *a*³ which serve to contain screws L which pass through the plates M of my combined escutcheons and lock face. Screws N passing through threaded orifices in the casing may serve to attach the lock face M' to the face plate of the lock casing.

25 The latch bolt and slide E are thus held detachably together in working relation, and in ordinary operation the said relation is a fixed one, but by raising the plate F, as described, the groove *d*² in the end of the shank *d*, which normally registers with the upper contracted portion of the orifice *f*, will be released therefrom and the shank *d* will thereupon be free to travel through the lower enlarged portion of the said orifice, in consequence of which the latch bolt may be caused to move in a forward direction until the guide plate C strikes the casing, in which position the latch bolt may be turned half

around in order to change the lock from a right hand to a left hand one, or vice versa. 40

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art. 45

What I claim as my invention is:

1. In a lock, a casing formed with a slot therein, a latch bolt or head, a shank, a groove in the shank, and a plate having a slot to engage the said groove, the said plate being constructed and arranged to work in the slot in the casing. 50

2. In a lock, a latch bolt or head, and a latch operating mechanism consisting of a roll back and a latch slide, the latch slide and the latch being detachably attached together, and a second latch slide to lie upon and to pass through a slot formed in the first latch slide. 55

3. In a lock, a latch bolt or head, and a latch operating mechanism consisting of a roll back and a latch slide, the latch slide and the latch bolt being detachably attached together, and a second latch slide to lie upon and to pass through a slot formed in the first latch slide, a lever connected with the second latch slide and constructed and arranged to operate the first latch slide. 60 65

In testimony of the foregoing specification I do hereby sign the same in the city of New York, county and State of New York this 29th day of May 1907. 70

HENRY FRANCIS KEIL.

Witnesses:

F. A. WURZBACH,
CHAS. H. ARENDT.