

S. STEIN.
ATTACHMENT FOR KEYS.
APPLICATION FILED MAR. 13, 1917.

1,237,115.

Patented Aug. 14, 1917.

Fig. 1.

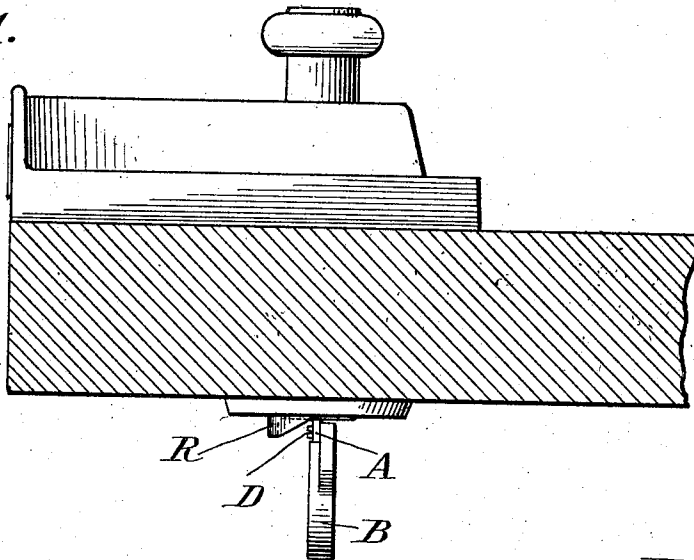


Fig. 2.

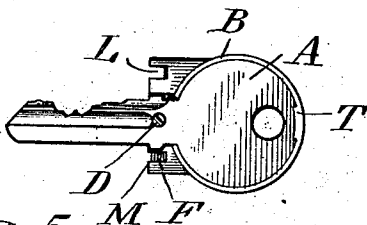


Fig. 5.

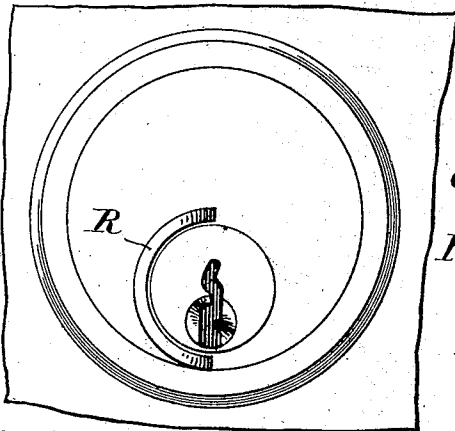


Fig. 3.

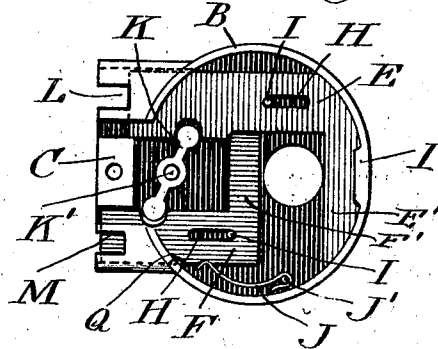
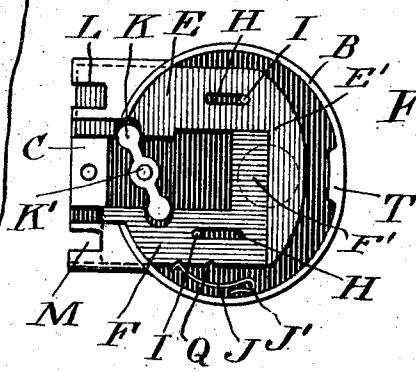


Fig. 4.



Witnesses,

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ATTACHMENT FOR KEYS.

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To all whom it may concern:

Be it known that I, SOLOMON STEIN, a citizen of the United States, residing at Saratoga Springs, in the county of Saratoga and State of New York, have invented certain new and useful Improvements in Attachments for Keys; and I do hereby 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in means for indicating whether a lock is in a locked or unlocked relation, the object being to provide means whereby, when the key is removed from the lock, it will indicate whether or not the lock is locked or unlocked.

The invention consists of a simple and efficient device of this nature having various details of construction, combinations and arrangements of parts which will be hereinafter fully described, shown in the accompanying drawings and then specifically defined in the appended claims.

My invention is illustrated in the accompanying drawings, in which:—

Figure 1 is a view showing the key applied to a lock.

Fig. 2 is a face view of the key with attachment applied thereto.

Fig. 3 is a view showing the key removed and illustrating in elevation the mechanism within.

Fig. 4 is a similar view showing the parts in another position, and

Fig. 5 is a face view of the lock.

Reference now being had to the details of the drawings by letter, A designates a key and B a casing, which is held to one side of the key in any suitable manner as by means of a screw D, passing through registering apertures in the key and wall of the casing. Said casing contains two sliding plates, designated respectively by letters E and F, each of said plates having lateral extensions E' and F' respectively, and each of the plates is slotted as at H to receive guide pins I which are fixed to the bottom of the casing and project through and adapted to guide the plates as they are moved back and forth. A spring J is mounted upon a pin J'

projecting from the bottom of the casing and its free end is adapted to engage one or another of the notches Q formed in the edge of the plate F and provided as a precaution against accidental movement of the plate. An oscillating member, designated by letter K, is mounted upon a pin K' projecting from the wall of the casing and the ends of said member engage recesses having concaved ends in the adjacent edges of the plates, said member being adapted to cause the plates, when actuated, to move in opposite directions.

It will be noted upon reference to the drawings that the casing is provided with notches, designated respectively by letters L and M, into which the outer ends respectively of the two plates are adapted to move accordingly as the key is turned in one direction or the other for the purpose of locking or unlocking the lock. A cam projection, designated by letter R, is fastened to the lock in the manner shown and is so positioned that, when the casing is turned in the key, one portion or another of said cam projection will enter one of said recesses for the purpose of moving one or the other of the plates, whichever may be positioned in the recess. A lug, designated by letter T, projects from the marginal wall of the recess and which is adapted to be engaged by the end of the key in the manner shown in the sectional view of the the drawings for the purpose of cooperating with said screw for holding the casing and key together.

In order to guide the outer ends of the two plates, a washer C, which is apertured, is placed between the plates and is adapted to receive the screw which holds the key to the casing.

In operation, when the parts are assembled by the attachment of the casing to the key, the latter is inserted in the keyhole of the lock in the usual way and, when the key is turned in one direction or the other, one or the other of the slots will receive one end or the other of the cam projection upon the lock and whichever of the said plates is projecting in the recess which first engages the cam will be actuated and move toward the outer end of the key as, for instance, if the key is turned to the left in the act of throwing the bolts of the lock into a locked relation, the actuation of the plates will be such as to close the aperture M of the head of the key and which will designate that the bolt is in

a locked relation. The operator may remove the key and the plates closing over the opening in the head of the key will indicate that, when the key was withdrawn from the lock, the latter was locked. By inserting the key in the lock and turning the same in a reverse direction, the same operation will be repeated but in a reverse manner, causing the plates to be thrown back to their normal positions and which will cause the same to be removed from the opening in the key head, thus designating that the lock is unlocked.

By the provision of an indicating device embodying the features of my invention, it will be noted that the person may always know whether or not the key, when withdrawn from the lock, left the latter locked or unlocked, it being necessary to insert the key in the lock and give the same a partial rotary movement in order to change the relative positions of the plates within the casing.

What I claim to be new is:—

1. An indicating device for keys to designate whether a lock actuated by the key was left in a locked or unlocked relation when the key was removed from the lock, comprising in combination with a key having a head with an opening therein, constituting a casing, plates movable within the casing and having recesses in the adjacent edges, an oscillating member pivoted to the casing with its ends engaging said recesses, pins projecting from the casing and passing

through slots in the plates, portions of the casing being recessed and into which recesses the outer ends of the plates are adapted to alternately move, a cam member for attachment to a lock and adapted to engage the projecting ends of the plate as the key is turned in one direction or the other.

2. An indicating device for keys to designate whether a lock actuated by the key was left in a locked or unlocked relation when the key was removed from the lock, comprising in combination with a key having a head with an opening therein, constituting a casing, plates movable within the casing and having recesses in the adjacent edges, an oscillating member pivoted to the casing with its ends engaging said recesses, pins projecting from the casing and passing through slots in the plates, portions of the casing being recessed and into which recesses the outer ends of the plates are adapted to alternately move, a cam member for attachment to a lock and adapted to engage the projecting ends of the plate as the key is turned in one direction or the other, and a washer fastened to the casing and interposed between the outer ends of the plates.

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

SOLOMON STEIN.

Witnesses:

A. L. HOUGH,
FRANKLIN H. HOUGH.

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