No. 729,773. PATENTED JUNE 2, 1903.

A. E. KATZ & W. S. ROMME.

KEY.

APPLICATION FILED SEPT. 9, 1902.

NO MODEL.

Fig. 1.

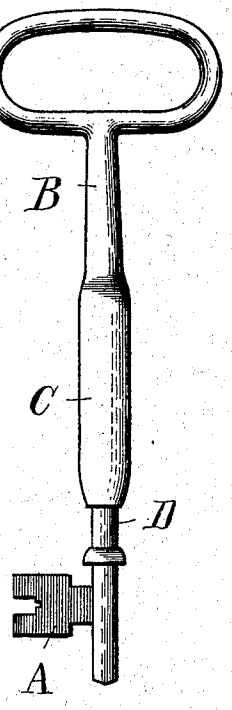


Fig. 2.

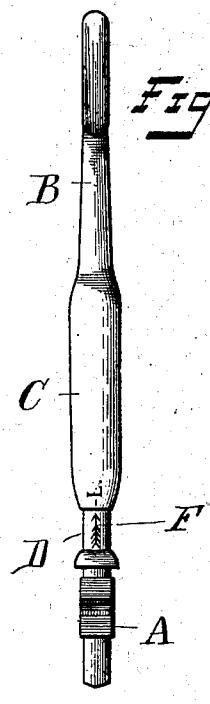


Fig. 3.

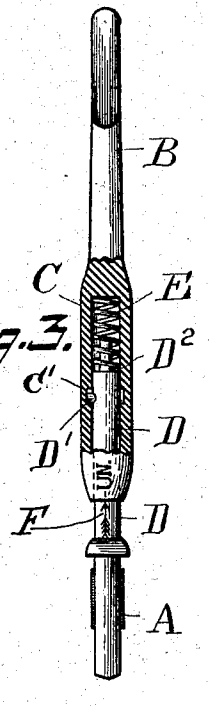
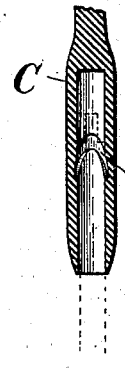


Fig. 4.



Witnesses.

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 729,773. Patented June 2, 1903.

UNITED STATES PATENT OFFICE.

AARON E. KATZ, OF NEW YORK, AND WILLIAM S. ROMME, OF NEW ROCHELLE, NEW YORK, ASSIGNORS OF ONE-HALF TO SOLOMON FRANKENBERG, OF NEW YORK, N. Y.

KEY.

SPECIFICATION forming part of Letters Patent No. 729,773, dated June 2, 1903.

Application filed September 9, 1902. Serial No. 122,674. (No model.)

To all whom it may concern:

Be it known that we, AARON E. KATZ, a resident of New York, in the county of New York, and WILLIAM S. ROMME, a resident of New Rochelle, in the county of Westchester, State of New York, citizens of the United States, have invented certain new and useful Improvements in Keys, of which the following is a specification.

Our invention relates to keys adapted to be used for locking and unlocking doors, closets, drawers, boxes, or the like. It may be used in connection with ordinary door-locks or padlocks, or, in fact, with any style of lock which is operated by the insertion or movement of a removable key. It objects are, among others, to provide a key for these uses of simple, strong, and durable construction which will indicate whether it has been last used for locking or unlocking, and thus indicate whether the particular lock to which it belongs is at that moment locked or unlocked. Its usefulness extends to the detent mechanism of spring locks or latches, and its application is universal in locks which are operated in both directions by the key. It is illustrated in the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a side view of a key embodying our improvements. Fig. 2 is an edge view of the same. Fig. 3 is a like view to Fig. 2 with the sleeve inclosing the working parts broken away to expose the same. Fig. 4 is a longitudinal section of said sleeve detached.

The key proper, A, and its handle B are made in separate parts and may be made in any desired shape or size. The handle B has a sleeve C at its lower end, preferably integral therewith, and the shank D of the key extends into this sleeve. A lug D′ is located on the shank within the sleeve and engages the groove C′ in the inner surface thereof. This groove extends partly around the sleeve and is curved so that the lug D′ in traveling from one end to the other will cause the shank to reciprocate in the sleeve. A compression-spring E is located in the inner end of the sleeve and by pressing against the step D^2, near the rear end of the shank, holds the lug D′ normally in one end or the other of the groove and the shank, therefore, in its outward position.

It will be apparent that in order to rotate the key-shank within the sleeve a certain amount of lengthwise pressure must be applied simultaneously with the turning force. The purpose accomplished by this provision is the prevention of accidental turning while the key is not in the lock.

An index F on the shank D points to "L" or "UN," indicating the words "locked" or "unlocked," on opposite sides of the sleeve C, according to the relative positions of the said shank and sleeve, and thus imparts the desired information as to the state of the lock in which the key has been used.

In using our device the key is inserted into the lock and turned in the usual manner, while at the same time a slight pressure is exerted on the end of the key.

The resistance of the lock will cause the desired rotation of the key in the sleeve and the shifting of the indicator to a position opposite the letters indicating the word "locked" or "unlocked," according to the direction in which the key is turned.

What we claim is—

1. In a key, the combination of a bit, a part to which said bit is movably secured and means for indicating the nature of the relative movement of the said parts and thereby indicating the position of the lock.

2. In a key, the combination of a bit, a part movably secured thereto and adapted to change its relative position when lock-operating force is exerted, and means for indicating said change of position, whereby the position of the lock is indicated.

3. In a key, the combination of a bit, a handle rotatably secured thereto and means for indicating the direction of the relative rotation of said parts, and thereby indicating the direction in which the lock has been operated.

4. In a key, the combination of a part adapted to engage the lock, a part rotatably secured thereto, a spring adapted to be flexed

by the rotation of said parts and means for indicating the direction in which the same have last been rotated.

5. In a key, the combination of a bit and a shank thereon, a sleeve within which said shank is rotatably secured, a lateral projection on said shank and a groove in the sleeve receiving said projection.

6. In a key, the combination of a key proper and a handle, a movable connection between said key and handle and means for indicating the direction of the movements of said parts relative to each other, whereby the condition of the lock in which the key has been used may be determined.

7. In a key, the combination of a key proper and a handle movably secured thereto, the said parts having relative longitudinal and rotary motion, and means for indicating the direction of each rotary movement.

8. In a key, the combination of a key proper, a handle and a movable connection between the same consisting of a sleeve on the handle, a shank on the key within said sleeve, a groove in said sleeve, a projection on said shank within the groove and a spring which holds said projection normally in one end or the other of said groove.

Witness our hands this 20th day of August, 1902, at the city of New York, in the county and State of New York.

AARON E. KATZ.
WILLIAM S. ROMME.

Witnesses:
M. V. FREUND,
EDWIN BABBITT.