Feb. 2, 1932. L. OBERFIELD 1,843,335

LOCK AND KEY INDICATOR

Original Filed March 25, 1930

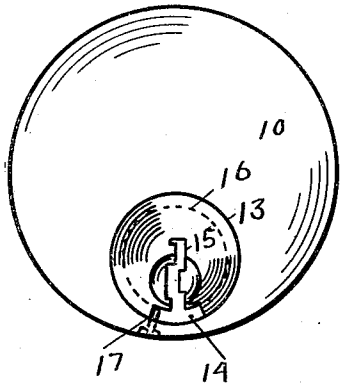


FIG. 1

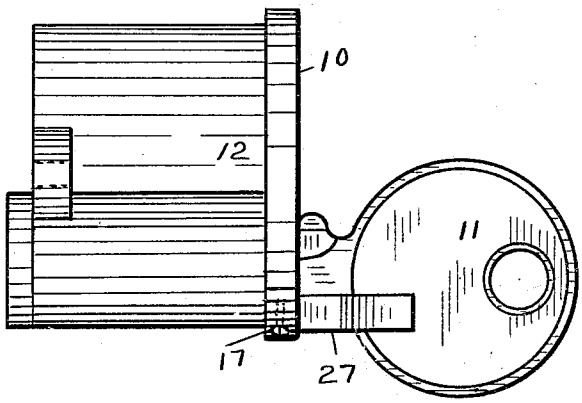


FIG. 2

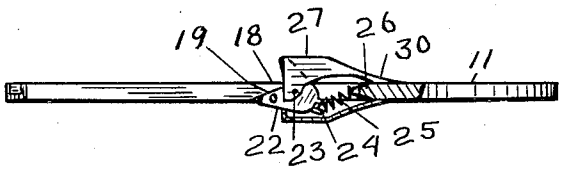


FIG. 3

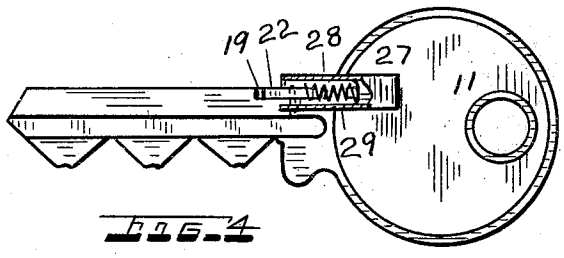


FIG. 4

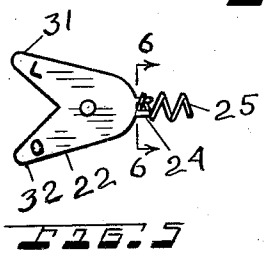


FIG. 5

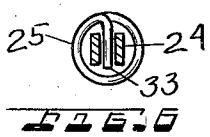


FIG. 6

Inventor

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By his Attorney

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UNITED STATES PATENT OFFICE

LOUIS OBERFIELD, OF BROOKLYN, NEW YORK

LOCK AND KEY INDICATOR

Application filed March 25, 1930, Serial No. 438,681. Renewed December 14, 1931.

This invention relates to a lock and key indicator, and its principal object is to provide a means whereby a movable element on the key is acted upon by contact with the lock and is left set in a manner giving visible evidence of, either the closed, or open position of the said lock.

A further object is to provide an indicator the position of which may be felt by the touch of the fingers.

These and other objects and features of the invention will be set forth and described in the following specification and claims, and illustrated in the accompanying drawings, in which:

Fig. 1 is a face view of a lock with the key removed.

Fig. 2 is a side view of the lock with the key inserted therein.

Fig. 3 is an under edge view of the key; the indicator casing being partly broken away to disclose the mechanism.

Fig. 4 is a side view of the key shown in Figure 3; the casing being also broken away in part.

Fig. 5 is an enlarged view of the marker element with a portion of the spring attached.

Fig. 6 is a section on the line 6—6 of Figure 5 showing the inserted end of the spring.

Referring first to Figures 1 and 2 of the drawings; the lock face is shown at 10, the key at 11, the lock casing at 12 and the rotatable lock element at 13. It will be seen that the said rotatable element has a segmental slot 14 at the base of the key hole 15. A groove indicated by the dotted line 16 extends around the element and permits it to rotate freely past the stop pin 17 which is set in the lock casing.

Now, referring to Figures 3 and 4; the key 11 is cut away at 18 and a beveled stop 19 is provided. A marker element 22 is pivotally attached to the key as shown at 23, and this element has a slotted base tip 24 which receives an inserted spring 25. This spring is supported on the beveled tip 26 and being of the open wound variety; it presses against the tip of the marker element and forces the said marker over against the bevel stop 19. A casing 27 encloses the mechanism as shown. This has upper and lower walls 28 and 29 and beveled side members 30.

In the enlarged view of the marker shown in Figure 5; it will be seen that the pointers 31 and 32 are marked respectively O and L; which markings are read O meaning open, and L meaning locked. Thus; if the O side is visible as in the view in Figure 3; then the lock was left open when the key was withdrawn, and vice versa.

In Figure 6 the enlarged sectional view shows the inserted cross wire 33 of the spring 25; this securely holds the spring in position.

Referring now to the views in general; if the key is inserted in the lock; the O side of the marker will engage the pin 17 and as the key is turned the pin will force this over and bring the L side forward against the stop bevel 19. If the key is now withdrawn, it will thus indicate that the lock was left in its closed, or locked position.

In locks such as auto-ignition and those having like arrangements, where the key is not given a full rotation; this device will act in full, as only a slight turn is required to set the marker.

The position of the marker may, if desired be determined by a sense of touch, as one pointer is always projecting in an exposed position. This is a great advantage when the light is dim and uncertain as at night, or in a shadow.

The invention is not limited to the specific form of lock and key as illustrated in the drawings; but is adaptable to locking mechanisms of many other forms and types of construction.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is as follows:

1. An indicating mechanism of the class described, comprising a lock element having a stop member thereon positioned to engage a marker element on an insertable key, means to support the said marker element on the said key, and pointer members on the said marker element adapted to engage the said stop member and to be swung thereby into positions of contact with a stop shoulder on the

said key, and means to retain the said marker in its position as last set by contact with the stop member of the lock.

2. An indicating mechanism of the class described comprising a stop member on a lock element, a marker element pivotally mounted on a key insertable in the said lock, and the said marker having right and left pointer members, each adapted to contact with the said stop member, a slotted base tip on the said marker element, a spring having a cross bent extremity inserted within the said slotted tip and itself wound thereabout, and the said spring secured at its opposite end to the body of the key, and means to alternately arrest the movement of the said pointer members.

Signed at New York, in the county of New York and State of New York, this 15th day of March, A. D. 1930.

LOUIS OBERFIELD.