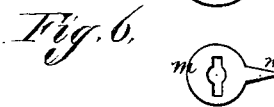
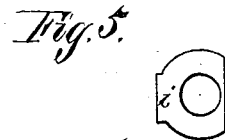
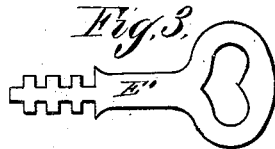
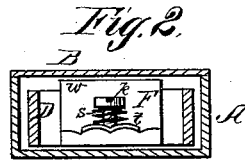
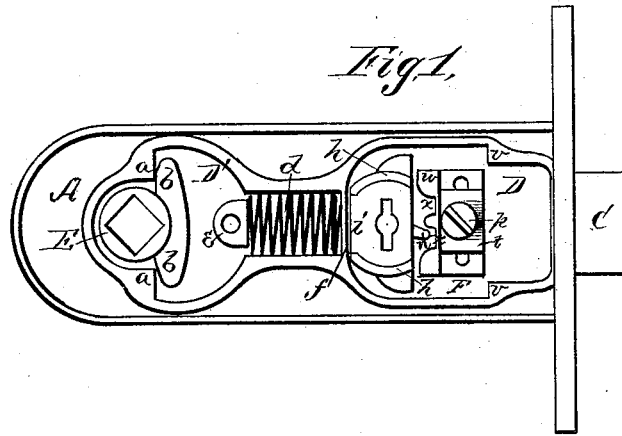


E. A. KIMBALL.
Latch.

No. 217,693.

Patented July 22, 1879.



Witnesses:
W. C. M. Carter.
John C. Rogers.

Inventor:
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per
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Attorneys.

UNITED STATES PATENT OFFICE.

EDWIN A. KIMBALL, OF CHAMPAIGN, ILLINOIS.

IMPROVEMENT IN LATCHES.

Specification forming part of Letters Patent No. **217,693**, dated July 22, 1879; application filed May 23, 1879.

To all whom it may concern:

Be it known that I, EDWIN A. KIMBALL, of Champaign, in the county of Champaign and State of Illinois, have invented certain new and useful Improvements in Locks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to door and other locks; and it consists in the construction and arrangement of the device for locking the bolt, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a plan view with the cover removed; Fig. 2, a cross-section. Figs. 3, 4, and 5 are views of the tumblers and key; and Fig. 6, a view of the disk *m*.

A represents the lock-case, with covering-plate B. C is the door-bolt, formed with the double yoke D D', the part D' having shoulders at *a a*. E is the hub through which the door-spindle passes, said hub being provided with lugs or wings *b b*, for operation against the shoulders *a a*, to draw back the lock-bolt C when the door-knob is turned in either direction.

The lock-bolt is pressed outward by means of a spring, *d*, one end of which bears against a post, *e*, in the lock-case, and the other end against a bridge or cross-bar, *f*, separating the parts D and D' of the double yoke.

In the lock-case A, within the part D of the yoke, are formed two guides, *h h*, curved as shown, between which is placed a series of tumblers, *i i*, and also the slotted disk *m*, which is formed with the finger or projection *n*.

E' is the key, made flat, with projecting wards, substantially as shown, to fit in the

tumblers and disk *m*, and turn the latter, so that the projection *n* will act upon a slide, F. This slide is slotted longitudinally, and held in place by a screw, *p*. Around this screw is placed a spiral spring, *s*, which bears against a corrugated washer, *t*, on top of the slide.

At the inner edge of the slide F is a flange, *w*, with two recesses, *x x*, in either one of which the lug *n* will work to move the slide when turning the key.

On both sides of the part D of the double yoke are formed shoulders *v*, behind which the slide F is moved to lock the bolt.

It will readily be seen that the bolt may be locked when turning the key in either direction.

This invention is applicable to all locks, whether for doors or other places.

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

1. The combination of the slotted slide F, screw *p*, spiral spring *s*, and corrugated washer *t*, substantially as herein set forth.

2. In a lock, the slotted slide F, with flange *w*, having recesses *x x*, in combination with yoke D of the bolt, having shoulders *v v*, and the disk *m*, with projection *n*, all constructed and arranged to operate substantially in the manner herein set forth.

3. The bolt C, with its double yokes D D', slotted slide F, with flanges *w*, hub E, having wings *b b*, springs *d s*, tumblers *i i*, and disk *m*, with its projection *n*, all constructed, combined, and arranged to operate substantially as herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

EDWIN A. KIMBALL.

Witnesses:

G. I. HODGES,
H. BROADWELL.