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C. REIGER.
LOCK.

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NO MODEL.



UNITED STATES PATENT OFFICE.

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LOCK.

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To all whom it may concern:

Be it known that I, CHARLES REIGER, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a lock designed to be operated through the medium of keys having right and left hand bits, the construction of the lock being such that a right-hand key-bit may be introduced at one side of the lock and a left-hand key-bit introduced at the other side of the lock to actuate the lock-latches.

The object of the invention is to furnish a lock that may be operated from either side by different keys, so that in the event of one of the keys being lost or a duplicate key being obtained by an unauthorized person the lock may be reversed in position, so that the side that was previously presented to the interior of the box will be presented to the exterior of the box, thereby requiring a key having a bit of different form or the reverse of the first key in order that the latches of the lock may be thrown by inserting the key into the lock from the exposed exterior of the box to which the lock is applied.

The invention further relates to means for limiting the movement of the lock-keys when they are turned to operate the latches and also when their rotation is reversed for withdrawal.

The lock is one particularly designed for use in connection with bakers' street bread-boxes or other receptacles which are ordinarily placed in exposed locations, and are therefore subject to thievery.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a view of fragments of a box and lid with my lock applied thereto. Fig. II is a vertical section taken on line II II, Fig. I. Fig. III is a horizontal section taken on line III III, Fig. I. Fig. IV is a vertical longitudinal section taken on line IV IV, Fig. III. Fig. V is horizontal section taken on line V

V, Fig. IV. Fig. VI is a perspective view of one of the latch-levers of my lock. Fig. VII is a vertical cross-section taken on line VII VII, Fig. IV. Figs. VIII and IX are perspective views of keys having right and left hand bits, such as used in operating my lock.

A designates the wall of a box, to which my lock is shown applied, and B the box-lid. Secured to the lid B is a catch-plate 1, that bears a pair of catch-hooks 2. (See Figs. I and II.)

3 designates the lock-case, which is set into a recess in the box-wall A, as seen in Figs. III and IV and dotted lines, Fig. I. In one of the side walls of the case 3 is a keyhole 4 (see Figs. I and VII) to receive a right-hand key-bit 4', as illustrated in Fig. VIII. In the opposite side of the lock-case is a keyhole 5 (see Figs. IV and VII) to receive a left-hand key-bit 5', as illustrated in Fig. IX.

Extending transversely within the lock-case is a pair of pivot-studs 6, on which are mounted bell-crank latches having hook-arms 7 and throw-arms 8. The throw-arms are spaced apart, as seen in Figs. V and VII, and they are both designed to receive the engagement of either the right-hand key-bit 4' or the left-hand key-bit 5'. The latch-hook arms are held yieldingly projected toward each other by springs 9, as seen in Figs. IV and V. Interior of the lock-case 3 are sockets 10, corresponding in shape to the shape of the catch-hooks 2 of the catch-plate 1 and into which said catch-hooks enter, as illustrated in Fig. IV, to be engaged by the latch-arms 7. Intermediate of the sockets 10 is a pocket 11, in which is loosely seated the trunnions 12 of an oscillating stop-finger 13. This stop-finger projects downwardly between the latch-throw arms 8, so as to be in the path of travel of the key-bits when they are operated in the lock-case, and its movement in an oscillatory manner is limited in each direction by the inner walls of the sockets 10 to prevent complete rotation of the key-bit. By this arrangement the key-bit may be turned in contact with the throw-arms to a sufficient extent to disengage the latch-catch arms from the catch-hooks 2, and when so moved its bit will be stopped, so that the latch-catch arms will be maintained in spread condition until the catch-hooks have been disengaged therefrom

instead of the key-bit being turned past the throw-arms to permit the latch-catch arms to be again projected inwardly before the catch-hooks are disengaged therefrom.

5 14 designates shoulders projecting inwardly from the side walls of the lock-case. (See Figs. IV and VII.) These shoulders occupy positions at the rear side of each keyhole 4 and 5, and they are designed to receive the
10 key-bits when said bits are rotated in a reverse direction previous to their extraction after the lock has been operated. The service of these shoulders is that of preventing the movement of the key-bits beyond the
15 keyholes when they are moved reversely. It will be seen that, by the presence of these shoulders when the key-bit is reversed, by turning the key it strikes against the corresponding shoulder at the back of its keyhole
20 when the keyhole is reached and cannot move any farther, so that no care needs to be exercised in withdrawing the key, due to the fact that the bit is in a position to be straightway withdrawn when the shoulder is struck.
25 15 designates an enveloping casing inclosing the lock-case 3 when it is positioned in the wall A, as seen in Figs. I, II, and III. This casing is of inverted-U shape and is provided with an aperture 16, through which
30 the catch-hooks 2 pass to enter the lock-case. It is also provided with apertures through which the keyhole-bosses of the lock-case protrude. The casing 15 provides an inclosure for the lock-case, over which it is slipped and
35 secured to the box-wall A by bolts 17, inserted through the casing and box-wall, as seen in Fig. II, the bolts being provided interior of the box with nuts 18.

40 My lock is extremely simple in construction, is efficient in action, and affords an increased amount of security in the same lock over locks as heretofore made. The last-named feature is due to the reversible nature of the lock, which renders it possible to make use

of two keys of different design in the same 45 lock by simply removing the lock-case and turning what was previously the inside face of it outermost. This removal and reversal of the lock-case is readily and quickly accomplished by simply removing the bolts 17 50 and slipping the casing 15 off of the box-wall, thereby exposing the lock-case to removal and replacing it as stated.

I claim as my invention—

1. In a lock, the combination of a case provided with a keyhole of one contour in one 55 of its side walls and the keyhole of a different contour in the other side wall, and latch mechanism within said case, substantially as set forth. 60

2. In a lock, the combination of a case having a keyhole in one of its side walls to receive a left-hand key-bit, and a keyhole in its opposite side to receive a right-hand key-bit, and latch mechanism within said case, 65 substantially as set forth.

3. In a lock, the combination of a case provided with a keyhole, a pair of latches in said case provided with throw-arms operated by direct engagement of the key and an oscillating stop adjacent to said throw-arms to receive a key-bit and limit its movement during the operation thereof in engagement with said throw-arms but free of engagement with the latches, substantially as set forth. 75

4. In a lock, the combination of a case provided with a keyhole, a pair of latches in said case provided with throw-arms, a stop-finger oscillatorily positioned in said case and projecting between said throw-arms in the path 80 of travel of the key-bit to limit the operation of said key-bit during its engagement with said throw-arms, substantially as set forth.

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In presence of—

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