

L. HILLEBRAND.
KEY-GUIDES FOR LOCKS.

No. 190,035.

Patented April 24, 1877.

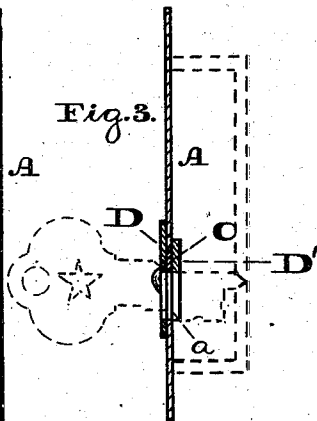
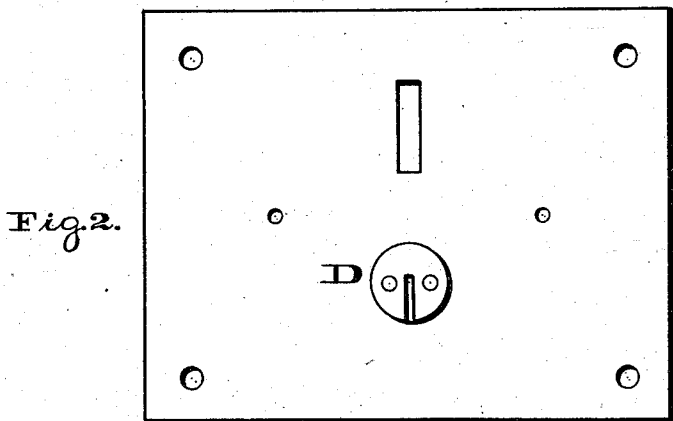
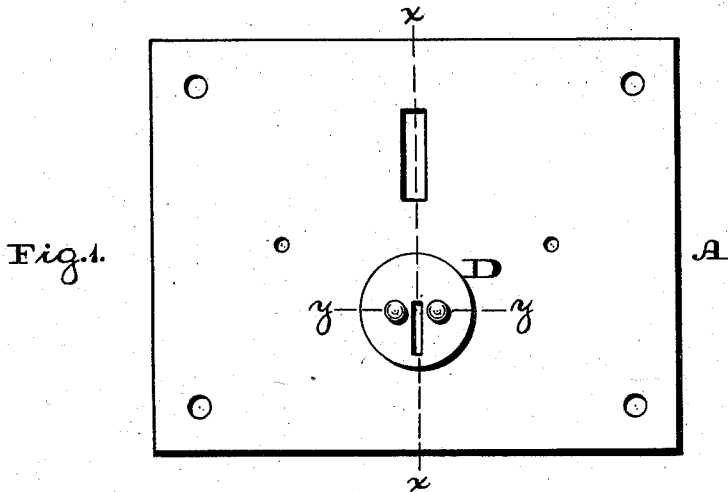
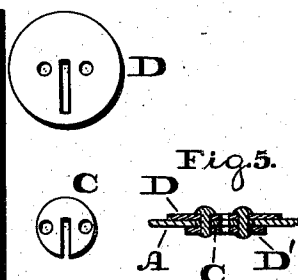
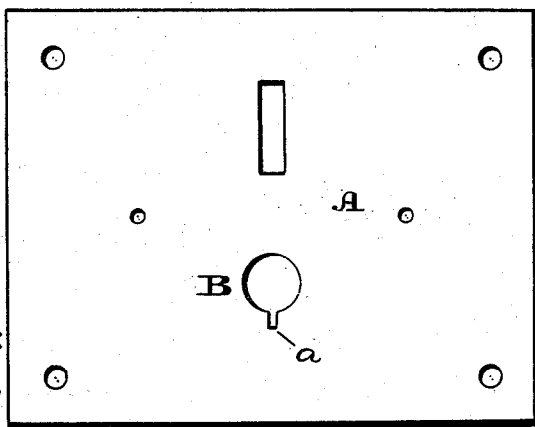


Fig. 4.



Witnesses:
Lewis F. Brown,
J. P. Grant.

Inventor:
Louis Hillebrand.
by
John A. Diederichs,
Attorney.

UNITED STATES PATENT OFFICE

LOUIS HILLEBRAND, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN KEY-GUIDES FOR LOCKS.

Specification forming part of Letters Patent No. **190,035**, dated April 24, 1877; application filed March 23, 1877.

To all whom it may concern:

Be it known that I, LOUIS HILLEBRAND, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Key Guides, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1 and 2 are views of opposite sides of the face-plate of a lock having my invention applied thereto. Fig. 3 is a section in line *x x*, Fig. 1. Fig. 4 is a view of parts detached. Fig. 5 is a section in line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a guard for a flat key, the same being formed of a slotted disk, fitted in the circular opening of the face-plate of the lock, and clamped between two slotted disks or washers which overlap the wall of said opening on opposite sides, the several disks being formed of sheet metal, whereby a solid cylinder and its bearing on the lock-box or works and cast disks are dispensed with, and a cheap, simple, and strong guide is produced.

Referring to the drawings, A represents the face-plate, which has a circular opening, B, and a slot, *a*, communicating therewith. C represents a slotted sheet-metal disk, of diameter slightly less than the opening B, so as to be received therein. D D' represent two slotted sheet metal disks or washers to be applied to opposite sides of the face-plate A, and which are of diameter greater than that of the opening B, so as to overlap the wall of said opening.

The disk C will be fitted in the opening B, and the disks D D' applied thereto at opposite sides, care being taken that the slots of the several disks and the slot *a* communicate. Now, rivet the disks C D D', and they will be securely connected to the face-plate, but free to rotate, their displacement being prevented by the disks D D' overlapping the edge or wall of the opening B.

The key will be inserted in the slots, and turned, and reach the lock-works, as is evident, the three disks turning as one.

It will be seen that I use sheet metal for the several parts of the key-guard, and dispense with a long cylinder, as heretofore employed, such cylinder occupying much space of the lock-box, and requiring a bearing on said box to keep it in place, and a cheap, simple, and strong guide is produced.

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

The rotary key-guide for flat keys, the same consisting of a slotted flat disk fitted in the circular opening of the face-plate of the lock, and rotatably secured to said plate by means of disks, which overlap the wall of said opening on opposite sides, the several disks being formed of sheet metal, substantially as and for the purpose set forth.

LOUIS HILLEBRAND.

Witnesses:

JOHN A. WIEDERSHEIM,
A. P. GRANT.