G. Clay,

Key-Hole Guard,

No. 23,662. Patented Apr. 19, 1859.

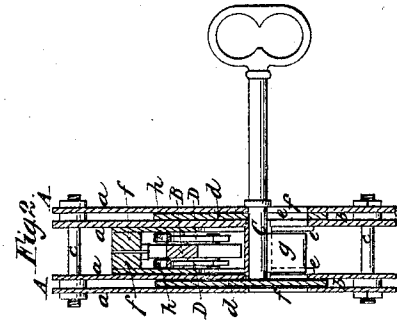

Fig. 2.

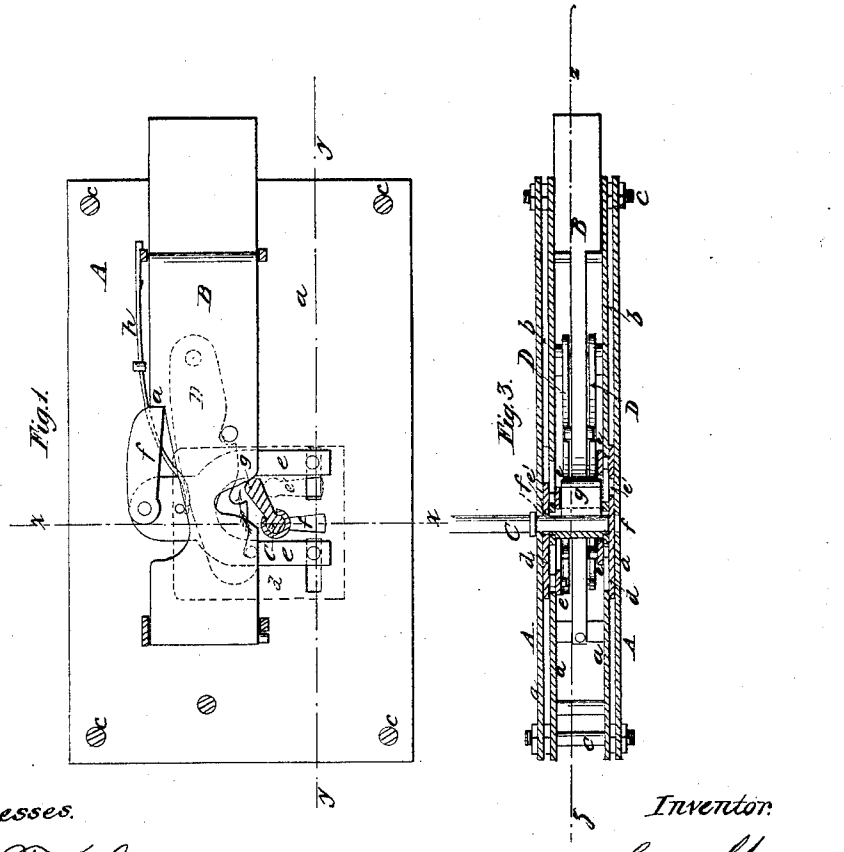

Fig. 1.

Fig. 3.

Witnesses.

Wm. Tusch

W. Tusch

Inventor.

George Clay

UNITED STATES PATENT OFFICE.

GEORGE CLAY, OF NEW YORK, N. Y.

LOCK.

Specification of Letters Patent No. 23,662, dated April 19, 1859.

To all whom it may concern:

Be it known that I, GEORGE CLAY, of the city, county, and State of New York, have invented a new and useful Improvement in Locks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1, is a vertical section of my invention, taken in the line *z*, *z*, Fig. 3. Fig. 2, is a transverse section of do., taken in the line *x*, *x*, Fig. 1. Fig. 3, is a horizontal section of do., taken in the line *y*, *y*, Fig. 1.

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

The nature of my invention consists in the within specified peculiar construction and arrangement of the following parts for united operation in a lock, whereby a simpler, cheaper and more convenient and effective safety lock is produced, to wit, the lock case with right and left double walls, the inner walls being furnished with longitudinal right and left slots; the right and left key hole, sliding guard plates furnished with right and left key holes and with right and left vertical bars which are forked so as to straddle the key and arranged on opposite sides of the bolt so as to be operated upon separately by the key bit, and are supported and guided by horizontal transverse pins which pass through the longitudinal slots in the inner walls of the case and fasten in the key hole guard plates, the upper ends of said forked bars terminating in hinged auxiliary tumblers which rest on the upper part of the bolt and behind a stop formed on the same, and above the tumblers of the bolt and coming into action so as to assist, when the bolt is shot out and the guard plates close the key hole, in holding the bolt from being moved by other means than the key, and move out of action when the bolt is shot in or back and the key hole uncovered.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A, A, represent the front and back sides of the lock, which are each formed of two plates *a*, *a*, a suitable space *b*, being left between them. The front and back sides of the lock are secured a proper distance apart by transverse rods or bars *c*. B, is the bolt, placed in the case, as usual, the lower edge of the bolt having a recess made in it to receive the bit of the key, so that the bolt may be operated by the turning of the key. These parts are constructed and arranged as usual and therefore do not require a minute description. In each space *b*, a plate *d*, is placed. These plates have each a hole e^1, made in them, corresponding to the key holes *f*, *f*, in the front and back sides, A, A, of the lock case. The plates *d*, are allowed to slide freely in the spaces *b*, and each plate *d*, is attached by bolts *s*, to vertical bars *e*, *e*, which are at the inner sides of the inner plates *a*, *a*, two bars *e*, *e*, being attached to each plate *d*, and said bars being allowed a chance to slide with the guard plates *d*, *d*, by means of longitudinal slots *t*, *t*, as shown. The upper ends of each pair of bars *e*, *e*, are connected and a bar or guard *f'*, is attached thereto, one to each. These pawls or bars rest or bear on the upper edges of the bolt B, as shown clearly in Figs. 1 and 3.

C, is the key of the lock, made of the usual form, and, when inserted in the lock, has the outer end of its bit *g*, fitted between the bars *e*, *e*, that are directly in front of it.

The bolt B, has a tumbler guard D, at each side of it. These guards are attached by pivots to each side of the case, and serve as a check to the movement of the bolt. They may be constructed and arranged so as to be operated upon by the key, as usual, and therefore do not require a minute description. Each guard tumbler has a spring *h*, bearing upon its upper surface.

The operation is as follows. In order to throw out the bolt, or lock the lock, the key is inserted in the lock and turned from left to right, as indicated by the arrow in Fig. 1. The bit *g*, actuates the bolt B, and at the same time the outer end of the bit *g*, acts against the right hand bar *e*, and moves the plate *d*, that is connected to them, across the outer keyhole *f*, thus preventing the insertion of any instrument in said hole, while the pawl or bar *f'*, that is connected to the upper ends of the bars *e*, that were actuated, serve as a check and auxiliary guard to the tumblers, D, D. These bars *f*, being above the bolt B, cannot be reached by a pick nor be operated upon in any way except by a proper key. The outer ends of the bars f^1, it will be seen, fit behind a ledge or projec-

tion a^x, on the upper edge or surface of the bolt, as shown clearly in Fig. 1. When the lock is unlocked or the bolt thrown back, the key hole e', in the plate d, will be thrown in line with the key holes f, f.

It will be seen that it is perfectly immaterial in which side of the lock the key is inserted, as there is a plate d, at each side of the lock, and both sides are arranged precisely similar. It is essential that a plate d, be placed at each side of the lock, as locks are frequently turned or reversed in order to suit the doors to which they are applied, a right hand lock being frequently inverted and placed on a left hand door, and vice versa.

This invention is extremely simple and will render door locks far more secure than formerly.

What I claim as my invention and desire to secure by Letters Patent, is—

The within specified construction and arrangement of the following parts for united operation in a lock, viz; right and left double walled case A, t, t, sliding right and left key hole guard plates d, d, e', e', right and left forked bars e, e, s, s, main and auxiliary tumblers D, D, f', f', and bolt D, a^x; all for the purpose set forth.

GEORGE CLAY.

Witnesses:
WM. TUSCH,
W. HAUFF.