

*F. Gould,
Lock,*

No 21,193,

Patented Aug. 17, 1858.

Fig. 3.

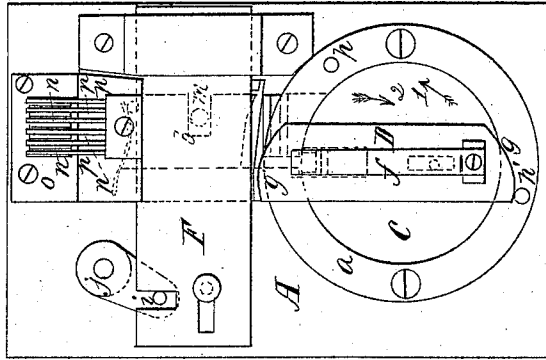


Fig. 2.

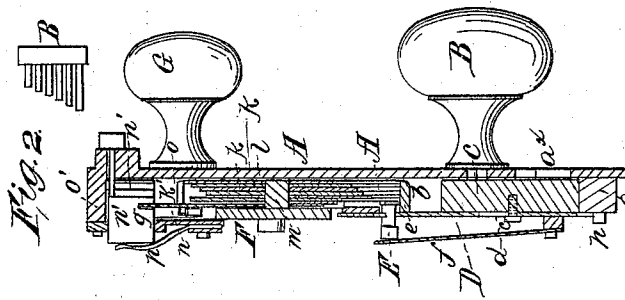
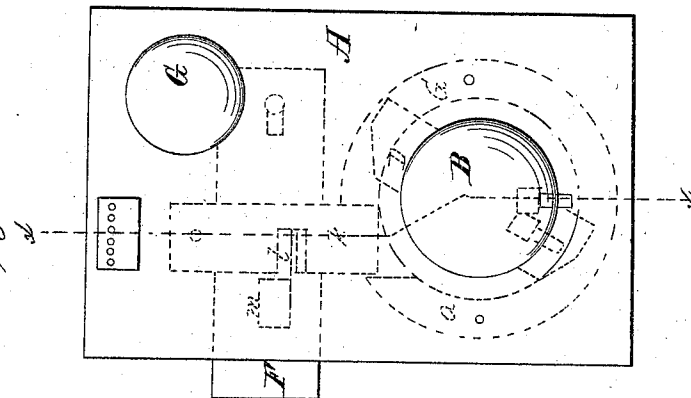


Fig. 1.



UNITED STATES PATENT OFFICE.

FAYETTE GOULD, OF HUNTINGTON, NEW YORK.

LOCK.

Specification of Letters Patent No. 21,193, dated August 17, 1858.

To all whom it may concern:

Be it known that I, F. GOULD, of Huntington, in the county of Suffolk and State of New York, have invented a new and Improved Lock; 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 an outer or external view of my invention. Fig. 2, is a section of ditto taken in the line *x, x*, Fig. 1. Fig. 3, is a back view of ditto.

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

This invention relates to an improved lock of that class which is designed to give greater security than ordinary kinds and which are capable of having their parts so changed that different keys may be required to open them.

The invention consists in the employment or use of two sets of sliding tumblers in connection with a rotating plate or boss provided with a key chamber and slide, the whole being arranged as hereinafter shown, whereby the desired object is attained by a very simple arrangement of means.

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

A, represents a plate which forms the outer or front part of the lock case if a complete case is required.

B, is a knob the arbor of which passes through the plate A, and is attached to a circular plate or boss C, which is fitted and allowed to turn freely within an annular ledge *a*, secured to the inner side of plate A.

In the plate or boss C, a radial chamber or recess *b*, is made, said chamber or recess being formed or cut into the plate or boss from its periphery. On the outer face of the plate or boss C, a sliding plate D, is

secured by a screw *c*, which passes through an oblong slot *d*, in the slide D. A pin E, passes through this sliding plate D, and also through the plate or boss C, into the recess or chamber *b*, in the plate or boss C. A projection *e*, is also attached to plate D, said

projection extending into the recess or chamber *b*, as shown clearly in Fig. 2. To the sliding plate D, a spring *f*, is attached, said spring bearing on the pin E, and having a

tendency to keep it thrust into the recess or chamber *b*. The ends of the sliding plate

D, are beveled or cut obliquely as shown clearly at *g, g*, in Fig. 3, and to the annular ledge *a*, two pins *h, h*, are attached, both of which are shown in Fig. 3.

F represents the bolt of the lock which is fitted in guides just above the annular ledge *a*, and moved back and forth by a bit *i*, which is attached to the arbor *j*, of a knob G. Between the bolt F, and the plate A, a series of sliding tumblers *k*, are placed side by side. Each tumbler *k*, has a notch or recess *l*, made in it, the notches being made at varying points in the tumblers. To the inner side of the bolt F, a bar *m*, is attached at right angles, said bar extending to the plate A, and when the bolt is shoved forward and the lock in a locked state, the bar is in front of the tumblers *k*, as shown by the dotted lines in Fig. 1.

One of the tumblers which is designated by K', extends upward farther than the others and a spring *n*, rests or bears upon it. A pin *o*, projects from the side of the tumbler *k'*, said pin extending over the upper ends of the other tumblers *k*, as shown clearly in Fig. 2.

In the upper part and at the inner side of the plate A, a series of horizontal tumblers *n'*, are placed. These tumblers are fitted in a box *o'*, and a spring *p*, bears against the back edge of each tumbler *n'*. The tumblers *n'*, are each slotted at varying points *q*.

From the above description of parts it will be seen that if the bolt F, be in a locked state, that is, thrown out from the plate A, as shown in Fig. 1, the tumblers *k*, must be moved in order that the notches or recesses *l*, may be brought in line with each other and the upper tumblers *n'*, must also be so adjusted that their notches or recesses *q*, will be brought in line to receive the upper end of the tumbler *k'*, in order to permit of the adjustment of the tumblers *k*. The movement of the tumblers and unlocking of the lock is effected as follows. Two keys A', B', are employed as shown in Fig. 2, each key being provided with bits of varying lengths corresponding respectively to the distances between the notches or recesses *l, q*, in the tumblers *k, n'*. The knob B, is first turned until the recess or chamber *b*, is brought in line with a hole *a'*, in the plate A, and the key A', is then pressed with the fingers into said recess or chamber the shorter bit being first entered and the

knob B, slightly turned so that the spring *f*, cannot force the key out from the chamber or recess. The key B', is then applied its bits forced through apertures in the plate A, and against the upper tumblers *n'*. By this means the notches or recesses *g*, are brought in line to receive the upper end of tumbler *k'*. The key B', is held to the case A, with one hand and the knob B, is turned by the other, in the direction indicated by arrow 1, and when the key A', in the recess or chamber *b*, is brought below the tumblers *k*, the sliding plate D, will be actuated by the pin *h'*, and the projection *e*, of plate D, in the recess or chamber *b'*, will force the key A', upward and the tumbler *k'*, will be raised in consequence of the upper ends of tumblers *k*, striking the pin *o*, and the tumblers *k'*, will pass into the notches or recesses *g*, in the tumblers *n'*, while the notches or recesses *l*, will be brought in line so that by turning the knob G, the bolt will be thrown back the bar *m*, of the bolt passing into the notches or recesses *l*, see Fig. 3. The lock is locked by merely turning the knob G, so as to throw the bolt F, forward and then turning the knob B, in a reverse direction to its former movement, see arrow 2, and the pin *h*, will then actuate the sliding plate D, and when the key A', comes in line with the hole or opening *a'*, the spring *f*, will cause the pin E, to force the key A', from the plate or boss C, and the spring will force the tumblers down so as to throw the notches or recesses *l*, out of line with each other. The springs effect the same result for the tumblers *n'*. The tumblers *n'*, it will be seen serve as a check or guard to the

tumblers *k*. They are important but might be dispensed with in certain cases, where very great security is not requisite. It will be seen that the bits in the keys may be changed in position and the position of the tumblers may also be changed by having access to the back of the lock. The lock therefore may at any time be changed so as to require different keys, that is a different arrangement of the bits in order to open it.

I am aware that sliding slotted tumblers have been used and arranged in various ways in locks and also used in connection with guards and other devices for rendering locks unpickable or burglar proof. I therefore do not claim broadly and separately series of sliding tumblers provided with notches or recesses at varying points; but,

I claim as new and desire to secure by Letters Patent,

1. The rotating plate or boss C, placed within the annular ledge *a*, and provided with a key chamber or recess *b*, slide D, and yielding or elastic pin E, in combination with the sliding tumblers *k*, notched or recessed as shown, the above parts being arranged substantially as and for the purpose set forth.

2. The rotating plate or boss C, arranged with the sliding plate D, and tumblers *k*, *k'*, in combination with the check or guard tumblers *n'*, substantially as and for the purpose specified.

FAYETTE GOULD.

Witnesses:

TIMOTHY CARLL,
STEPHEN ROGERS.