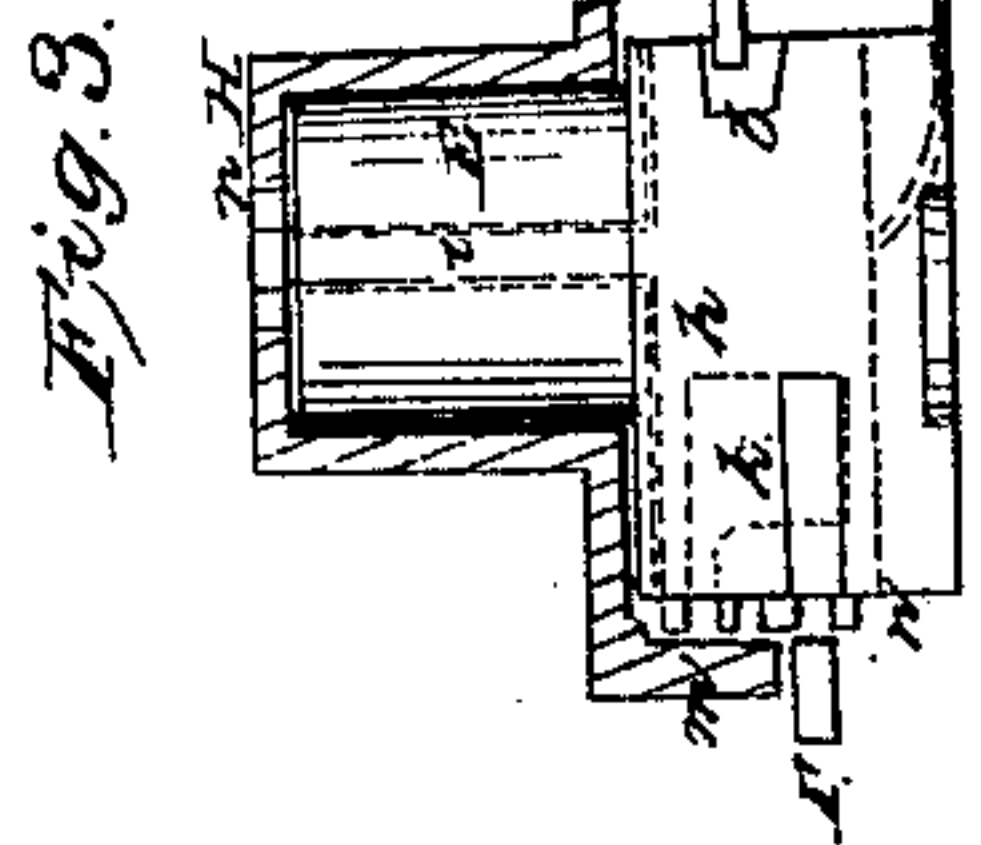
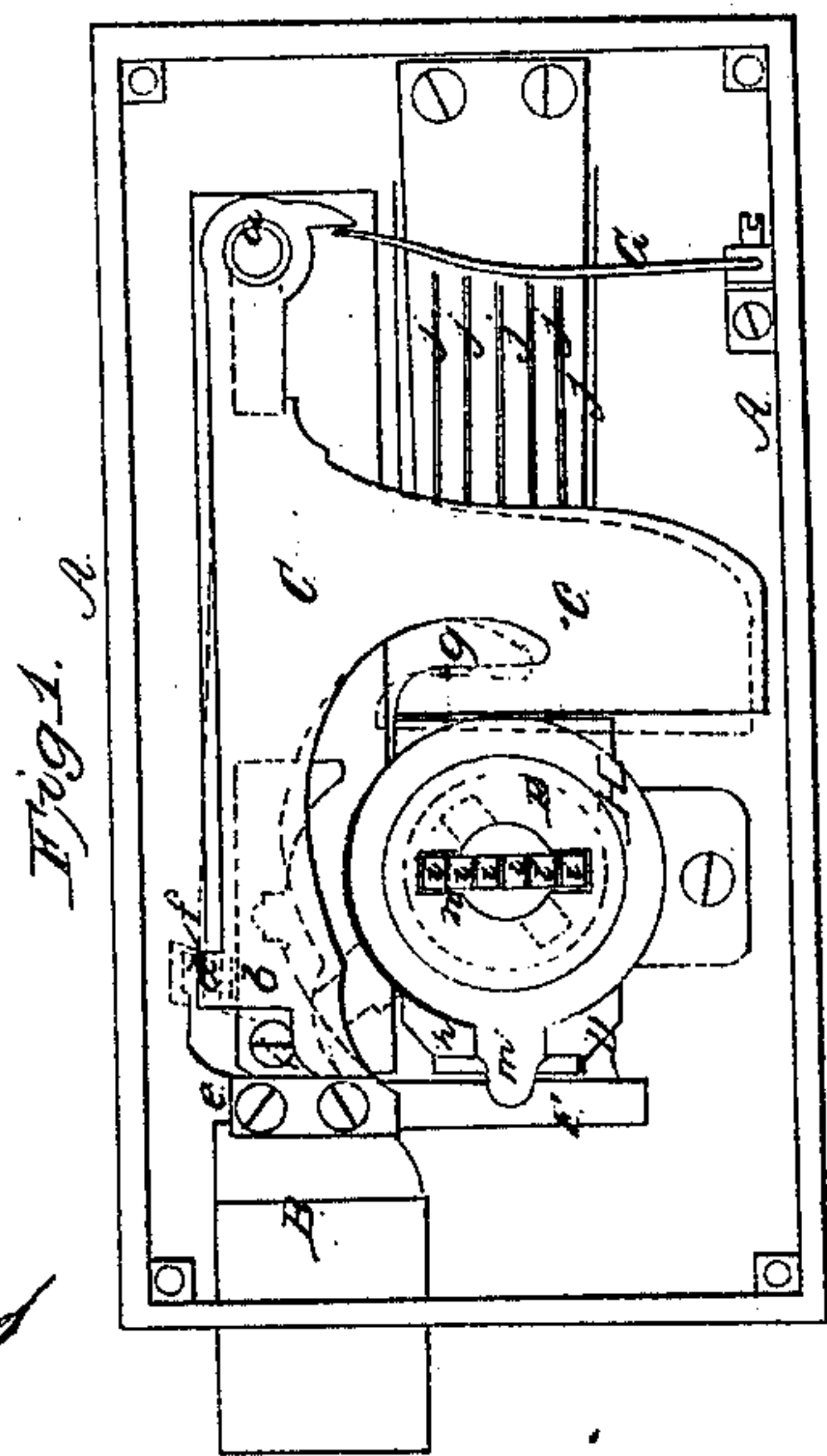
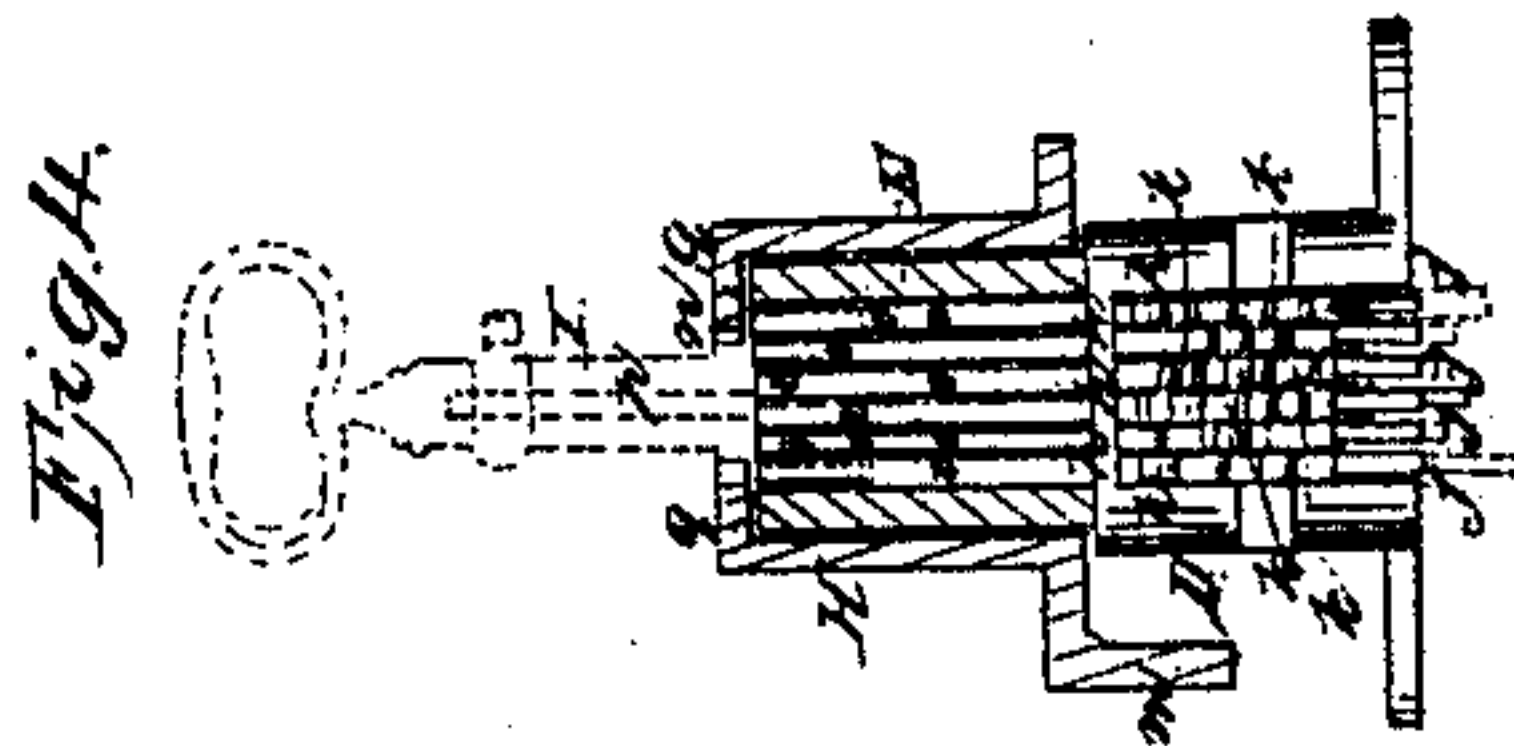
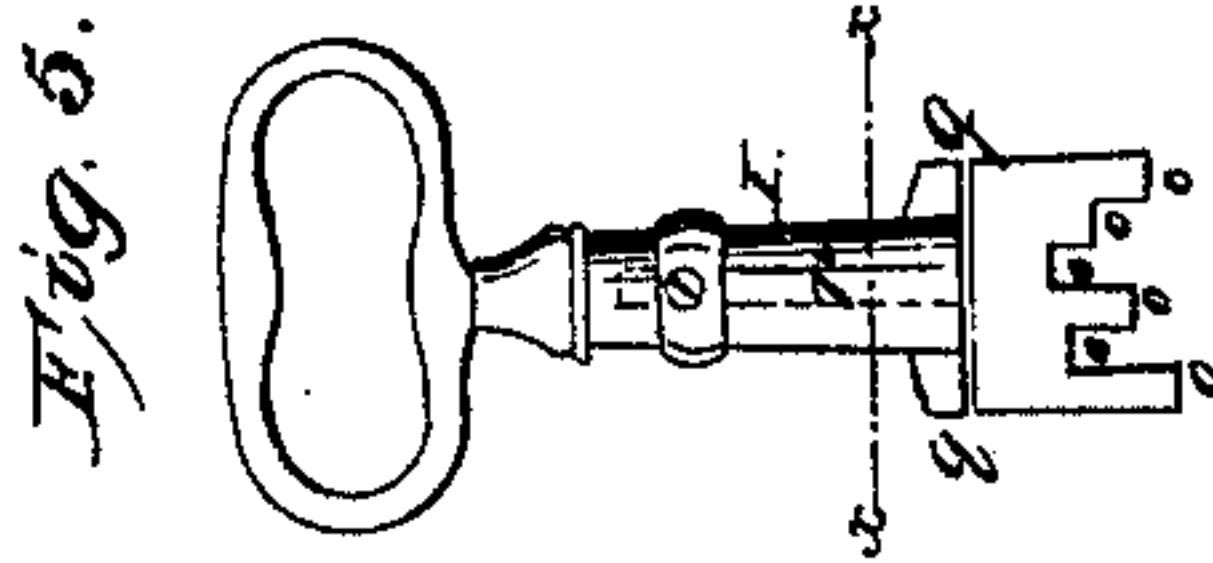
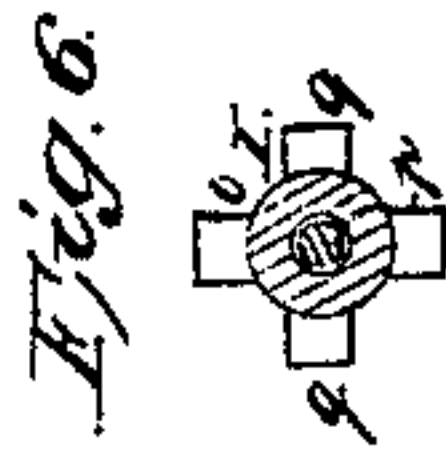
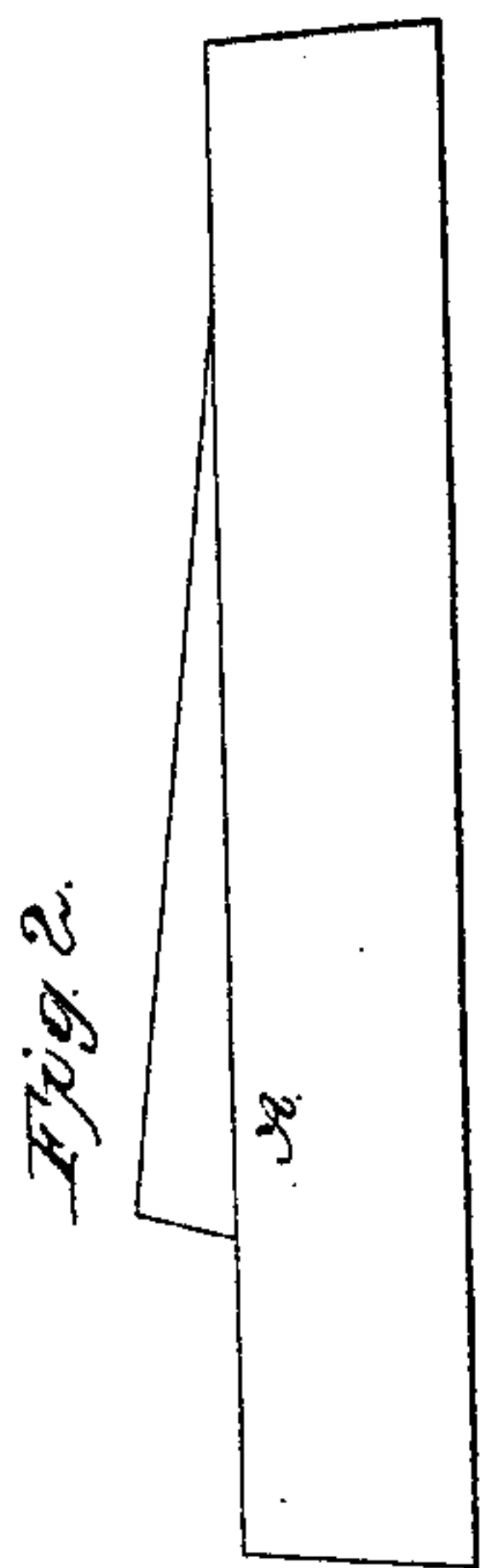


*J. B. Brennan,  
Lock.*

*Nº 11,885.*

*Patented Nov. 7, 1854.*



*Witnesses:  
John G. Stearns  
G. L. Tyler*

*Inventor:  
John B. Brennan*



# UNITED STATES PATENT OFFICE.

JOHN B. BRENNAN, OF MOUNT VERNON, NEW YORK.

## LOCK.

Specification of Letters Patent No. 11,885, dated November 7, 1854.

*To all whom it may concern:*

Be it known that I, JOHN B. BRENNAN, of Mount Vernon, in the county of Westchester and State of New York, have invented a new and Improved Lock for Banks, Fire-proof Safes, &c., 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 front view of the lock, the front casing or cap being removed in order to show the interior. Fig. 2, is a plan or top view of the casing of ditto. Fig. 3, is a detached view of a box or case containing sliding tumblers, and a horizontal section of a revolving cap that works upon the outer part of said box or case, the revolving cap being bisected through its center. This figure is a top view of the box or case. Fig. 4, is a side view of ditto. Fig. 5, is a detached view of the swivel key of the lock. Fig. 6, is a horizontal section of ditto taken at the line (x) (x) Fig. 5.

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

The nature of my invention consists in having a series of sliding tumblers, with recesses cut in them at each end at varying points placed between two arms, one of which is secured to the bolt of the lock and the other to a bolt tumbler, the arms and sliding tumblers being so arranged as will be hereafter shown, that the bolt of the lock cannot be thrown back until the recesses in both ends of the tumblers are brought in line with the arms above mentioned.

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

A, Figs. 1 and 2 is the case of the lock which may be of any proper form and B is the bolt which works against the back casing of the lock in the usual manner.

C, Fig. 1 is a bolt tumbler having its fulcrum at (a). The bolt tumbler has two arms (b) (c), the arm (b) has a small projection (d) at its end and on its under side which fits in recesses (e) (f) in the upper edge of the bolt B as it is drawn in or out. The projection (d) is shown by dotted lines. The arm (c) forms nearly a right angle with the arm (b) and is provided with a curved recess (g) the use of which will be hereafter shown.

D is a rectangular box or case secured in

the angle formed by the arms (b) (c) of the bolt tumbler C. The box or case is secured to the back casing of the lock and is rather placed in the angle formed by the arms (b) (c). The box or case contains a series of sliding tumblers (h) shown more particularly in Figs. 3 and 4, each tumbler (h) is provided with a shank (i) which passes through a cylindrical projection E attached to the case. Underneath or back of the tumblers (h) there are springs (j) shown in Figs. 1, 3 and 4. Both ends of the sliding tumblers are provided with notches or saw teeth and are also provided with recesses (k) (l) which when brought in line allow the bolt B to be operated as will be presently shown, see Figs. 3 and 4.

F is an arm attached to the bolt B and projecting across one end of the tumblers (h), as shown in Figs. 1 and 3. The arm (c) projects across the opposite ends of the tumblers (h) as shown in Figs. 1 and 3. The arm F of the bolt B being at one end of the tumblers (h) and the arm (c) of the bolt tumbler at the opposite ends, see Fig. 1.

G, Fig. 1, is the spring of the bolt tumbler.

H is a revolving cap which fits over the cylindrical projection E, see Figs. 1, 3 and 4. The cap is provided at its base with a bit or projection (m) which when the cap is turned acts against the bolt tumbler, as will be presently explained. The upper part of the revolving cap has an oblong slot (n) cut through it with a circular aperture at the center of said slot, shown clearly in Fig. 1.

I is the key of the lock. The lower end of the key has a series of bits (o) of unequal lengths and corresponding in number to the sliding tumbler (h), see Fig. 5, and dotted lines in Fig. 4. The bits (o) are secured to the key by a pivot or rod (p) and turn freely independently of the other portion of the key. On the other portion of the key immediately above the bits (o) are projections (q) (q) placed at opposite sides of the key as shown in Figs. 5 and 6.

Operation: We will suppose the lock to be in a locked state as shown in Fig. 1. The key I is inserted in the oblong slot (n) and the bits (o) pressed against the shanks (i) and the sliding tumblers (h) are forced back at varying distances corresponding to the different lengths of the bits (o) and as the recesses (k) (l) are cut in the ends of the tumblers (h) at different points corresponding to the different lengths of the bits (o)



the recesses (*k*) (*l*) will be brought in line when the key is shoved in the cylindrical projection E. The key I is now turned from left to right and the projections (*q*) (*q*) which catch or fit in the oblong slot (*n*) turn the cap H and the bits or projection (*m*) of the cap acts against the bolt tumbler C and throws the projection (*d*) on the under-  
 10 side of the arm (*b*) out of the back recess (*f*) in the bolt B and the arm (*c*) is thrown into the recess (*l*) at one end of the sliding tumblers, see dotted lines Fig. 1. The bit or projection (*m*) then acts against the usual notch or "gating" on the bolt and throws  
 15 the bolt back, the arm F passing into the recesses (*k*) at one end of the sliding tumblers. The bits (*o*) on the key remain stationary within the cylindrical projection E while the other portion of the key is turned and the  
 20 projections (*q*) (*q*) move or turn the cap H. When the bolt B is moved back the bit or projection (*m*) on the cap H passes into the curved recess (*g*).

By the above invention it will be seen that  
 25 the lock is unlocked at one operation and with a single key.

The lock also is prevented from being picked by obtaining a pressure of the bolt B upon the tumblers (*h*) because the recesses  
 30 (*k*) (*l*) in the ends of the tumblers must first be brought in line to allow the bolt tumbler C, or rather its arms (*b*) to be freed from the bolt B, for if the recesses (*l*) at the ends of the tumblers (*h*) opposite the  
 35 arm (*c*) are not in line, the arm (*c*) cannot of course enter, and the other arm (*b*) cannot be freed from the recess (*f*) in the bolt B. There is no way then of opening or  
 40 unlocking the lock except by the proper key. The bolt tumbler cannot be operated upon

except by turning the cap and when the cap is turned so that the bit or projection (*m*) acts upon the bolt tumbler, the oblong slot (*n*) will be crosswise of the entrance into the cylindrical projection E and consequently the sliding tumblers cannot be operated upon. The swivel key I therefore is necessary in order to unlock the lock and experiments cannot be made with falso or skeleton keys. 50

The lock is extremely simple, not liable to get out of repair, and economical to manufacture, more so than any lock pretending to be burglar proof with which I am acquainted or have any knowledge of. 55

I do not claim the sliding tumblers (*h*) with recesses cut in them at varying points for they are well known and in common use, neither do I claim a key having bits or prongs of unequal lengths for they have  
 60 been previously used, nor do I claim the bolt tumbler C with its arm (*c*) attached irrespective of the arm F on the bolt B and the arrangement of the sliding tumblers (*h*), but 65

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

I claim—

Placing the sliding tumblers (*h*) between two arms (*c*) F, one of which F, is attached  
 70 to the bolt B, and the other arm (*c*) to the bolt tumbler C, the tumblers (*h*) having recesses cut in them at each end and arranged and operating in the manner and for the  
 75 purpose substantially as herein shown and described.

JOHN B. BRENNAN.

Witnesses:

JOHN G. STEARNS,  
 D. L. TYLER.