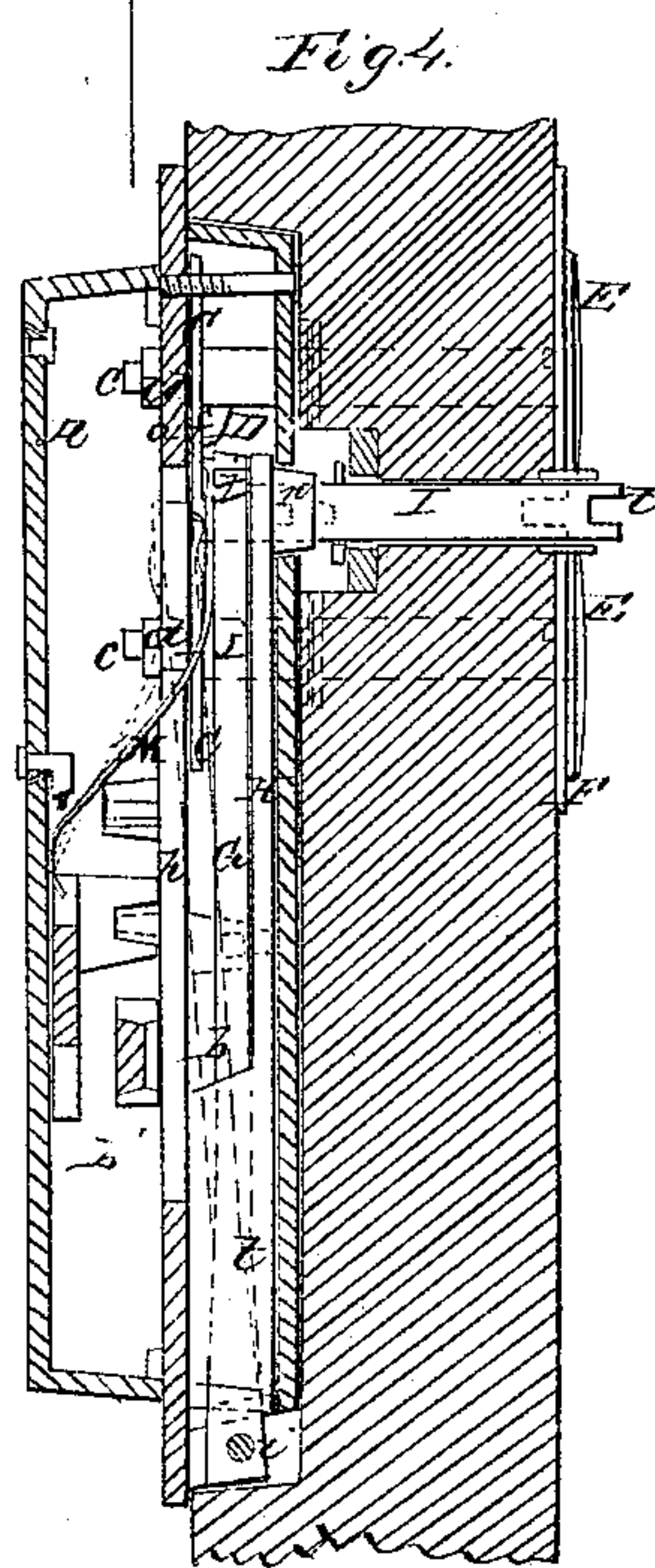
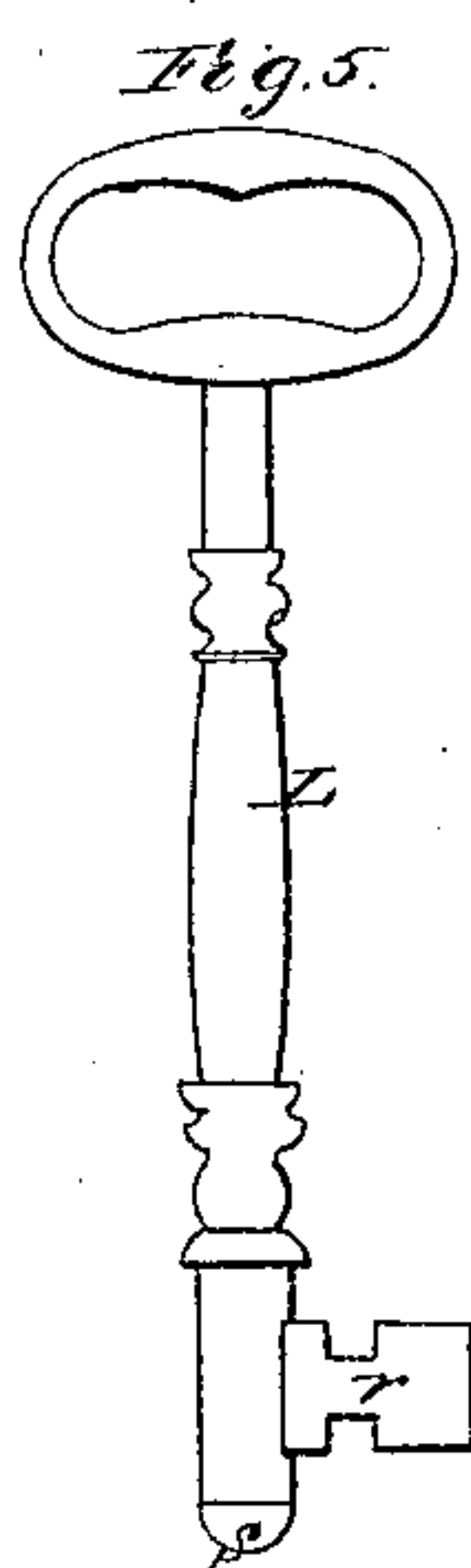
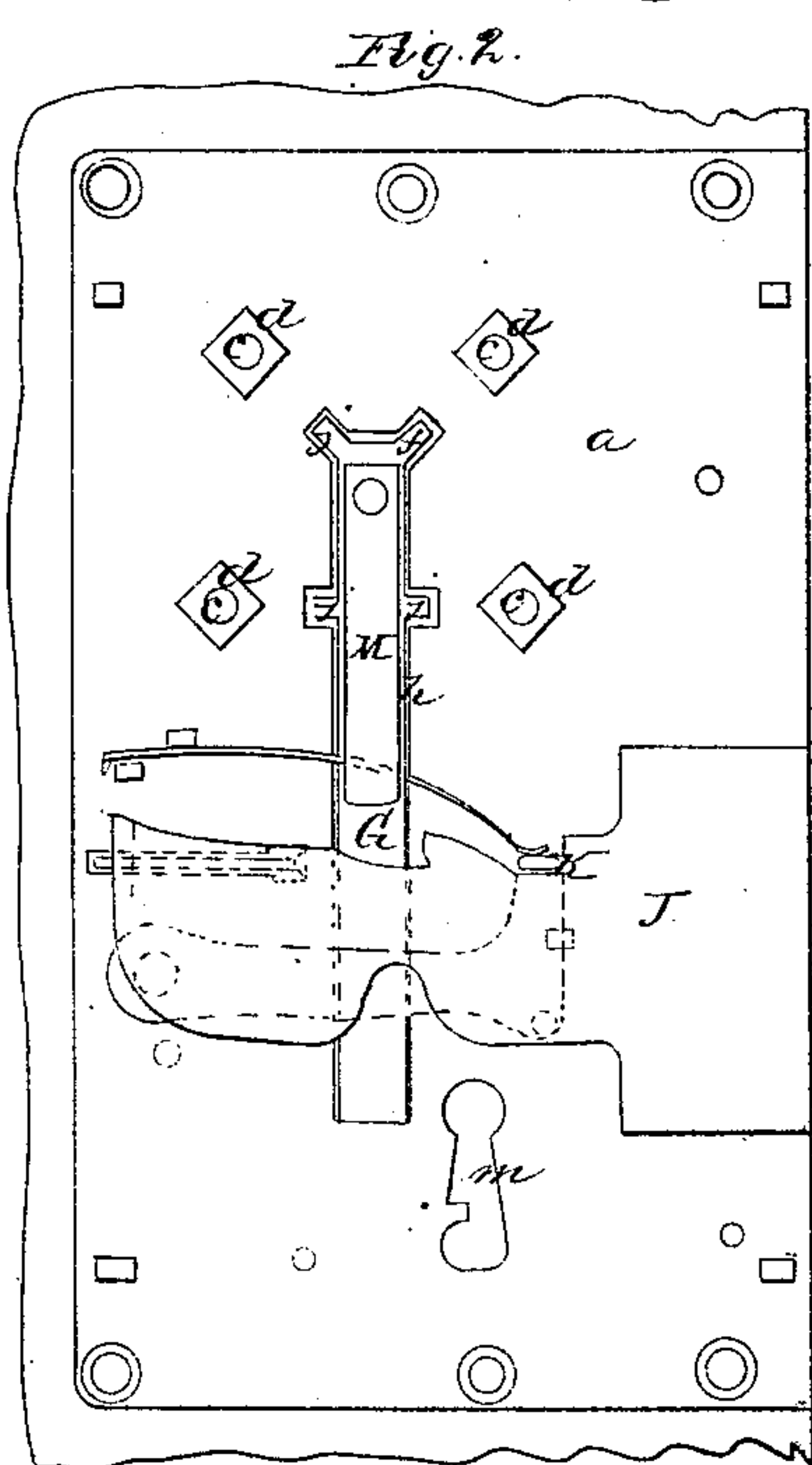
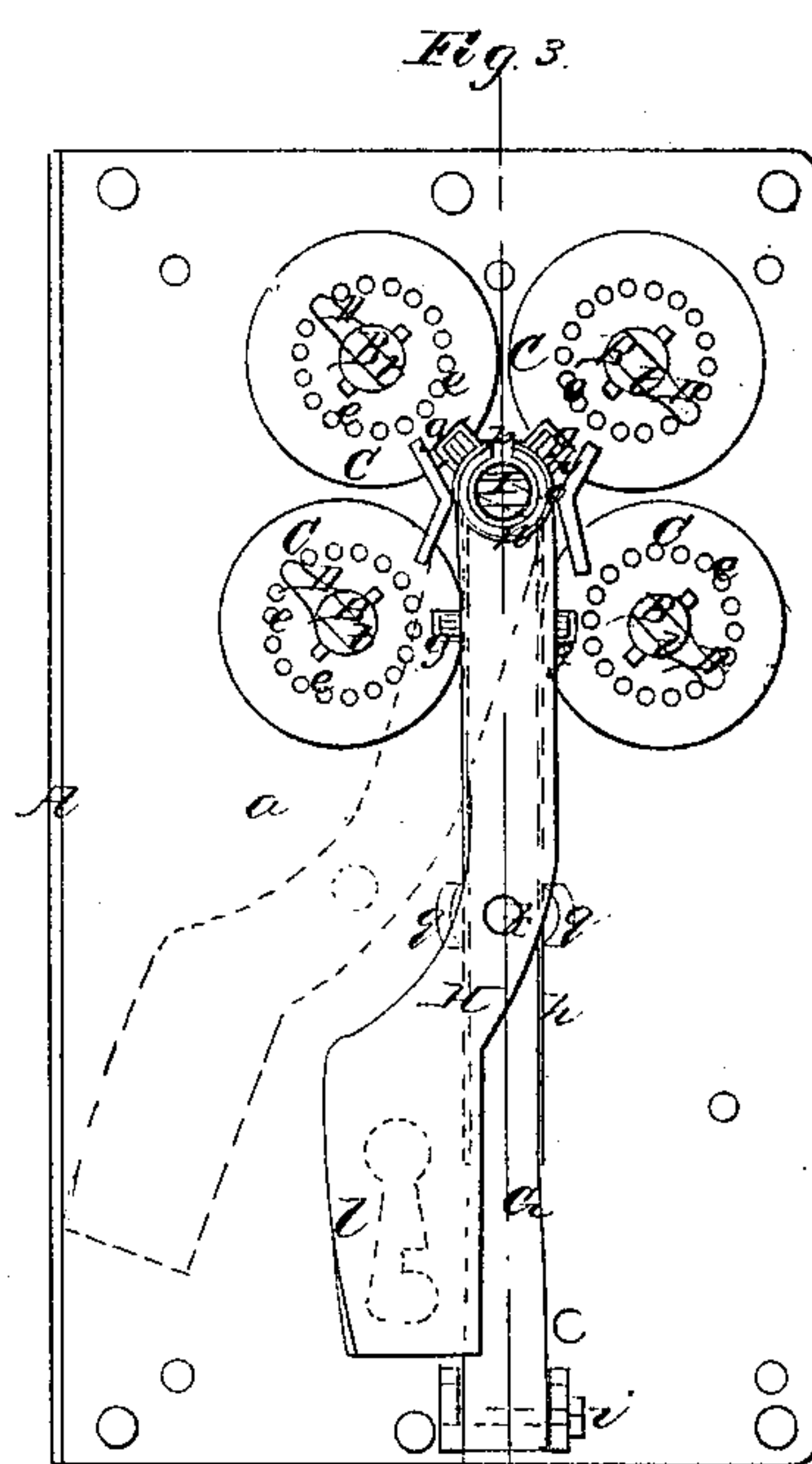
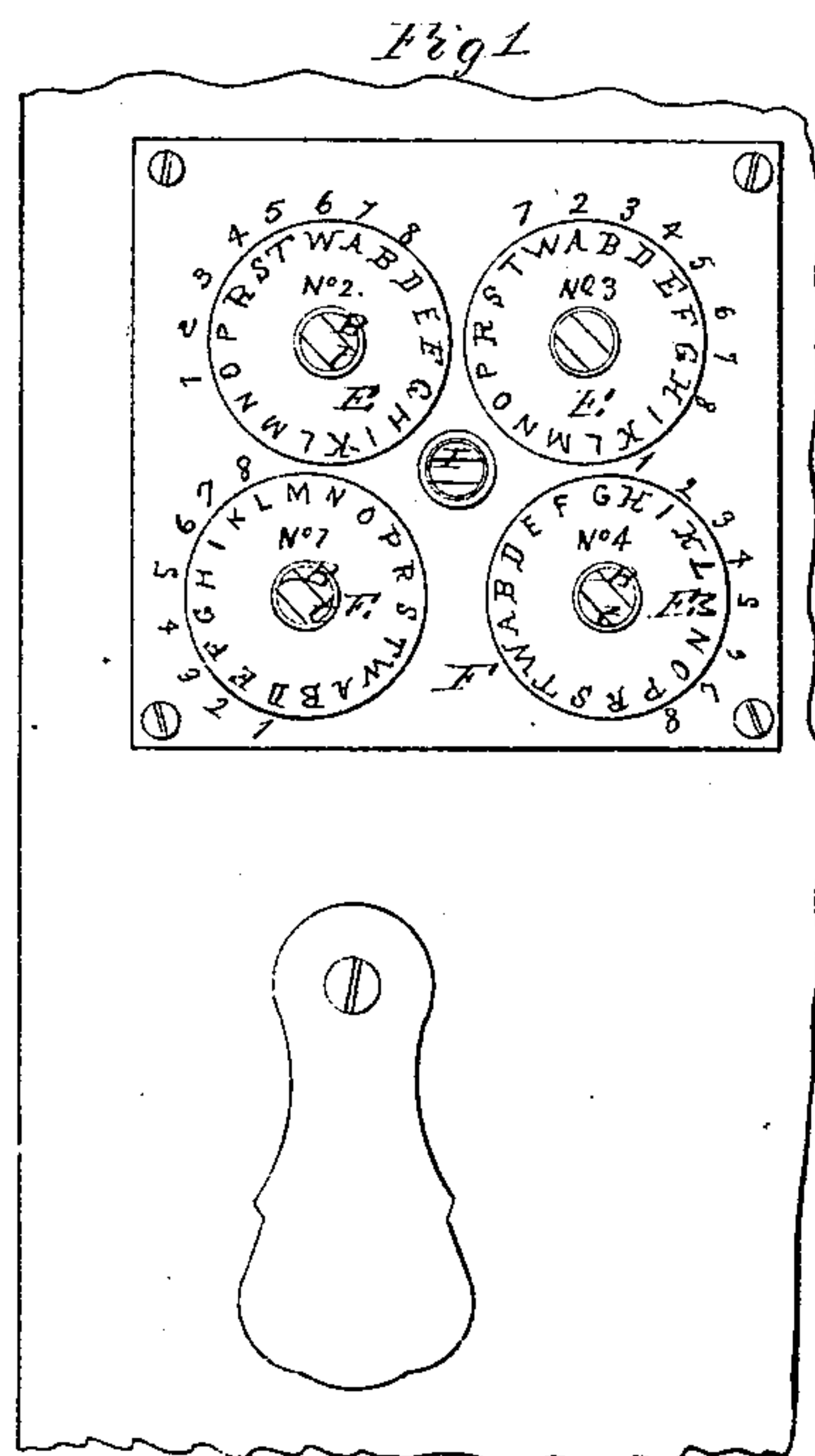


P. S. FELTER.
LOCK.

No. 41,211.

Patented Jan. 12, 1864.



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UNITED STATES PATENT OFFICE.

PHILO S. FELTER, OF CINCINNATUS, NEW YORK.

IMPROVEMENT IN LOCKS.

Specification forming part of Letters Patent No. 41,211, dated January 12, 1864.

To all whom it may concern:

Be it known that I, PHILO S. FELTER, of Cincinnatus, in the county of Cortlandt and State of New York, have invented a new and Improved Guard Attachment for Locks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is an outer or face view of a lock having my invention applied to it; Fig. 2, a view of the same with the back plate of the casing removed; Fig. 3, a view of the same with the front plate of the casing removed; Fig. 4, a section of the same, taken in the line *xx*, Fig. 3; Fig. 5, a detached view of the key of the same; Fig. 6, an end view of the key.

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

This invention relates to a new and improved guard attachment for locks, whereby the key-hole of a lock may be obstructed by a plate arranged in such a manner as to effectually prevent the insertion of a key for the purpose of opening the lock, and also prevent impressions being taken to form a key for the purpose, the plate being also arranged in such a manner that it may be adjusted or moved free from the key-hole by a proper or authorized person.

The invention is an improvement on a guard attachment for locks for which Letters Patent were granted to me bearing date December 17, 1861.

The invention consists in substituting a vibrating bar for a flexible one originally used, whereby a burglar is prevented from picking the lock by obtaining a pressure on the vibrating bar, and thereby ascertaining the position of the slots in the disks, which may be done with the flexible bar, as used in my patented device above referred to.

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

A represents the case of the lock, which may be of rectangular form, and is provided with a partition-plate, *a*, which divides the case A into two compartments, *b b'*, as shown in Fig. 4. B represents four spindles, which pass into the case A, and have journals *c* at their inner ends, which fit into the partition-plate

a, and are allowed to turn freely therein. These spindles are secured to the partition-plate *a* by spindles *d*, as shown in Fig. 4. On each spindle B there is placed loosely a circular disk, C. These disks are perforated with holes *e*, made in concentric circles, as shown in Fig. 3, and each spindle B has a bit, D, attached to it, said bit being simply a projection with a pin, *f*, attached to fit in any of the holes *e*. Each disk C has a notch, *g*, made in its periphery, as shown in Fig. 3. The spindles B extend through the case to the front or outer side of the door and pass through circular disks E, which are fitted on a plate, F, in such a manner that they may turn thereon, the disks E having letters stamped on them near their edges, and the plate F being numbered near the disks E, as shown clearly in Fig. 1.

The disks C abut against the partition-plate *a*, and in said partition-plate there is made an oblong slot, *h*, in which a bar, G, is fitted, said bar being attached at one end to the partition-plate *a* by a hinge or joint, *i*. (Shown in Figs. 3 and 4.) The opposite end of this bar G has four projections, *j*, which correspond to the notches *g* in the disks C. (See Fig. 3.) The bar *g* has a pin or projection, *k*, upon it on which a bar, H, is fitted. One end, *l*, of this bar is sufficiently broad to cover the key-hole *m* in the partition-plate *a*, and the opposite end of said bar has a small socket, *n*, formed on it to receive the inner end of a spindle, I, which has a pin, *o*, projecting from it at right angles. The socket *n* has a slot, *p*, made in it to receive the pin *o* when the latter is adjusted in line with the former. The partition-plate *a* has two projections, *q q*, one at each side of the slot *h*, and opposite pin or projection *k* on the bar G.

The bars G and H, as well as the disks C, are in the compartment *b* of the case A, and within the compartment *b'* are the slide-bolt J and tumbler K. These latter-named parts may be arranged in the ordinary or any proper way, and therefore do not require a minute description.

L is the key, the end near the bit *r* of which is provided with a lip, *s*, to fit into slots *t* in the outer ends of the spindles B and I.

The bar G has a spring, M, attached to its inner side, the outer end of said spring bear-

ing against the back of the case A, and having a tendency to keep the bar G and its projections *j* a short distance in front of the disks C, as shown in black in Fig. 4.

The operation is as follows: When the lock is in a locked state the end *t* of the bar H is over the key-hole, and in order to unlock the lock the bit of the key must of course be passed from the outer side of the lock through the compartment *b* and through the key-hole *m* in the partition *a* into compartment *b'*, in order that said bit may act upon the bolt J. When the part *l* of the bar H, however, is over the key-hole *m*, the bit of the key is prevented from passing into the compartment *b'*, and said bar H must be moved or adjusted as indicated by the red outline in Fig. 3, in order to leave the key-hole *m* exposed. In order to thus move the bar H one thing is requisite, viz: to release the bar from the pin or projection *k* on bar G, and this is effected by shoving or pressing the bar G back, so as to force or withdraw the pin or projection *k* from contact with the bar H, and in order to effect this latter result the disks C must be so turned as to bring the notches *g* in line with the projections *j* of bar G, otherwise the bar G could not be pressed back. When the disks C are thus turned or adjusted, the operator presses inward the spindle I, the inner end of which passes through the socket *o* of bar H, and thereby forces back the bar G, so as to withdraw the pin or projection *k* from the bar H. The pin *o* of the spindle I, when pressed inward, enters the slot *p* in the socket *n*, and by turning said spindle the bar H is moved to the position specified in order to expose the key-hole *m*, and the bit of the key is then passed through said key-hole and the lock unlocked. When the lock is again locked, the bar H is moved back so as to cover the key-hole *m*, the disks C are adjusted so as to bring the notches *g* in line with the projections *j* of bar G by means of the disks E, which, in connection with the figures on the plate F, serve as a guide to the operator; and changes may be made to alter the movement or adjustment of the disks C by altering the connection of the spindles B with

the disks C, which is done by fitting the bits D in different holes *e* in said disks. This arrangement, however, is old and well known, and may be seen on various locks and lock-guards.

The advantage of the vibrating bar G over the flexible bar described in my former Letters Patent is as follows: When the disks C are turned so that their slots *g* will be out of register with the projections *j* of bar G, the latter cannot by pressure be forced back so that the projections will catch against or come in contact with the disks, and hence the great means which burglars employ to pick a lock—to wit, a pressure on the bolt with a turning of the disks or tumblers in order to ascertain the position of the slots—is completely frustrated. The flexible bar, I have found by experiment, will admit of the key-hole being uncovered, for the elasticity or spring of said bar enables the operator to press inward its projections against the disks, and then by turning the latter the notches in them will catch against the projections. Each disk by being turned separately may thus have its notch brought in line with the projection designed for it, and hence the device may be readily opened. The vibrating bar G may be cast of the form desired and of the requisite degree of stiffness, so as to retain its position, whereas the flexible bar is necessarily slight in order to admit of operating perfectly, and hence it is not likely to hold the key-hole cover properly in place. Considerable reduction is also obtained in the cost of manufacture by my improvement.

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

The use of a vibrating bar, G, in combination with the bar H, the notched disks C, and the spindle I, all arranged and applied to the lock to operate in the manner and for the purpose herein set forth.

PHILO S. FELTER.

Witnesses:

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