Sheet 1-2 Sheets.

F. H. Bartholomew.

Door-Lock.

No 75838 Patented Mar. 24, 1868.

Fig 1.

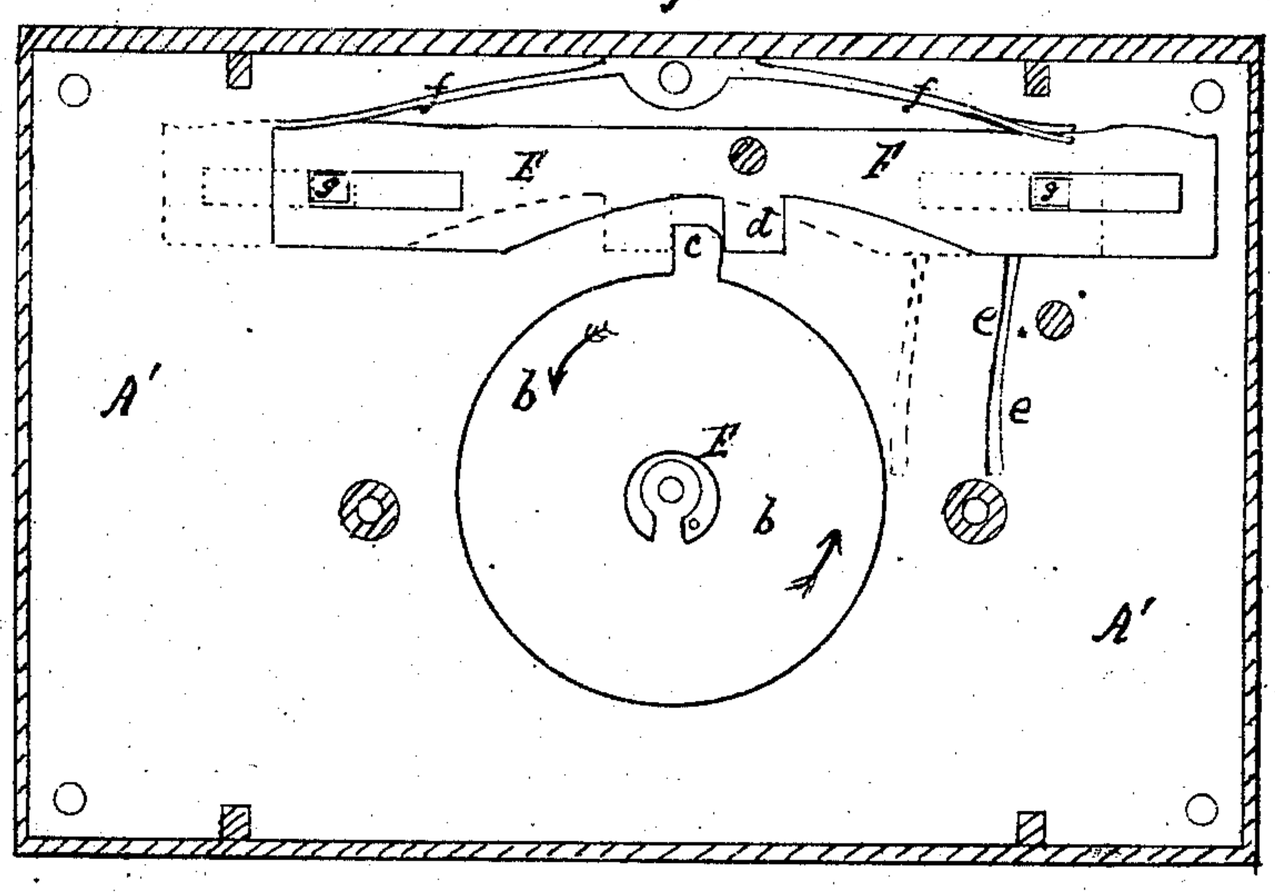
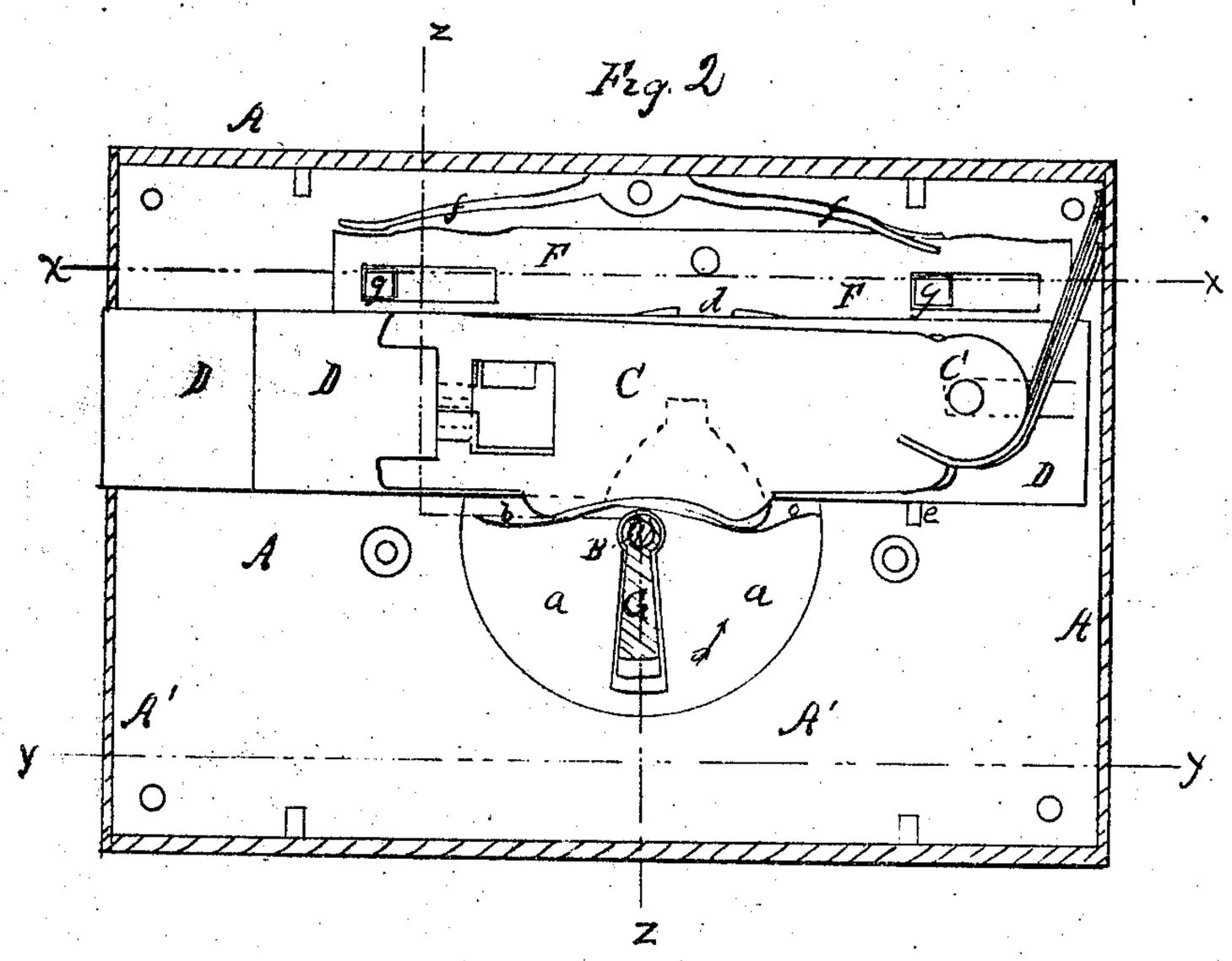


Fig. 2



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Sheet 2 - 2 Sheets

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Fig. 3

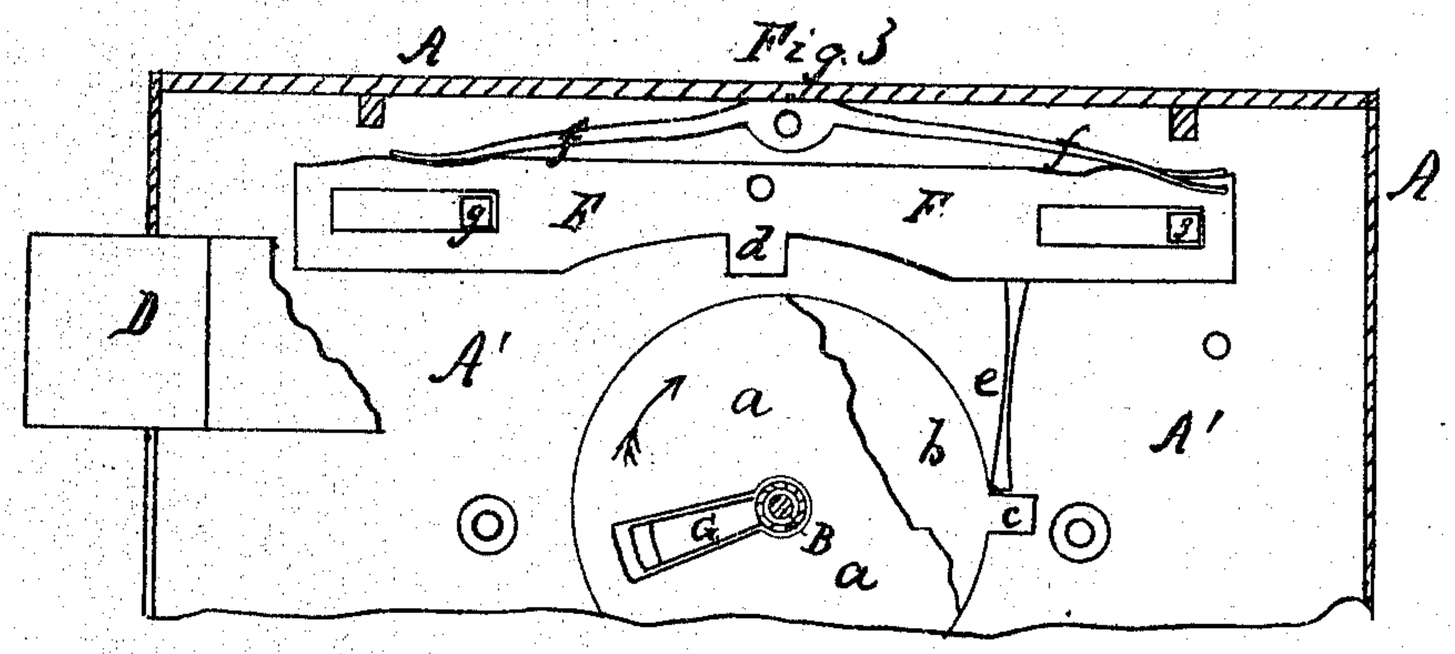


Fig. 4.

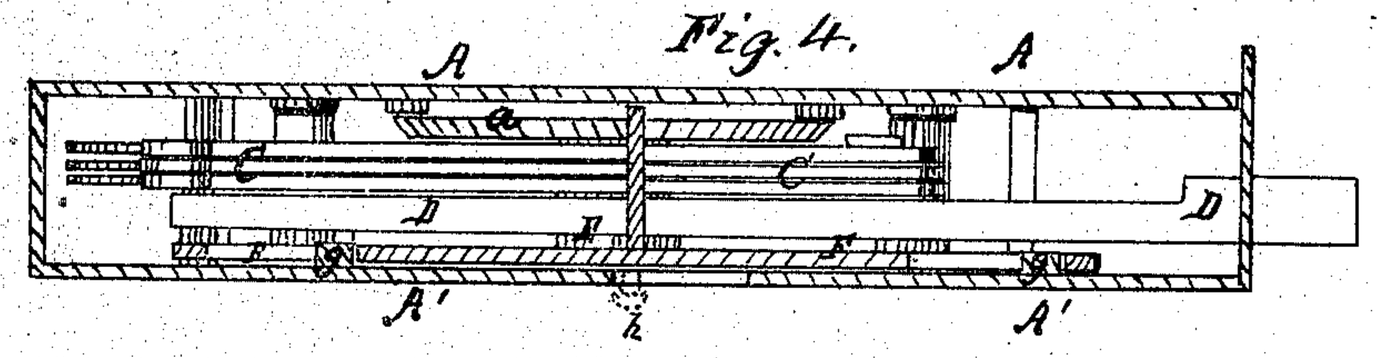


Fig. 5

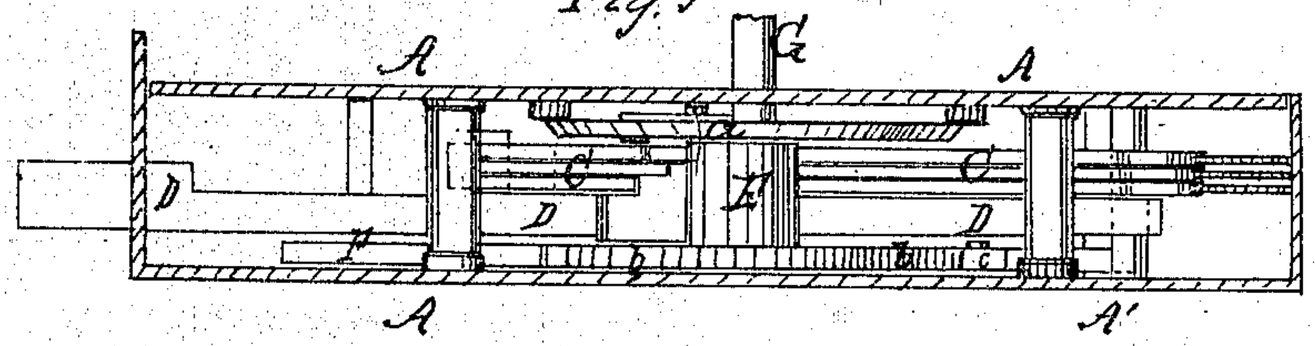


Fig. 6

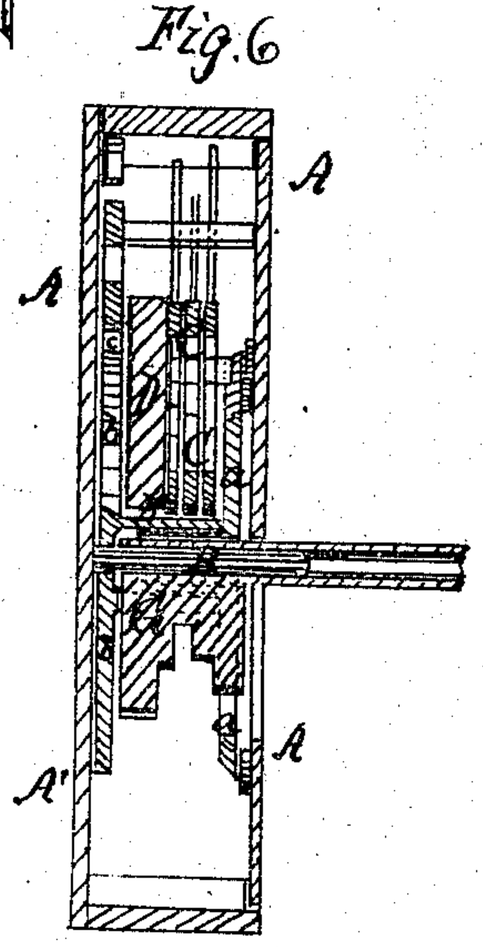
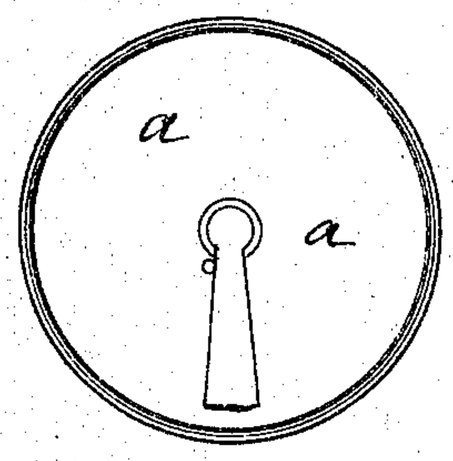


Fig. 7.



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F. H. BARTHOLOMEW, OF NEW YORK, N. Y.

Letters Patent No. 75,838, *dated March* 24, 1868.

IMPROVEMENT IN DOOR-LOCKS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, F. H. BARTHOLOMEW, of the city, county, 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 thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The object of this invention is to so arrange and construct a lock, that when a pick or a false key is inserted and turned in the lock for the purpose of unlocking the same, the said pick or false key will be retained and held in the lock, and can only be removed by the burglar by breaking open the case.

The invention consists in the application, to a common lock, of one or more circular disks, which revolve with the key, one of which disks is previdided with a projecting tooth, which, when a wrong key or pick is used, comes in contact with a spring that is attached to a sliding plate, and thus the key is prevented from turning the aforesaid disks, so that they will come in the right position again to enable the key to be withdrawn from the lock. In the annexed drawings my invention is completely illustrated—

Figures 1, 2, and 3 being front views of my lock, partly in section, showing the different positions of the same.

Figure 4 is a horizontal longitudinal section of the same, taken on the line *x x*, fig. 2.

Figure 5 is a bottom plan view of the same, partly in section, taken on the line *y y*, fig. 2.

Figure 6 is a vertical cross-section of the same, taken on the line *z z*, fig. 2.

Figure 7 is an inside or inverted view of the covering-disk *a*.

Similar letters of reference indicate like parts.

A is the case of the lock, D is the bolt, C C are the tumblers, B is the drill-pin on which the key fits, and E is a revolving screen, or curtain, or ring, which turns round with the key, and which is secured to two circular disks, *a* and *b*, the front disk, *a*, being slotted to permit the insertion of the key, while the inner disk, *b*, is provided with a projecting tooth, *c*, as shown in the drawings. Above the bolt and tumblers, and on the inner wall A′ of the casing, is arranged a sliding plate, F, which is also provided with a pin or tooth, *d*, which is operated by the tooth in the disk *b*, and which sliding plate is further provided with a projecting spring, *e*, and is held in position by means of a spring, *f*, and pins *g g*, the latter fitting into slots arranged in the said plate F, and as shown in the drawing.

The operation is as follows: In figs. 1 and 2 the lock is shown unlocked. In the former figure the bolt and tumblers are removed. The key G is inserted through the key-hole, and is turned in the direction of the arrow in figs. 1 and 2, carrying the plates *a* and *b* along with it as it revolves. The tumblers are thus raised, and the bolt is pushed forward, but the key has to make one complete revolution before it can be removed from the lock again, as otherwise the hole in the plate *a* will not be under the key-hole. Just before this revolution is completed, the tooth *c* on the plate *b* strikes against the tooth *d* on plate F, and moves the latter forward, as indicated by red lines in fig. 1. The spring *e* is thereby brought close to the disk *b*, as also shown by red lines in fig. 1. The lock is now locked, and the key removed. If, now, an attempt should be made to unlock the lock by means of a pick or false key, the latter would be inserted through the key-hole, and would be turned in the direction of the arrow, shown in fig. 3. Before the key reaches the tumblers, the tooth *c* will have come in contact with the spring *e*, and, pressing the same aside, will have passed the same. The false key not fitting the tumblers, and not being able to unlock, the lock is now turned again in the opposite direction, so that it may be removed from the lock. But in this movement the tooth *c* comes in contact with the end of the spring *e*, as shown in fig. 3, and it is made impossible to turn the key any further in that direction, while in the other direction the tumblers form an effective barrier against its further progress. As the plate *a* is only slotted where the key is inserted, it is evident that as soon as the key is turned in the lock, the key-hole is closed by the said plate, and the burglar not only finds his key firmly retained in the lock, but also sees every chance of operating the lock destroyed, as the key-hole is effectually closed. From the inside of the door, if it should be found desirable, the plate F may be moved back, so as to disengage the tooth *c* from the spring *e*. This is done by means of a knob or handle, *h*, shown in red lines in fig. 4, which passes through a slot in the back-

plate A′ of the case, into the plate F, so that the same may thereby be moved back and forth, as desired. Otherwise, the false key can only be removed from the lock by taking the latter apart.

I do not intend to limit the application of my improvement to the particular form or class of lock or keys herein described, as it is obvious to the skilful locksmith that various modifications of the several parts herein described may be made, at the same time effecting the object or improvement claimed by me, as, for instance, by attaching the sliding plates F, springs *f*, &c., to others inside of the lock, upon the lock-plate, providing the disk *a* with the tooth *c*, and securing it properly, then the disk *b* could be dispensed with. Different styles of locks will require other modification of parts.

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

The combination of the revolving toothed disk with the sliding tumbler and spring-catch, all operating as herein shown and described.

F. H. BARTHOLOMEW.

Witnesses:

WM. F. MCNAMARA,

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