

M. O. Baker,

Latch.

No. 103,542.

Patented May 31, 1870.

Fig. 1.

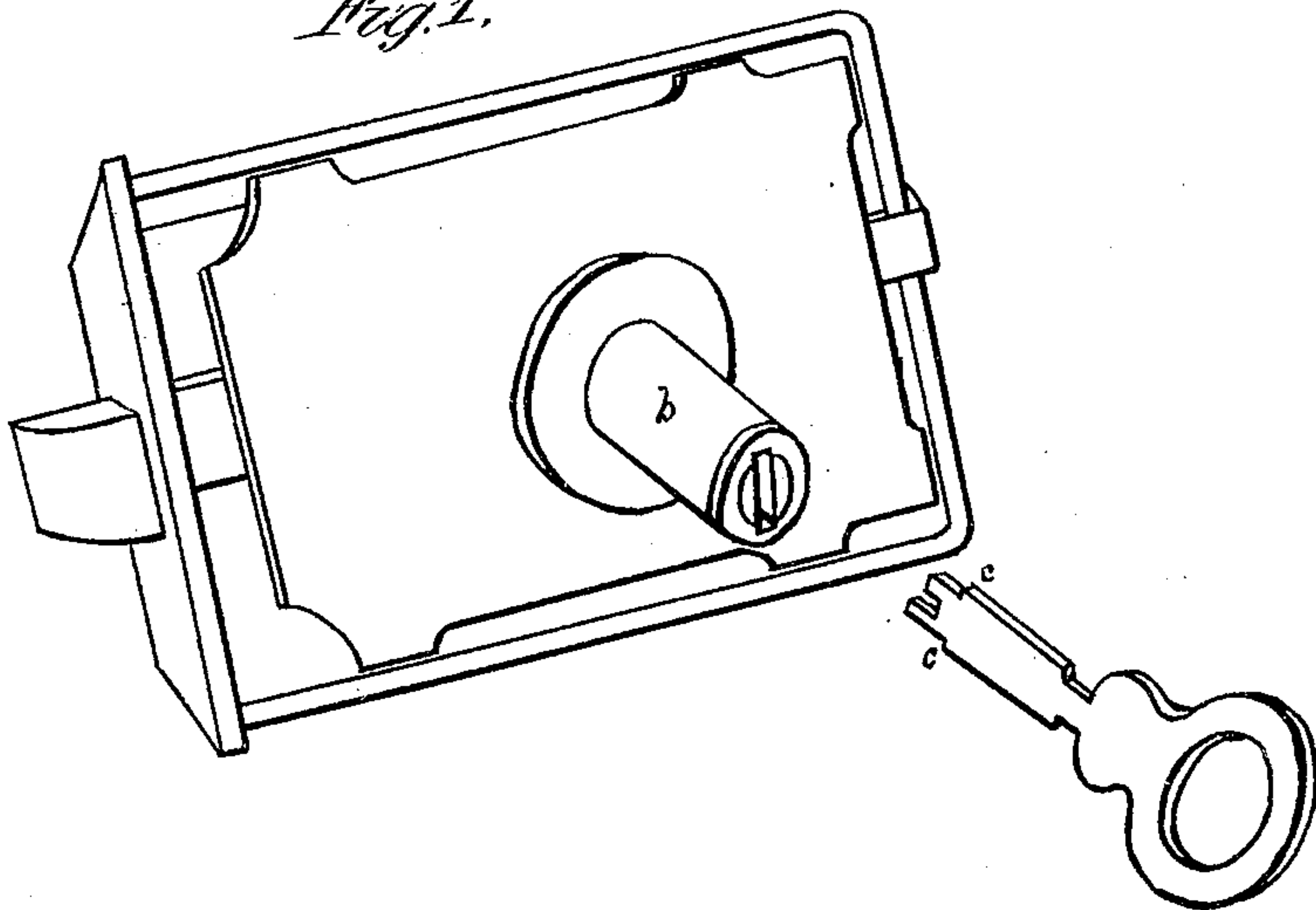


Fig. 2.

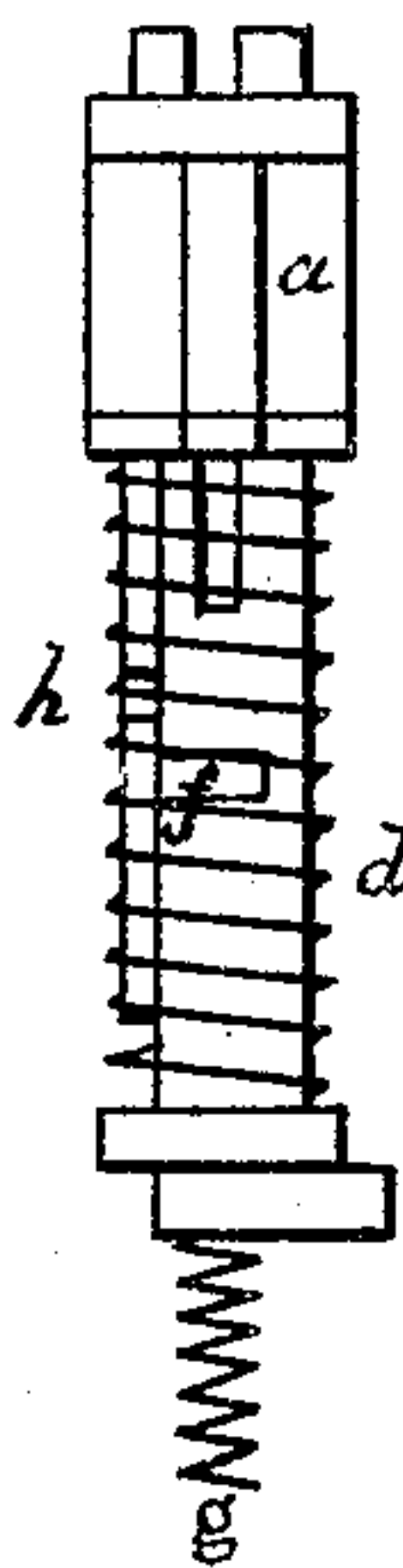


Fig. 3.

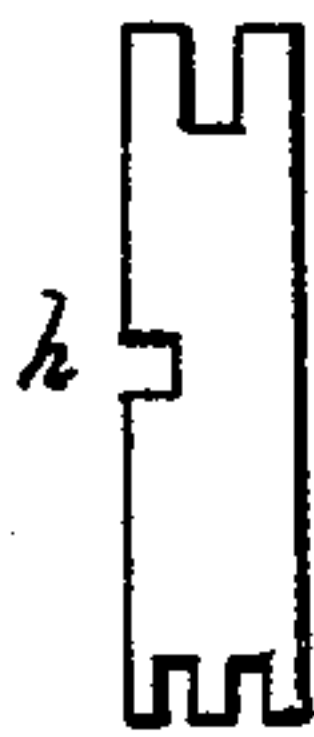
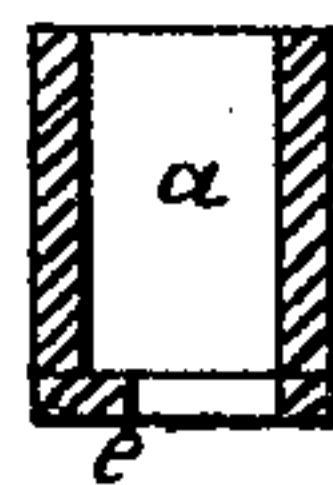


Fig. 4.



WITNESSES.

David J. Day
Wm. Kemble Hall

INVENTOR.

M. O. Baker

United States Patent Office.

MOSES O. BAKER, OF NEW YORK, N. Y.

Letters Patent No. 103,542, dated May 31, 1870.

IMPROVEMENT IN 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, MOSES O. BAKER, of New York, in the county and State of New York, have invented certain new and useful Improvements in Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing making a part of this specification, and to the letters of reference marked thereon.

Nature and Objects of the Invention.

The said improvements relate to the class of locks known as flat-key cylinder locks, and the object of the invention is to simplify the construction so as to enable them to be cheaply made, and, at the same time, furnish additional safety from picking, and afford greater facility for effecting changes by which different keys will be required for different locks of the same general character of construction.

To effect these various purposes the invention consists of a sliding collar, working within the cylinder from which this class of locks takes its name, and which collar may be called a "knife," as it performs the same functions as the knife of an ordinary cylinder lock.

In addition to these functions, however, it is made to slide within the cylinder, the motion being imparted by the key without turning, until it has reached a certain point, where it fits a notch in the inner tube and permits the tube to be turned by the key to withdraw the latch. As the key operates upon slides or tumblers at the same time that it operates upon the knife or collar, the necessity arises, before the latch can be moved, for bringing both the sliding collar and the slides at the right point together.

If one or more of the slides be moved too far or too little, or if the collar be moved too far or too little, the latch cannot be drawn, and, furthermore, if the slide, or all the slides, if there should be more than one, and the collar do not reach and remain at the right point when the key is turned, the latch will not be moved.

To enable others skilled in the art to which it appertains to make and use my invention, I will proceed to describe its construction and operation, with reference to the drawing.

Description of the Drawing.

Figure 1 is a perspective view of a cylinder lock, with a flat key;

Figure 2 is a side elevation of the parts within the cylinder.

Figure 3 is a slide; and

Figure 4 is the collar, in section.

The sliding collar *a* works to and fro in the cylinder *b*, and is kept from turning by a projecting tongue that fits into a corresponding groove in the cylinder.

The collar is moved in by the corners *c* of the key, and it is pressed out when the key is removed by the spring *d*.

The end of the collar has a flange, *e*, turned inward, that fits the flattened side of the tube, and permits the tube to turn only when the flange *e* is brought opposite the notch *f*.

In a similar way the slide is moved by the end of the key, and by a spring, *g*, and has a notch, *h*, that must also be brought opposite the notch *f* before the tube can be turned.

The tube may have several slides, and the notches of all of them, and of the collar, and of the tube, must all be simultaneously brought together, before the key can turn the tube and operate the latch by means of a shoe or follower, or any other device employed for that purpose.

With regard to a simple alteration, which will require a difference in the keys, the part that operates the collar may be lengthened or shortened a number of times within the range permitted by the length of the cylinder, and each new proportion will permit a like number of changes in the part that operates the slides.

A great number of locks may be made of the same general pattern, and changes effected in them all, so as to require as great a number of keys, by simply altering the relative lengths of the slides and collars.

Claim:

I claim as my invention—

The sliding collar or knife, operated by the key and working within the cylinder, in combination with the slides or tumblers, substantially as described.

M. O. BAKER.

Witnesses:

DANL. J. DAY,

WM. KEMBLE HALL.