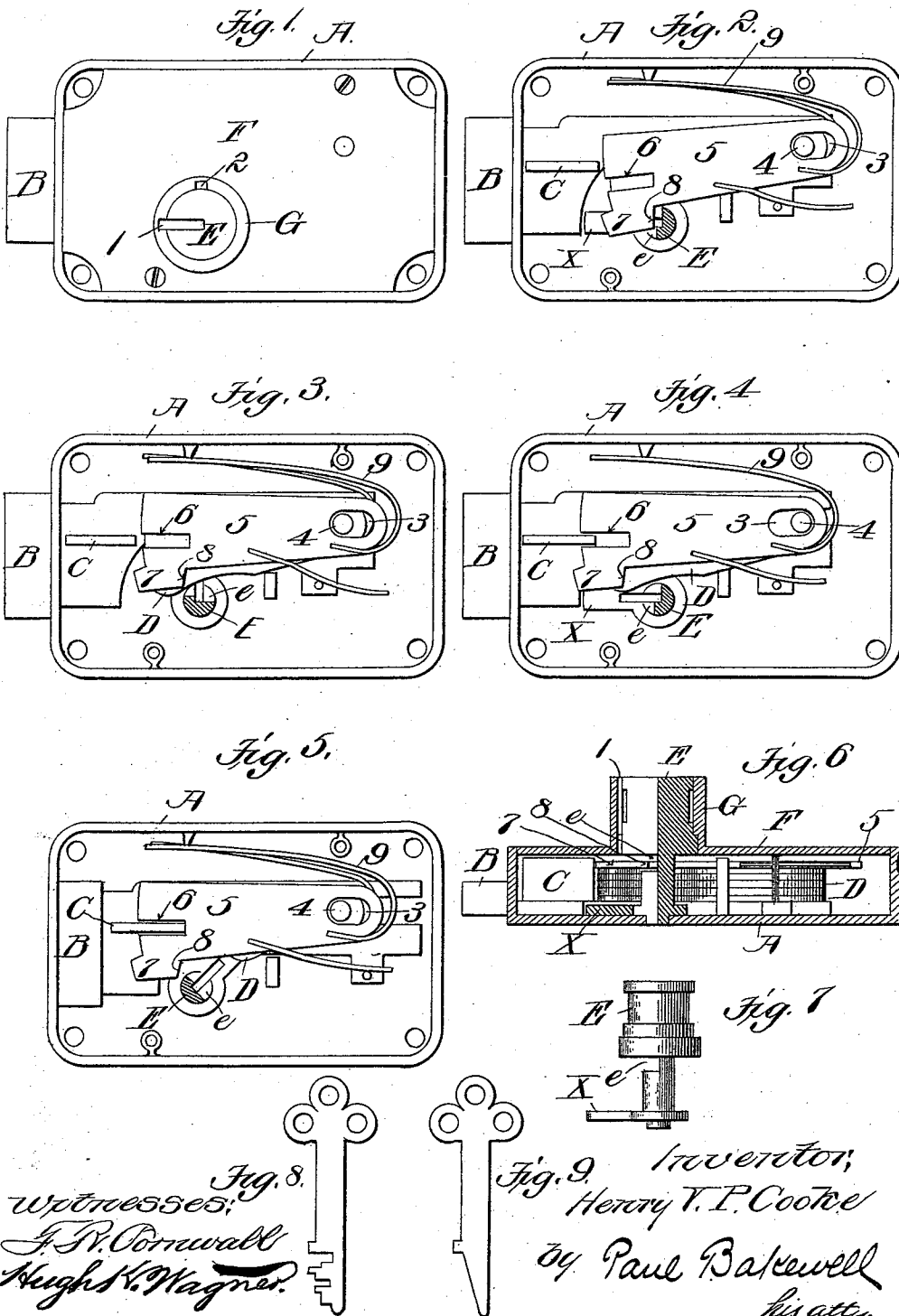


(No Model.)

H. V. P. COOKE.
LOCK.

No. 536,510.

Patented Mar. 26, 1895.



UNITED STATES PATENT OFFICE.

HENRY V. P. COOKE, OF ST. LOUIS, MISSOURI.

LOCK.

SPECIFICATION forming part of Letters Patent No. 536,510, dated March 26, 1895.

Application filed June 9, 1894. Serial No. 513,986. (No model.)

To all whom it may concern:

Be it known that I, HENRY V. P. COOKE, a citizen of the United States, residing at the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a plan-view of my improved lock. Figs. 2 to 5 are plan-views, with part of the casing removed, and key-post shown in section, illustrating the different positions of the lock. Fig. 6 is a sectional view; Fig. 7, an elevational view of the key-post. Fig. 8 is a view of the individual or regular key; and Fig. 9 of a master or pass-key.

My invention relates to a new and useful improvement in locks, and particularly to that kind generally used in connection with safe-deposit boxes, where a key, known as the individual or regular key, is retained by the depositor, and a pass- or master-key kept by the deposit company, both of which keys are required to operate a lock.

The essential feature of this invention is to construct a lock of the kind described wherein two keys are required to open it, said lock having but a single key-post, which is formed with a groove, which post operates in a cylinder which is formed with two grooves, whereby when the pass-key is inserted in the post-groove and one of the cylinder grooves, it removes an obstruction which before had closed the regular key way, or the other cylinder groove. The pass-key is then withdrawn and the regular key can be inserted to throw the tumblers and lock-bolt, as is common. To accomplish this, I provide an ordinarily-constructed lock with an additional tumbler, which is so constructed as to normally close one of the key-ways, formed by the registration of the post-groove with one of the cylinder grooves, but which, upon the insertion and turning of a proper key, such as the pass-key, will be thrown out of the key-way formed by the post-groove registering with the other of said cylinder grooves of the regular key, and held in such inactive position until the lock-bolt is thrown, when this obstruction-tumbler will be released, so as to be in position to obstruct the regular key-

way upon the withdrawal of the regular key, thus preventing another insertion of the regular key until after the pass-key has operated upon this tumbler.

In the drawings, A indicates a suitable casing; B, the lock-bolt operating therein, said lock-bolt being provided with a projection or fence C, which co-operates with suitable recesses in tumblers D.

E indicates the key-post, of ordinary construction, except that at the upper part of its reduced spindle it is recessed at *e*, to afford a seat for the obstruction tumbler, hereinafter described.

F indicates the removable portion of the casing; and G, a nose or cylinder formed thereon, which cylinder is provided with two grooves, 1 and 2, to co-operate with the groove in the key-post to form key-ways for the pass-key and regular key.

Loosely mounted through the medium of a slot 3 upon the pivot 4 of the regular tumblers, is an obstruction-tumbler 5, which is recessed at its forward end, as at 6, which recess co-operates with the projection C on the lock-bolt.

7 indicates a lateral projection formed on the forward end of the tumbler 5, which, in the normal position of the tumbler, is adapted to extend over and cover the regular key-hole, and which projection also forms a shoulder 8 in conjunction with the tumbler 5. In the normal position of the lock, this obstruction-tumbler is in the position shown in Fig. 2, that is, the projection 7 covers the regular key-way and the shoulder 8 seated in the recess *e* permits the pass-key to be inserted in the key-post and groove 2 until said pass-key is seated. This will raise the tumbler to the position shown in Fig. 3, where its recess 6 is in alignment with the projection or fence C on the bolt. Upon turning the pass-key, to the left in this instance, tumbler 5 is moved to the left, through the medium of the pass-key operating upon shoulder 8. This movement to the left is permitted by slot 3, allowing a play between the tumbler and the pivot-post 4. The tumbler being thus moved to the left, the recess 6 will include the projection or fence C in its path, and, upon the removal of the pass-key, the tumbler is held in an elevated position, or a position in which the projection 7 uncovers the regular key-way

and permits the insertion of the regular key. The regular key can now be inserted to operate upon the tumblers D, so as to align their advanced recesses with the projection or fence C, and, by continued movement of the regular key, the foot X on the key-post throws or retracts the lock-bolt B. During the retraction of the lock-bolt, the projection or fence C enters into the recesses in all the tumblers, and, as the tumbler 5 was thrown forward, in advance of its normal position, as shown in Fig. 4, the projection or fence C will come in contact with the bottom of the recess, as shown in Fig. 5, and force said tumbler 5 rearwardly. When the lock-bolt B is again thrown out, projection or fence C will leave the recesses in the several tumblers, and the obstruction-tumbler will be ready, through the medium of the spring 9, to again assume its position of obstruction to the passage of the regular key. After the bolt B has been once thrown, and the projection 7 is impinging against the regular key, as would be the case before the withdrawal of said key, the bolt cannot again be withdrawn because the recess 6 is not in alignment with the projection or fence C, and will not be in alignment with said projection until the pass-key is again inserted and operated as before described, thus making it absolutely necessary for the person carrying the pass-key to be present to unbolt a door upon which this lock may be applied before said lock can be operated to open the door after its bolt has been once thrown.

I have shown the obstruction tumbler as being located on top of the regular tumblers, but, it is obvious, that, if desired, the same may be located in the center of a group of regular tumblers, and that one or more obstruction tumblers could be used, it only being necessary to so cut away the regular tumblers as to permit the free turning to the left of the pass-key.

Having thus described my invention, what

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

1. A lock having a single key-post operating in a cylinder, said post being formed with a single groove, and said cylinder being formed with two grooves, and two keys of different shapes which co-operate with the groove in the post and the grooves in the cylinder, only one of said keys being introduced at a time and in connection with but one of the cylinder grooves, said keys operating consecutively upon different parts of the lock mechanism, substantially as described.

2. In a lock the combination with the key-post, having a single groove, of a cylinder formed with two grooves, an obstruction tumbler, and two keys, one of which is to be inserted in the groove in the key-post and one of the grooves in the cylinder to throw the obstruction from the other groove in the cylinder, so as to permit the other key to be inserted in the other of said cylinder grooves, substantially as described.

3. In a lock, the combination with the key-post formed with a longitudinal groove and a recess *e* near the lower end of the groove, of a cylinder for said post, said cylinder being formed with two grooves, one to co-operate with the post-groove to permit the insertion of a pass-key, and the other to co-operate with the post-groove to permit the insertion of a regular key, and an obstruction tumbler formed with a projection which is adapted to be normally seated in the recess *e* to obstruct the passage of the regular key, which obstruction tumbler is operated by the insertion of the pass-key, substantially as described.

In testimony whereof I hereunto affix my signature, in presence of two witnesses, this 29th day of May, 1894.

HENRY V. P. COOKE.

Witnesses:

F. R. CORNWALL,
HUGH K. WAGNER.