J. T. SPEER.

Permutation-Lock.

No. 205,586. Patented July 2, 1878.

Fig. 1.

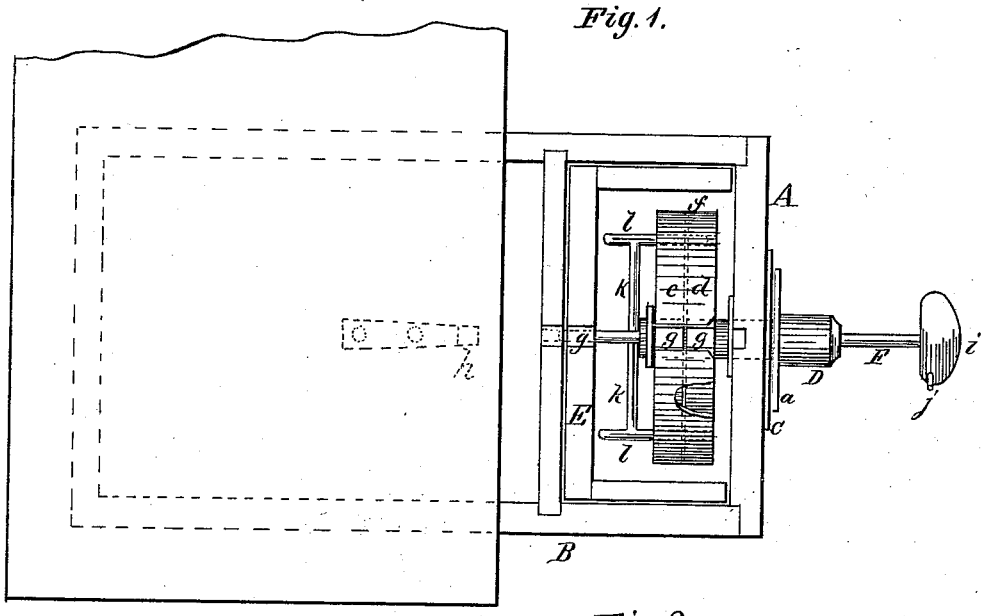


Fig. 2.

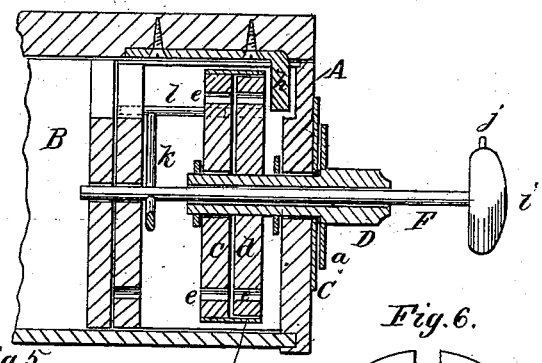


Fig. 3.

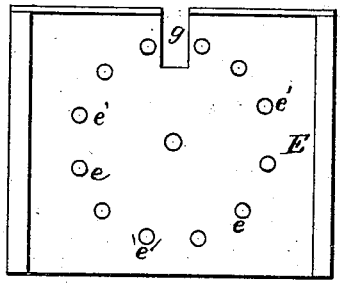


Fig. 4.

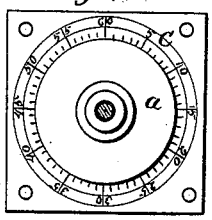


Fig. 5.

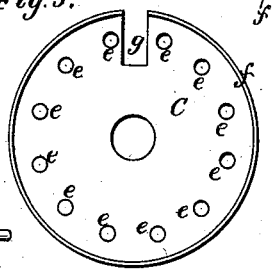


Fig. 6.

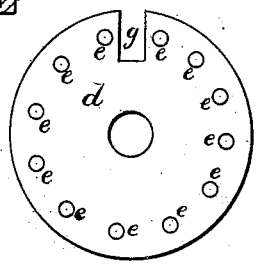
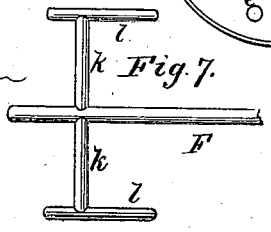


Fig. 7.



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UNITED STATES PATENT OFFICE.

JAMES T. SPEER, OF OELWEIN, IOWA.

IMPROVEMENT IN PERMUTATION LOCKS.

Specification forming part of Letters Patent No. **205,586**, dated July 2, 1878; application filed May 10, 1878.

To all whom it may concern:

Be it known that I, JAMES T. SPEER, of Oelwein, in the county of Fayette and State of Iowa, have invented a new and Improved Drawer-Lock, of which the following is a specification:

Figure 1 is a plan view of my improved lock. Fig. 2 is a vertical section of the same, taken through the center of the tumblers or wheels. Figs. 3, 4, 5, 6, and 7 are detail views of different portions of the lock.

Similar letters of reference indicate corresponding parts.

My invention relates to the class of locks that are applied to money-drawers; and it consists in a lock having two notched and perforated permutation wheels or tumblers, and a key of peculiar construction for operating the same.

In the drawing, A is the casing of the lock, which also forms the end of the drawer B. Upon the front of the casing there is a dial, C, through the center of which a hollow spindle, D, passes, said spindle being provided with a disk, *a*, which turns in contact with the face of the dial, and is provided with a mark which serves as an index in operating the lock.

Upon the hollow spindle D are placed two disks, *c d*, the disk *c* being loose, and the disk *d* fixed thereon. In these disks there are a number of holes, *e*, which pass through the disks parallel to their axes, and are arranged, at equal distances apart, near the periphery of the disks.

The disk *c* is provided with a rim, *f*, that projects over the edge of the disk *d*, and in each of the disks there is a similar notch, *g*, which is of sufficient width and depth to allow the stud *h* to pass through when the drawer is unlocked.

A square plate, E, is provided with holes *e* and a notch, *g*, which corresponds with the holes and notches in the disks *c d*. A spindle, F, extends through the hollow spindle D, and is provided at its outer end with a knob, *i*, which carries an index, *j*. The inner end of the spindle F extends through the center of the plate E, and from diametrically-opposite sides of the spindle F, between the end of hollow spindle D and the plate E, two arms, *k*, project to receive the rods *l*, which are parallel to the spindle F, and are of sufficient length to extend forward into the holes *e* in the disk *c*, and backward into the holes *e'* in the plate E, and the length of the rods is so proportioned that when they are drawn forward into the holes in the disk *d* they will be withdrawn from the plate E.

The relative adjustment of the two disks *c d* is made according to a set of numbers on the dial, and the point of coincidence of the two notches of the said disks is indicated by one of the numbers on the dial.

The lock is made secure by turning both disks together, and afterward turning the disk *d* alone by moving back the spindle F and throwing the rods *l* out of engagement with the disk *d*.

The unfastening of the lock is effected by first turning both disks together until the index carried by the knob points to the prescribed number; then pushing the spindle F backward, so as to bring the rods *l* out of engagement with the disk *d*, and lock the disk *c* by entering the holes in the plate E. The disk *d* is then turned by means of the hollow spindle D so as to bring the mark on the plate *a* opposite a certain number on the dial C. This operation brings the notches *q* in the two disks into line. The spindle F is now drawn forward to bring the rods *l* into engagement with both disks, when they are together turned by means of the spindle F until the notches *g* are opposite the stud *h*, when the drawer may be opened.

The rim *f*, that projects over the disk *d*, prevents finding the notches in the disks against the stud *h*.

The combination is changed by withdrawing the plate E and shifting the rods *l* in the holes in the wheel *c*.

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

1. The combination of the disks *c d*, having notches *g* and holes *e*, the hollow spindle D, and spindle F, carrying the rods *k l*, substantially as herein shown and described.

2. The apertured and notched plate E, the disks *c d*, spindle F, carrying the rods *l*, and the hollow spindle D, in combination, substantially as herein shown and described.

JAMES THOMAS SPEER.

Witnesses:

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