N. Reed.

Permutation Lock.

No. 93,747. Patented Aug. 17, 1869.

Fig. 1.

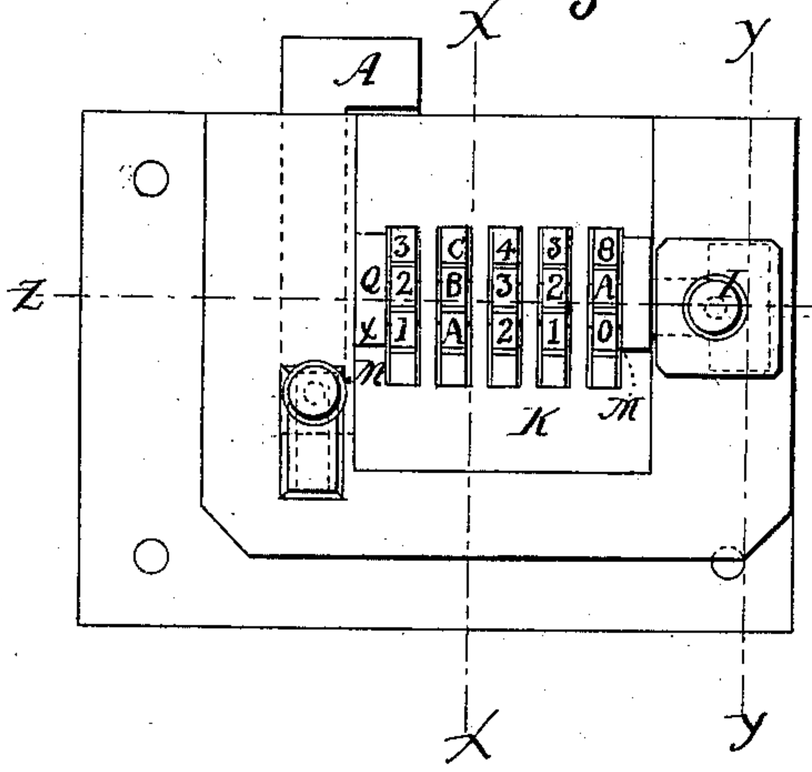


Fig. 2.

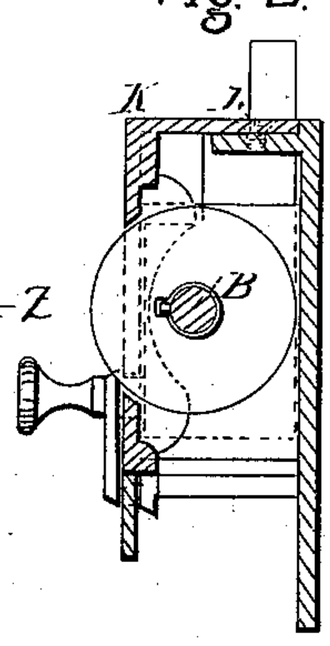


Fig 3

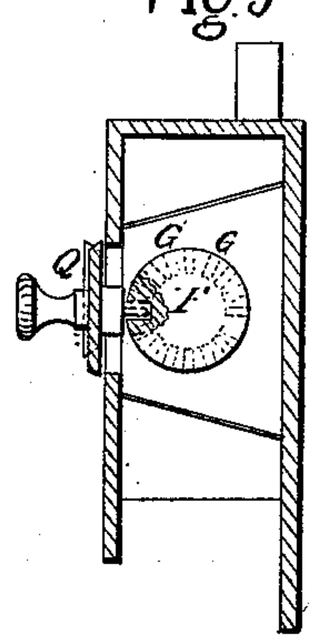


Fig. 5.

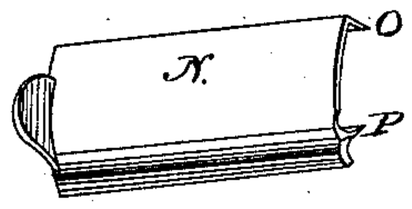
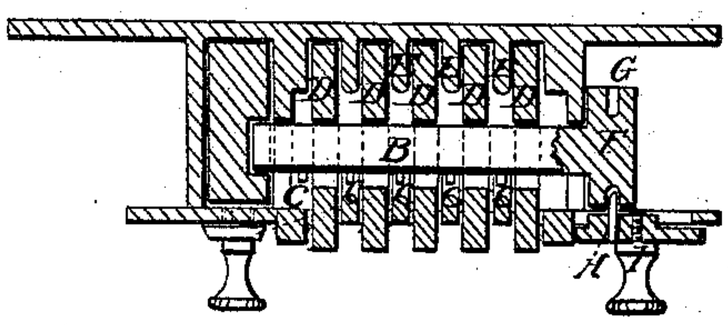


Fig. 4.



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NICHOLAS REED, OF OTISVILLE, NEW YORK.

Letters Patent No. 93,747, *dated August* 17, 1869.

IMPROVEMENT IN COMBINATION-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, NICHOLAS REED, of Otisville, in the county of Orange, and State of New York, have invented a new and improved Combination-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 drawing, forming part of this specification.

This invention relates to improvements in combination-locks, designed to provide a simple and cheap lock for drawers, chests, and other similar articles.

Figure 1 represents a front view of my improved lock.

Figure 2 represents a section of the same, taken on the line *x–x* of fig. 1.

Figure 3 represents a section on the line *y–y* of fig. 1.

Figure 4 represents a longitudinal section, taken on the line *z–z* of fig. 1.

Figure 5 represents a perspective view of the guard.

Similar letters of reference indicate corresponding parts.

A represents an ordinary slide-bolt, and B, a locking-bolt, sliding into a recess in the side of the bolt A, for locking it.

The bolt B is provided with a series of studs, *c*, projecting from the side in a row, and at calculated distances apart.

D represents a series of combination disks, placed on the bolt B, so as to rotate thereon, having notches at the axial holes, which, when adjusted to coincide with the pins C, will permit the bolt to slide either way, but when any one is not in the said coincident position, will prevent the bolt from sliding.

The letters and figures on the faces of these disks, found standing in a line parallel with the bolt B, opposite any given point when the said studs and notches are coincident, will be the combination to be used for locking and unlocking.

For instance, in fig. 1, opposite the point X, will be observed 1 A 2 1 O, being the locking-combination of the adjustment, as represented in the drawings.

The disks are separated by flanges, E, of the case, which provide spaces between the disks for the studs C to permit the turning of the disks, to break up the locking-combination after locking, or for establishing it again for unlocking and locking.

The head of the bolt B is enlarged at F, and provided with as many radial holes G as there are letters or other characters on the faces of each disk, and the bolt may be changed in its position, by withdrawing the screwed pin H, of the thumb-slide I, by which the bolt is operated, from one hole and inserting it in another.

The said part K is held in its place, in combination with the other part of the case, by screws L, shown in dotted lines in fig. 2.

For holding the disks in position, after being set for locking or unlocking, I make transverse grooves across the faces of the disks between each letter or other character, and provide a slide, N, with dovetailed flanges, O and P, for sliding over a dovetailed-shaped block, Q, at one end of the row of disks, and so arranged relatively thereto, that in moving the slide over the disks the flange P thereof will engage with the grooves M when they are brought coincident therewith.

This slide, besides holding the disks in place, also hides the letters of the combination from observation by others while locking and unlocking.

The arms or pins of the bolt B need not necessarily be arranged in a row, but may be placed irregularly around the surface thereof.

Having thus described my invention,

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

The combination, with the dovetail projection Q and the grooved disks, of the slide N, substantially as specified.

The above specification of my invention signed by me, this 2d day of April, 1869.

NICHOLAS REED.

Witnesses:

FRANK BLOCKLEY,

ALEX. F. ROBERTS.