J. H. Larry,

Permutation Lock.

No. 101,632. Patented Apr. 5. 1870.

Fig. 1.

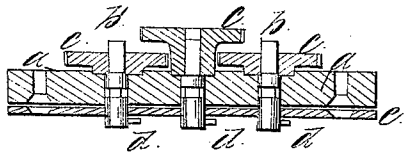


Fig. 2.

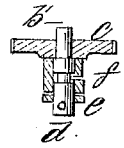


Fig. 3.

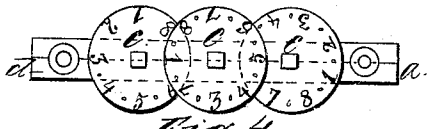


Fig. 4.

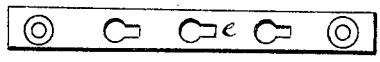
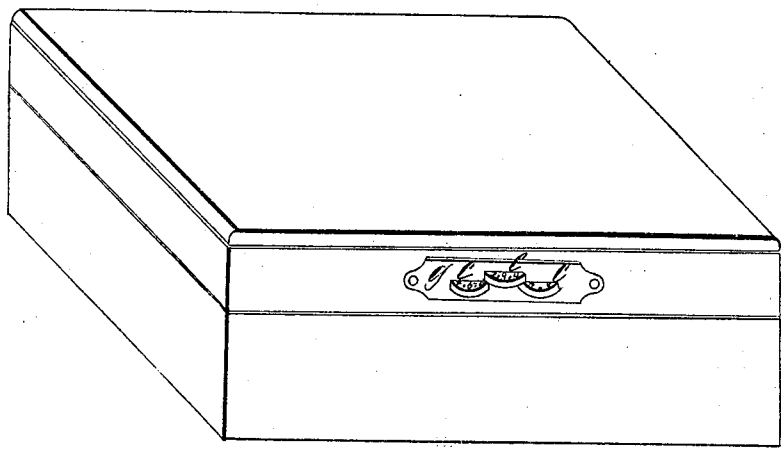


Fig. 5.



Witnesses:
M. S. G. Wilde
C. L. Dyer

Inventor:
John H. Larry
by J. H. Adams
Atty

UNITED STATES PATENT OFFICE.

JOHN H. LARRY, OF WESTON, MASSACHUSETTS.

IMPROVED PERMUTATION LOCK.

Specification forming part of Letters Patent No. **101,632**, dated April 5, 1870.

Be it known that I, JOHN H. LARRY, of Weston, in the county of Middlesex and State of Massachusetts, have invented a new and improved Fastening for Chests, Boxes, Doors, Drawers, &c., of which the following is a full, clear, and exact description, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1 represents a longitudinal vertical section of my invention;

Figure 2 is a transverse vertical section of the same;

Figure 3 is a plan view;

Figure 4 represents the lower plate with the bolt-holes; and

Figure 5 represents a box with the device affixed to it.

The object of my invention is to produce a fastening which may be applied to boxes, chests, doors, drawers, &c., so that the same may be readily and securely fastened and unfastened without the use of a key or other separate appliance; and

The invention consists in the employment of two or more key-bolts attached to circular metallic plates or disks by which the said bolts are turned, the disks or plates being provided with a series of figures or letters, so that they may be arranged in certain relation to each other, to indicate the position of the key-bolts for fastening or locking and unfastening the box, door, &c., to which they are attached.

Each bolt and disk is made to turn independently of the others, and the disks are so connected to the bolts as to enable them to be easily detached and replaced, and their relative positions be changed when it is desirable to alter the combination of figures or letters.

Referring to the drawings—

a represents a block of metal, of any suitable length or depth, designed to be inserted in the inner edge of one or the other side of a box or other article, and to which it is firmly secured.

Through this block *a* pass the shanks *b*, provided on the lower edge with pins or projections *d*, forming key-bolts.

The shank *b* is secured in the block *a*, and allowed to turn freely, by means of a groove, in which fits a pin, *f*, as shown in fig. 2.

The upper ends *b'* of the shanks *b* are made square or many-sided, and upon the same are fitted the circular disks *c c c*.

At the outer edges of the disks is a series of figures, eight being shown in the drawings, the dots between the figures representing half numbers, so as to admit of sixteen different positions of each disk in relation to a point marked on the plate, *g*, through which the disks project, as shown in fig. 5.

Fig. 4 represents the plate through which the key-bolts pass, and by which they are secured.

The disks are placed within a recess in the cover of the box, and their edges are allowed to project outside sufficiently to expose clearly one figure, and to enable them to be readily turned by the finger.

In the drawings, the numbers 5, 3, 7½ represent the combination and arrangement of figures when the cover is to be opened, as shown in fig. 5. By simply turning one or more of the disks, the box is securely fastened.

In applying the fastenings to doors and drawers, &c., the arrangement of the disk may be made to suit the circumstances of the case.

Any number of disks and bolts may be used, from two upwards; three, however, will generally be found sufficient to make such a combination as may be desirable.

Should it be desirable at any time to alter the combination of figures on the several disks required for setting the key-bolts in proper position for fastening and unfastening, it is only necessary to remove one of the disks and replace it in a different position on the square portion of the shank, and in this way the arrangement or combination of figures may be changed to any extent required.

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

The removable disk *c*, combined with the key-bolt *b*, when the latter is provided with the many-sided shank *b'*, pins *d*, and a circumferential groove; the block *a*, having a pin entering such groove in the key-bolt; and the plate *e*, furnished with slots for the passage of the pin *d*, all arranged and constructed in the manner set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN H. LARRY.

Witnesses:

J. H. ADAMS,

M. S. G. WILDE.