

P. DICKINSON.

COMBINATION PADLOCK.

No. 185,220.

Patented Dec. 12, 1876.

Fig. 1.

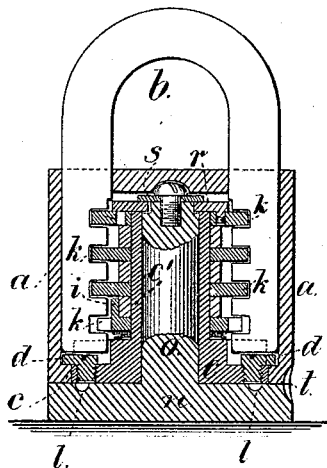


Fig. 4.

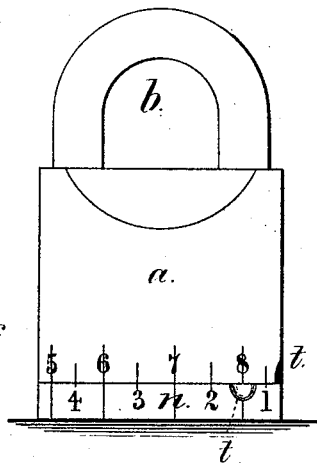


Fig. 6.

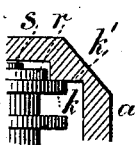


Fig. 7.



Fig. 2.

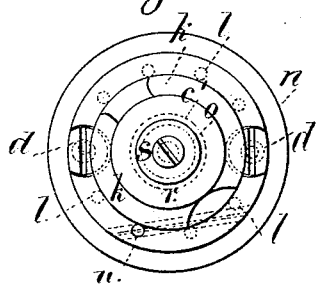


Fig. 3.

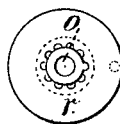
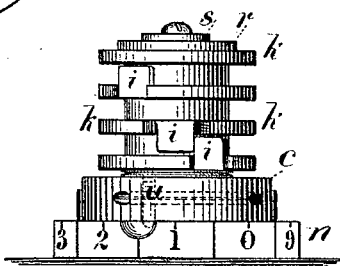


Fig. 5.



Witnesses

Harold Ferrill
Geo. Q. Patten

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Philemon Dickinson
per Lemuel W. Ferrill
att'y.

UNITED STATES PATENT OFFICE.

PHILEMON DICKINSON, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN COMBINATION-PADLOCKS.

Specification forming part of Letters Patent No. 185,220, dated December 12, 1876; application filed October 23, 1876.

To all whom it may concern:

Be it known that I, PHILEMON DICKINSON, of Newark, in the county of Essex and State of New Jersey, have invented an Improvement in Padlocks, of which the following is a specification:

This padlock, which I term "Dickinson's Improved Keyless Padlock," is provided with a dial at one end of the cylindrical case, a shackle entering the other end of the case, in the edges of which are notches. Connected with the spindle of the dial are circular tumblers, and these are turned to enter the notches in the shackle. By this construction I combine a permutating dial-lock with the shackle similar to that in the Scandinavian jail-lock.

In the drawing, Figure 1 is a vertical section of the lock. Fig. 2 is a plan of the tumblers, spindle, and dial-plate removed from the lock. Fig. 3 is a plan of the permutating-plate connecting the spindle and inner tumbler. Fig. 4 is an elevation of the lock-case. Fig. 5 is an elevation of the parts of the lock removed from the case, and Figs. 6 and 7 are detached sectional views.

The case *a* is cylindrical, with one end open, the other end closed, except the two holes for the U-shaped shackle *b*, the legs of which are parallel. The open end of the case *a* is closed by the disk *c*, that sets in flush and rests against a shoulder in the case, and there are two screws or turning-rivets, *d*, in line with the holes in the shackle, and with the heads removed on one side, so as to allow the disk to be put into place, and it is secured by giving a partial rotation to these screws *d* by an instrument inserted through the shackle-holes, so as to turn the edges of the heads over the shoulders prepared for them. This allows the lock to be taken apart when the shackle *b* is out of the same, but effectually prevents any access to these screws when the shackle is in place. The disk *c* has a central tube or sleeve, *c'*, around which are placed circular notched disks *k*, forming permutating-tumblers. These are separated by disks or rings, and each is provided with a stud or projection, *i*, whereby one can be made to move the other, in the manner similar to the circular tumblers

in dial-locks. Each disk *k* is notched, so that the shackle may be inserted when the notches in the disks are all in line with the shackle-holes of the case, and when these tumblers are revolved in locking the lock their edges enter the notches in the shackle *b*. The upper edge of the top disk *k* rests against the inner surface *k'* of the case, (see Fig. 6,) so that it will withstand any strain in attempting to withdraw the shackle.

In order to set the tumblers, I make use of the dial *n*, that is upon the spindle *o*, which passes through the tube or sleeve *c'*, and there is a permutating-plate, *r*, at the end of the spindle *o*, secured by a screw and washer, *s*, and this permutating-plate has a star-shaped opening for the end of the spindle, as seen in Fig. 3, so that it can be changed to vary the relative positions of the notches upon the first tumbler with the dial-marks on the dial and case. This permutating-plate may be part of the first tumbler, or be connected to said tumbler by a pin passing into a hole or holes, as shown in Fig. 1.

In the inner face of the dial *n* there are cavities *l*, equal in number to the principal divisions of the dial, and a spring-dog, *u*, in the disk *c*, (see Figs. 5 and 7,) so that the dials can be set by the sense of sound or feeling and to facilitate this operation there are recesses *t* in the edge of the dial and case, that are to be brought together at the starting-point in setting the dials.

In operating the lock the dial *n* is revolved sufficiently to set the tumbler nearest the disk *c*, then reversed, and the one above that is set, and so on; and, lastly, the top tumbler *k* is set and the shackle can be withdrawn.

I remark that the shackle is shown as adapted to being drawn entirely out; but if one leg is made shorter than the other, it may be drawn partly out and then swung around.

I claim as my invention—

1. The combination, in a padlock, of the shackle, notched on its parallel legs, with the circular notched tumblers *k* and the dial *n*, connected with such tumblers, substantially as set forth.

2. The disk *c*, held into the case *a* by the screws *d*, or turning-buttons, in combination with the removable shackle and circular tumblers, substantially as set forth.

3. The dial *n*, corresponding in size, or nearly so, with the cylindrical case *a* of the padlock, and provided with recesses *t* in the adjacent edges of the dial and case, in combina-

tion with the spring-dog *u*, cavities *l*, and circular tumblers, substantially as set forth.

Signed by me this 20th day of October, A. D. 1876.

PHILEMON DICKINSON.

Witnesses:

GEO. T. PINCKNEY,
CHAS. H. SMITH.