

(No Model.)

A. S. HOBART.
COMBINATION LOCK.

No. 476,642.

Patented June 7, 1892.

Fig. 1.

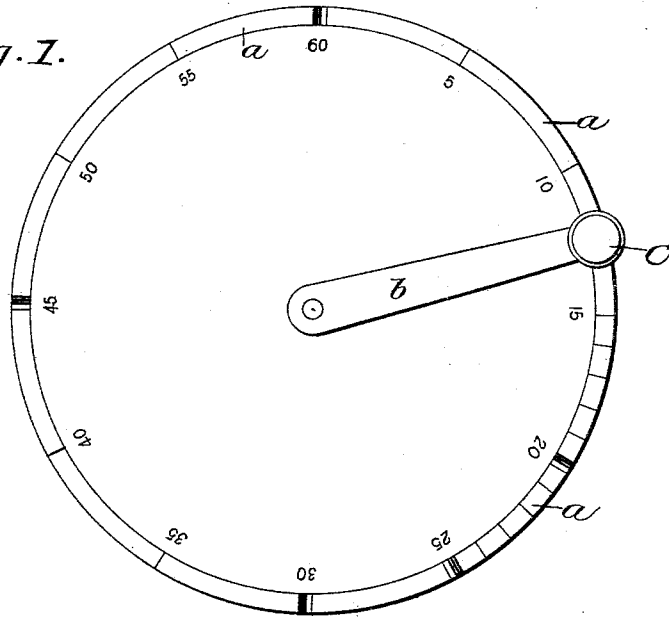


Fig. 2.

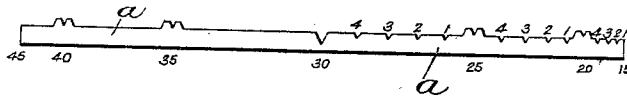


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

ALVAH S. HOBART, OF YONKERS, NEW YORK.

COMBINATION-LOCK.

SPECIFICATION forming part of Letters Patent No. 476,642, dated June 7, 1892.

Application filed September 24, 1890. Serial No. 366,040. (No model.)

To all whom it may concern:

Be it known that I, ALVAH S. HOBART, a citizen of the United States, residing in Yonkers, county of Westchester, State of New York, have invented a new and useful Device for Reading the Scale on Combination or Permutation Locks, of which the following is a specification.

My invention relates to the method of reading the numbers on the dial of the lock.

The object of it is to enable the user of the lock to do so without the need of light or the use of his eyes, thus making the lock available in places where light cannot be had readily. I attain this end by means of the mechanism shown in the accompanying sketches.

Figure 1 is the plan. Fig. 2 is a sectional view of the dial. Fig. 3 is a section of C in Fig. 1.

Each part is designated in the different views by the same letter.

In Fig. 1, *a a a* is the dial, upon the face of which are figures from "1" to "60," as upon the face of a watch. *b* is a crank of metal, made flexible outward from the face of the dial. *C* is a knob by which the crank *b* is turned on its center. Fig. 3 shows a section of this knob. It will be seen that a small wedge-shaped projection is on the under side of *C*.

Fig. 2 is a section of the dial without the crank, showing depressions in and elevations upon the face of it. These depressions and elevations are around the rim of the dial and are numbered by the figures on its face.

In the operation of the lock the problem always is to turn the center pin (to which the mechanism of the lock is attached and by turning which the tumblers are set) accurately to the right and left. In this my invention this is secured as follows: The crank, being flexible, presses the projection on the under side of *C* down upon the face of the dial. As the operator turns to the right or left, this projection falls into the notches or rises to pass over the elevations on the dial. The operator feels this movement of the knob and knows the location of the crank in its course around the dial by the sense of feeling. At each of

the quarter-circles the notch is large and deep. In passing these the hand detects at once its location. At each of the multiples of five except the quarters there is an elevation with a small notch in the top of it. This also is easily known by the hand of the operator as the knob passes it. The intervening notches are all uniform and small. Supposing, now, that the operator wishes to turn the handle to the number "18." He will first turn it to a perpendicular as a starting-point. Then turning to the left as he passes the elevation at "5" and "10" he is aware of it. When the wedge-shaped projection drops into the large notch and the handle in a horizontal position, he knows that he is at "15." Then slowly moving the handle he feels the smaller notches and counts "16, 17, 18," the number desired.

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

1. The combination of a permutation-lock, a handle for setting the tumblers thereof, and marks in the path of the handle, the handle being so constructed as to engage with the marks as it passes them, whereby its position is indicated, substantially as described.

2. The combination of a permutation-lock, a handle for setting the tumblers thereof, and marks in the path of the handle, the handle being so constructed as to engage with the marks as it passes them, whereby its position is indicated, said marks being of different character to represent different divisions of the scale, substantially as described.

3. The combination of a permutation-lock, a handle for setting the tumblers thereof, and marks in the path of the handle, the handle being so constructed as to engage with the marks as it passes them, whereby its position is indicated, said marks being in number some multiple of four and evenly distributed in the quadrants of the circle, substantially as described.

Yonkers, September 23, 1890.

ALVAH S. HOBART.

Witnesses:

E. L. MANNING,
J. R. CHRISTIAN.