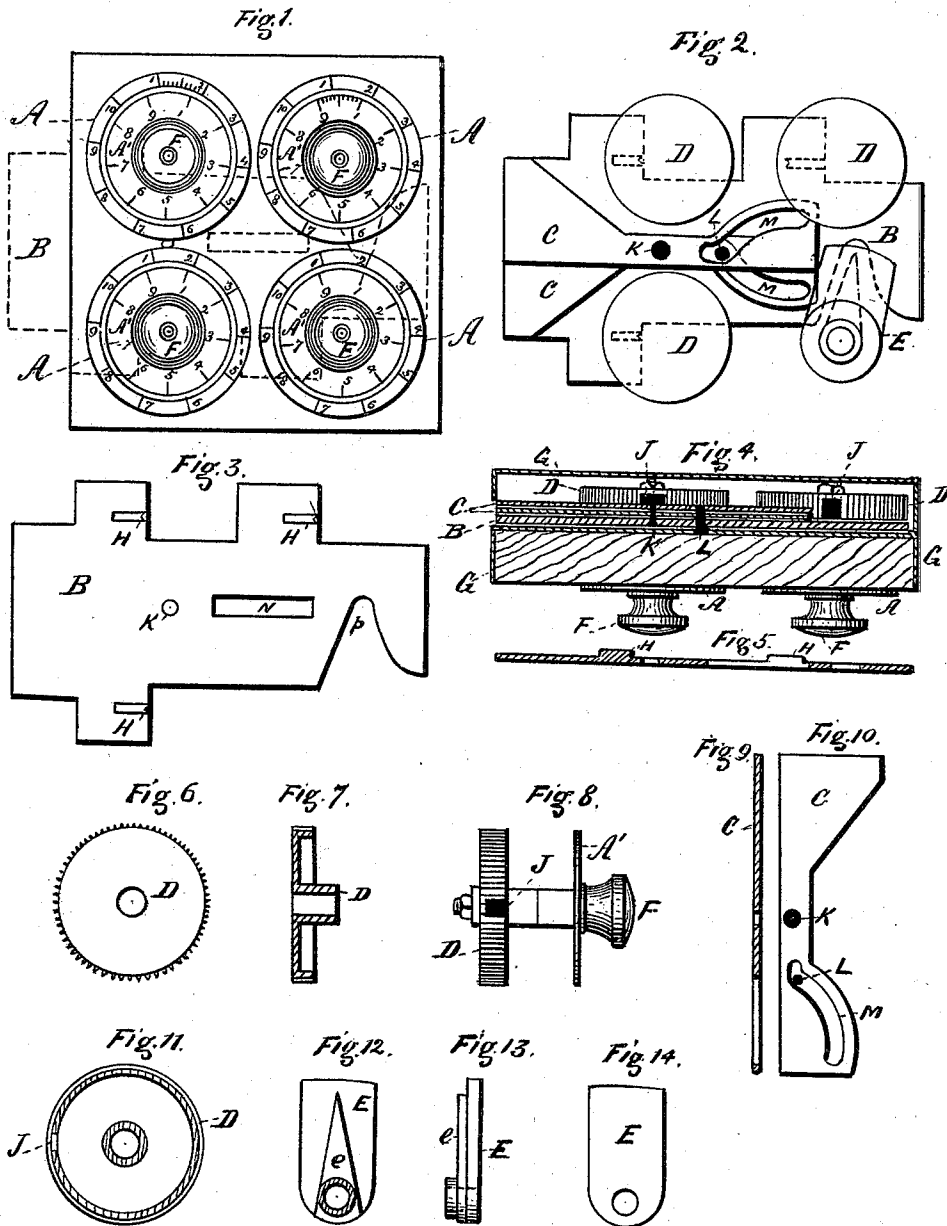


(No Model.)

H. C. WAYMAN.
COMBINATION LOCK.

No. 537,397.

Patented Apr. 9, 1895.



Witnesses,
J. Thomas
R. L. Thomas,

Inventor,
Henry C. Wayman.
By *M. Griffith* Attorney.

UNITED STATES PATENT OFFICE.

HENRY C. WAYMAN, OF COVINGTON, KENTUCKY, ASSIGNOR OF TWO-THIRDS TO W. A. MENNINGER, JR., AND HENRY ANTON WIGGER, OF SAME PLACE.

COMBINATION-LOCK.

SPECIFICATION forming part of Letters Patent No. 537,397, dated April 9, 1895.

Application filed January 17, 1894. Serial No. 497,196. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. WAYMAN, a citizen of the United States, residing at Covington, Kenton county, and State of Kentucky, have invented a new and useful Improvement in Combination-Locks; and I hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to improvements in combination locks and consists in a certain simple and novel construction and arrangement of parts fully set forth hereinafter and specifically pointed out in the claims.

The object of this invention is to devise a cheap, simple and economically constructed lock by means of which the door can be securely fastened and opened only by those knowing the combination.

In the drawings, Figure 1 represents the out-side-face view of the lock; Fig. 2, rear view with the shell of the lock removed to show the mechanism. Fig. 3 represents a detailed view of the bolt B. Fig. 4 is a longitudinal section of the lock. Fig. 5 is a longitudinal section of the bolt B; Fig. 6, view of tumblers D, D, D, having serrated peripheries. (There are three of them.) Fig. 7 is a section of said tumblers; Fig. 8, view of tumbler D, dial plate A', knob F and the radial slot J; Fig. 9, section of the lateral bolt C; Fig. 10, plan of the lateral bolt C (there are two of them); Fig. 11, view of the reverse side of the tumbler D showing the radial slot J, cut in the rim or flange; Fig. 12, view of the operating face of the key E that slides the bolt B to lock and unlock the device; Fig. 13, side view of the key E; Fig. 14, back or rear view of key E.

Like letters of reference refer to like parts throughout the specification and drawings.

A designates the face dial plate. It will have three circular openings and each opening will be divided on its periphery in ten sections of ten parts in each section.

A' designates the revolving dial plates fixed in the circular openings and divided on their periphery into nine sections of ten in each section. The object in having the circumscribing openings of the face plate divided differently from that of the revolving

inner dial plate is merely to complicate any attempt at picking the lock.

B represents the direct or main locking bolt. It will be riveted to bolts C, C at K. Their slots N and M M will be governed in their motions by the pintle L in locking or unlocking. They will project out of the casing together. The bolts C C will extend right and left, or above and below the forward edges of the bolt B to lock the device laterally. There is no co-operation between the bolts C C and the tumblers D, D, D, the bolt B having the lugs H, H, H co-operate with said tumblers. The bolts C C are merely a part of the main locking bolt B. The bolts C C could be used, alone, by having the bolt B made shorter by the length of its projection outside of the casing, but it would have to have its slots N, lugs H, H, H and its triangular recess *p*. It would lock direct then as well as laterally.

D represents tumblers having serrated peripheries. The rim or flange of each will have a radial slot J cut in it through which the lugs H, H, H of the direct or main bolt B will pass to operate the lock. The lugs H, H, H will be forked on one end so as to fit in the serrated periphery of the tumblers D, D, D.

E represents a key to give the bolts their motion. The part *e* fits in the triangular recess *p* cut in the lower left hand part of the bolt B.

F represents knobs; G, shell of the lock.

To operate the device, the key E slides directly forward the bolt B. To lock the device, the said bolt, B having riveted to it the two lateral bolts C C at K, the pin or pintle L secured to the shell and passing up through the straight slot N of the bolt B and through the curved or spreading slots M M of the bolts C C spreads in their sliding the forward parts of said two bolts C C and locks the device laterally. I set the combination, say at 37½ on the upper left-hand dial, say 18½ on the upper right-hand dial, and say 6 on the lower right-hand dial. Then lock by means of the key E, turn the dials A' to the right or left as in other locks.

To change the combination loosen the tumblers D D D on their axles by unscrewing the back nut, turn the tumbler on its axle to the

right or left, and tighten again the back nut to make the tumblers fast on its axle.

What I claim is—

- 5 1. In a combination lock the bolt B having the forked lugs H, H, H integral therewith the slot, N and the triangular recess *p*, in combination with the key E and serrated tumblers D D D all constructed to operate substantially as and for the purpose set forth.
- 10 2. In a combination lock the bolt B having the forked lugs H H H integral therewith, the slot N and triangular recess *p*, the bolts

C C with their curved slots M M, fastened to bolt B at K, the pintle L fastened to the shell and passing up through the slots N and M M to govern the forward and lateral movements of said bolts, in combination with the key E and the serrated tumblers D D D, substantially as shown and described. 15

HENRY C. WAYMAN.

Witnesses:

M. D. WAYMAN,

W. R. WAYMAN.