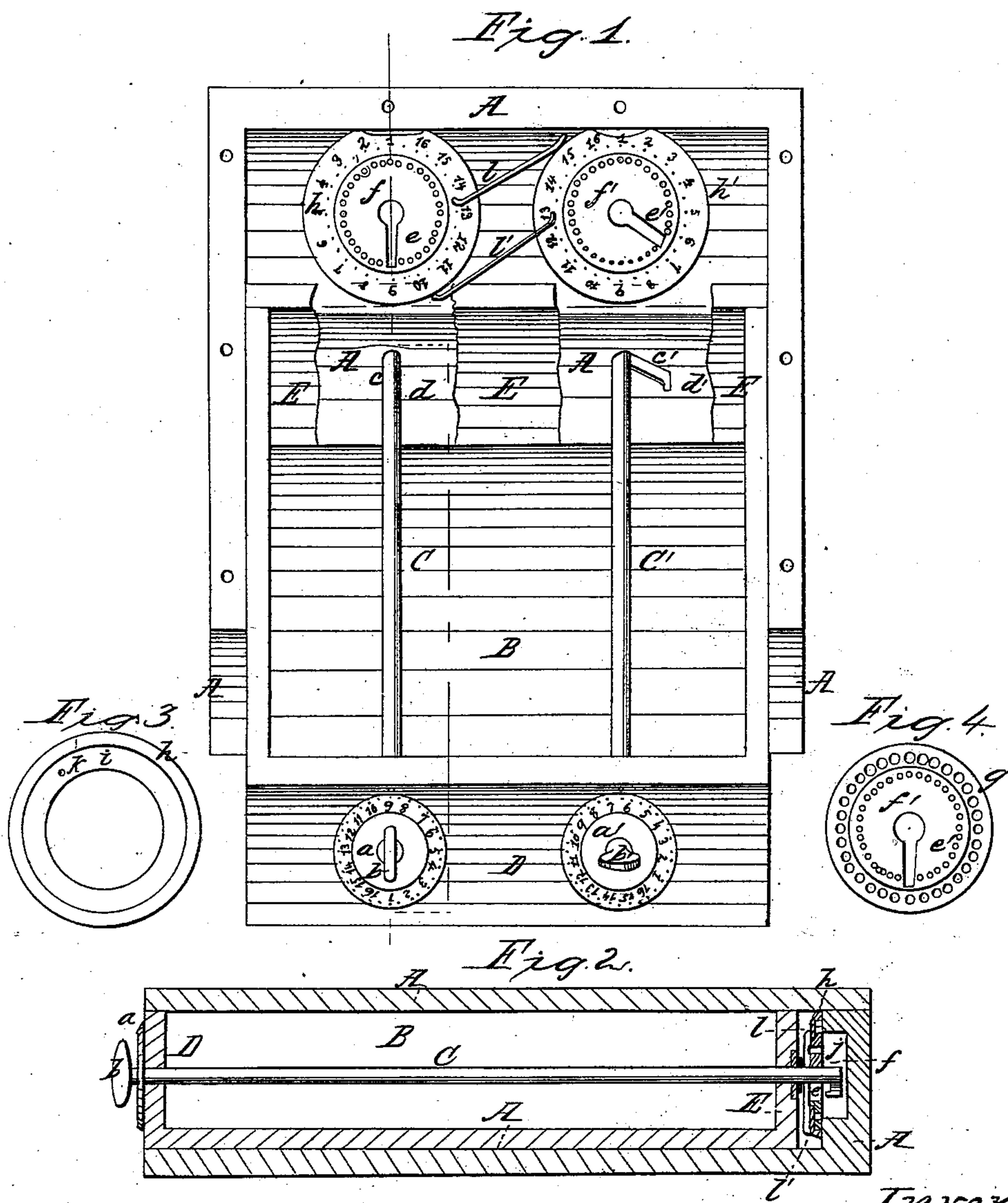


J. B. White,
Permutation Lock.
N^o 84,664 *Patented Dec. 1, 1868.*



Witnesses:
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JARVIS B. WHITE, OF DETROIT, MICHIGAN.

Letters Patent No. 84,664, dated December 1, 1868.

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, JARVIS B. WHITE, of Detroit, in the county of Wayne, and State of Michigan, have invented a new and useful Improvement in Combination Safety-Locks; and I do hereby declare the following to be a full and correct description of the same, sufficient to enable others skilled in the art to which my invention appertains, to fully understand and use the same, reference being had to the accompanying drawings, which make part of this specification, and in which—

Figure 1 is a perspective view of my improved lock as applied to a money-drawer;

Figure 2 is a section in line *x x*, fig. 1; and

Figures 3 and 4 are detached views of parts of the lock.

Like letters of reference indicate like parts in the several figures.

The nature of my invention consists in the construction of a combination-lock, so that the revolving shafts, forming part of the lock, are the bolts by means of which the lock is fastened.

A, in the drawings, represents the casing attached under the table, in which the drawer B slides.

C C' are two rods, provided with dials, *a a'*, and knobs, *b b'*.

The rods pass through the front board, D, of the drawer, against the outside of which rest disks *a a'*, and also through the rear board, E, of the same, ending in downward projections, *c c'*, from which other smaller projections, *d d'*, extend backward, parallel with the rods C C'.

The projections *c c'*, *d d'*, pass through slots, *e e'*, in disks *f f'*, which are thicker than, and consequently protrude above, flanges *g*, with which they are provided.

The disks *f f'* and flanges *g* are provided, each, with a number of holes, equal to the number of divisions marked on the outer dials, *a a'*, the lower narrow ends of slots *e e'* forming one of the series of holes in disks *f f'*.

The disks *f f'* pass through rims *h h'*, their flange *g* resting in grooves *i* on the under side of rims *h h'*, which latter are secured to the back wall of casing A, over circular recesses *j*, in such a manner that the disks *f f'* can freely turn in the grooves *i*.

Holes *k* pass through grooves *i*, in line with the holes in flanges *g*.

The disks *f f'* are held stationary by means of rods *l l'*, which are, at one end, secured to the back wall of casing A, while their free bent ends, passing through holes *k*, seize in any of the holes on disks *f f'*.

The operation of my improved lock is as follows:

The dials *a a'*, in this case, are divided into sixteen full and sixteen half numbers, making a whole of thirty-two numbers on each dial. As shown in fig. 1, dial *a* is set at number 9, and dial *a'* at number 6½. The disks *f* and *f'*, by raising rods *l l'*, are turned until the ends of slots *e e'* are respectively opposite the numbers 9 and 6½ on rims *h h'*, which latter are provided with the same divisions as dials *a a'*. The rods *l l'* are now replaced, and, passing through holes *k*, pass into one

of the series of holes on flanges *g*, and hold the disks *f f'* stationary. The dials *a a'* being now turned so that the numbers 9 and 6½, respectively, are opposite a point above the dials, and in a line at right angles with their centre, place the projections *c c'*, *d d'* of rods C C' directly in line with the slots *e e'*, through which they pass when the drawer is pushed in. By now turning the knobs *b b'* away from the numbers 9 and 6½, respectively, in any direction, the projections *c c'*, *d d'* of rods C C' are turned in the rear of disks *f f'*, out of line with slots *e e'*, and the drawer is securely locked, for, supposing that any one attempting to open the drawer, without knowing the combination, should, by chance, get the projections *c d* in line with the slot *e*, he would not be aware of the fact, as, in pulling the drawer back, the other projection, *d'*, will seize in one of the series of holes in disks *f'*, and prevent the rod C from passing out of slot *e*.

The drawer may be provided with partitions, and the rods may pass through, and thus be concealed in the same, so that nothing at all of the lock can be seen, when the drawer is open, except the outside dials and knobs. A bell may also be secured in the bottom of the drawer, and be so arranged as to give an alarm whenever the drawer is attempted to be opened, without the dials being set on the proper combination, which latter may, by increasing the number of divisions, be complicated at pleasure.

This lock can easily be attached to the small drawers on the top of bureaus for ladies' jewelry, the knobs, in such cases, being made ornamental, and, instead of numbers, other devices may be used. It can be also applied to desks, &c.; in short, everywhere where a drawer can be applied.

In drawers in which my two disks are applied aside of each other, it has been suggested that, when the drawer is loose, by moving the same from side to side, it might be discovered when the projections *c c'*, *d d'*, or either of them, are in the slots *e e'*. This is improbable; but, if this is an objection, the disks and rods may be placed one above the other, when no side movement would disclose to the person trying when the projections are in the slots.

Having thus described my invention,

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

1. The projections *d d'* on the rods C C', in combination with the series of holes and the slots *e e'* on disks *f f'*, substantially as and for the purposes set forth.

2. The combination-lock, consisting of the rods C C', provided with projections *c c'* and *d d'*, and with dials *a a'*, and knobs *b b'*, attached to and passing through the drawer, and engaging with the slotted revolving disks *f f'*, secured, by rims *h h'*, over recesses, *j*, in the back wall of the casing, all arranged, constructed, and operating substantially as and for the purposes set forth.

JARVIS B. WHITE.

Witnesses:

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