

(No Model.)

2 Sheets—Sheet 1.

J. H. & H. MORRIS.  
COMBINATION LOCK.

No. 437,658.

Patented Sept. 30, 1890.

Fig. 3.

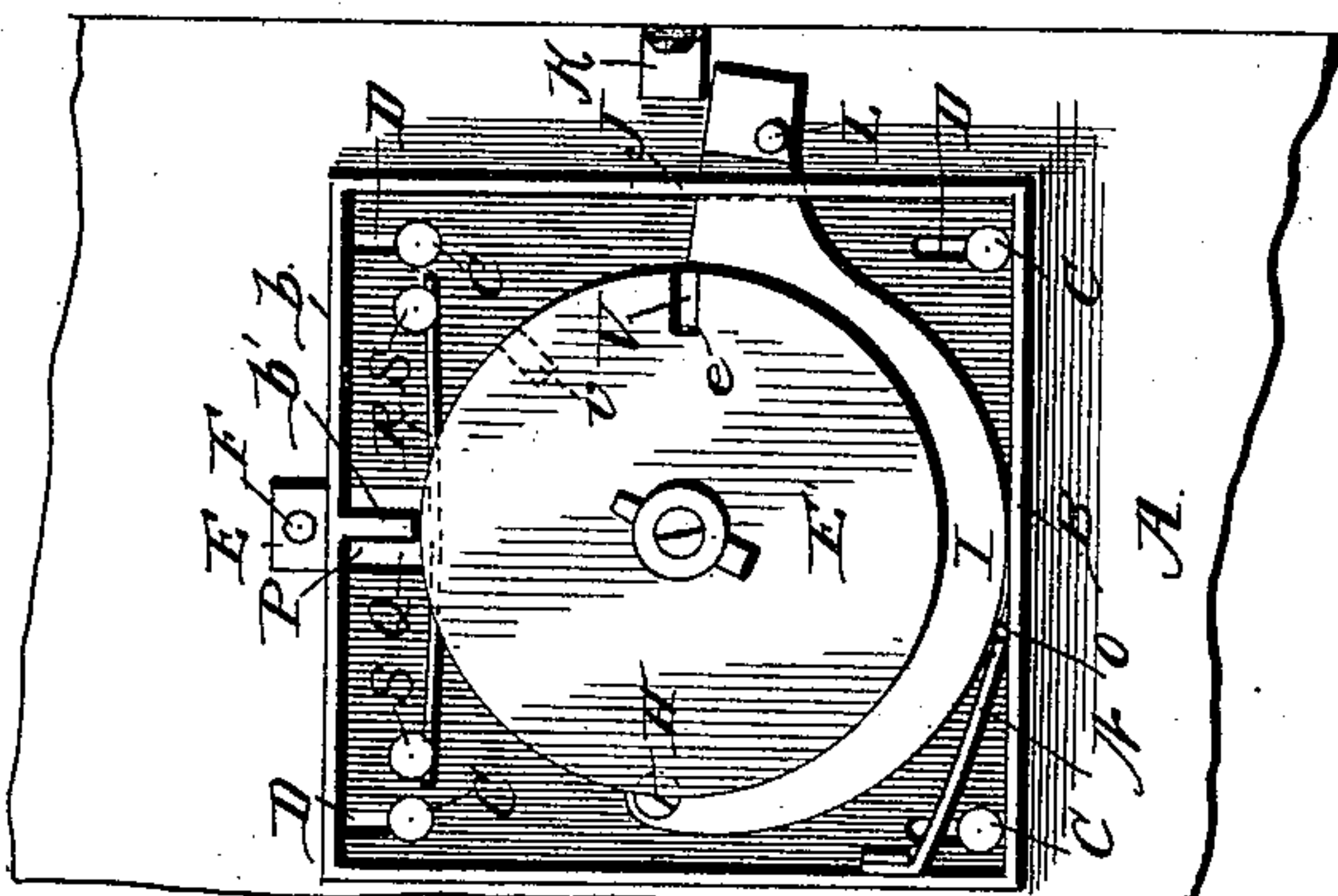


Fig. 2.

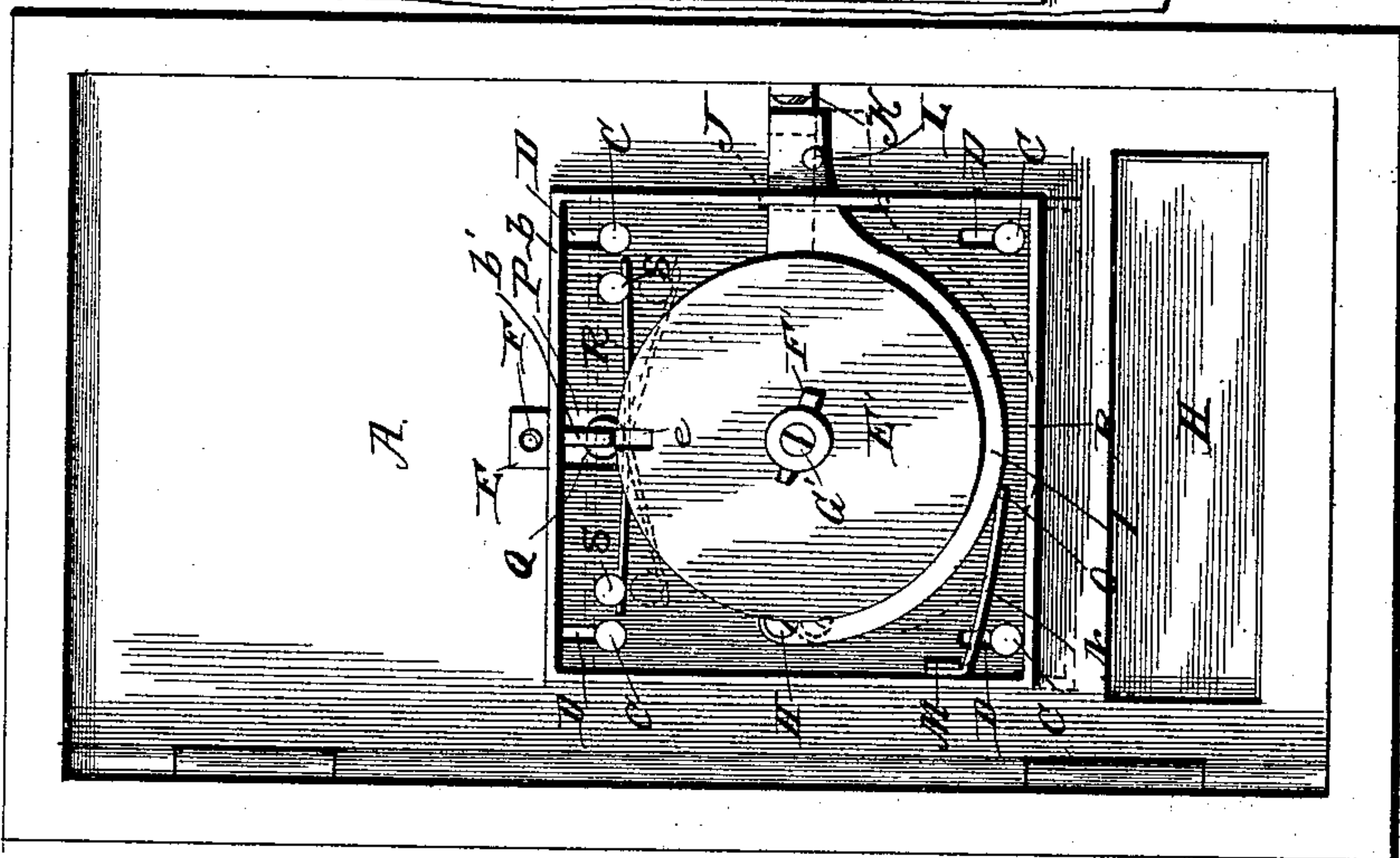
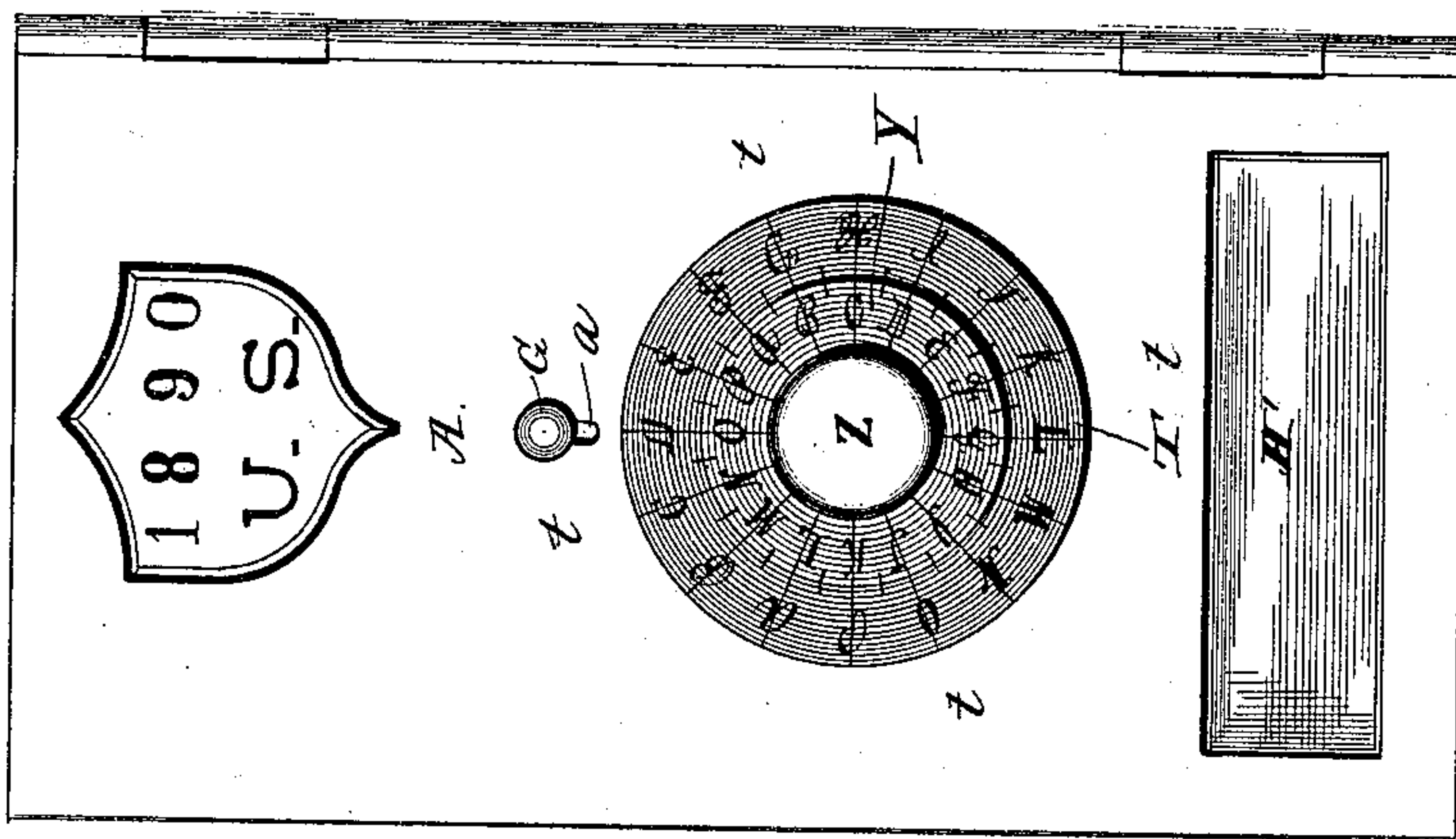


Fig. 1.



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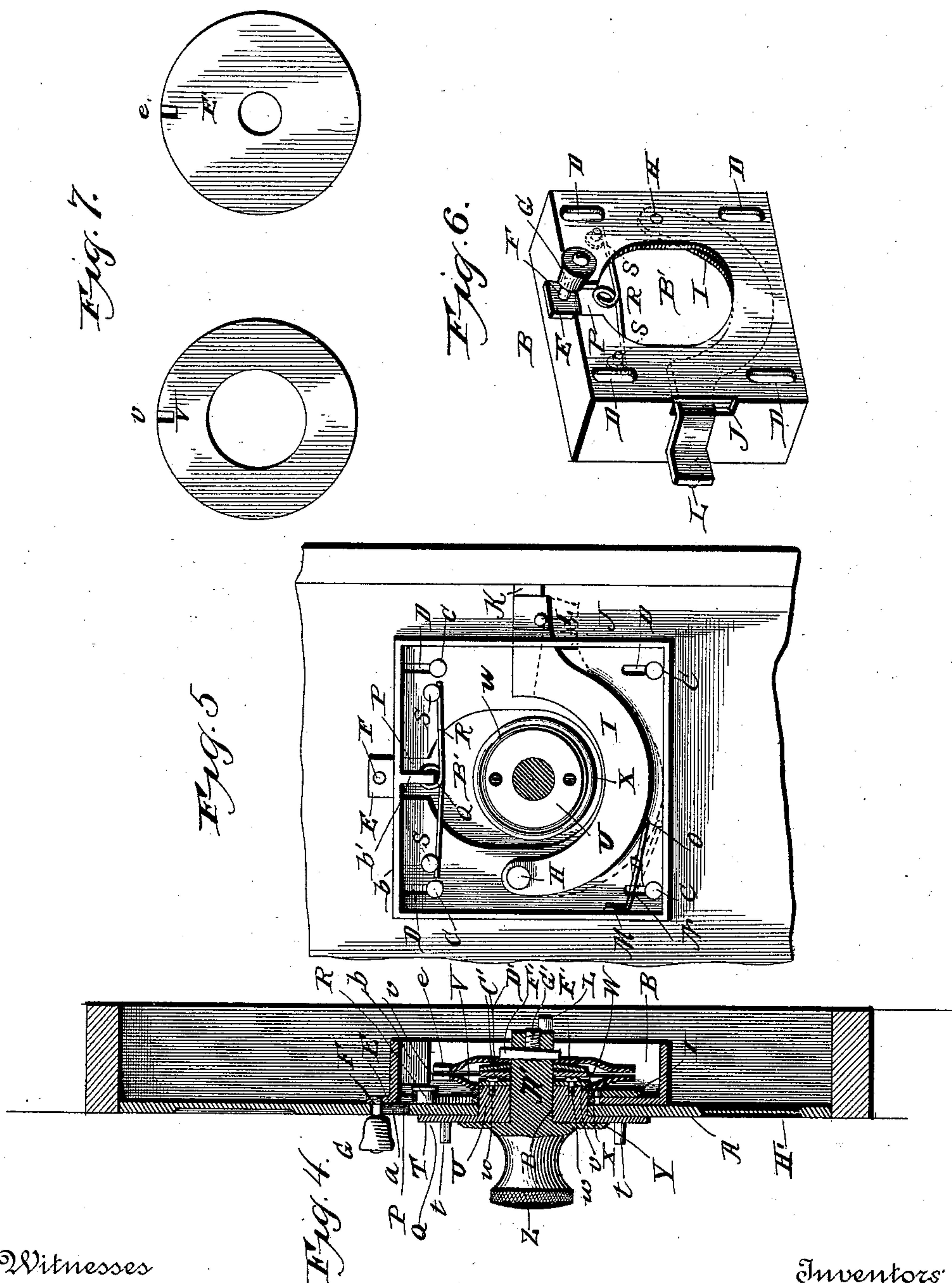
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Geo. V. Thorpe,  
A. C. Price,

Inventors:  
J. H. Morris;  
Henry Morris;  
By their Attorneys  
Higdon & Higdon.



# UNITED STATES PATENT OFFICE.

JOHN H. MORRIS AND HENRY MORRIS, OF SEWARD, NEBRASKA, ASSIGNORS  
TO MAGGIE G. MORRIS AND HENRIETTA MORRIS, BOTH OF SAME PLACE.

## COMBINATION-LOCK.

SPECIFICATION forming part of Letters Patent No. 437,658, dated September 30, 1890.

Application filed August 2, 1890. Serial No. 360,766. (No model.)

*To all whom it may concern:*

Be it known that we, JOHN H. MORRIS and HENRY MORRIS, of Seward, Seward county, Nebraska, have invented certain new and useful Improvements in Combination-Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to an improvement in combination-locks; and it consists in the peculiar combination and arrangement of devices hereinafter more fully specified and claimed.

Our object is to provide a combination-lock to be applied more especially to private letter-boxes, &c., and is so constructed and arranged that if the owner forgets the combination he may attract the attention of the clerk in the office, who by simply depressing the front end of a pivoted lever releases the latch and the door may be opened.

Referring to the drawings, which illustrate this invention, Figure 1 is a view showing the outer face of the door, the combination being D O, as it is ready to be unlatched. Fig. 2 is a rear view of the same, showing in dotted lines the door unlatched. Fig. 3 is a rear view of the lock, showing the combination lost and the door unlatched by the depression of the front end of the lever mentioned. Fig. 4 is a central vertical section of Fig. 1. Fig. 5 is a vertical section on the line *xx* of Fig. 4, looking toward the rear of the door. Fig. 6 is a perspective view of the sliding box carrying the pivoted lever. Fig. 7 represents face views of the disks V and E'.

Similar letters refer to similar parts in all the figures, in which—

A represents the door, from the rear side of which projects the lugs or pins C, engaging in the vertical slots E of the sliding box B. The face of the casing B is also provided with an elongated opening B', connected at its upper end with the slot P, from which extends upward and rests against the rear side of the door A the ear E. Secured in this upturned portion E is the rear end of a bolt or pin F, which passes through the vertical slot *a* in the door and has secured on its forward end the button G. Pivoted at H on the inner side of the casing D is the lever I, the forward end of which passes through the slot J in the casing

D, thence is bent upward and outward to engage the beveled latch-bar K, secured to the frame-work. The rear side of this forward portion, which engages the latch K, is provided with an outstanding projection or pin L. Secured to the inner side of one of the vertical walls of the casing is a lug or projection M, around which is secured the rear end of a spring N, the forward upturned end O of which bears against the lower edge of the lever I.

Secured in the rear wall of the door A, and projecting through the notch P of the casing B, is a lug or projection Q, around which passes a spring R, the opposite end of which bears against the lower side of the lug or projection S, secured to the inner wall of the casing B.

Secured on the front side of the door, and provided with letters or numbers at intervals around its face, is the circular disk T, the barrel portion of which projects through an opening in the door, and also through the opening B' of the casing B. The disk T is provided with the outstanding lugs or pins by which it is revolved. A shoulder *u* is formed on the rear edge of the barrel portion of the disk T, on which rests the disk V, and which is held in place by the washer W, which is secured to the rear end of the barrel portion U of the disk T by means of the screws *w*.

Coiled round the barrel portion U of the disk T, and bearing at either end against the rear wall of the door and the face of the disk V, is the spring X. Resting against the face of the disk T is the smaller disk Y, which is provided with numbers or letters on its face in radial alignment and corresponding with the numbers or letters on the face of the disk T.

Cast integral with the disk Y, or which may be secured upon the same, is the projection Z. Projecting rearwardly from the disk Y, and passing through the cylindrical opening B' of the barrel portion U of the disk T, and also through the opening in the washer W, is the shaft or projection A'.

Spring-washers C' and D' are slipped over the end of said shaft A' and bear on either side against the washer W and the disk E', which is secured round the shaft A' after said washers C' and D' are in place.

A key or pin F', passing through the end



of the shaft A', bears against the rear face of the disk E', and is itself prevented from displacement by means of the screw-bolt G', which enters the rear end of the shaft A' and  
5 bears against the said key or pin.

The upper wall b' of the casing B is provided with the inwardly-extending projection b, which is adapted to engage the notches v and e in the periphery of the disks V and E' when the door is unlocked. The door is also  
10 provided with a glass window H'.

The operation of my invention is as follows: The revolving of the disks T by means of the small lugs or projections t and of the disk Y by means of the hand-piece Z to the combination E and O causes the notches D and E in the peripheries in the disks V and E' to pass into vertical alignment with the projection v of the casing B, when the forcing  
15 of the button G downward in the slot a of the door causes the downward movement of the casing D, the projection b' of said casing entering the aligned notches v and e, and the latch I, being secured to the casing D, is forced  
20 below the latch-block K, as shown in dotted lines, Fig. 2, when the door may be opened. If the owner forgets the combination he may attract the attention of the clerk inside the office, who by depressing the forward end of  
25 the pivoted lever I by means of the lug or projection L unlatches the door, as will be readily understood, and which will when released return to its normal position by reason of the spring N, which bears against the under edge  
30 of the lever, extending its pressure upward. To change the combination, the projection b' of the casing B is forced into the notches in the disks V and E' when being held securely in position. The disks T and Y may be turned  
35 to any combination desired, as will be readily understood. When the door is closing the upper forward edge of the lever I strikes the downwardly and rearwardly inclined edge of the latch-plate K, and is forced downward  
40 until it clears the rear edge of said latch-plate, when the spring N immediately forces it upward in the rear of the plate K and the door is locked.

Having thus described our invention, what we claim as new, and desire to protect by Letters Patent, is—

1. In a combination-lock, the combination of a door having on its rear face the lugs or projections C, on which operate the slots D of the sliding casing B, said casing having the projection or ear E, and the bolt F, secured to the same, passing through and adapted to operate in the vertical slot a of the door, said bolt having the button G secured on the forward end thereof, substantially as described.  
55

2. The combination of the door having the casing B, provided with the vertical slots D, adapted to slide on the projections C of the door, the projection or ear E of the casing provided with a bolt having the button G secured thereon, the elongated opening B', and the connecting-slot P, said casing also carry-  
65

ing the pivoted lever I, the forward end of which projects through the opening J in the casing B, and is then bent upward and outward and provided on the rear side of the outward portion with the projection L, substantially as described. 70

3. In a combination-lock, the door having the revolving disk T, the lugs or projections t, the barrel portion U of said disk, having the annular shoulder u, the spring X, surrounding the barrel portion U and bearing against the disk V, which rests on the annular shoulder u, allowing the combination to be changed when necessary by the revolution of the disk T and barrel portion without affecting the disk V, and the notch v in periphery, said disk V, and washer-plate W, securing the disk V in place, substantially as described. 75 80 85

4. In a combination-lock, the door having disk-plate T, provided with letters or figures at intervals around its face, the projections t, the barrel portion U, the spring X, the disk-plate V, with notch v in its periphery, the washer-plate W, securing the same in place, with the disk Y, provided with the hand-piece Z for revolving the same, rearwardly-projecting shaft A', passing through B' of the disk T, the spring-washers C' D' secured on said shaft A', and the disk E', provided with notch e in its periphery and held in place by key F', passing through shaft A', which key F' is held in place by bolt G', substantially as described. 90 95 100

5. In a combination-lock, the combination and arrangement of a door having a window therein, said door provided with the disks T and Y, the notched disks V and E', washers W, C', and E', and springs X, with a sliding casing B, provided with vertical slots D, and upstanding portion E, provided with a bolt F, extending through slot a in the door and having a button G thereon, said casing B having the opening B', open slot P, inwardly-projecting portion b', and projections S on the inner side of the casing B, the ends of spring R bearing on the said projection S and coiled round projection Q in the rear face of the door, said casing also having the pivoted latch-lever I secured therein and adapted to engage with the beveled latch-plate K on the inner wall of the door-casing, substantially as described. 105 110 115

6. The combination of a door carrying the sliding casing B, having pivoted therein the lever I, the spring N, bearing against the under edge of the said lever I, the forward end of which lever passes through the slot J in the casing B, and is thence bent upwardly and outwardly and provided with a lug L on its rear face, substantially as described. 120 125

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN H. MORRIS.  
HENRY MORRIS.

Witnesses:

R. P. ANDERSON,  
C. E. BOYES.