

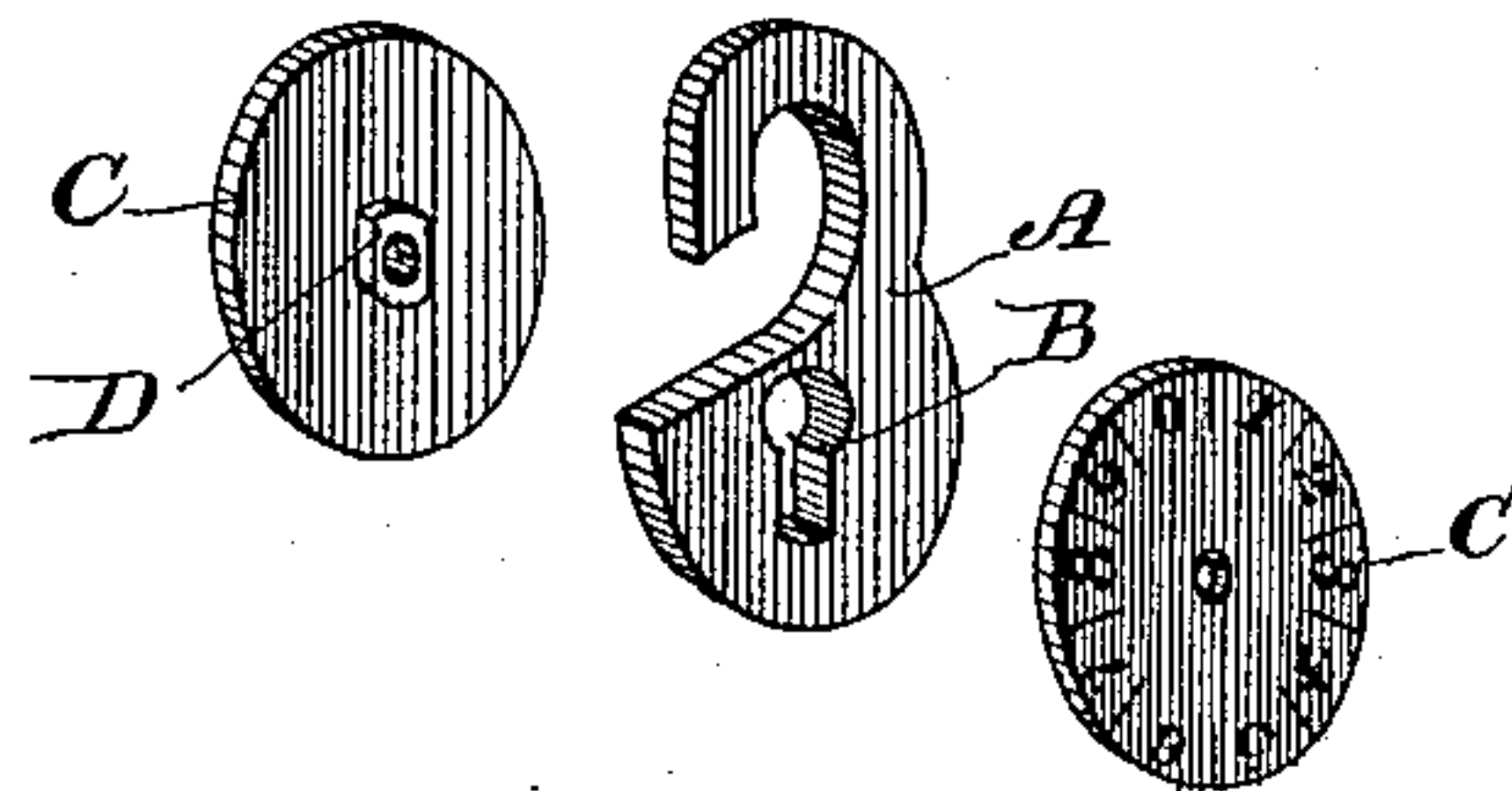
(Model.)

F. EGGE.  
PERMUTATION PADLOCK.

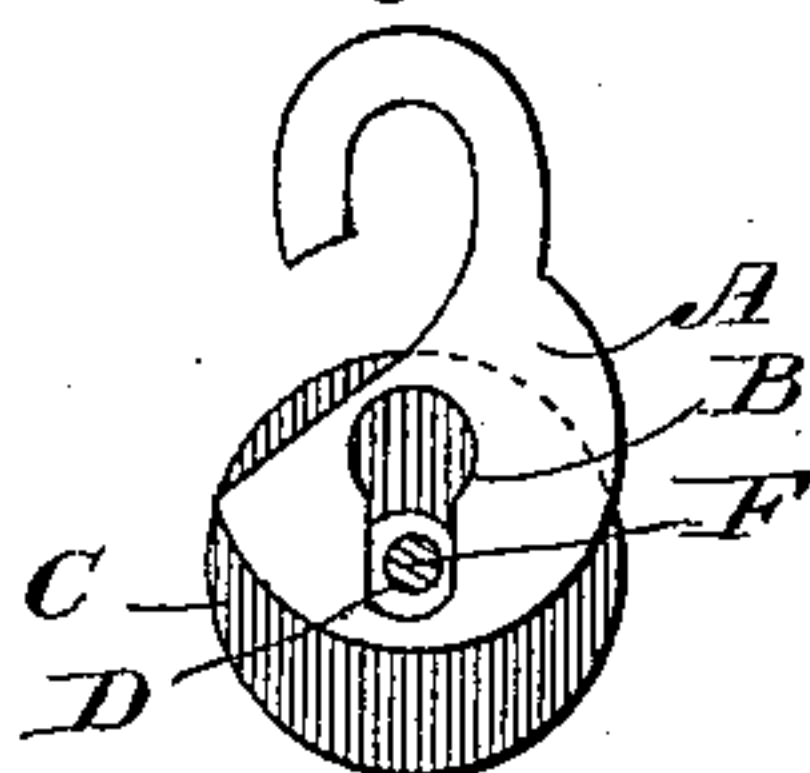
No. 316,345.

Patented Apr. 21, 1885.

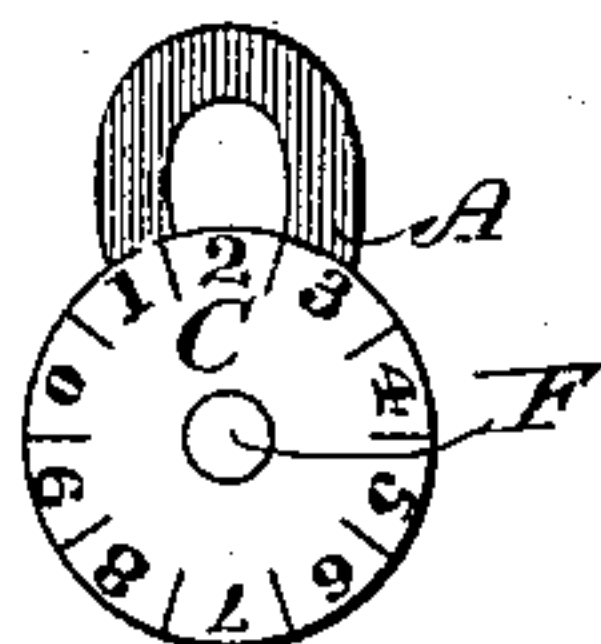
*Fig 1*



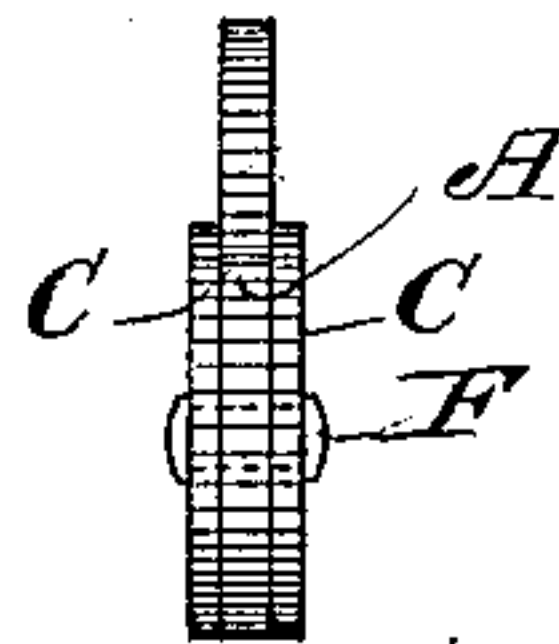
*Fig 2*



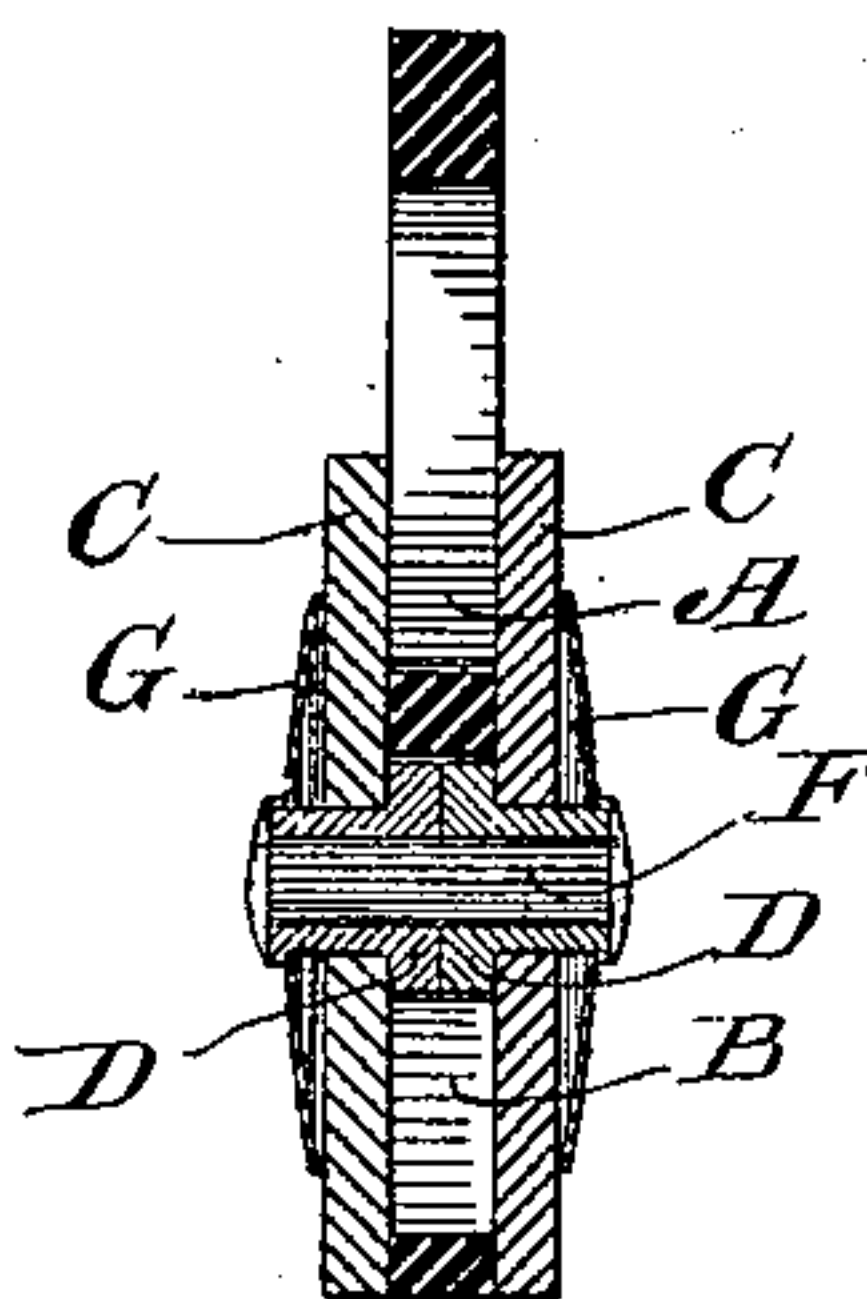
*Fig 3*



*Fig 4*



*Fig 5*



Witnesses  
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# UNITED STATES PATENT OFFICE.

FREDERICK EGGE, OF BRIDGEPORT, CONNECTICUT.

## PERMUTATION-PADLOCK.

SPECIFICATION forming part of Letters Patent No. 316,345, dated April 21, 1885.

Application filed February 7, 1885. (Model.)

*To all whom it may concern:*

Be it known that I, FREDERICK EGGE, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Permutation-Padlocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain novel and useful improvements in padlocks, and has for its object to provide a device of this description which shall be simple in construction and readily locked or unlocked upon a predetermined combination; and with these ends in view my invention consists in the details of construction and combination of elements hereinafter fully explained, and then specifically designated by the claims.

In order that those skilled in the art to which my invention appertains may more fully understand its construction and operation, I will proceed to describe the same in detail, referring by letter to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of the disks and shackle in their relative positions; Fig. 2, a plan view of the shackle with a disk beneath it, and with the hub of the latter in the slot; Fig. 3, a front elevation of the complete lock; Fig. 4, an edge view of the same, and Fig. 5 a modified view showing the hubs adjustable upon the disks.

Similar letters denote like parts in the several figures of the drawings.

A is a flat piece of metal forming both the shackle and the body of the lock, and at its central portion is an opening, B, circular as to its upper end, but contracted and elongated and nearly rectangular as to its lower end.

C are disks adapted to be placed upon either side of the shackle A, and are provided each with a hub, D, one-half as long as the thickness of the metal composing the shackle. The shape of these hubs is such that their shortest diameters are nearly equal to the width of the contracted portion of said opening, so that it will be readily understood that said hubs are adapted to revolve within the upper or

circular portion of the opening, and when their longest diameters are both in alignment with the contracted or elongated part of the opening the shackle may be withdrawn, as will be presently explained in detail.

F is a rivet which extends through the disks, hubs, and body, and binds the disks to the body as against displacement, while at the same time free rotary movement of the disks is permitted. Upon the faces of the disks, near the circumference thereof, are placed numbers or letters, as shown at Fig. 3, and the proper relative positions of these disks may be determined by these numbers, so that the hubs may both be brought into alignment with the contracted portion of the opening B, as before explained.

The operation of my invention is as follows: It is obvious that while either or both of the hubs are in any position other than with the longest diameter extending parallel with the elongated portion of slot B, the shackle cannot be slid up so as to bring its nose above the peripheries of the disks, and therefore to open the lock it is necessary that both hubs shall be in the same position relative to the slot, as previously set forth. When so arranged, the shackle is readily raised to the position shown in Fig. 2, and any hasp or ring may be readily inserted or withdrawn.

To fasten the lock, it is only necessary to press the shackle downward and rotate one or both of the disks.

In Fig. 5 I have shown a modification of my improvement in which the hubs are adjustable, so that the lock may readily be set to open upon any numbers desired. I do not wish to be confined in my invention, therefore, to the use of immovable hubs.

If desired, spring-washers G may be placed outside the disks and inside of the rivet-heads, so as to prevent lost motion of the disks, and to insure a free and steady movement of the latter.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a lock, the combination, with a central plate provided with a projecting shackle and having a central elongated opening terminating in a circular enlargement, of the two side disks having hubs whose length and



width are less than the diameters of said enlargement and opening, respectively, said hubs adapted to be placed in their assembled position within said enlargement, and there held  
5 by a rivet extending through both disks and shackle, whereby when the lengths of said hubs are brought into alignment with said elongated opening the shackle may be withdrawn, substantially as set forth.  
10 2. The combination, with the central plate having formed therewith the shackle-hook, and provided with the central opening having circular enlargement at the top thereof, of the  
15 disks having upon their inner surfaces pierced

are parallel and straight, said hubs being adapted to fit within the opening in the central plate, and the rivet passing through all the parts aforesaid and binding them in place.

3. The combination of plate A, having the  
shackle and opening B, as described, disks C, having pierced hubs D, and the rivet F, passed through and binding the several parts together.

In testimony whereof I affix my signature 25  
in presence of two witnesses.

FREDERICK EGGE.

Witnesses:

ISAAC LEE FERRIS,  
ROBERT L. SEWARD.