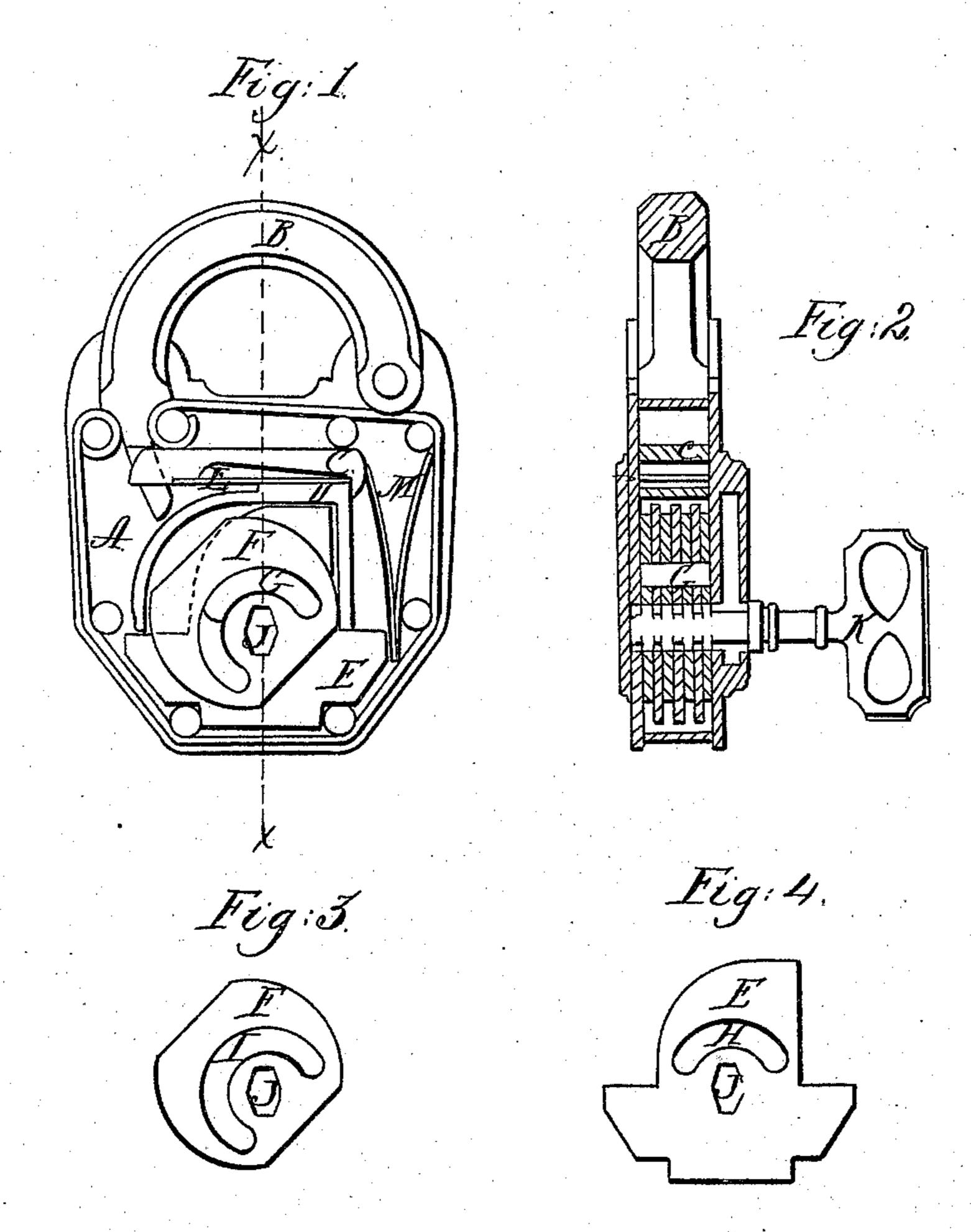
## H. Minblad, Padlock.

N 915,589.

Patented Azig.19, 1856.



Witnesses:

As Ellethorp

Inventor, Hjalmar Wyublad

## UNITED STATES PATENT OFFICE.

HJALMAR WYNBLAD, OF NEW YORK, N. Y.

LOCK.

Specification of Letters Patent No. 15,589, dated August 19, 1856.

To all whom it may concern:

Be it known that I, HJALMAR WYNBLAD, of the city, county, and State of New York, have invented a new and useful Improvement in Locks; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My invention relates to that description of locks in which the bolt is moved by eccentric disks, and is intended to produce a secure and simple lock by a new and useful

arrangement of its parts.

Figure 1 in the accompanying drawings is a plan of the interior working part of the lock Fig. 2 is a vertical section through the line X X Fig. 1. Fig. 3 is a plan of one of the eccentric disks detached, and Fig. 4 is a plan of one of the ward-plates detached.

A is the case of the lock; B, the hasp; C, the bolt, worked back and forth by the

frame D.

E is one of the series of ward-plates which are interposed between the eccentric disks. They may be made of different thicknesses and the combination of thick and thin ones varied in different locks so as to give greater security against one lock being opened with the key belonging to another lock of the same kind.

F is one of the series of eccentric disks—the diameter of which is a trifle less than the width of the inside of the frame to permit them to turn within it freely—which by their partial revolution move the frame D and the bolt C. They must be moved in unison to permit the bolt to be moved, to which arrangement the security of the lock 40 is due, as an attempt to pick it would be futile unless all the eccentric disks were moved at the same time and to the same distance.

G is the segmental standard for the purpose of holding the ward plate, in position by the segmental slot H in then slipping over it, and also for guiding and directing the revolution of the eccentric disks by their segmental slots I moving upon it. The curve of the segmental slot and standard are struck from the center of the key hole in the ward plates and eccentric disks. J, the

holes in the ward plates and eccentric disks for the insertion of the key. When the bolt is locked the holes in all the plates and 55 disks are in line so that the key can be withdrawn. K, the key—with bits or projections on its opposite sides of length and shape fitted to fill the key holes in the eccentric disks and ward plates and of thick- 60 nesses and distances apart suited to the thicknesses of said plates, with the interstices between the bits of a circular form, so that in turning the key the bits move around the eccentric disks and pass be- 65 tween the ward plates. L a spring fastened at one end to the top of the frame D, and with the other end fitted into a recess on the under side of the bolt C, which bolt is retained in connection with the frame D by 70 the pins above it, by the spring catching into the recess on its forward end and by a hook projection on its back end reaching down on the frame. The bolt is hollowed out on its under side to allow it to have an 75 up and down motion, so that if it is thrown out the hasp B can be forced down upon it and be locked, by forcing down the forward end of it until its point enters the cavity in the hasp, as efficiently as it can be by turn- 80 ing the key and forcing it forward when the hasp is first thrown down. M spring to keep the frame D in contact with the eccentric disks for the purpose of preventing them being turned except by the use of the 85 key.

I am aware that eccentric disks, and ward plates, have been before known and used and I do not claim them, but

What I claim as my invention and desire 90

to secure by Letters Patent is—

The arrangement of a series of eccentric disks separated by stationary ward-plates, with each of said disks having an orifice at the center of it motion fitted to the shape of 95 the bits of the key and moving upon and guided by a segmental standard and moved at the same time and to the same distance within a frame attached to and working the bolt of a lock as herein set forth.

Witnesses: HJALMAR WYNBLAD.

S. B. ELLITHORP, Francis S. Low.