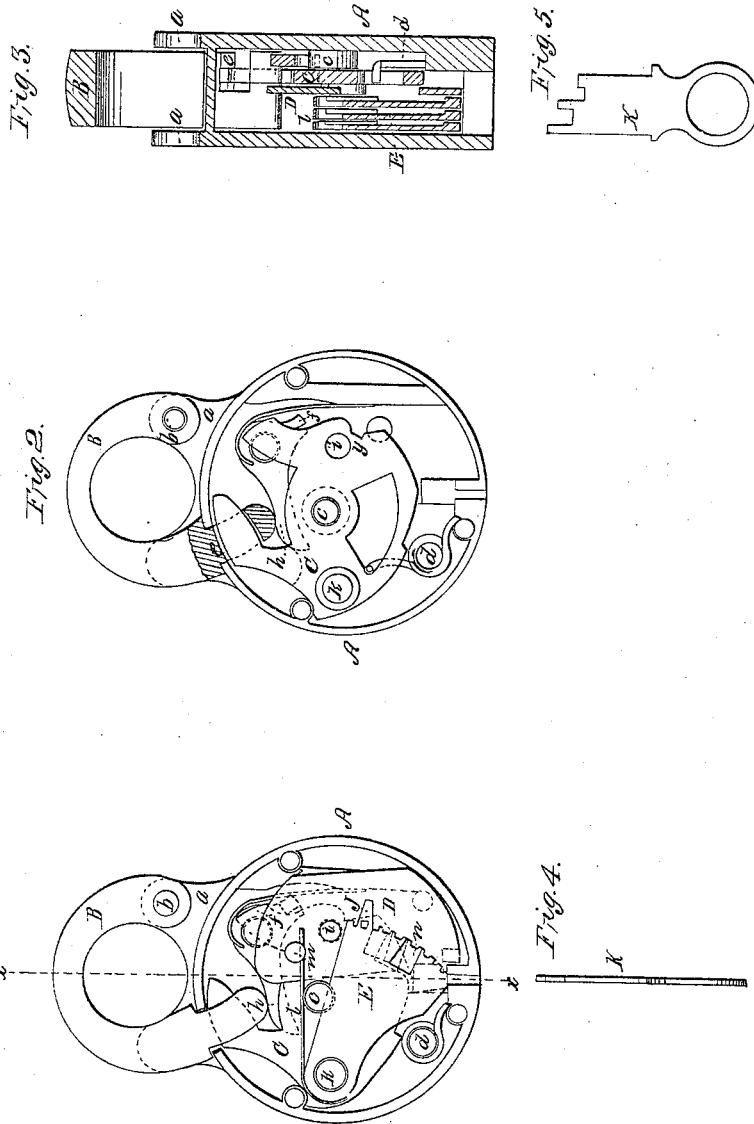


# V. Enders, Padlock.

N<sup>o</sup> 51,576.

Patented Dec. 19, 1865.



Witnesses:  
C. L. Topliff  
J. M. Connelley.

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# UNITED STATES PATENT OFFICE.

V. ENDERS, OF NEW YORK, N. Y.

## IMPROVEMENT IN PADLOCKS.

Specification forming part of Letters Patent No. 51,576, dated December 19, 1865.

*To all whom it may concern:*

Be it known that I, V. ENDERS, of the city, county, and State of New York, have invented a new and Improved Padlock; and I do hereby declare that the following is a full, clear and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a front elevation of this invention, the front plate having been removed to expose the interior. Fig. 2 is a similar elevation, partly in section, the front plate and tumblers having been removed to expose the parts below. Fig. 3 is a transverse section of the lock, the line *x x*, Fig. 1, indicating the plane of section. Fig. 4 is a side elevation of the key. Fig. 5 is a front elevation of the same.

Similar letters of reference indicate like parts.

This invention relates to a lock of that class in which a series of tumblers are applied in combination with a revolving bolt which, when the shackle is depressed, catches in the recess or slot thereof and prevents it from being raised or opened. The tumblers are arranged in the proper position to allow of opening the lock by the action of a key, to which may be imparted a rectilinear or an oscillating motion, and which also acts on the bolt to impart to the same the requisite revolving motion for unlocking. In order to prevent the bolt from turning back spontaneously before the shackle is turned down, a spring-dog is applied, which catches into a recess of the bolt, and which is disengaged from said recess by the action of the shackle.

A represents the case, which is constructed of brass or any other suitable material, in the usual form and shape of a padlock. Said case is provided with ears *a*, which form the bearings for the pivot *b*, on which the shackle B swings, and a pin, *c*, rising from the bottom of the case A, forms the fulcrum for the revolving bolt C. This bolt is subjected to the action of a spring, *d*, which is applied in such a manner that it has a tendency to turn said bolt to the position shown in Figs. 1 and 2 of the drawings; and if the shackle is down the head of the bolt catches in a recess, or loop, *e*, of the shackle and retains the same firmly in position. When the bolt is forced back against the action of the spring *d*, a spring-catch, *f*, drops into a notch, *y*, in its edge, and at the same

time an arm, *h*, extending from said spring-catch bears against the inner end of the shackle and raises the same, and by these means the bolt is not allowed to turn round and follow the action of the spring *d* until, by depressing the shackle, the spring-catch is disengaged from the notch *y*. The bolt is turned and the lock unlocked by the action of the key K on the latch D, which is suspended from a pivot, *i*, that drops into a hole, *i'*, in the bolt. On this latch is fixed the stump *j*, which stands opposite to a series of tumblers, E. These tumblers are hung on a stud, *k*, which rises from the bolt, and they are subjected to the action of springs *l*, which are secured to them and bear against a pin, *m*, rising from the latch. Each tumbler is provided with a notch, *n*, and by the action of the key said tumblers are brought in such a position that all the notches register and allow the stump *j* to enter. If one of the notches does not register the stump cannot enter and the bolt cannot be turned back. When, by the action of the key, the notches in all the tumblers have been brought in such a position that they register, the pressure of the key on the latch causes the bolt to turn so that it releases the shackle and allows the spring-catch *f* to drop into the notch *y*.

In the drawings, the key K consists of a simple flat piece of sheet-steel, notched on its front edge to produce the desired effect on the tumblers and latch, and this key is inserted through a narrow slot in the edge of the case A. It is obvious, however, that the required action on the tumblers and the latch could also be produced by a key which has an oscillating motion, and I do not wish to confine myself to the precise form of the key shown in the drawings.

In order to lock the shackle it is depressed, and when its point strikes the arm *h* of the spring-catch said spring-catch is caused to release the bolt, thus allowing the same to follow the action of the spring *d* and to reassume the position shown in Figs. 1 and 2.

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

The double-armed spring-catch *h f*, applied in combination with the bolt C, shackle B, latch D, tumblers E, and key K, or its equivalent, all constructed and operating substantially as and for the purpose set forth.

V. ENDERS.

Witnesses:

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