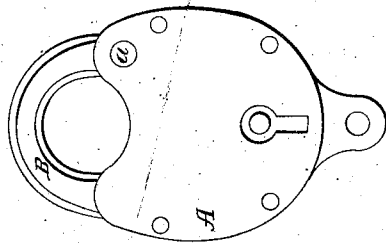


*E. Coyle,  
Padlock.*

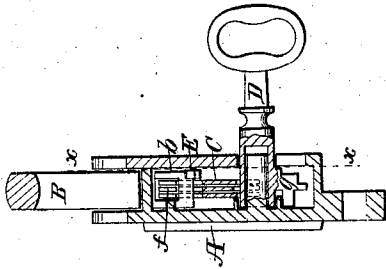
*N<sup>o</sup> 46,643.*

*Patented Mar. 7, 1865.*

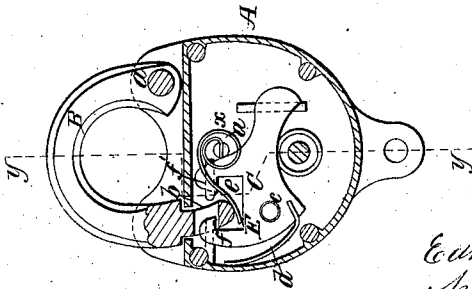
*Fig. 3*



*Fig. 2*



*Fig. 1*



*Witnesses:  
Thos. Swack  
Henry Morris*

*Inventor:  
Edw. Coyle  
per Minnie H.  
Attorneys*

# UNITED STATES PATENT OFFICE.

EDWARD COYLE, OF ALBANY, NEW YORK.

## PADLOCK.

Specification forming part of Letters Patent No. 46,643, dated March 7, 1865.

*To all whom it may concern:*

Be it known that I, EDWARD COYLE, of Albany, in the county of Albany 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 is a side view of my invention, the case being in section, as indicated by the line *x x*, Fig. 2, in order to show the interior; Fig. 2, a section of the same taken in the line *y y*, Fig. 1; Fig. 3, an external view of the same.

Similar letters of reference indicate like parts.

This invention consists in providing a padlock with a series of tumblers having hooks at each side of them, and arranged in such a relation with the eye of the shackle that each tumbler in unlocking the lock will require to be moved in a certain position relatively with the eye in order to release the shackle, a slight deviation from this position rendering it impossible to withdraw the shackle.

The object of the invention is to obtain a padlock of simple and economical construction, which cannot be readily picked or illegitimately opened.

A represents the case of the padlock, which may be of the usual or any proper form, and, therefore, does not require a special description.

B is the bow or shackle, of the ordinary semicircular form, and having one end of it secured by a pivot, *a*, in the case A, the opposite end of the shackle being provided with an eye, *b*, which, when the lock is in a locked state, is within the case A, and is retained therein by the hooks of the tumblers.

C represents a series of tumblers, which are fitted on one and the same pin, *c*, as a center. These tumblers have each a spring, *d*, attached to them, which have a tendency to throw the tumblers back to their original

position against a stop, *a*<sup>x</sup>, each time after they have been moved or adjusted to liberate the shackle and unlock the lock. In the upper part of each tumbler C there is made a recess, *e*, and these recesses form hooks *f f'* at each side of the tumblers, as shown clearly in Fig. 1. The hooks *f* enter the eye *b* of the shackle when the lock is in a locked state, and in order to unlock the lock it will be seen that it is necessary to move the tumblers C so that the hooks *f* will be out of the eye.

It is designed to have the tumblers C so arranged that the hooks *f f'* of each one will have a different position relatively with the others, and hence in unlocking the lock the tumblers require to be moved at different distances in order to throw the hooks *f* out from the eye *b*, and if any one of the tumblers are moved too far the other hook, *f'*, will be moved in the eye *b*; hence the lock is rendered extremely difficult to pick, as each tumbler requires to be moved to a certain position, and the movement of each tumbler being different as regards distance.

In order to unlock the lock in a legitimate manner, a key, D, is provided, with bits *g* of different lengths, corresponding to the different distances the tumblers require to be moved.

E is a spring fitted within the case A directly over the tumblers, for the purpose of throwing out the shackle when the tumblers C are moved, so as to throw the hooks *f f'*, either or both, out from the eye *b*.

I am aware that padlocks have before been made with double-hooked tumblers; but

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

The combination, with the spring E with the shackle B, plurality of double-hooked tumblers C, and springs *d*, all constructed, arranged, and operating as and for the purposes specified.

EDWARD COYLE.

Witnesses:

CORNELIUS COYLE,  
JOSEPH HESS.