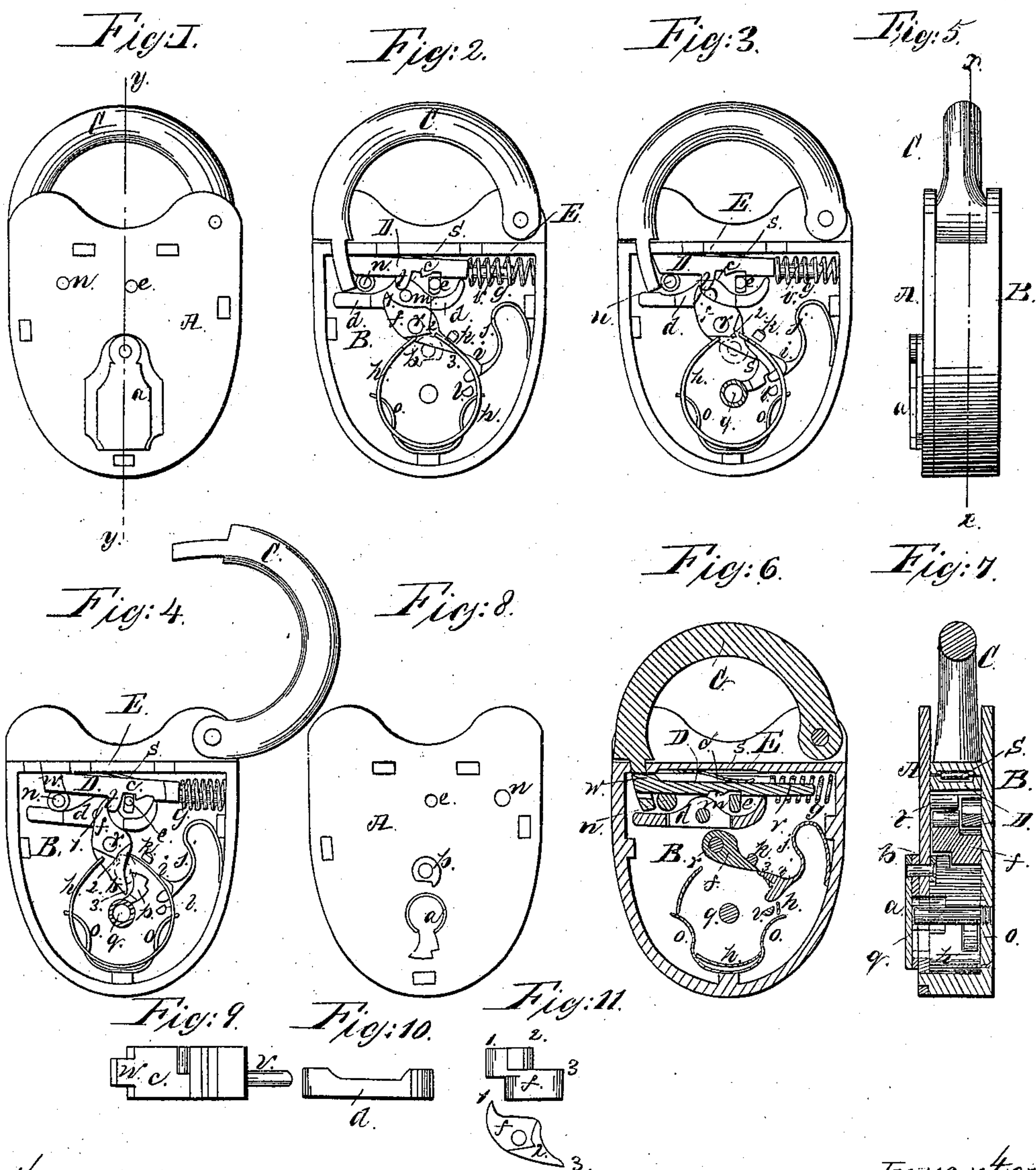


# M. T. Ridout, Padlock.

N<sup>o</sup> 36,421.

Patented Sep. 9, 1862.



Witnesses:

Randolph Boyle  
C. F. Smith

Inventor:

Moses T. Ridout  
by his Attorney's  
Robbins & Burr



# UNITED STATES PATENT OFFICE.

MOSES T. RIDOUT, OF MILWAUKEE, WISCONSIN.

## IMPROVEMENT IN PADLOCKS.

Specification forming part of Letters Patent No. 36,421, dated September 9, 1862.

*To all whom it may concern:*

Be it known that I, MOSES T. RIDOUT, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and Improved Padlock; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a front view of my said improved padlock. Figs. 2 and 3 are views of the interior portions of said lock when the bolt thereof is in a locked position; Fig. 4, a view of the same when the said bolt is in an unlocked position; Fig. 5, an edge view of said lock; Fig. 6, a section in the line *xx* of Fig. 5; Fig. 7, a section in the line *yy* of Fig. 1, and the remaining figures represent detached portions of said lock in detail.

Similar letters indicate the same parts in each of the drawings.

The bolt *D* of my improved padlock is steadied in its movements beneath the straight edge *E* of the lock-casing by means of the studs *e* and *n*, whose ends are received into the front and rear faces of said casing, as shown in the drawings. The said bolt *D*, when it is relieved from the catch which temporarily retains it in the unlocked position, (shown in Fig. 4,) is driven forward to its locked position by means of the helical spring *g*, which is received onto the shank *v* at the after extremity of said bolt, Fig. 9, and which presses outwardly against the edge of the lock.

The spring *s*, Figs. 4 and 6, which is secured to the under face of the straight edge *E* of the lock-case, and which bears against the upper side of the lock-bolt *D*, serves the purpose of pressing down the after portion of the same at the instant that it is thrown back by the key *p*, which movement causes the notch *c* in the under side of the lock-bolt to embrace the upper side of the rectangular stud *e*, (see Fig. 4,) and thereby enables the said stud to hold the lock-bolt in its withdrawn position until it is relieved by a movement imparted to the tumbler *d* by the perforated head of the shackle *C* at the instant that it is thrust through the aperture in the lock-casing preparatory to being caught and retained by the thus liberated lock-bolt.

The aforesaid movements are accomplished

as follows, viz: The tumbler *d* being centrally pivoted by means of the pin *m*, and being so located that its curved end will bear against the depressed after end of the bolt *D* at the same time that its straight end is immediately beneath the aperture in the straight edge *E* of the lock-case, through which the flat-sided and perforated head of the shackle *C* must pass to be acted upon by the bolt *D*, it necessarily follows that the depressing action exerted by the said perforated head of the shackle upon the straight end of the tumbler *d* will elevate the curved end thereof, and by so doing will lift the bolt *D* entirely above the stud *e* and allow the main spring *g* to drive the said bolt forward to the locking position shown in Figs. 2, 3, and 6, the shank-head *w*, Figs. 4 and 9, of the said bolt then passing into the aperture in the head of the shackle, and the shoulders of said bolt-head striking against the sides of the head of the shackle. The key *p*, Fig. 4, acts upon the lock-bolt *D* through the medium of the tumbler *f*, (whose shape is clearly shown in the drawings,) the said tumbler having an outer leg, 1, an inner leg, 3, and sharp angle 2 near the pivot-pin *r*, upon which the said tumbler works. Within the lock the key-hole is surrounded by the guard-plate *h*, which has an aperture of just sufficient size to allow the inner leg, 3, of the tumbler *f* to pass through the same and strike against the stud *k*, as shown in Figs. 2 and 6, and just previous to attaining said position the extremity of the said leg 3 of the tumbler *f* presses back and passes beyond the spring-actuated catch *i*, which catch, as it reacts, passes within the rounded end of said leg 3, and securely holds the tumbler *f* in the said position until it is desired to change the same to that represented in Fig. 3, for the purpose of enabling the key to take hold of the tumbler-leg 3 for the purpose of throwing back the bolt of the lock. When the key is inserted within the lock, it is turned toward the right until it strikes against the projecting head of the catch *i*, and it is then pressed against the said catch until arrested by the stud *l*. While the catch *i* is thus held by the key against the stud *l* its tooth is withdrawn and detached from its hold upon the leg of the tumbler *f*. The tumbler *f* being thus released by the first movement of the key, the key-hole cover *a*, Fig. 1, is carried



around from the right side of the key-hole a sufficient distance to cause the cam *b*, which is rigidly secured to the inner end of the pivot-pin of said cover on the inner side of the front casing of the lock, (see Fig. 8,) to take hold of the angle 2 of the tumbler *f* and draw the leg 3 of said tumbler to the position shown in Fig. 3, in which position it can be taken hold of by the key, and as the key is turned back toward the left it will bring the leg 1 of the tumbler *f* in contact with the tooth *t* on the lock-bolt, when the bolt can be thrown backward by exerting the requisite degree of force upon the key. After unlocking the bolt, if it be desired to withdraw the key from the lock, the key should be turned around to the right again, and the key-hole cover *a* should be turned downward until it strikes the stem of the key, which movement of the said key-hole cover will cause the cam *b* to press against the lower side of the angle 2 of the tumbler *f*, and thereby move its leg 3 such a distance to the right as will permit the key to be turned freely past it around toward the left, and thus be withdrawn from the key-hole. In the act of locking the shackle *C* by forcing its head into the lock the quick sharp action of the tooth *t* of the lock-bolt upon the outer leg of the tumbler *f* throws its inner leg, 3, against the catch *i* with such force as to operate said catch and cause it to retain the said tumbler in the position shown in Fig. 6. The auxiliary spring *o*, whose curves pass through slits in the curved

guard-plate *h* into the circular space within the same, performs no function other than that of deceiving a pick-lock who may be endeavoring to tamper with the lock. If the spring *j* has the requisite degree of stiffness, and if the respective parts of my improved padlock be properly proportioned, it is my opinion that it is absolutely impossible for it to be opened by any person who is not familiar with its construction.

Having thus fully described my improved padlock, what I claim therein as my invention, and desire to secure by Letters Patent, is—

1. The combination of the bolt *D* with the spring *s*, the angular stud *e*, the tumbler *d*, and the mainspring *g*, substantially in the manner and for the purpose herein set forth.

2. The arrangement of the tumbler *f*, with the key-hole cover *a*, the cam *b*, the spring-catch *i*, the stop *k*, and the bolt *D*, or the equivalents of said parts, substantially in the manner and for the purpose herein set forth.

3. The arrangement of the curved guard-plate *h*, with the tumbler *f*, the spring-catch *i*, and the key-pivot *q*, substantially in the manner herein set forth.

The above specification of my improved padlock signed and witnessed this 30th day of December, 1861.

MOSES T. RIDOUT.

Witnesses:

E. VALENTINE,  
E. T. RIDOUT.