

S. White,

Padlock.

N^o 11,149.

Patented June 20, 1854.

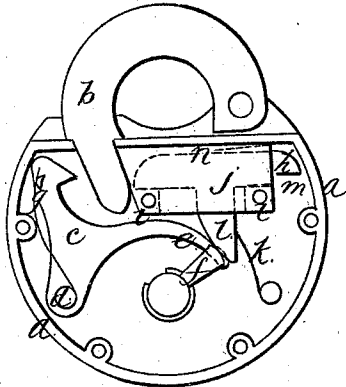


Fig: 1.

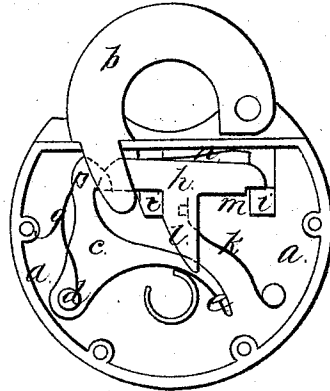


Fig: 2.

Witnesses:

Adolph Koemoe
Henry Seibert.

Inventor:

Stephen White

UNITED STATES PATENT OFFICE.

STEPHEN WHITE, OF NEWARK, NEW JERSEY, ASSIGNOR TO HENRY C. JONES.

PADLOCK.

Specification of Letters Patent No. 11,149, dated June 20, 1854.

To all whom it may concern:

Be it known that I, STEPHEN WHITE, of Newark, New Jersey, have invented an Improvement in Padlocks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1, is a face view of the lock with cap plate of the case removed and representing the lock bolt as thrown back; and Fig. 2 a like view representing the shackle as locked and the plate which holds the sliding bolt in place as removed to exhibit the form of the bolt.

The same letters indicate like parts in the two figures.

Letters Patent were Granted to Henry C. Jones bearing date the — day of April 1842 for an improvement in pad locks consisting of two spring bolts which enter the shackle in opposite directions, one a turning bolt hung on a fulcrum pin, the other a sliding bolt, both being so formed as to be acted upon by the key at the same time to throw them back in opposite directions to liberate the shackle. This improvement was for the purpose of and does effectually prevent the opening of the lock by concussions produced by blows on the edge of the case and just below the hinge of the shackle a mode of opening mail locks discovered by the Post Office Department to have been practiced by robbers. I have discovered however that this lock can be opened without the key by simply intruding a pick to force and hold back the turning bolt while the case is struck to force back the sliding bolt by concussion.

The object of my invention is to prevent the opening of such locks by the combined use of a pick and blows on the case and with this view my invention consists in making the rear end of the sliding bolt when used in combination with the turning bolt with a shoulder on the lower edge which when the bolt is thrown forward permits the rear end of the said bolt to descend so that the said shoulder shall prevent its running back unless the rear end be first lifted up by the action of the key to clear the shoulder.

In the accompanying drawings A represents the case of a pad lock and B the shackle turning on a joint pin at the back and with a mortise on its forward end to receive the two bolts which enter it in opposite direc-

tions. One of the bolts, C, turns on a fulcrum pin D, and has an arm, E, which extends to and is acted upon by the key F to throw it back out of the shackle and when liberated it is forced into the mortise of the shackle by the tension of a spring, G. The other bolt, H, is placed in the upper part of lock case and slides in recesses made in two stud plates I I and is held therein by a cap plate J, this bolt is forced forward by the tension of a spring K and a part of its lower edge extends down in a cam form L, to receive the action of the key by which it is forced back to liberate the shackle. The face of this cam projection is of such form that when the key acts, it not only tends to force back the bolt but to lift up its rear end.

The recess in the rear stud I, is wider than the width of the rear end of the bolt which in consequence has some play therein; and on the lower edge there is a shoulder (M) which is free to pass in the recess of the stud when the bolt is lifted up but which strikes against it when the bolt is held down, and thus prevents it from being forced back. The rear end of the bolt is forced down by the tension of a spring, N.

From the foregoing it will be seen that if a pick be introduced to act on, and force back the turning bolt, the sliding bolt cannot be forced back by concussions produced by blows on the case because this is effectually resisted by the shoulder on the lower edge, and yet this shoulder does not impede the motion of the bolt when acted upon by the key for the reason that the key, in acting on the cam formed projection lifts up the rear end and to clear the shoulder. The spring N, is not indispensable to the efficiency of the shoulder in resisting the action of blows on the case because to throw back the bolt of a lock by the reaction of blows, force must be applied to the shackle to hold the bolt as it is gradually forced back by concussion, otherwise the tension of the spring would force it back to its place each time, and no one blow is sufficient to liberate the shackle and as force must be applied to the shackle this will act upon the forward end of the bolt and effectually hold down the rear end to keep the shoulder in place to prevent it from being forced back by concussion.

I am aware that locks have been made with one turning spring bolt to enter the mortise of the shackle on one side the said

turning bolt being notched on its back edge to receive a stop on a lever tumbler which turns on a fulcrum pin and which is also provided with a projection to enter the mortise of the shackle on the opposite side of the turning bolt; and that the turning bolt is also notched on its upper edge to receive a spring dog or catch which falls behind the shoulder of the notch on the bolt when thrown into the shackle to prevent the said bolt from being forced back; but the said spring dog or catch is lifted out of the notch by the turning of the tumbler to lift the stop at the same time from the notch in the back edge of the tumbler, so that by introducing a pick into the said lock and turning the said tumbler the tumbler is withdrawn from the mortise in the shackle, the spring dog or catch is lifted out of the notch, and the stop on the tumbler is lifted out of the notch in the back edge of the bolt, thus freeing the bolt by the one operation so that by striking on the back edge

of the lock case just below the hinge joint of the shackle, and at the same time pulling, the concussion will throw back the bolt and open the lock. The object of my invention is to avoid this very defect, and therefore I do not claim as my invention simply notching one of the bolts to act as a stop for the reception of a tumbler or spring dog or any equivalent as this alone would not accomplish what my invention accomplishes.

What I claim as my invention and desire to secure by Letters Patent is—

Making the sliding bolt with a shoulder or its equivalent acting substantially as specified, in combination with the turning bolt both entering the mortise of the shackle in opposite direction substantially as specified and for the purpose set forth.

STEPHEN WHITE.

Witnesses:

JOHN WALTON,
HENRY D. HEDDEN.