W. P. YOE.
Padlock.

No. 198,918. Patented Jan. 1, 1878.

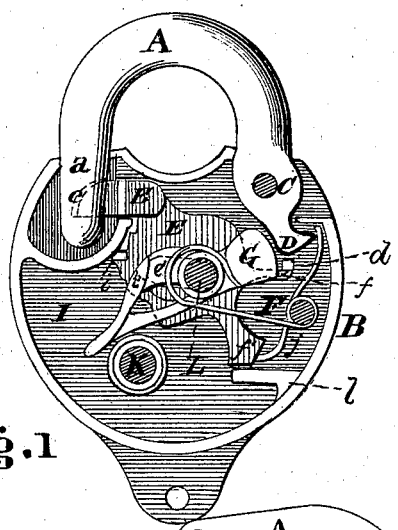

Fig. 1

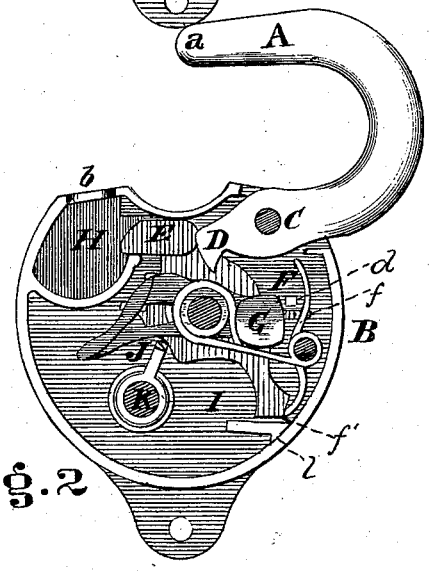

Fig. 2

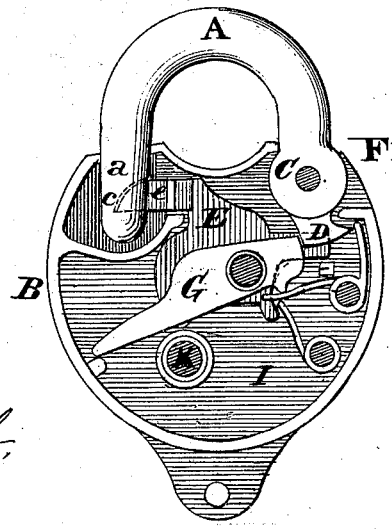

Fig. 3

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UNITED STATES PATENT OFFICE.

WILLIAM P. YOE, OF CINCINNATI, OHIO, ASSIGNOR TO POST & CO., OF SAME PLACE.

IMPROVEMENT IN PADLOCKS.

Specification forming part of Letters Patent No. **198,918**, dated January 1, 1878; application filed October 15, 1877.

To all whom it may concern:

Be it known that I, WILLIAM P. YOE, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Locks, of which the following is a specification:

My invention relates to an improvement in padlocks; and consists in the combination, with the locking-bolt and shackle, of a swinging dog, which, by the action of a spring, is caused to assume a position in front of a projection on the rear part of the shackle when closed, and between said projection and a shoulder on the locking-bolt, whereby the shackle is doubly locked.

In the accompanying drawings, Figure 1 is a sectional elevation of a lock of my invention, representing the lock-bolt thrown into the recess formed in the loose end of the shank, thereby securing it. Fig. 2 is a similar view, representing the lock-bolt drawn back and the shank released; and Fig. 3 is a sectional elevation of a lock embodying some slight modifications from that shown in Figs. 1 and 2.

Letters of like character in each of the figures represent corresponding parts.

The shank A is pivoted to the case B at C, and is provided with a projection, D, which serves as a lever to automatically throw open the shank A when it is released from the reciprocating lock-bolt E, and is actuated by the spring F, which also serves to throw forward the lock-bolt E and operate the dog G.

The lock-bolt E moves back and forth in a straight line, and has near its center a slot, *e'*, (indicated in dotted lines, Fig. 1,) which fits over the central stud L. It also has a rearwardly-extending arm, *f*, arranged to pass under the guiding-stud *d*, and said bolt has also a rearwardly and downwardly inclined arm, *f'*, the rear edge of which is acted upon by spring *j* to throw the bolt forward.

A lug, *l*, serves as a guide for the arm *f'*. The bolt E reciprocates independently of the dog G; but when the lock is closed the said bolt cannot move backward far enough to become disengaged from the notch *c* of the shank, on account of a projection, *i*, on the front side of said bolt coming in contact with a shoulder (shown in dotted lines) at the forward edge of the dog.

The chamber H, forming part of the case B, provides a receptacle for the end *a* of the shank, and serves to separate it from the interior chamber I, that contains the actuating mechanism of the lock, and thus prevents the working parts from injury by water, dirt, or other objectionable matter, which the ordinary lock is subject to.

The movable part *a* of the shank is made round and tapering, so as to be free to enter the perforation *b* in the lock-case without abrasion, and at the same time fit the case snugly. It is also provided with a recess, *c*, for the reception of the point *e*, which is part of the lock-bolt E.

The chamber H is provided with an aperture for the entrance of the point *e*, and is of the same size and configuration as the said point.

The operation may be briefly described as follows: When opening the lock the key J fits upon the pin K, and when rotated to the right first engages the dog G, and releases the point D from contact with it. It then engages the lock-bolt E, and, moving it backward in a straight line, withdraws the point *e* from the recess *c*; then the spring F, operating upon the point D, throws the shank A open.

In closing the lock, all that is necessary is to force the point *a* into the chamber H, and the point *e* will be forced back until the recess *c* is reached and the spring F forces the said point *e* into it.

The point D is so shaped as to displace the dog G while the shank A is being forced into the chamber H.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination of the reciprocating spring-bolt E, having rear arms *f* and *f'* and projection *i*, the locking spring-dog G, having shoulder *i'*, the shank or shackle A, having projection D, and the guides *d* and *l*, substantially as set forth.

2. The combination of reciprocating spring-bolt E, having shoulder *i*, independently rocking spring-dog G, having shoulder *i'*, and the shank or shackle A, having downward projection D.

In testimony whereof I have hereunto set my hand this 29th day of May, 1877.

WILLIAM P. YOE.

Witnesses:

HENRY MILLWARD,

CHAS. E. CALLAHAN.