(Model.)

T. DONAHUE.

PADLOCK.

No. 264,639. Patented Sept. 19, 1882.

Fig. 1.

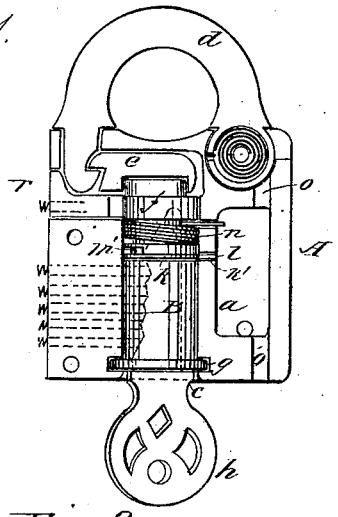


Fig. 7

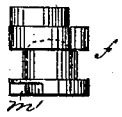


Fig. 8

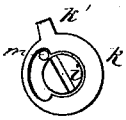


Fig. 2.

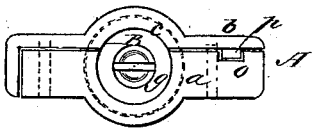


Fig. 4

Fig. 6

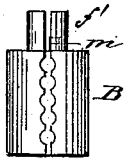


Fig. 3

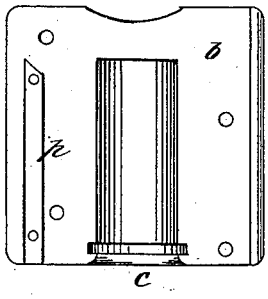
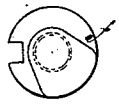


Fig. 5.



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ATTORNEYS.

UNITED STATES PATENT OFFICE.

THOMAS DONAHUE, OF TERRYVILLE, CONNECTICUT, ASSIGNOR TO THE EAGLE LOCK COMPANY, OF SAME PLACE.

PADLOCK.

SPECIFICATION forming part of Letters Patent No. 264,639, dated September 19, 1882.

Application filed March 23, 1882. (Model.)

To all whom it may concern:

Be it known that I, THOMAS DONAHUE, of Terryville, in the county of Litchfield and State of Connecticut, have invented a new and useful Improvement in Locks, of which the following is a full, clear, and exact description.

My invention consists in certain novel features of construction in pin-padlocks, with the object to obtain strength and durability, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a face view of a lock of the improved construction with the cap-plate removed. Fig. 2 is an end view of the lock. Fig. 3 is an internal face view of the cap-plate. The other figures are detail views, as mentioned hereinafter.

A is the lock-case, made in two parts, a body, *a*, and a cap-plate, *b*.

B is the turning-plug, fitted to rotate in a recess formed principally in the body *a*, and with its key-slot accessible through a circular aperture, *c*, in the end of the case. *d* is the shackle, formed with a hook end for engagement by a slide, *e*, that is moved by a cam, *f*, on the inner end of plug B.

At the outer end of the turning-plug B is a rotating disk, *g*, (shown separately in Fig. 4,) of larger diameter than the plug, and entering grooves formed in the body *a* and plate *b*, whereby it retains the plug in place, the disk being apertured for the key to pass, so that it forms a stop for the two shoulders of the key *h*. The disk *g* being free to rotate, the wear caused by the shoulders of the key becomes distributed upon the disk. The plug is recessed or countersunk around the key-slot, and the edges of the aperture *c* are rounded, as shown in Fig. 3.

The cam *f* (shown separately in Figs. 5 and 7) sets upon a stud, *f'*, formed on the inner end of plug B, (see Fig. 6,) to which the cam is secured by a screw, *i*, Fig. 8, so that the cam may turn freely on the stud.

Between the cam and plug is a ring, *k*, formed with a projection, *k'*, that enters a slot, *l*, in body *a* to serve as a stop for the movement of the plug. The stop-ring *k* is cut out or slotted to engage a pin, *m*, projecting from the end of plug B, so that the pin moves in such slot when the disk is rotated, and the length of the slot regulates the extent of movement. The pin *m* projects into a recess, *m'*, formed in the end of the cam *f*, and moves the cam by engagement with the ends of the recess. The cam is grooved to receive a spiral spring, *n*, one end of which engages the case, while the other end is connected to the cam, so that the spring is wound by the movement of unlocking the shackle, and acts to return the cam and plug backward as soon as the holding-dog is moved out by insertion of the shackle.

To strengthen the lock-case, the portion *a* is formed with a groove or mortise, *o*, and the plate *b* has a corresponding rib, *p*, to enter the groove. This construction strengthens the case and sustains the plate against lateral pressure, so that the attaching-rivets are relieved of lateral strain.

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

1. The rotary plug B, having the disk *g*, in combination with the body *a* and cap-plate *b*, provided with grooves to receive said disk and retain the plug, as described.

2. The combination, with the rotary plug B, having disk *g*, of the stop-ring *k*, cam *f*, slide *e*, and shackle *d*, as and for the purpose specified.

3. In a padlock, the cam *f*, provided with recess *m'*, plug B, having stud *m*, and the spring *n*, substantially as described, combined for operation as specified.

THOMAS DONAHUE.

Witnesses:

H. B. PLUMB,

JASON C. FENN.