(No Model.)

W. I. ALVORD.

PADLOCK.

No. 353,012. Patented Nov. 23, 1886.

Fig 1

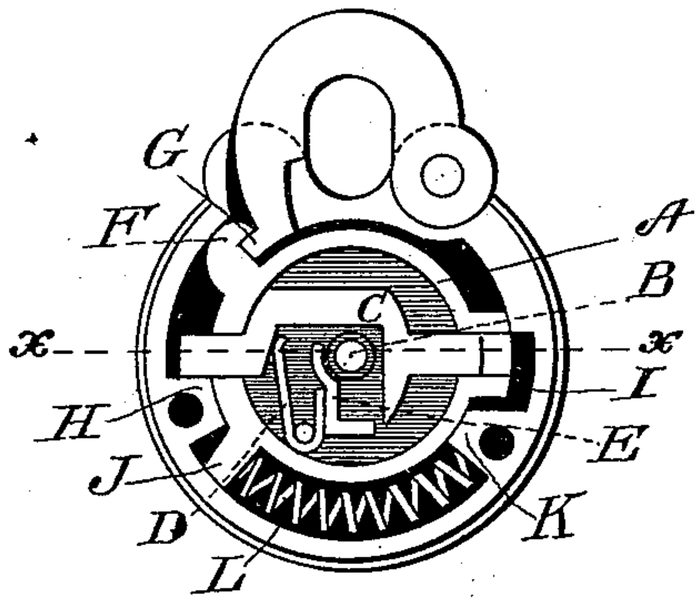


Fig 2

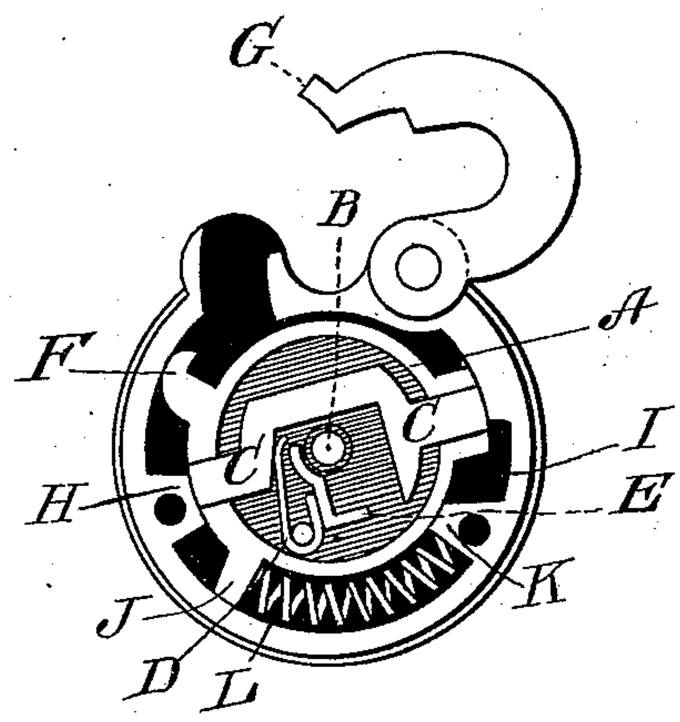
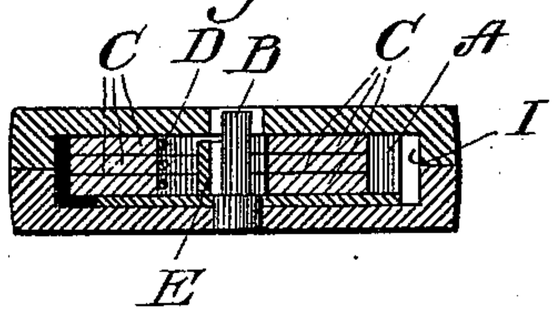


Fig 3



Witnesses
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UNITED STATES PATENT OFFICE.

WILLISTON I. ALVORD, OF BRIDGEPORT, CONNECTICUT.

PADLOCK.

SPECIFICATION forming part of Letters Patent No. 353,012, dated November 23, 1886.

Application filed July 27, 1886. Serial No. 209,268. (No model.)

To all whom it may concern:

Be it known that I, WILLISTON I. ALVORD, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Padlocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain novel and useful improvements in the construction of padlocks, and has for its object to provide a simple and effective device of this description; and with these ends in view my invention consists in certain details of construction and combination of elements, hereinafter fully and in detail explained, and then specifically designated by the claim.

In order that those skilled in the art to which my invention appertains may more fully understand its construction and operation, I will proceed to describe the same, referring by letter to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an interior view of my improved padlock with the cover thereof removed, showing the position of the several parts when the shackle is locked; Fig. 2, a similar view, but illustrating the position of the several parts when the shackle is unlocked; and Fig. 3, a section at the line *x x* of Fig. 1.

Similar letters denote like parts in the several figures of the drawings.

In my application for Letters Patent for improvement in locks, filed May 24, 1886, Serial No. 203,090, I showed and described a series of tumblers arranged within a rotary shell, said tumblers adapted to be thrown by the action of the key into engagement with stops secured to the shell of an ordinary door lock or latch, and in this present improvement I have shown the same construction and arrangement of tumblers. It is not deemed necessary, therefore, to particularly describe said parts herein, as this invention has special reference to the adaptation and embodiment of said shell and tumblers in a padlock.

A is the tumbler-shell, and B the key-post projecting upward from the padlock-casing through the bottom of the shell A, whereby the latter is pivoted so as to turn freely.

C are the tumblers arranged within the shell A and extending through opposite sides thereof, and D are the tumbler-springs.

E is the key-hole guide, the construction and function of which are precisely the same as in my above-mentioned former application.

F is a hook-shaped lug projecting from the side of the shell A and adapted to engage with the nose G of the shackle when the said shell is rotated, as will be presently explained.

H is a stop projecting inwardly from the side of the padlock-casing, and I is a recess formed in the opposite side thereof.

J K are lugs extending from the tumbler-shell and padlock-casing, respectively, and between which is confined a coil-spring, L, the function of which is to impart a spring action to the rotation of the shell A.

The operation of my improvement is as follows: By turning the key against the inner edges of the tumblers the latter are drawn inside of the shell A and out of contact with the stop H, and by a continued turning of the key the said shell is rotated until it assumes the position shown at Fig. 2. In locking the shackle the latter is thrown down and the key turned against the guide E, thereby rotating the shell until the hook F engages or overlaps the nose G on the shackle, when the tumblers will have thereby been carried beyond the stop H and thrown into abutment with the latter by their springs, as shown at Fig. 1.

The recess I affords a safeguard as against ordinary picking, since any manipulation of the tumblers in order to withdraw them from abutment with the stop H is apt to throw them within said recess, and in this event the shell A could not be rotated, since the tumblers would abut against the upper wall of said recess.

One of the peculiarities of this padlock is that after the shackle has been unlocked the shell A has to be rotated back to its locked position before the key can be withdrawn, so that it will be obvious that when it is desired to secure the shackle the key cannot be withdrawn until said shackle is locked.

The spring L facilitates the movement of

the shell A in locking the shackle, but it is not a necessary element in my improved construction, and I therefore do not wish to be circumscribed by the use of the same.

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

In a padlock, the combination, with the nose of the shackle and a stop projecting from the side of the padlock-casing, of a rotary shell having arranged therein tumblers adapted to slide laterally, and having extending from its side a hook, said tumblers and hook adapted to engage with said stop and nose respectively when the said shell is rotated to lock the shackle, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLISTON I. ALVORD.

Witnesses:

S. S. WILLIAMSON,

W. T. HAVILAND.