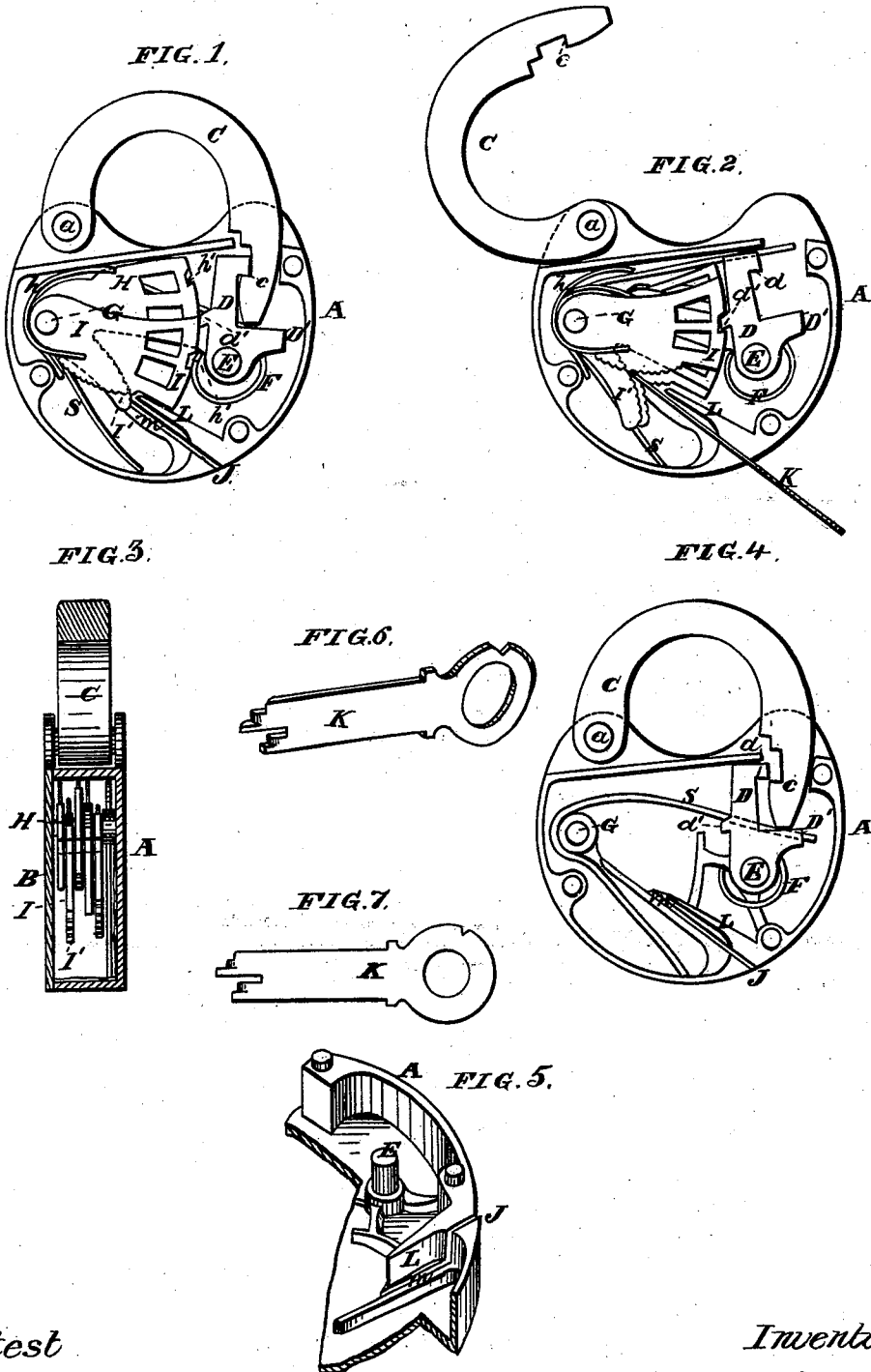


W. BALDWIN.
Padlocks.

No. 210,080.

Patented Nov. 19, 1878.



Attest

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UNITED STATES PATENT OFFICE.

WILLIAM BALDWIN, OF TIOGA, PENNSYLVANIA.

IMPROVEMENT IN PADLOCKS.

Specification forming part of Letters Patent No. **210,080**, dated November 19, 1878; application filed December 26, 1877.

To all whom it may concern:

Be it known that I, WILLIAM BALDWIN, of Tioga, in the county of Tioga and State of Pennsylvania, have invented certain new and useful Improvements in Padlocks, of which the following is a specification:

My invention relates to that class of padlocks constructed with self-opening shackles and with spring-tumblers which are adjusted for opening by the thrust of the key bearing obliquely against their edges.

My lock is constructed with a double set of tumblers, working between each other, and moved laterally by the pressure of the end of a suitable key against their oblique edges, and with a narrow guiding-groove, which, while it affords a sufficient bearing for the proper key, will not afford effective bearing for a narrow pick; also, with a curtain constituting a bearing, against which the tumblers rest, and serving to conceal the vital parts of the lock from inspection through the key-hole.

In the accompanying drawing, Figure 1 is a face view of the lock with the face-plate removed, showing the locked condition. Fig. 2 is a similar view, showing the unlocked condition. Fig. 3 is a vertical section. Fig. 4 is a face view, with the face-plate and tumblers removed, showing the shackle in the act of engaging with the dog. Fig. 5 is a perspective view of a portion of the case, showing the key-hole, the guide, the curtain, and the post on which the dog turns. Fig. 6 is a perspective view of a key adapted for the lock represented. Fig. 7 is a side view of the same.

A represents the case of the lock; B, the face-plate; C, the shackle, hinged at *a*, and having an undercut notch, *c*, near its free extremity for engaging with the dog D. The said dog is of L shape, having a horizontal rigid arm, D', projecting in suitable position to receive the pressure of the end of the shackle. It is also formed with an undercut hook, *d*, adapted to engage with the undercut notch *c* of the shackle.

E represents the stud on which the dog turns. F is the spring which tends to throw

the dog backward, so as to release the shackle, when permitted by the tumblers.

G represents a post, on which the tumblers H and I turn. Said tumblers are provided with springs *h* and with notches *h'*, in customary manner, the latter being adapted to receive the projecting stump *d'* of the dog D when the said notches *h'* of the tumblers are adjusted in corresponding position by the action of the proper key. K represents the key.

The alternate tumblers I are formed with downwardly-projecting arms I', the oblique edges of which receive the pressure of the end of the key K, so as to draw the said tumblers I downward, while the other tumblers, H, are pressed upward, the springs of the said tumblers being so constructed and applied as to press the tumblers H downward and the tumblers I upward when released.

The edges of the tumblers on which the key bears are corrugated, as shown in Figs. 1 and 2, to cause an irregular friction against the extremity of the key and prevent the possibility of feeling the notches *h'* with the dog-stump *d'*.

The successive steps on the extremity of the key are beveled in opposite directions, or in such a manner as to correspond with the surfaces of the tumblers on which they are to act.

The corrugations in the working-edges of the tumblers also effect the useful purposes of preventing the manipulation of the tumblers with a square-ended pick or key.

L represents a partition or curtain, which is cast with the lock-case, serving as a bearing for the tumblers H, against which they are thrown by their springs, and serving also to prevent inspection of the vital parts of the lock from the key-hole J.

M is a guiding-groove extending inward from the key-hole J, and affording a bearing for the lower edge of the key K, said bearing being insufficient to permit the use of a narrow pick for the manipulation of the tumblers separately.

S represents the mainspring, by which the shackle is thrown up when released.

Having thus described my invention, the

following is what I claim as new and desire to secure by Letters Patent:

1. The tumblers arranged to open or slide in opposite directions by the pressure of a flat key sliding endwise between their oblique opposing edges, substantially as set forth, in combination with the guide M, constructed substantially as described, to support the lower edge of the key.

2. The curtain L, constructed and applied as described, to conceal the vital parts of the lock, in combination with tumblers I, resting against the back of said curtain, as shown.

WM. BALDWIN.

Witnesses:

PHILO TULLER,
C. A. URELL.