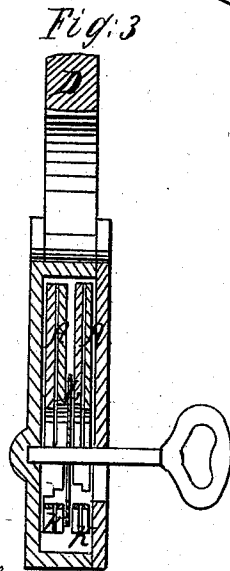
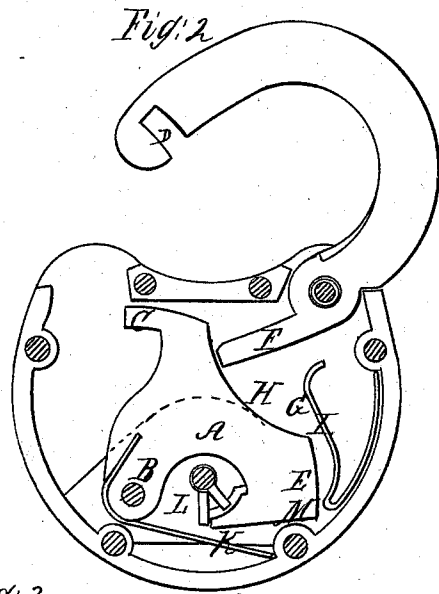
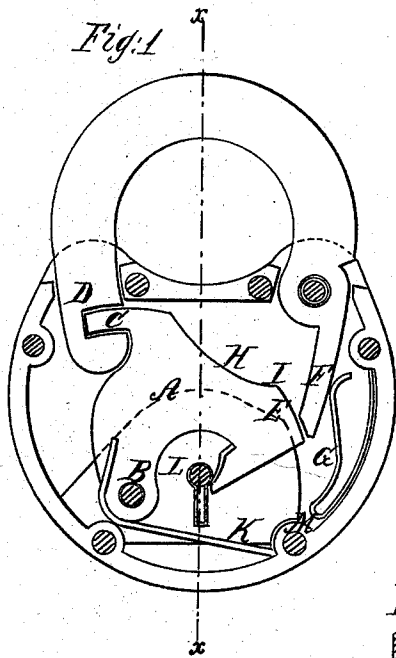


J. S. Rankin.

Pad-Lock.

N^o 97,812.

Patented Dec. 14, 1869.



Witnesses

Wm. H. Clark
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JOHN S. RANKIN, OF ANN ARBOR, MICHIGAN.

Letters Patent No. 97,812, dated December 14, 1869.

IMPROVEMENT IN PADLOCKS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, JOHN S. RANKIN, of Ann Arbor, in the county of Washtenaw, and State of Michigan, have invented a new and improved Padlock; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The object of this invention is to provide a simple, cheap, and efficient construction and arrangement of the locking and operating-parts of padlocks.

The invention consists in an improved and simple compound tumbler-bolt, and relative arrangement thereof with the bow and bow-spring, all as herein-after more fully specified.

Figure 1 represents a side view of my improved lock, in the locked condition, with one side of the case removed;

Figure 2 represents a similar view, when unlocked; and

Figure 3 represents a transverse section, taken on the line $x x$.

Similar letters of reference indicate corresponding parts.

The tumblers A are pivoted at B, and provided with extensions for engaging and locking the bow D.

They have also projections, E, curved from the pivot B as a centre, and arranged, relatively to a projection F from the pivoted end of the bow, which is pressed against the said projections E by a spring, G, for throwing out the bow, so that when unlocking, the said spring is prevented from acting on the bow until the projections C are withdrawn from the locking-notch in the swinging end of the said bow.

H represents concavities in the said tumblers, which

merge in the convex curvature of the projection E, at I.

This point passes beyond the projection F, at the moment the projections C escape from the notch in the bow, and this gives liberty to the projection F to be thrown out by the spring G.

In locking, the projection F, acting on the concavities in the tumblers, retracts them, when the bow is pressed in, before the said projection escapes the point I, which permits the bow to be passed in, and the tumbler-springs K to throw the tumblers forward, locking it.

L represents a key-hole guard-plate.

As many of these tumblers may be used as required, and the parts thereof against which the key works may be in any irregular order, to make it difficult to fit a key, or other device, for picking the lock; and the tumblers are so arranged, relatively to the arm F, and a stud, M, of the case, or other stop, that they must all be brought fairly down against the said stud before the arm will be permitted to be thrown up by the spring G, and this can only be done by a key exactly fitted.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

A spring-actuated pivoted tumbler, A, having projection C, recess H, and convexity E, in combination with a pivoted bow D, having locking recess at one end, and spring-actuated arm F at the other, the said tumbler and bow being arranged within a padlock-case, substantially in the manner described.

JNO. S. RANKIN.

Witnesses:

GEORGE E. BRETTELL,
TRACY W. ROOT.