

(No Model.)

W. W. RICHARDS.

PADLOCK.

No. 304,453.

Patented Sept. 2, 1884.

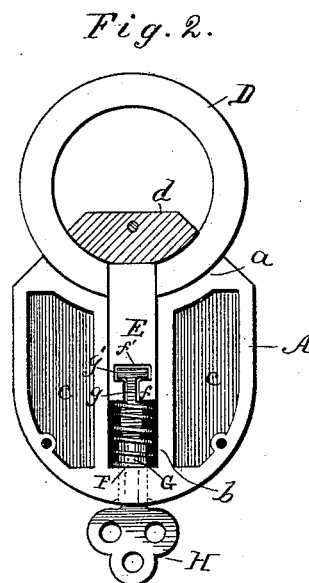
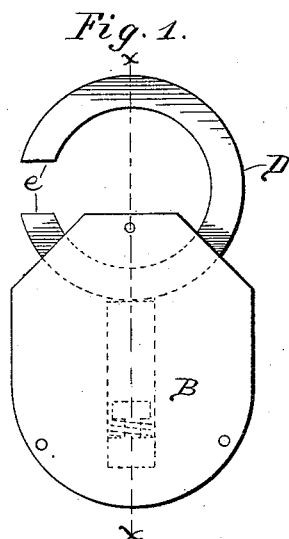
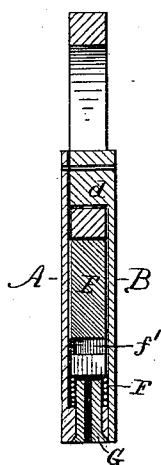


Fig. 3.



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PADLOCK.

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Application filed December 12, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM WARE RICHARDS, a citizen of the United States, residing at Washington, in the county of Wilkes and State of Georgia, have invented certain new and useful Improvements in Padlocks, of which the following is a description.

Figure 1 is a side view of the padlock unlocked. Fig. 2 is a sectional view with a part of the face-plate removed, showing the position of the parts when locked; and Fig. 3 is a longitudinal section through the line *x x* of Fig. 1.

My invention relates to padlocks in which the shackle-bar is constructed in the form of a circular ring, with an opening or gate in the same formed by a removal of a segment of the ring, and into which opening a bolt is made to lock, and through which opening, when the ring is turned, the shackle-bar is disconnected from the staple and hasp, which it serves to secure.

My invention consists, mainly, in the peculiar form of locking-bolt and its combination with a spring, tumbler, and key, as will be hereinafter fully described.

The frame of the lock consists of two sections, A and B, of which the section A is cast with a curved surface, *a*, and a central vertical bolt-recess, *b*, opening into the curved surface, this frame-section being hollowed out on each side at *c c* to make it lighter. The other section, B, of the lock-frame is formed as a plate with a curved lug, *d*, at the top, which section, when applied to the section A, leaves between the lug *d* and the curved surface *c c* room for the circular shackle-bar D. This shackle-bar is a circular ring having an opening or gate at *e*, which, when turned into the case, receives the locking-bolt, and when turned out of the case acts as a gate or outlet to release the staple, which is secured by the shackle-bar. E is the locking-bolt, which slides in the middle recess, *b*, and is backed by a spiral spring, F, which always tends to throw the bolt upwardly and into the opening of the shackle-bar.

In the bottom part of the frame-section A, and in line with the recess *b*, there is a swiveling tumbler-barrel, G, through which is formed a slotted opening to receive the key H. The lower portion of the bolt is slotted

with a narrow channel-way, *f*, for the key, and this slot opens at its upper end into wider recess *f'*. The key has a flat shank, with a narrow portion at *g* and a wider portion, *g'*, at its end, and the thickness of the flat key is such as to permit it to be passed through the narrow slot or channel-way *f*.

The operation of this lock is as follows: When unlocked, the opening in the shackle-bar is outside of the case, as shown in Fig. 1. Now, to lock it closed, the shackle-bar is simply rotated until the opening in the same passes into coincidence with the bolt, when the latter, acting under the tension of its spring, jumps into said opening and locks the shackle-bar against turning, which shackle-bar, it will be seen, is firmly held between the lug *d* and the curved surfaces *c c*. To unlock the shackle-bar, the key H is inserted through the swiveling-barrel, and is passed edgewise through the narrow part *f* of the channel-way in the bolt till the wide portion *g'* of the key is in the wider recess *f'*. The key is then turned a quarter of a revolution, when its wide end or bit rests upon the shoulders formed between the wide and narrow portion of the channel. The key is then forcibly drawn down and brings the bolt with it, which moves back against the tension of its spring, and in passing out of the opening *e* on the shackle-bar leaves the latter free to be turned to disconnect the lock from the staple. As shown, there is but one recess, *f'*, in the bolt, and but one bit, *g'*, on the key; but the bolt may be made with any number of locking-recesses, and the key may be made with any number of bits.

Having thus described my invention, what I claim as new is—

The combination, with a circular shackle-bar having an opening, *e*, in the same, the lock-case having middle recess, *b*, the bolt having slotted and recessed end, the spring arranged behind the same, the revolving tumbler-barrel swiveling on the case, and the key having bits adapted to engage with and pull down the bolt, as described.

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Witnesses:

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