

B. KENSLER.
Improvement in Padlocks.

No. 127,695.

Patented June 11, 1872.

Fig. 1

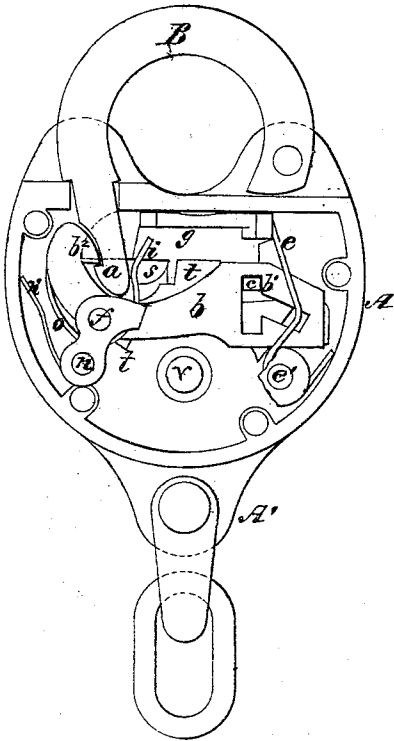


Fig. 2

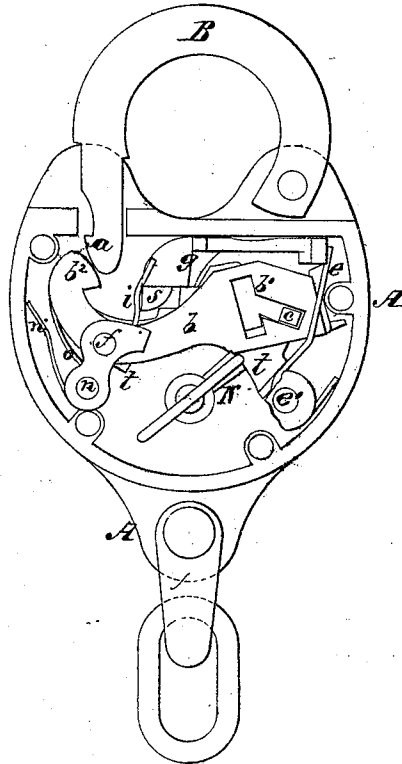


Fig. 4

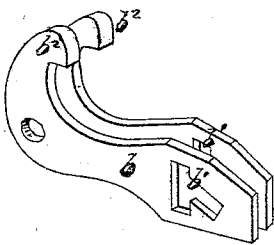
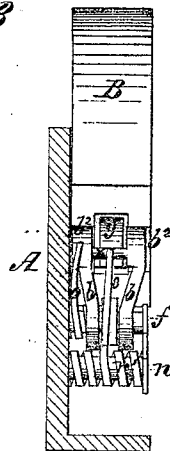


Fig. 3



Witnesses.
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UNITED STATES PATENT OFFICE.

BERNHARD KENSLE, OF HARTFORD, CONNECTICUT, ASSIGNOR TO JAMES L. HOWARD & CO., OF SAME PLACE.

IMPROVEMENT IN PADLOCKS.

Specification forming part of Letters Patent No. 127,695, dated June 11, 1872.

To whom it may concern:

Be it known that I, BERNHARD KENSLE, of Hartford, in the county of Hartford and State of Connecticut, have invented an Improvement in Padlocks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a view of the interior of the lock, as seen by removing the front plate, showing the shackle locked. Fig. 2 is a similar view of the same parts, showing the shackle unlocked. Fig. 3 is a section through the lock-case taken in the course of line *y*, Fig. 1. Fig. 4 is a perspective view of the tumblers.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to padlocks which are more particularly designed for railroad freight-cars, wherein it is important to have locks which are very simple and strong in construction, and which cannot be unlocked by concussions or any of the usual methods adopted improperly for picking locks. My invention consists in combining with a shackle, having a slotted and hooked nose, a sliding bolt and vibrating hooked tumblers, the latter having T-shaped slots through them, which receive a stud on said sliding bolt, as will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing, A represents the case of the lock, and A' an extension thereof, to which a chain-link is pivoted. B represents the pivoted shackle, which is constructed with a slotted and hooked nose, *a*, on its free end that enters an opening through the flat end of the case A. The works inside of the case consist principally of two tumblers, *b b*, and a sliding bolt, *g*. The tumblers are separated by a plate, *t*, which is held in place by means of studs *f e'* rising from the back of the lock-case, and these two tumblers are pivoted to the stud *f*, so as to vibrate freely thereon. Each tumbler *b* has a hooked portion, *b²*, which, when the shackle is locked, engages

with the hook on the nose thereof, as shown in Figs. 1 and 2. The broad part of each tumbler is slotted in a peculiar manner—*i. e.*, the slot *b¹* is T-shaped, and receives through it a stud, *c*, which is on the bolt *g*. The hooked end *b²* of one of the tumblers *b* has a bar, *x*, formed on it, as shown in Fig. 3, against which the spring *o* presses, which holds the opposite end of this tumbler down upon the stud *c*. The spring *o* of the other tumbler *b* presses directly against the back of its hooked portion. These springs, as well as the stronger one *i*, are coiled around the stud *n*. The latter spring (*i*) presses forcibly against the rounded nose of the shackle B when the latter is locked, and when it is unlocked this spring throws out the shackle. The bolt *g* slides against the flat side of the end of the lock-case, and is guided by a boss, *s*, on the back of the lock-case. This bolt is forced forward through the slotted nose *a* of the shackle B by a spring, *e*, which is applied to the stud *e'*. The nose of the bolt *g* is beveled, and when it is through the nose of the shackle it extends between the hooked heads of the tumblers, which, being separated, as shown in Fig. 3, allow the bolt to assume such a position.

When the key is applied on the stud *v* and turned, the first movement forces up the broad ends of the tumblers *b b* until the stud *c* on the bolt *g* is in line with the oblique portions of the T-shaped slots *b¹*, after which, as the bolt *g* is moved back, the stud *c* passes into said oblique portions *b¹*, and further raises the broad ends of the tumblers. Thus it will be seen that the tumblers are first lifted directly by the key, after which they are lifted by the action of the stud *c* and oblique slot.

It is very important that a railroad padlock should be so constructed that it cannot be unlocked by striking it forcibly against an object—a practice which is frequently resorted to by persons who are not in possession of the keys of the locks. The shackle of the lock, which I have herein described, cannot be released from its bolt and tumblers by concussions, for the reason that the bolt is securely held in place when locked by the straight portions of the slots *b¹*, into which the stud *c* is

received; and, unless this stud *c* is first brought in line with the oblique portions of these slots and then moved backward therein, neither the bolt nor the tumblers can be released from the shackle.

I do not claim such construction of locks as is shown in patents granted to William McIntire and Conrad Liebrich, dated, respectively, December 6, 1870, and August 11, 1863; but

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

The combination, with the shackle *B* of a padlock, of pivoted hooking tumblers *b*², slotted as at *b*¹, and a rectilinear moving bolt, *g*, having a stud, *c*, extending from it into the slots of the tumblers, whereby two or more tumblers, slotted as described, may be used in a padlock, which is constructed, organized, and operated as set forth.

BERNHARD KENSLER.

Witnesses:

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