(No Model.)

H. ABBETT.

PADLOCK.

No. 346,011. Patented July 20, 1886.

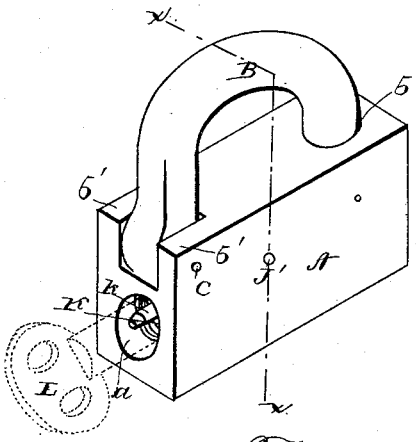


Fig. 1.

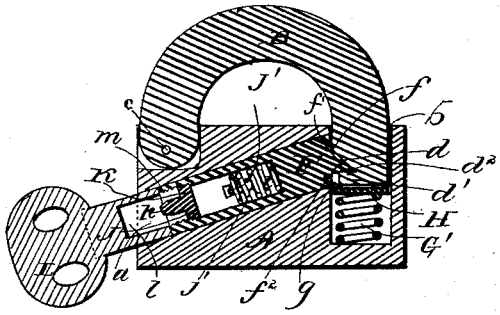
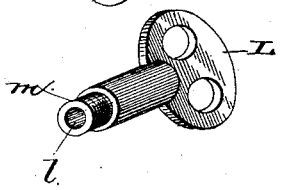


Fig. 2.

Fig. 5.



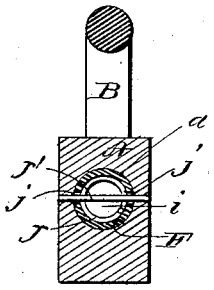


Fig. 3.

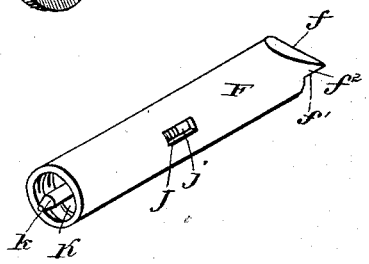


Fig. 4.

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UNITED STATES PATENT OFFICE.

HENRY ABBETT, OF CARROLLTON, KENTUCKY.

PADLOCK.

SPECIFICATION forming part of Letters Patent No. 346,011, dated July 20, 1886.

Application filed May 6, 1886. Serial No. 201,383. (No model.)

To all whom it may concern:

Be it known that I, HENRY ABBETT, a citizen of the United States, residing at Carrollton, in the county of Carroll and State of Kentucky, have invented a new and useful Improvement in Padlocks, of which the following is a specification.

My invention relates to padlocks; and it consists of the peculiar combination and novel construction and arrangement of the various parts for service, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

The object of my invention is to provide an improved padlock which shall be simple and durable in construction, effective and reliable in operation, and cheap of manufacture, and which shall, furthermore, be difficult to "pick" or unlock without the necessary key.

In the accompanying drawings, in which like letters of reference denote corresponding parts in all the figures, Figure 1 is a perspective view of a lock embodying my invention. Fig. 2 is a vertical central sectional view of the same. Fig. 3 is a transverse sectional view thereof on the line *x x* of Fig. 1. Fig. 4 is a detached perspective view of the locking-bolt. Fig. 5 is a detail perspective view of the key.

Referring to the drawings, A designates the case of my improved padlock, which is preferably made rectangular or square in form, and the case is provided with a longitudinal opening or bore, *a*, which is arranged in a slightly-inclined position, one end of which opens through the walls of the case, as shown in Fig. 1. The case is further provided with a transverse opening or bore, *b*, that opens into one end of the longitudinal opening, and at the end where the longitudinal opening or passage opens through the case the latter is provided with two integral lugs or flanges, *b'*, which are arranged on opposite side edges of the case to provide an intermediate space, in which is fitted one end of a hasp, B, which is curved longitudinally. One end of the hasp B is pivoted to the lugs *b'* by means of a transverse rivet or pin, *c*, and the other end of the hasp is beveled, as at *d*, and provided with a notch, *d'*, that forms a shoulder, d^2, with which is adapted to engage the free beveled end of a sliding locking-bolt, F. The notched end of the hasp is fitted in the transverse opening of the case, and the free end thereof bears against a movable follower, H, that is arranged in the lower end of the transverse bore *b* of the lock-case. This follower is normally pressed upwardly into the plane of the lower edges of the longitudinal passage of the lock-case by a coiled spring, G', and it is limited in its upward movement and prevented from being elevated by the said spring above the edges of the longitudinal passage *a* by a transverse pin or detent, *g*, that is arranged across the follower and suitably secured in the case A. The locking-bolt F is fitted to slide longitudinally in the bore or passage *a* of the lock-case A, and the front end thereof is beveled, as at *f*, to adapt the beveled end of the hasp to ride freely over the same, and it is also notched, as at *f'*, to provide a shoulder, f^2, that is adapted to lock with the shoulder d^2 on the hasp, the said shoulders being kept in contact or engagement with each other when the lock is locked by the spring-actuated follower bearing against the lower end of the hasp. The sliding locking-bolt F is further provided with a longitudinal opening or passage, *i*, and a transversely-formed slot, *j*, that opens into the longitudinal opening; and in the said longitudinal opening is inclosed or fitted a coiled spring, J. When the locking-bolt is arranged in the case, the slot *j* therein aligns with a transverse opening of the lock-case, and through the said transverse opening of the case and the slot *j* of the bolt passes a pin or bolt, J', against which the rear end of the coiled spring J bears to normally impel the sliding bolt forward, so that the free end of the same is projected into the transverse bore *b* and in the path of the notched end of the hasp. The locking-bolt is capable of a limited longitudinal movement in the lock-case, and the said movement is limited by means of the pin J', and it is also prevented from accidental detachment from the case by the said pin. The rear end of the locking-bolt is closed by a plug, K, which is securely fitted and retained therein, and this plug is provided with a projecting pin, *k*, of reduced diameter, which extends beyond the edges of the bolt, and provides a space intermediate of its periphery and the edges of the longitudinal opening *i* of the locking-bolt, the outer end of the bolt being interiorly threaded, as shown. A key, L, of peculiar form is provided with a

central longitudinal opening, *l*, and one end of this key is reduced to form a lug, *m*, said lug being exteriorly threaded, as shown in Fig. 5, and is screwed into the interiorly-threaded end of the sliding bolt. The pin *k* of the locking-bolt enters the longitudinal opening *l* in the key, and the key can be easily detached from the bolt by rotating it in the proper direction.

The operation of my device is as follows: To lock the lock the hasp is turned on its pivot, and the notched end thereof enters the transverse opening *b* of the lock-case, and is brought into contact with the beveled end of the bolt, to force the latter rearwardly and permit the shoulders of the hasp and bolt to interlock with each other, the free end of the hasp bearing against and elevated by the spring-pressed follower to normally keep the shoulders in engagement.

To unlock the lock the key is screwed into the threaded end of the bolt, so that the pin of the plug K of the latter enters the opening *l* of the key, and the key is withdrawn outwardly from the lock and carries the bolt with it, so that the shoulder of the bolt is drawn from engagement with the shoulder of the hasp, the latter being elevated slightly by the spring-actuated follower, so that its shoulder is thrown out of position to engage the shoulder of the bolt when the latter is released. It will thus be seen that the locking-bolt cannot be easily withdrawn from the case, except by means of the suitable key, and the threads on the interior of the bolt can be varied in number and changed from the right to the left hand, so that no two keys can operate the same bolt.

My invention is simple and strong in construction, and cheap and inexpensive of manufacture, but a few parts being employed to provide a safe and secure lock.

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

1. In a padlock, the combination of a case, a sliding locking-bolt therein, and having a longitudinal passage, and a transverse slot opening into the passage, a spring inclosed in the passage of and carried by the bolt, a transverse pin secured in the case and passing through the slot of the bolt, a pivoted hasp, and a key detachably connected to one end of the bolt for moving the latter longitudinally, substantially as described.

2. The combination of a case, a spring-actuated locking-bolt having an interiorly-threaded end, a plug fitted in the threaded end of the bolt, and provided with a projecting pin arranged out of contact with the threads of the bolt, a pivoted hasp, and a key having a longitudinal opening, and a reduced stud to engage with the threads of the bolt, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

HENRY ABBETT.

Witnesses:
R. F. HARRISON,
W. O. GULLION.