

(Model.)

L. HILLEBRAND.

PADLOCK.

No. 348,521.

Patented Aug. 31, 1886.

Fig. 1.

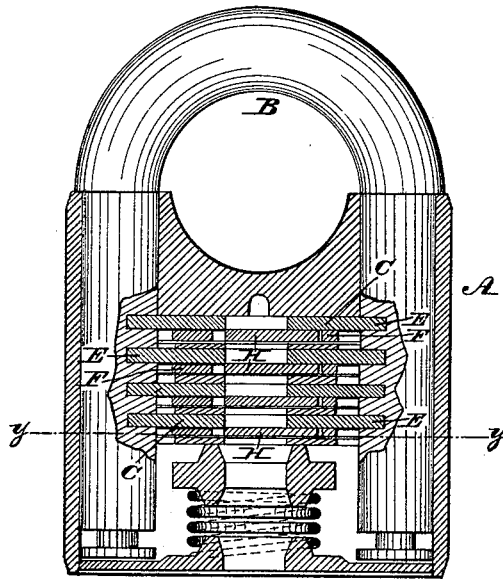


Fig. 2.

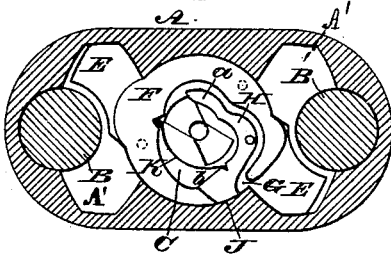


Fig. 3.

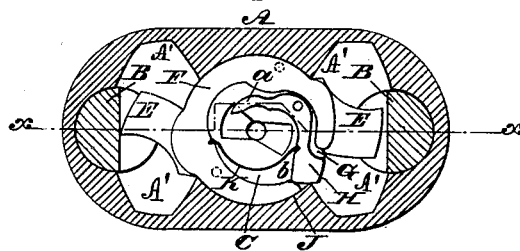


Fig. 4.

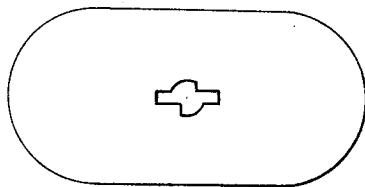


Fig. 5.

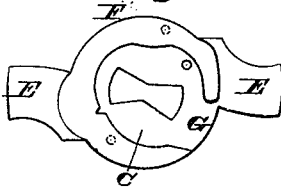


Fig. 6.

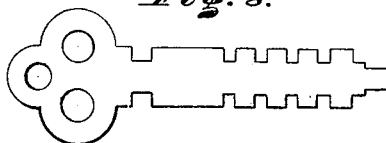
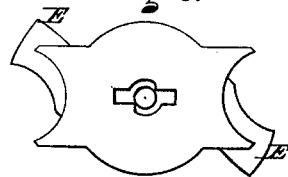


Fig. 7.



WITNESSES:

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Fig. 8.



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LOUIS HILLEBRAND, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO DANIEL WOLF, OF SAME PLACE.

PADLOCK.

SPECIFICATION forming part of Letters Patent No. 348,521, dated August 31, 1886.

Application filed April 29, 1886. Serial No. 200,507. (Model.)

To all whom it may concern:

Be it known that I, LOUIS HILLEBRAND, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Padlocks, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a vertical section of a padlock embodying my invention, in line *x x*, Fig. 3. Fig. 2 represents a horizontal section, showing the bolt and tumbler in unlocked position, in line *y y*, Fig. 1. Fig. 3 represents a horizontal section, showing the bolt and tumbler in locked position, in line *y y*, Fig. 1. Fig. 4 represents a face view of the lock-cover or bottom plate. Figs. 5, 6, and 7 represent views, respectively, of the bolt with a housing-plate and the bolt with a key-ward plate and the tumbler. Fig. 8 represents a view of a key that may be employed.

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

My invention consists of a padlock of the order of a "Scandinavian," having a bolt whose body has narrow arms projecting from the periphery thereof, whereby the thickness of the case is materially reduced, this provision also adapting locks to be formed of an increased width without increasing the thickness of the lock-case.

It also consists in providing the bolt with a tumbler which in locked position engages with the wall of the case.

Referring to the drawings, A represents the lock-case of a Scandinavian padlock, and B the shackle thereof. C represents partially-rotatable bolts, which are formed of flat plates of metal having their bodies somewhat circular in shape, and from opposite sides thereof there project outwardly the arms E, which are adapted to enter the slots or notches in the legs of the shackle B, and thus lock the latter, the body of each bolt being of small diameter, and revolving within the lock-case without engaging with said shackle. By this construction a slight rotation of the bolts is sufficient to cause the arms E to engage with the legs of the shackle, and a thick lock-case is obviated, as said arms play in the oblong ends of the case, and the width of the case is only slightly

greater than the diameters of the bodies of the bolts, thus reducing the weight of the lock and imparting a more graceful appearance to a lock of the class, it also being noticed that the lock-case has chambers A', which are outside of the central chamber and at the ends of the lock-case in communication with the chambers which receive the legs of the shackles, and that when the lock is open the arms E, which are narrow and projecting from the periphery of the body of the lock, abut against the walls of said chambers A', thus stopping the rotation of the bolt, and, as is evident, limiting the extent of rotation thereof. For a lock of increased size the case and arms are widened, but the thickness of the case is not increased, and thus the thickness of locks of various sizes may remain the same. Connected with each bolt is an annular-shaped piece, F, which is cut away or formed with a throat, as at G, and forming a housing, within which is located a tumbler, H, the latter being of angular form or somewhat L-shaped and pivoted to the bolt, one limb, *a*, being adapted to be engaged by a suitable key for unlocking purposes, and the other limb, *b*, occupying the throat G, so that when locking is required the bolt is operated by the key, and the limb *b* of the tumbler moves through the throat G and comes in contact with the wall J, or some other stationary part within the lock-case, thus securing the bolt and preventing unlocking action of the same—a feature of importance in a lock of the class when employed for railroad and other purposes and subjected to shaking movements due to the motion of a train, &c. A spring, K, bears against the housing or piece F and the limb of the tumbler, and serves to hold the tumbler in locked position, thus insuring the locking action of the bolt.

When the padlock is to be unlocked, the key is inserted in the case A and rotated, and the tumbler is raised and the bolt and tumbler are moved from the position shown in Fig. 3 to that shown in Fig. 2. Each bolt is provided with a tumbler and covered by a key-ward plate, as shown in Fig. 6, said bolt, tumbler, and plates forming one set of works, and several of such sets may be employed for each lock, as seen in Fig. 1.

Having thus described my invention, what

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

1. A padlock of the order named, having a partially-rotatable bolt consisting of a flat plate with narrow arms projecting from the periphery thereof, said arms, when the lock is open, abutting against the walls of the end chambers of the lock-case, thus limiting the rotation of the bolt and adapting the lock to be made of increased width without increasing the thickness thereof, substantially as described.

2. A padlock of the order named, having a shackle, a bolt, a housing secured to said bolt, and a spring-pressed tumbler, the latter being pivoted to the bolt and adapted to engage with the wall of the lock-case, the parts being combined and operating substantially as described.

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Witnesses:

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