(No Model.)

H. P. APPLETON.

PADLOCK.

No. 304,688. Patented Sept. 9, 1884.

Fig. 1.

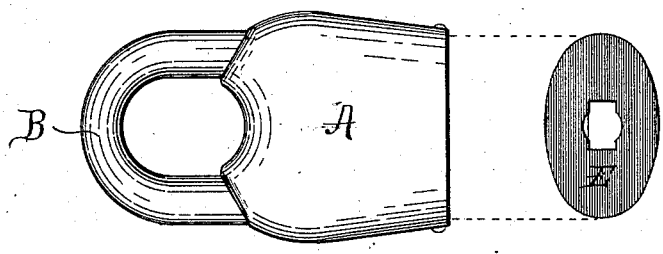


Fig. 7.

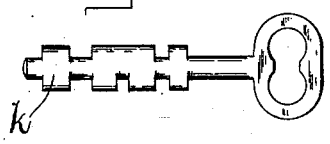


Fig. 2.

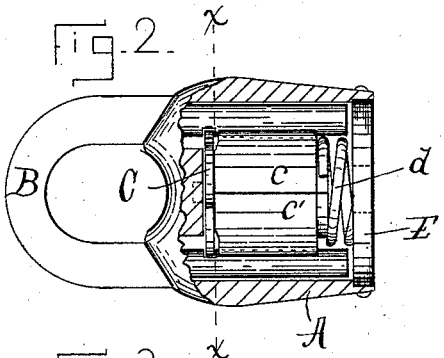


Fig. 3.

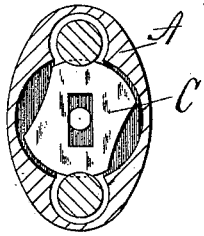


Fig. 5.

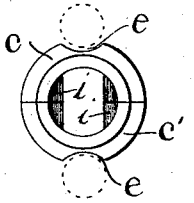


Fig. 6.

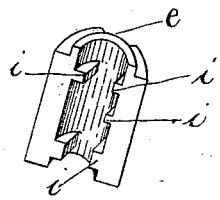
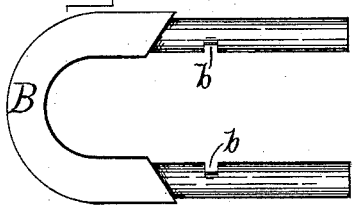


Fig. 4.



WITNESSES.

Allen Penny

Frank N. Allen

INVENTOR.

Henry P. Appleton

UNITED STATES PATENT OFFICE.

HENRY P. APPLETON, OF NORWICH, CONNECTICUT, ASSIGNOR TO THE NORWICH LOCK MANUFACTURING COMPANY, OF SAME PLACE.

PADLOCK.

SPECIFICATION forming part of Letters Patent No. 304,688, dated September 9, 1884.

Application filed May 5, 1884. (No model.)

To all whom it may concern:

Be it known that I, HENRY P. APPLETON, of the city of Norwich, county of New London, and State of Connecticut, have invented a certain new and useful Improvement in Padlocks, which improvement is fully set forth and described in the following specification, reference being had to the accompanying drawings.

My improvement relates to a form of locks commonly known as "Scandinavian padlocks," in which the shackle or bow may be entirely removed from the lock-case, if so desired, my immediate object being to simplify and cheapen somewhat the internal or working parts of such a padlock.

In the accompanying drawings, Figure 1 is a view of my padlock complete. Fig. 2 shows the same with its case partly cut away to expose the several parts. Fig. 3 is a transverse sectional view on line *x x* of Fig. 2. Fig. 4 is a detached view of the shackle. Fig. 5 is a detached end view of my new two-part tumbler-cylinder. Fig. 6 is a perspective view of one-half of said tumbler-cylinder. Fig. 7 shows the form of key used with my padlock.

My invention consists, in brief, of forming a series of tumblers or stops on the inner side of a metallic cylinder, which, for convenience in casting and finishing, I make in two longitudinal sections. It will readily be seen that a single-tumbler padlock, while it could be cheaply made, could also be easily picked and opened, and would not afford the protection desired; so, to add to the efficiency of the device, it has been the universal custom (so far as I am familiar with the state of the art) to arrange a series of tumblers which require a key of peculiar construction. This has commonly been done by providing a number of movable tumblers equaling in number the wards in the key. These several movable parts are necessarily thin and, when formed of cast metal, easily broken, especially if rendered brittle by chilling when cast. It is my intention in this present invention to provide a fixed two-part metallic cylinder, on which may be formed any reasonable number of stops, thus preventing all liability of breakage, and reducing somewhat the cost of producing a complete padlock.

A represents the case of the padlock, B the shackle, and C the locking-disk, the parts thus far named being of the form in common use. The pintles of the shackle have transverse slots *b*, which, when the shackle is in place in the case, are so located that the disk C, when partially rotated, will pass into said slots and effectually lock the shackle in the case.

c c' represent my two-part cylinder, one end of which rests on the disk C, said cylinder being held in place by a spring, as at *d*, which in turn is held by the cap or plate E. The cylinder *c c'* is provided with longitudinal semicircular grooves *e*, which partially encircle the pintles of the shackle when said shackle is in the case, and prevent the cylinder from rotating as the key is turned within it. Either one or both parts of said cylinder may be provided with inwardly-projecting lugs, as at *i*, formed as an integral part of the cylinder, and may be of any desired size and number.

My device is operated as follows: The key is passed downward through the two-part cylinder, the web or cross-head *k* entering the central opening in disk C. It will now be evident that, unless the wards of the key have been carefully located and fitted to ride over the stops *i*, said key cannot be turned to withdraw the disk C from the pintles; but if the wards are properly located the key may be turned, carrying with it the disk C and releasing the shackle.

Having thus described my invention, I claim as new and wish to secure by Letters Patent—

1. In a suitable supporting-frame, in combination with a shackle whose pintles have transverse slots, as described, a rotatable disk, as at C, and a two-part cylinder, as at *c c'*, one or both of said parts having one or more inwardly-projecting lugs *i*, said two-part cylinder being held fixedly in place and located relative to the locking-disk C and shackle, substantially as and for the purpose specified.

2. In combination with the case A and shackle B, with the slotted pintles, as described, a rotatable disk, C, a two-part cylinder having inwardly-projecting lugs and longitudinal external grooves, and a key whose wards are adapted to pass over the lugs *i*, and whose end is provided with a web to engage and turn the locking-disk, all substantially as and for the purpose specified.

HENRY P. APPLETON.

Witnesses:
ALLEN TENNY,
FRANK H. ALLEN.