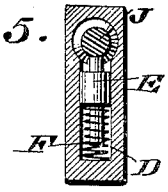
(No Model.)

W. E. T. MERRILL.

LOCK.

No. 599,245. Patented Feb. 15, 1898.

Fig. 5.



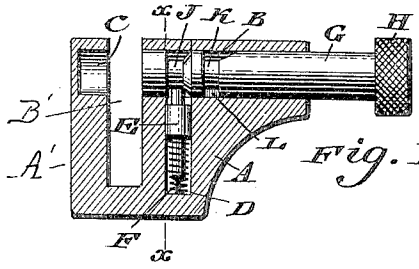
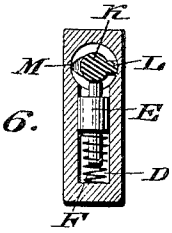


Fig. 1.

Fig. 6.



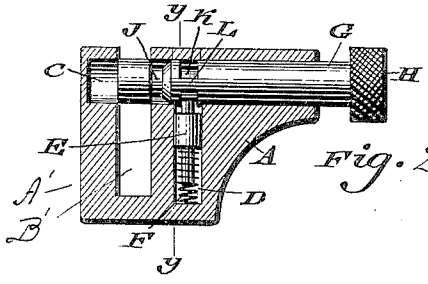
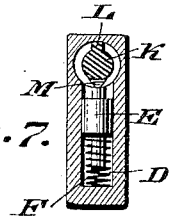


Fig. 2.

Fig. 7.



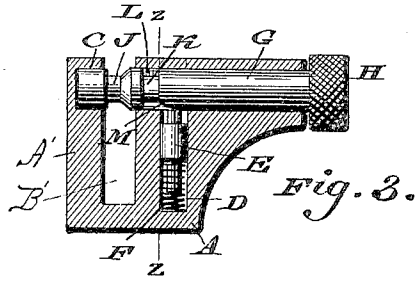
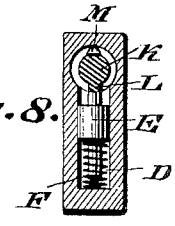


Fig. 3.

Fig. 8.



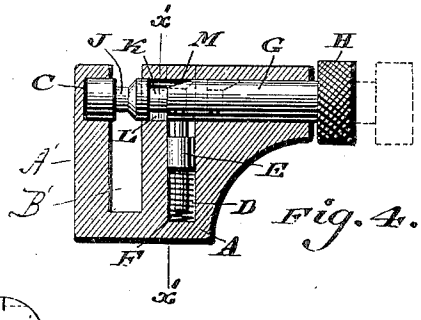
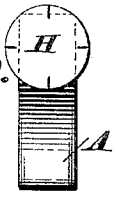


Fig. 4.

Fig. 9.



WITNESSES:

P. F. Eagles.

W. C. Wiedersheim.

INVENTOR

William E. T. Merrill.

BY John A. Wiedersheim

ATTORNEY.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM E. T. MERRILL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO MENNO S. LANTZ, OF SAME PLACE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 599,245, dated February 15, 1898.

Application filed December 4, 1896. Serial No. 614,404. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. T. MERRILL, 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 Locks, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of an improvement in locks formed of a casing having a bolt therein, grooves in said bolt and a pin which is adapted to enter said grooves, the walls of said grooves being suitably beveled, and a bridge for one of said grooves, all as will be hereinafter described.

Figures 1, 2, 3, and 4 represent vertical sections of a lock embodying my invention, showing the parts in different positions. Fig. 5 represents a vertical section on line *x x*, Fig. 1. Fig. 6 represents a vertical section on line *y y*, Fig. 2. Fig. 7 represents a vertical section on line *z z*, Fig. 3. Fig. 8 represents a vertical section on line *x' x'*, Fig. 4. Fig. 9 represents an end view of the device.

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

Referring to the drawings, A designates the body portion of the lock, in which are a passage B, the socket C, and the chamber D, which latter communicates with the passage or bore B, it being noticed that the body portion of the lock is bifurcated or has the arm A' set out therefrom, forming a recess B' to receive a chain, hasp, staple, &c., and that the socket is in said arm A' opposite the bolt G. Mounted in the said chamber D is a pin or follower E, which is actuated by a spring F, which bears against the said pin E and against a suitable wall of the chamber or may be secured thereto.

G designates a bolt which has a head H and is provided with the grooves J and K, into one or the other of which the said pin E is adapted to enter when said grooves are opposite to the chamber D. A wall of the groove J is beveled, thus allowing the pin E to ride up thereon when the bolt G is pushed toward the socket C, said pin E thus being enabled to enter the groove K, and the bolt will close the mouth of the space formed by the bifurcated body.

L designates a bridge or stop in the said groove K, the top of said bridge being of the same height as the outside wall of said bolt G.

M designates a beveled portion of the wall of said groove K for the purpose as hereinafter described.

On the head H may be placed division-marks, which indicate the point or points at which the bolt G may be operated.

The operation is as follows: When the lock is open, the pin E is in the groove J, the parts being in the position as seen in Fig. 1. When it is desired to close the lock, the bolt G is pushed toward the socket C, and the said pin E, moving up on the beveled edge of the groove J, enters the groove K, the parts being in the position as shown in Fig. 2, and the bolt G is locked.

To open the lock, the operation is as follows: The bolt is turned into such a position that the beveled portion M of the groove K is in a line with the pin E, and the bolt G is then further pressed in, the end thereof entering the socket C and the pin riding up the incline or beveled portion M and moving on the bolt G, the parts being in the position as shown in Fig. 3. The bolt G is now turned until the bridge L is in line with the pin E, so that when the bolt G is pulled out, as shown in dotted lines, Fig. 4, the said pin E will ride over the bridge, which prevents it from entering the slot K, and the said pin E will be directed into the slot J, as indicated in Fig. 1.

If desired, I may increase the size of the body portion of the lock and insert a plurality of bolts and component parts, the operation being the same as in the single one described in the present case, or I may provide a bolt with a number of grooves in order that the combination to operate the same can be changed without departing from my invention, and other changes may be made that will come within the scope of my invention; and I do not therefore desire to be limited to the exact construction as herein shown and described.

The lock is more especially adapted to be used on bicycles, but may be used for hasps, staples, or other articles to which a lock may be applied.

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

1. A lock having a casing, a bolt therein, a groove in said bolt having one wall thereof beveled, a second groove in said bolt having a portion of one wall beveled, a bridge for said second groove, and a pin adapted to enter said grooves.

2. A lock having a bifurcated body portion forming an arm A′ and recess B′, said body having the passage B and chamber D therein, and said arm having the socket C opposite said passage, the bolt G having the grooves J and K, a wall of said groove J being beveled and said groove K having therein the bridge L of the same height as the outside wall of said bolt, and the spring-actuated pin E in said chamber.

3. A lock having a bifurcated body portion forming a set-out arm A′ with an intervening recess B′, the main body portion being provided with the chamber D and the passage B, the arm A′ having the socket C, the bolt G with grooves J and K, the groove J having a beveled wall and the groove K having the bridge L and the beveled portion M as described, and the spring-actuated pin E in said chamber D adapted to engage in said grooves.

WILLIAM E. T. MERRILL.

Witnesses:
JOHN A. WIEDERSHEIM,
WM. C. WIEDERSHEIM.