(No Model.)

F. EGGE.

PADLOCK.

No. 490,428. Patented Jan. 24, 1893.

Fig. 1.

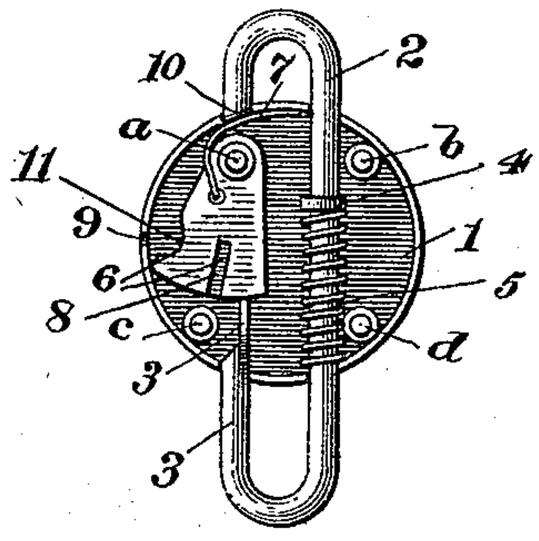
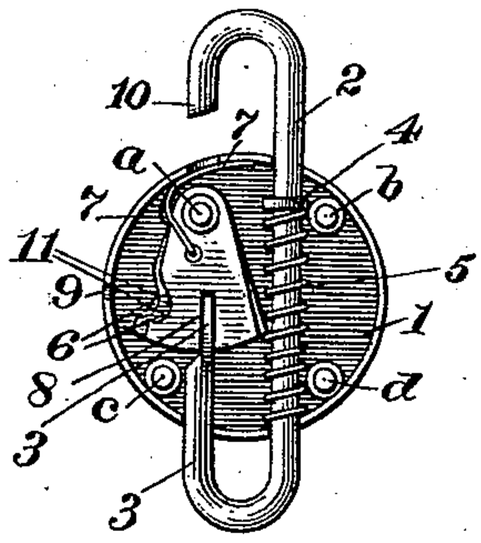


Fig. 2.



WITNESSES:

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PADLOCK.

SPECIFICATION forming part of Letters Patent No. 490,428, dated January 24, 1893.

Application filed October 22, 1892. Serial No. 449,658. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK EGGE, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Padlocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in padlocks such as are shown and described in Letters Patent No. 278,229 issued to me May 22, 1883, the object of my present invention being to simplify this lock and to render it quicker in action and more durable.

In the accompanying drawings—Figures 1 and 2 are interior plan views showing respectively, the position of parts when locked and unlocked.

Similar numbers and letters denote like parts in both figures of the drawings.

1 is the case within which the parts are assembled, and *a*, *b*, *c*, *d*, are rivets suitably located and secured within said case and by means of which the outer cover or shell (not shown) may be fastened to the case 1 in the usual manner.

2 is the shackle which consists of a single wire link open at one side and bow-shaped at both ends, the lower extremity 3 of the wire at said opening being flattened for the purpose presently explained. This shackle extends throughout the case 1 and projects above and below the same as shown, and is capable of a sliding movement within suitable bearings in the side of the case.

4 is a shoulder rigid on the back of the shackle, and 5 a coil spring around that part of the shackle and confined between said shoulder and the side of the case, whereby the nose 10 of the shackle is projected beyond the case.

6 are the tumblers pivoted around the rivet *a* and having springs 7 which bear against the side of the case.

8 are the usual gates in the tumblers, and 9 the key-hole through which a flat key may be inserted and forced against the tumblers to bring the gates into alignment opposite to the part 3, whereby the latter will be driven by the action of the spring 5 within said gates, thereby projecting the nose 10 beyond the case and opening the lock, as seen at Fig. 2.

The edges of the tumblers opposite the key slot are concaved, as shown at 11, in order that the key may be properly guided so as not to slip along said edges.

In the lock shown in said Letters Patent, the tumbler springs were made to perform two functions, namely, to preserve the normal position of the tumblers, and to throw open the shackle, but this has proved to be a serious disadvantage, for the ordinary tumbler springs became lifeless in a short time, and, on the other hand, when the springs are made heavier and stiffer, the force required to drive the tumblers with a small flat key so that their gates will align is so great as to seriously interfere with the sale of the lock. Moreover, the friction between the tumblers and the sliding shackle on which said tumblers are mounted offers an additional resistance which must be overcome by the springs.

In my present improvement, the shackle and tumblers are entirely independent and are provided with separate springs.

I claim,—

1. In a padlock the combination of the shackle consisting of a single wire link open at one side and bow-shaped at both ends, the lower extremity of the wire at said opening being flattened, said shackle having a shoulder at its back, the spring around said shackle and confined between said shoulder and the case of the lock, and the tumblers provided with springs which bear against the lock-case and having gates, said tumblers being pivoted within the lock-case independent of the shackle, substantially as shown and set forth.

2. In a padlock, the combination with the pivoted and gated tumblers having springs which bear against the side of the lock-case,

of the shackle made from a single piece of wire bow-shaped at both ends and open at the front side, and an independent spring by which said shackle is actuated, the lower extremity of said wire being flattened and adapted to enter the gates of the tumblers during unlocking, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK EGGE.

Witnesses:
F. W. SMITH, Jr.,
J. S. FINCH.