No. 621,391. Patented Mar. 21, 1899.

J. W. TURNER.

PADLOCK.

(Application filed Apr. 4, 1898.)

(No Model.)

FIG. 1.

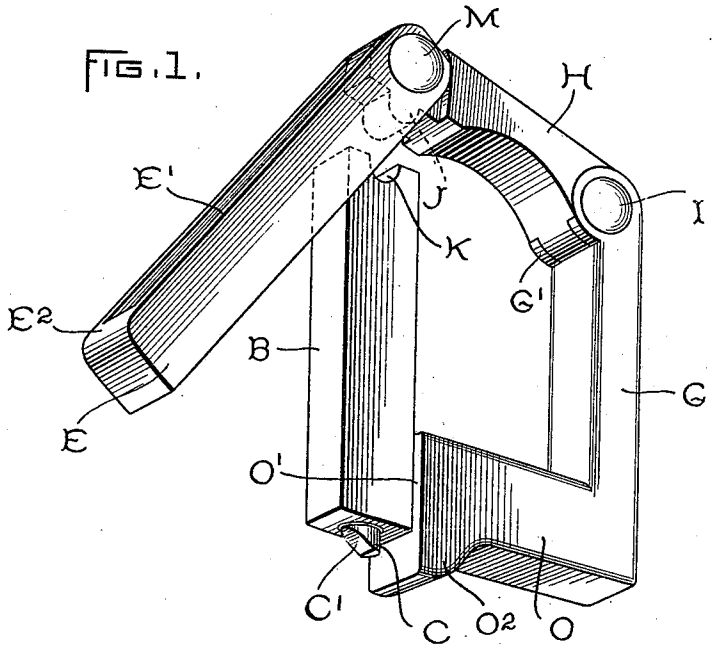
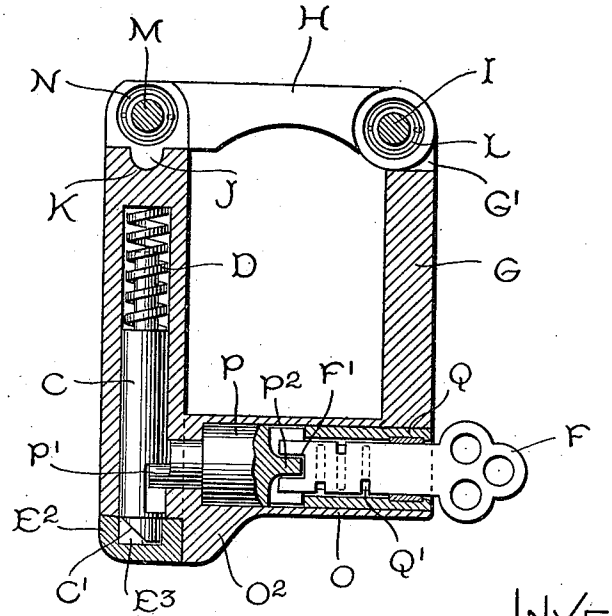


FIG. 2.



WITNESSES.

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PADLOCK.

SPECIFICATION forming part of Letters Patent No. 621,391, dated March 21, 1899.

Application filed April 4, 1898. Serial No. 676,323. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH W. TURNER, a citizen of the United States, residing at Schenectady, in the county of Schenectady, State of New York, have invented certain new and useful Improvements in Padlocks, of which the following is a specification.

Padlocks designed to lock bicycles by securing the chain to the sprocket-wheel are subjected at times to great strains—as, for example, when the attempt is made to roll the machine along without removing the lock. In the common form of padlocks the greatest strain comes on the bolt which locks the hasp. This is an objectionable feature, as it is usually the weakest part of the lock.

My invention has for one of its objects to overcome the objection above pointed out, and to accomplish this the lock is so constructed that the strain is not taken by the locking-bolt, but by a fastening, which may be as large and strong as desired.

A further object of my invention is to provide a padlock of great strength and one which is simple in construction and pleasing in appearance.

In the accompanying drawings, which show an embodiment of my invention, Figure 1 is a perspective view of a lock, and Fig. 2 is a horizontal section.

The main body of the lock comprises a U-shaped casting having parallel arms B and G, and mounted within the arm B is a spring-pressed locking-bolt C. Mounted in a socket in the rear of the bolt is a spiral spring D, which tends at all times to force the bolt outward to the position shown. The outer end of the bolt is beveled at C′, so that the hasp E may be snapped into place without the use of key F.

Pivotally secured to the outer end of the arm G is a link H, which forms the remaining side of the lock. The link is pivotally secured to the arm G by a rivet I, and between the link and arm is a spiral spring L, which throws the link outward to the position shown in Fig. 1 when the hasp E is released. On the left-hand end of the link is a tongue or projection J, which enters a corresponding slot or groove K in the arm B. The projection or tongue J is arranged to take all of the lateral strain of the lock and is of such size that its shearing strength is as great as the strength of any portion of the lock, and situated as it is at the end of the link its size can be readily varied to suit the requirements without altering the lock other than changing the size of the groove or slot K.

On the outer end of the link is secured the hasp E, which comprises two parallel side pieces E′, which are united at their outer ends by a cross-piece E^2 and are pivotally secured at their inner ends to the link by rivet M. Between the link and the side pieces is a spiral spring N, so arranged that when the hasp is released by the locking-bolt C it will open, as shown in Fig. 1. The link is cut away slightly to receive the side pieces E′ and also the projecting ends G′ of the arm G. This is done to provide a smooth contour for the lock. The bottom side O of the casting is cut away at O′ for the same reason. The cross-piece E^2 of the hasp is provided with a socket E^3 for receiving the outer end of the locking-bolt C. On the lower side O of the lock is formed a projection O^2, which acts as a seat for the hasp. The lower side of the casting is bored out to receive the lock mechanism, which may be of any of the well-known constructions, the one shown comprising a cylindrical pin P, having an eccentric P′, which engages with a shoulder formed on the bolt C for moving it back when it is desired to open the lock. Mounted in the same hole with the pin P is a cylindrical sleeve Q, which is provided with tumblers Q′, which fit into corresponding slots in the key F. The end of the key F is slotted at F′, and entering this slot is a projection P^2 on the cylindrical pin P.

When a key of the proper construction is inserted in the lock, the cylindrical pin may be rotated, which forces the bolt back against the action of the spring D, and the lock will open under the action of the spiral springs L and N.

It will be seen that the locking-bolt is not subjected to any strain unless some attempt is made to pry the lock open by inserting the end of a tool between the cross-piece E^2 and the projection O^2, and the bolt may readily be made strong enough to withstand it.

When pressure is applied to the lock in a manner to separate the outer ends of arms B

and G, the strain falls on the projection J and the rivet I, both of which are strong and able to stand the strain, and when pressure is exerted in a manner to separate the link H from the body of the lock the strain falls upon the rivet M and the hasp E. Thus it will be seen that the locking-bolt is practically free from all strains on the lock.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a padlock, the combination of a rectangular frame, a link pivoted to one end of the frame and extending across to the other end, means for preventing the ends of the frame from separating when under strain, a hasp for holding the link against the end of the frame; and a locking-bolt for holding the hasp in place; the arrangement being such that the strain on the lock is not transmitted to the locking-bolt.

2. In a padlock, the combination of a U-shaped frame, a pivoted link forming the end of the frame, one of said parts having a tongue and the other a groove, which forms a connection between them for resisting strains in one direction, a hasp for securing the link against strains in the opposite direction, and means for securing the hasp to the main body of the lock.

3. In a padlock, the combination of a U-shaped frame, a pivoted link forming the end of the frame, a tongue-and-groove connection between the link and one of the sides for resisting strains in one direction, a hasp for securing the link against strains in the opposite direction, and a locking-bolt for retaining the hasp in place, which is so arranged that it is not affected by strains on the lock.

4. In a padlock, the combination of a U-shaped frame, a pivoted link forming the end of the frame, a projection on the link engaging with a corresponding opening on one arm of the lock, a hasp which is pivoted to the link at one end and provided with a socket at the other, and a locking-bolt mounted in one of the arms and arranged to enter the socket in the hasp.

5. In a padlock, the combination of two parallel arms, a spring-pressed locking-bolt mounted in one of the arms, an end piece permanently connecting the arms, mechanism controlling the action of the bolt, mounted in the end piece, a pivoted link forming the remaining side of the lock, a projection in the link which enters a corresponding opening in one of the arms, and a hasp which extends in the same general direction as the arms and locks the link in place.

6. In a padlock, the combination of a U-shaped frame, a pivoted link forming the remaining side of the lock, a projection on the link which engages a corresponding opening on one of the arms, and holds the link against strains in one direction, and a hasp which holds the link against strains in the opposite direction, the hasp comprising a pair of pivoted parallel arms which are connected at their outer end by a cross-piece containing a socket for the locking-bolt.

7. In a padlock, the combination of a U-shaped frame, a link H having a projection J which enters a corresponding opening K in one of the arms, a hasp pivoted to the link at one end and comprising a pair of parallel arms E′ and a socket E^3, a spring-pressed locking-bolt C, and means controlling the action of the bolt.

In witness whereof I have hereunto set my hand this 26th day of March, 1898.

JOSEPH W. TURNER.

Witnesses:
DANIEL FREDERIC POTTER,
DUANE B. TUTTLE.