(No Model.)

J. W. WILLCOXON.

NUT LOCK.

No. 482,935. Patented Sept. 20, 1892.

Fig. 1.

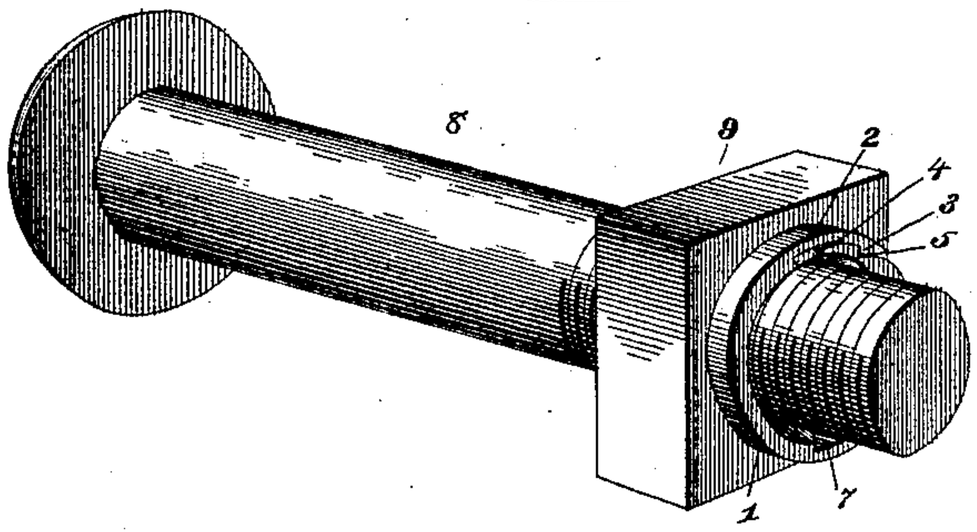


Fig. 2.

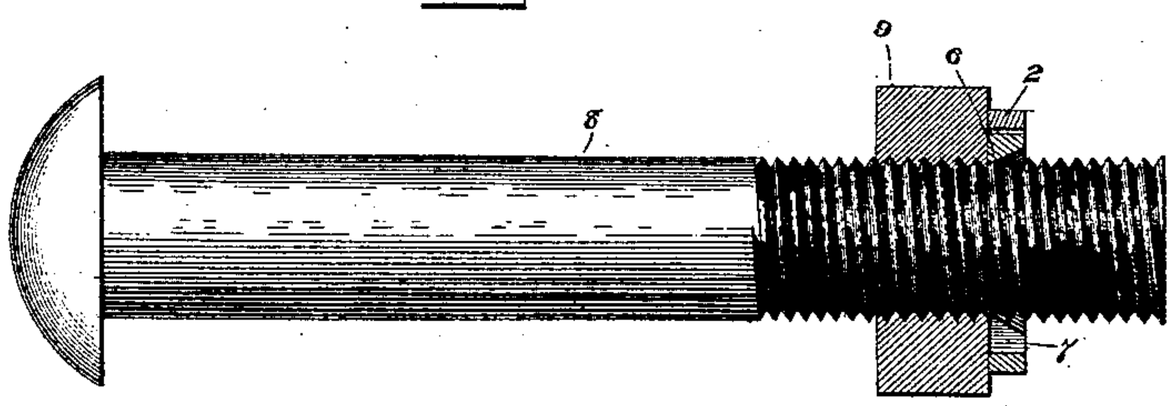


Fig. 4.

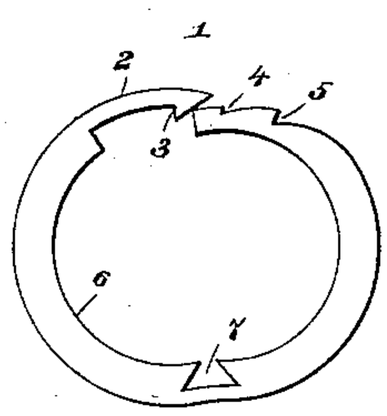


Fig. 3.

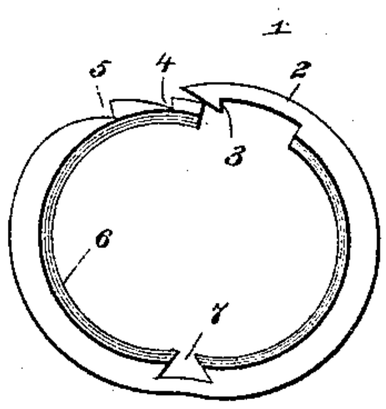
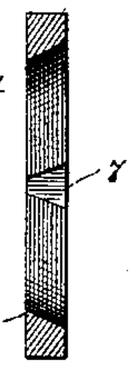


Fig. 5.



Witnesses
Jno. H. Diggers
Bernice A. Hood

Inventor
By his Attorneys, John W. Willcoxon.
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UNITED STATES PATENT OFFICE.

JOHN W. WILLCOXON, OF MANASSAS, VIRGINIA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 482,935, dated September 20, 1892.

Application filed June 21, 1892. Serial No. 437,474. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. WILLCOXON, a citizen of the United States, residing at Manassas, in the county of Prince William and State of Virginia, have invented a new and useful Nut-Lock, of which the following is a specification.

My invention relates to improvements in nut-locks, the objects in view being to produce a cheap and simple lock that may be readily and cheaply manufactured, is applicable to the bolts now generally used on railroads and in machinery, which when in use will be efficient and safe, which may be readily removed when desirable, may be applied with facility, and will not injure or impair for further use bolts to which they are applied.

Other objects and advantages of the invention will appear in the following description and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective view of a bolt and nut, the latter being locked upon the bolt by a lock constructed in accordance with my invention. Fig. 2 is a vertical longitudinal section of the same. Fig. 3 is a plan of the lock before application. Fig. 4 is a reverse view. Fig. 5 is a transverse section.

Like numerals of reference indicate like parts in all the figures of the drawings.

In constructing the lock I cut from sheet-steel a blank ring 1, which ring is severed at one point and one of its terminals reduced to form a tongue 2, having at its extremity a shoulder 3, the front face of which is beveled. This reduction occurs at the inner side of the ring, and the remaining terminal is correspondingly reduced at its outer side, so that when the ring is compressed the tongue 2 will overlap the opposite terminal of the lock. This opposite terminal is provided with a notch and a shoulder, (designated as 4 and 5,) which vary in height or depth, inasmuch as the shoulder 5, which is farthest from the extremity of the ring, is slightly deeper or higher than the notch 4. The inner edge of the ring is beveled, so that a surrounding and in cross-section V-shaped cutting-edge 6 is produced. Diametrically opposite the tongue 2 the ring has its inner edge provided with a V-shaped recess 7, the purpose and function of which will hereinafter appear. These rings are stamped from sheet-steel, and by overlapping their ends, so that the shoulder 3 of the tongue 2 will take somewhat snugly in the recess 4, and tempering the tongue when in this position it will be obvious that a further springing together of the ends will cause the shoulder 3 to engage with the shoulder 5, which is deeper than the notch 4, and a secure interlocking with the tongue and shoulder takes place, inasmuch as the tendency of the spring-tongue is radially inward.

Taking the lock in its open position it will readily slip upon a bolt, which I have indicated as 8, and against the outer side or crown of a nut 9, mounted on the bolt. In order to set the lock, it is now simply necessary to bring pressure upon the same through the medium of a simple pair of pinchers, so that the shoulder 3 is sprung over and into engagement with the shoulder 5. Such pressure by the pinchers causes the edge 6 to take into or cut an annular narrow groove or kerf in the thread of a bolt, which will prevent a removal of the lock from the bolt. In order to facilitate the squeezing together or closing of the lock upon the bolt, the lock is provided with the triangular recess 7, which thus renders the metal narrower at this point, permitting the terminals of the ring to come together, and by such coming together the opposite corners of the recess are brought together and the recess closed, and thus the inner beveled edge 6 is rendered continuous.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a very simple and cheaply-constructed lock, applicable to all nuts and bolts, which may be readily detached when desirable and is extremely safe and efficient.

Having described my invention, what I claim is—

1. The herein-described nut-lock, the same consisting of a ring split and having one of its terminals reduced to form a spring locking-tongue provided with a shoulder and its opposite terminal provided with a shoulder for engaging the same, the inner edge of the ring being reduced to form a cutting-edge, substantially as specified.

2. The herein-described nut-lock, the same consisting of a ring split and having one of its terminals reduced to form a spring locking-tongue provided with a shoulder and its opposite terminal provided with a shoulder for engaging the same, the inner edge of the ring being reduced to form a cutting-edge and provided diametrically opposite the spring-tongue with a reduction or recess to facilitate the closing of the ring, substantially as specified.

3. The herein-described nut-lock, the same consisting of a ring split and having one of its terminals reduced to form a spring locking-tongue provided with a shoulder and its opposite terminal provided with a shoulder for engaging the same, the inner edge of the ring being reduced to form a cutting-edge which diametrically opposite the spring-tongue is provided with a V-shaped recess, the inner corners of which meet when the ring is closed, substantially as specified.

4. The herein-described nut-lock, the same consisting of a ring-blank split to form opposite terminals and internally reduced to form an annular cutting-edge, one of said terminals being interiorly reduced to form a spring-tongue terminating at its front end in a locking-shoulder and the remaining terminal exteriorly reduced and provided with an inner front recess and in rear of the same with a higher or deeper shoulder, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

J. W. WILLCOXON.

Witnesses:

JNO. H. SIGGERS,

BERNICE A. WOOD.