(No Model.)

R. LOWE.

NUT LOCK.

No. 590,156. Patented Sept. 14, 1897.

FIG. 1.

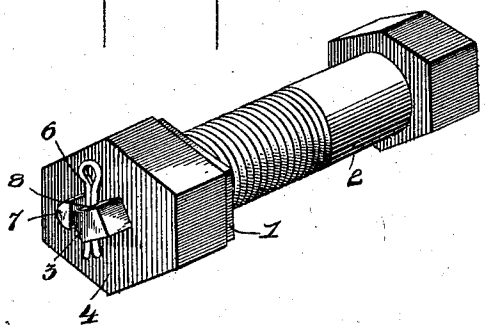


FIG. 2.

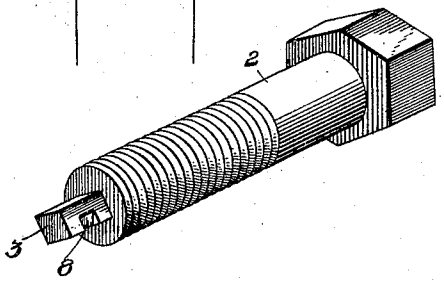


FIG. 3.

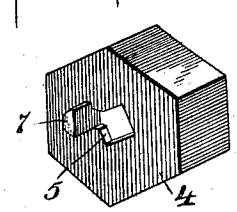
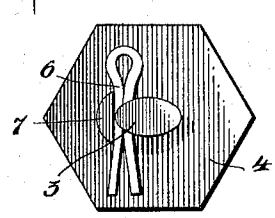


FIG. 4.



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Witnesses

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UNITED STATES PATENT OFFICE.

ROBERT LOWE, OF WASHINGTON, PENNSYLVANIA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 590,156, dated September 14, 1897.

Application filed February 6, 1897. Serial No. 622,321. (No model.)

To all whom it may concern:

Be it known that I, ROBERT LOWE, a citizen of the United States, residing at Washington, in the county of Washington and State of Pennsylvania, have invented a new and useful Nut-Lock, of which the following is a specification.

The invention relates to improvements in nut-locks.

The object of the present invention is to improve the construction of nut-locks and to provide a simple, inexpensive, and efficient device adapted to be readily applied to a bolt to hold a nut and prevent the same from accidentally unscrewing when subjected to the vibrations incident to railroads, machinery, and similar constructions and capable of enabling a nut to be readily removed when desired without injuring any of the parts.

The invention consists in the construction and novel combination and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and pointed out in the claim hereto appended.

In the drawings, Figure 1 is a perspective view of a nut-lock constructed in accordance with this invention. Fig. 2 is a detail perspective view of the bolt. Fig. 3 is a similar view of the cap. Fig. 4 is an elevation illustrating a modification of the invention.

Like numerals of reference designate corresponding parts in the figures of the drawings.

1 designates a nut of the ordinary construction arranged on the threaded portion of a bolt 2, and the latter has its outer end 3 reduced to receive a cap 4, which is provided with a central opening 5, conforming to the configuration of the reduced portion or outer end 3 of the bolt.

The cap 4 is similar in shape to the nut to be locked, and it fits over the same, as illustrated in Fig. 1 of the accompanying drawings, and it is held against rotation on the bolt by reason of the reduced portion 3 and the opening 5 being of a non-circular shape. Instead of making the outer portion 3 of the bolt rectangular in cross-section, as illustrated in Fig. 1 of the drawings, it may be made elliptical or any other non-circular shape.

The cap is locked on the bolt by a split key 6, which is interposed between the reduced portion of the bolt and a lip 7, arranged on the outer face of the cap and preferably formed integral therewith. The lip 7 is located at one side of the opening 5, and the reduced portion 3 of the bolt is provided with a notch 8 to receive the key 6, which has its ends spread in the usual manner to lock it against withdrawal. The notch, which may be readily cut in one side of the reduced portion of the bolt, obviates the necessity of perforating the bolt. This is an advantage, as the operation of drilling a hole through a bolt is laborious and consumes considerable time.

It will be seen that the nut-lock is exceedingly simple and inexpensive in construction and positive and reliable in operation, that it is applicable to railroads, machinery, bridges, and other constructions subject to vibrations, and that it will permit a nut to be readily removed when desired. It will also be apparent that it obviates the necessity of drilling a perforation through the bolt for the reception of the key and that the notch of the reduced portion of the bolt does not weaken the latter to the same extent as a perforation would.

What I claim is—

The combination with a nut, of a bolt receiving the same and having the outer end of its threaded portion reduced to a non-circular shape and provided with a side notch, a cap fitting over the nut and provided with an opening receiving the reduced end of the bolt and fitting the same sufficiently to prevent it from rotating thereon, a lip mounted on the outer face of the cap at the opening thereof and arranged opposite the said notch, and a key interposed between the lip and the reduced portion of the bolt and arranged in the notch of the latter, substantially as described.

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

ROBERT LOWE.

Witnesses:

JOHN H. SIGGERS,

WILLIAM B. HUDSON.