

(No Model.)

G. A. MILLER.
NUT LOCK.

No. 480,667.

Patented Aug. 9, 1892.

Fig. 1.

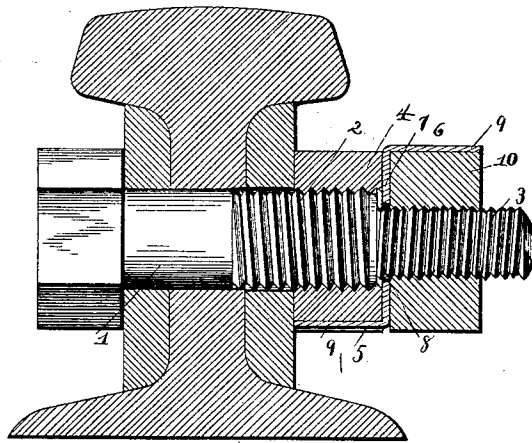


Fig. 2.

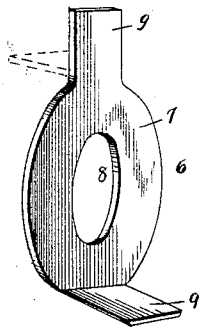
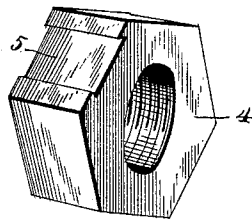


Fig. 3.



Witnesses:

Chas. A. Ford.

W. S. Duval.

George A. Miller.

Inventor

By his Attorneys,

Chas. A. Miller.

UNITED STATES PATENT OFFICE.

GEORGE A. MILLER, OF BUTLER, PENNSYLVANIA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 480,667, dated August 9, 1892.

Application filed October 3, 1891. Renewed July 14, 1892. Serial No. 439,955. (No model.)

To all whom it may concern:

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

This invention relates to improvements in nut-locks; and the objects in view are to provide a cheap and simple device for locking the nuts upon bolts employed in rail connections or upon axles of vehicles, wrist-pins of engines, &c.

With the above objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a section of the nuts and lock constructed in accordance with my invention, the same being shown upon a bolt, the latter in side elevation. Fig. 2 is a detail in perspective of the locking-plate. Fig. 3 is a detail in perspective of the nut.

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

1 designates a bolt in this instance, or it may be the end of an axle, a wrist-pin, or other similar object upon which it is designed to lock a nut, and said bolt is provided for a portion of its length near its outer end with an ordinary right-hand thread 2. This thread extends to a point near the outer end of the bolt, and beyond said point the diameter of the bolt is reduced and provided with a left-hand thread 3 somewhat finer than the thread 2.

4 designates a hexagonal or other shaped nut having an internal thread designed to fit the main thread 2 of the bolt and provided upon one of its faces with a dovetailed recess 5.

6 designates the locking-plate, which consists of a central annular disk portion 7, having a central opening 8, adapted to fit loosely over the outer thread of the bolt, and at radially opposite sides of said plate are formed ears 9, which are disposed in opposite directions and at right angles to the plate. After the nut 4 is in position the locking-plate is introduced over the outer end of the bolt and

its inwardly-disposed ear passed into the dovetailed recess of the nut. The jam-nut 10, having an internal thread adapting it to fit the thread 3 of the bolt, is now run down the bolt against the locking-plate, and after tightening the outer ear 9 is bent up by hand or hammer against the face of said jam-nut, or if it occurs at the angle of said nut the ear is bent so as to embrace the angle, and hence lie against two adjacent faces of the nut.

The jam-nut, as its name implies, serves its ordinary function upon the securing-nut, and in turn is locked by the plate against any possibility of retrogression. By this means the two nuts may be secured at any point upon the bolt or spindle of an axle. Hence leaving ample room for free rotation of any body that may be mounted for revolution thereon. By the application of the chisel or other kindred device the outer ear may be pried away from the face of the nut and the same removed by a wrench, after which the securing-nut and locking-plate may be removed.

Having described my invention, what I claim is—

The combination, with the bolt having the right-hand thread formed thereon for a portion of its length and at its extremity a reduced end provided with a left-hand thread, of the securing-nut threaded with right-hand thread and having one of its faces provided with a dovetailed recess, the locking device consisting of the annular plate perforated to fit over the bolt and having radially opposite ears inwardly and outwardly bent at a right angle to the said plate, the former ear having its opposite edges beveled or dovetailed and fitted within the dovetailed recess of the securing-nut, and the jam-nut threaded on the left-hand threaded outer end of the bolt and embraced by the outer angular portion of the locking device, 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.

GEORGE A. MILLER.

Witnesses:

JAMES SELLERS,
C. D. ALDINGER.