

(No Model.)

H. FROBIRD.
NUT LOCK.

No. 479,065.

Patented July 19, 1892.

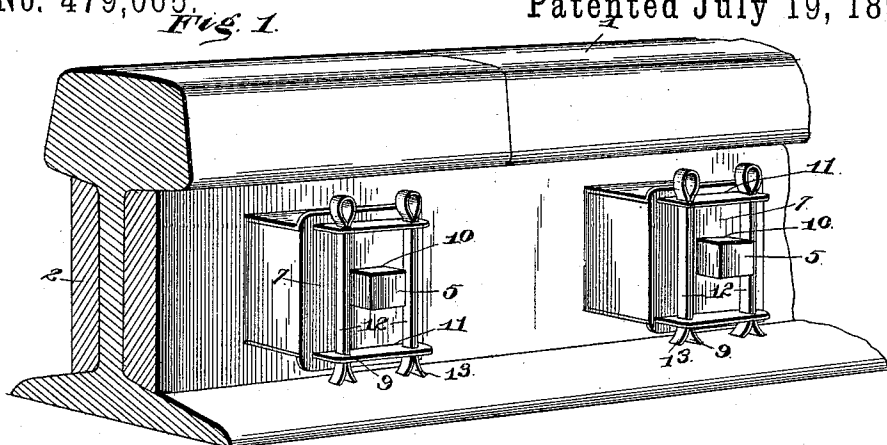


Fig. 2.

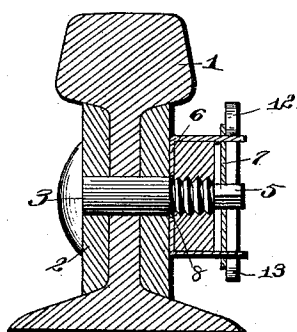
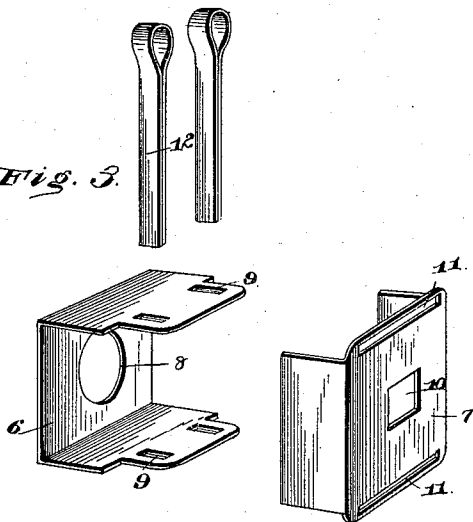


Fig. 3.



Witnesses

Chas. H. Ford.

J. H. Siggers.

Inventor

Henry Frobird.

By *his* Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

HENRY FROBIRD, OF OSNABURG, OHIO.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 479,065, dated July 19, 1892.

Application filed May 16, 1892. Serial No. 433,180. (No model.)

To all whom it may concern:

Be it known that I, HENRY FROBIRD, a citizen of the United States, residing at Osnaburg, in the county of Stark and State of Ohio, have invented a new and useful Nut-
5 Lock, of which the following is a specification.

My invention relates to improvements in nut-locks, the objects in view being to provide a cheap and simple device adapted to be
10 applied to the nuts and bolts now in use and to require but a slight change of the bolts for the application of the lock and to so construct the lock as to positively prevent any retrogression of the nut upon the bolt when the
15 same is vibrated by shaking the machinery or by the passage of trains over rail-joints.

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 claim.

Referring to the drawings, Figure 1 is a perspective of a portion of a rail-joint the nuts of the bolts of which are locked in accordance with my invention. Fig. 2 is a transverse section thereof. Fig. 3 is a detail of
25 the fastener or lock, the members separated.

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

1 designates the rail-sections, and 2 the fish bars or plates, which, together with the web of the rail, are perforated transversely to receive the bolt 3. The bolt 3 is of ordinary construction, with the exception that its outer or threaded end is cut away or squared to form
30 a tenon 5. Upon this bolt is threaded an ordinary nut.

The fastener consists of an inner and an outer U-shaped plate, (designated 6 and 7, respectively,) which plates are reversely disposed with relation to each other, and hence constitute a box having a rectangular interior adapted to embrace the four sides and front faces of the nut. The inner U-shaped plate has its central portion provided with a bolt-receiving opening 8, and when in position
40 upon the bolt and embracing the nut its extremities or edges extend beyond the outer face of the nut and are there provided with opposite pairs of slots or perforations 9. The
50 outer U-shaped plate has its opposite side

walls reduced so as to fit between the side walls of the inner plate, and its opposite edges or central portion is provided with a square opening 10 to fit the tenon at the ends of the bolt, and at opposite sides of the square opening is provided with narrow transverse slots
55 11, which receive the extremities of the end walls of the inner U-shaped plate.

In operation, or, rather, in applying the nut-lock, the inner plate and nut are simultaneously run down upon the threads of the bolt through the medium of a wrench, after which the outer U-shaped plate is applied to the extremity of the bolt, and when in such position its side walls embrace the sides of the
60 nut and fit between the side walls of the inner U-shaped plate. In this position, also, the side walls of the inner U-shaped plate will pass through the narrow slots formed in the central portion at the edges of the outer
65 U-shaped plate. When thus assembled, the perforations formed in the side walls of the inner U-shaped plate are beyond the front face of the outer U-shaped plate, and in order
70 to prevent accidental separation of the two plates, and hence liberation of the nut, split pins 12 are passed through the perforations in the inner plate beyond the face of the outer plate. After inserting the pins their
75 split ends are reversely bent or clinched, as at 13, so that they cannot be accidentally withdrawn.

From the foregoing description, in connection with the accompanying drawings, it will be seen that I have provided a simple and efficient nut-lock that may be applied to bolts
80 and nuts now in use with no change whatever of the nuts and with but very little change to the bolts, and, furthermore, the said nut-lock may be removed at will for the purpose of
85 changing the machinery, renewing parts, &c., and subsequently reapplied without destroying its efficiency.

Having described my invention, what I claim is—

The combination, with the bolt and nut, the former having a front square end, of an inner
90 U-shaped plate perforated to receive the bolt and having its side walls embracing the side walls of the nut and beyond the same pro-
100

vided with pairs of opposite perforations, and
the outer U-shaped plate having its side walls
taken between those of the inner plate and
having a central portion provided with a
5 square opening to receive the square end of
the bolt and its opposite edges slotted to re-
ceive the side walls of the inner plate, and
the split pins passed through the perforations
formed in the inner plate beyond the plane

of the outer plate and having their extremi- 10
ties clinched, 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.

HENRY FROBIRD.

Witnesses:

W. O. WERTZ,
ADAM FROBIRD.