

(No Model.)

W. Z. WOODSTOCK.
NUT LOCK.

No. 486,147.

Patented Nov. 15, 1892.

Fig. 1.

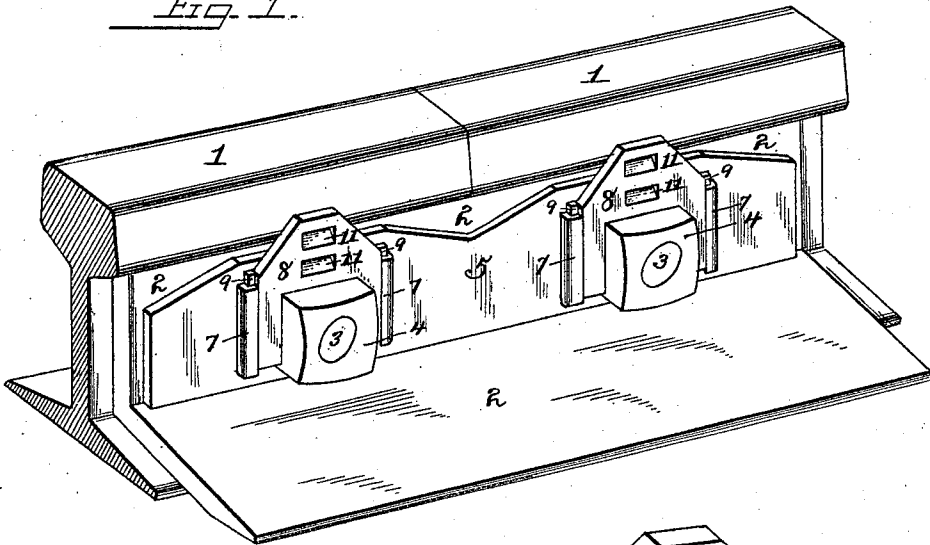


Fig. 2.

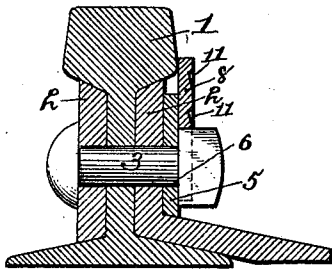


Fig. 3.

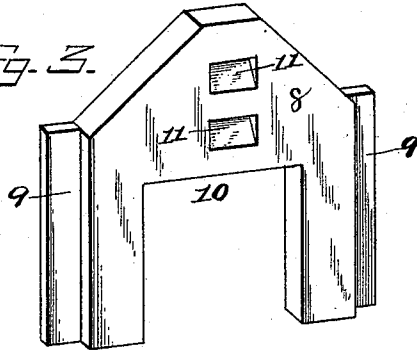
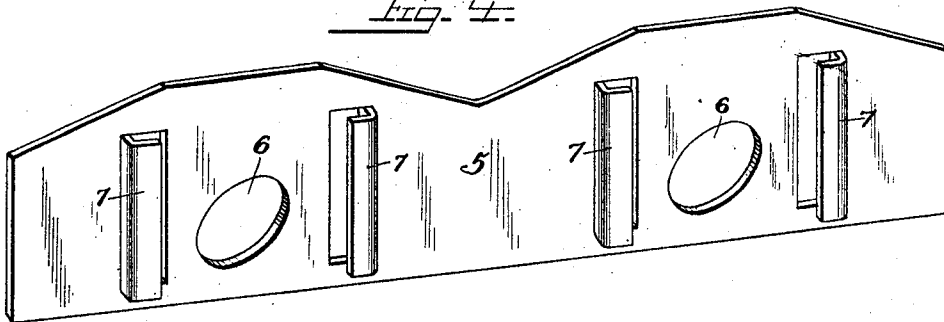


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

WARREN Z. WOODSTOCK, OF WYTHEVILLE, VIRGINIA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 486,147, dated November 15, 1892.

Application filed February 18, 1892. Serial No. 422,007. (No model.)

To all whom it may concern:

Be it known that I, WARREN Z. WOODSTOCK, a citizen of the United States, residing at Wytheville, in the county of Wythe and State of Virginia, have invented a new and useful Nut-Lock, of which the following is a specification.

My invention relates to an improvement in nut-locks, and has for its object the provision of a cheap and simple device for safely locking the nuts upon the bolts employed in railroad joints, moving parts of machinery, or other objects subjected to considerable vibrations.

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 view of a rail-joint embodying my improved nut-lock. Fig. 2 is a cross-section thereof through one of the locks. Fig. 3 is a detail of the locking-plate. Fig. 4 is a similar view of the locking-bar.

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

Although I have herein illustrated and described my nut-lock in connection with an ordinary rail-joint, it will be obvious from the appended description that the same may be applied with equal advantage to the moving parts of machinery, and I therefore do not limit its use to that herein shown and described.

1 1 designate two rail-sections the ends of which meet as usual and are clamped at opposite sides by the fish-bars 2, the outer fish-bar in this instance being L-shaped, or substantially so, in cross-section, or, in other words, having its lower edge terminating in a substantially-horizontal base which overlaps the bases of the rail-sections. The fish-bars and webs of the rail-sections are perforated as is usual, and through the same pass the bolts 3, provided at their outer ends with the ordinary nuts 4.

5 designates my locking-bar, and the same is of suitable thickness and provided at points coincident with the bolts with bolt-openings or perforations 6. At opposite sides of each bolt-opening 6 the locking-bar is provided with outwardly and inwardly projecting

flanges 7, which flanges are preferably formed by means of openings formed in the locking-bar, the stock of the bar being punched outwardly, as shown.

The locking-plates 8 are of a width agreeing with the distance between the outer edges of the flanges at each side of the bolt-opening 6, and the vertical edges of the plates are rabbeted, as at 9, so as to take within the flanges, whereby the plates may be inserted vertically between the flanges and are capable of withdrawal therefrom. The plates have their lower edges recessed, as at 10, in a rectangular manner, and hence are adapted to fit over and embrace the opposite flat sides of the nuts. Above the recess of each plate the face of the plate is provided with one or more, and in this instance two, indentations or angular recesses or notches 11, into any one of which a chisel or other tool suitable for the purpose may have its end introduced, and by a tap or two with a hammer upon its opposite end is adapted to raise the plate from over the nut and from between the flanges.

In assembling the parts, the bolts being in position and passing through the rails and fish-bars, the locking-bar is introduced over the bolts and arranged against the outer fish-bar. The nuts are now applied to the outer ends of the bolts and are run down upon the bolts to their positions against the outer surface of the locking-bar. After this has been accomplished it is simply necessary to introduce each locking-plate over its respective nut and between its respective pair of flanges with which the locking-bar is provided, and it is best to settle each locking-plate snugly in position by a slight tap of a hammer. Inasmuch as the locking-bar is held rigid by the clamping action of the nuts, it will be apparent that the locking-plates, being held between the flanges and embracing the nuts, will prevent any turning of the latter, regardless of the jars or vibrations to which the rail-joints are subjected by the passing thereover of the trains.

It will be obvious that when it is desired to introduce new bolts, when broken or impaired, or new rails, the removal of the nuts will be a simple matter and may be accomplished in the manner heretofore described.

It will be seen that my lock is applicable to

the nuts and bolts now commonly employed in rail-joints and that I require no alteration whatever in any of the parts. It will be obvious that when constructing new joints the
5 outer fish-bar may be employed as the locking-bar, or, in other words, the flanges 7 may be punched or otherwise formed upon the fish-bar, so that the additional bar herein shown need not be employed, and hence in my claim
10 hereinafter appearing, by the term "locking-bar" I mean the bar upon which the flanges are formed, whether it be the independent locking-bar herein shown and described or the fish-bar.

15 Having thus described my invention, what I claim is—
The combination, with the rail-sections or

their equivalents, the transverse bolts, and their nuts, of the locking-bar perforated to receive the bolts and located between the nuts 20 and the rail-sections, said locking-bar being provided at opposite sides of the bolts with punched-out flanges, and the locking-plates mounted removably between each pair of flanges and having their lower edges pro- 25 vided with nut-receiving recesses, 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.

WARREN Z. WOODSTOCK.

Witnesses:

WM. B. FOSTER,
W. B. KEGLEY.