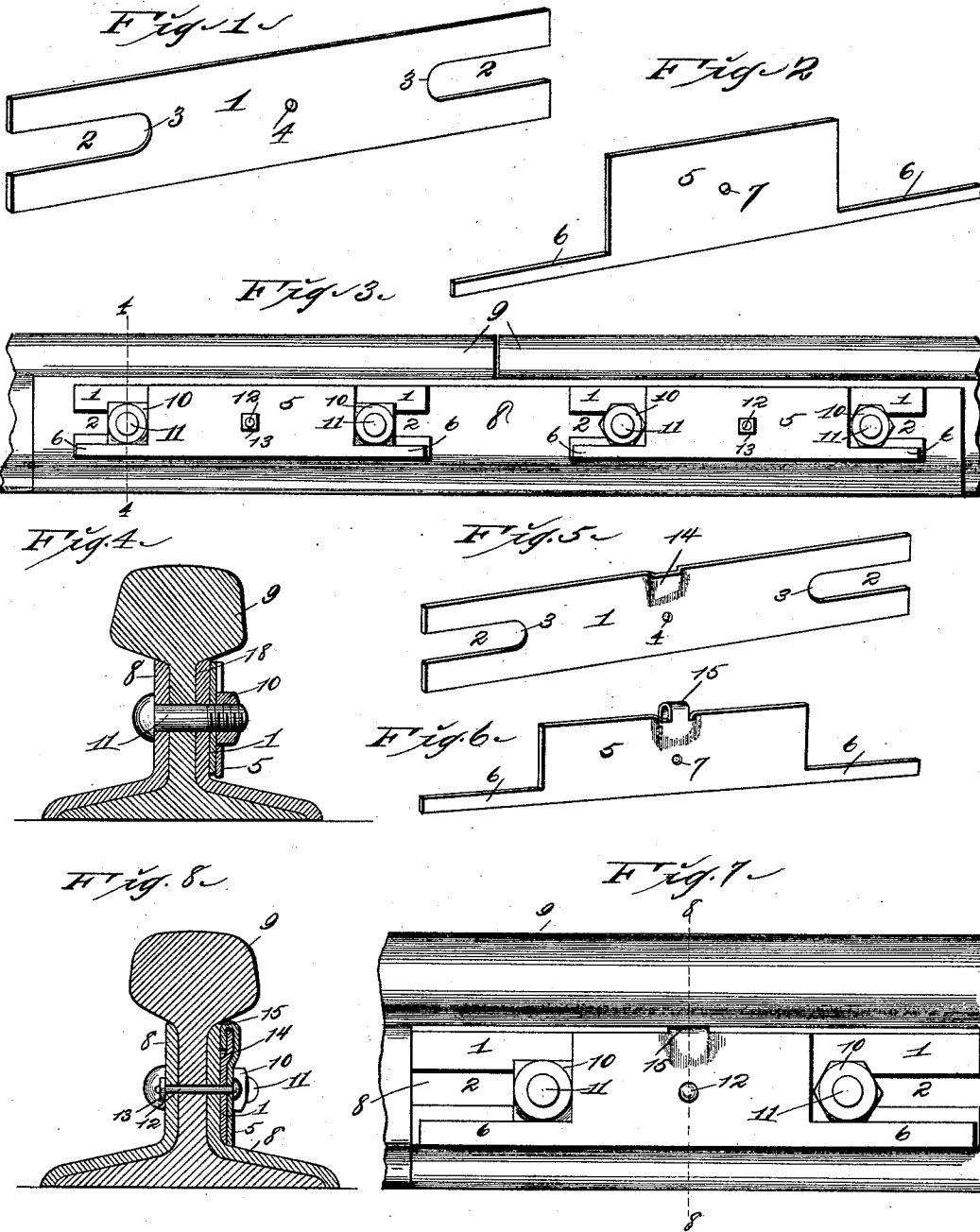


(No Model.)

J. DITTMANN.  
NUT LOCK.

No. 529,718.

Patented Nov. 27, 1894.



Attest:-

M. P. Smith  
C. A. B. Commissioner.

Inventor

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Attys.

# UNITED STATES PATENT OFFICE.

JACOB DITTMANN, OF ST. LOUIS, MISSOURI.

## NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 529,718, dated November 27, 1894.

Application filed May 21, 1894. Serial No. 511,897. (No model.)

*To all whom it may concern:*

Be it known that I, JACOB DITTMANN, of the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Nut-Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

The object of my invention is to provide improved means for securing and locking the nuts upon bolts that secure the meeting ends of railway, and other rails.

A further object of my invention is in the production of such a locking device that it can be easily and quickly attached, cheap in manufacture and efficient in use. I attain these objects by the use of a plurality of plates lying immediately upon the ordinary fish-plate and between the bolts and nuts passing through and securing said fish-plates.

In order that my invention may be more fully understood, I will now proceed to describe it, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the base-plate I use in carrying out my invention, and Fig. 2 is a perspective view of the locking plate. Fig. 3 is a side elevation of the meeting ends of two railway rails, having the ordinary fish plate located thereon and my locking-plates in position as required for practical use. Fig. 4 is a cross-sectional view on the indicated line 4—4 of Fig. 3. Fig. 5 is a perspective view of a modified form of base-plate, and Fig. 6 is a perspective view of the locking plate of this modified form. Fig. 7 is a side elevation of the modified form of my locking device as applied to a railway rail, Fig. 8 being a cross-sectional view on the indicated line 8—8 of Fig. 7.

Similar numerals refer to similar parts throughout the several views.

In the construction of the device as shown, the numeral 1 designates the base-plate of my device, which is constructed of a rectangular piece of sheet metal, having the slots 2 in its ends and running parallel with the edges thereof. The inner ends of these slots 2 are rounded, as indicated by the numeral 3. Midway between the inner ends of these slots 2 and in the center vertically of the plate 1 is an aperture, or bolt-hole 4. This

base-plate 1 takes the place of the washers now used upon the bolts between the nuts and the fish-plates.

The locking-plate of my device is composed of a rectangular portion of sheet metal 5 of a thickness corresponding to that of the base-plate 1. This body portion 5 is of a length somewhat less than the distance between the rounded ends 3 of the slots 2 in the base-plate 1, and has formed integral with the lower edge the extending portions 6. These portions 6 serve to make the locking plate 5 of a length approximating that of the base-plate 1. In the center of the body portion 5 of the locking-plate is an aperture, or bolt-hole, 7 to mate with the bolt-hole 4 in the base-plate. The manner of positioning these plates is as follows: When the fish-plate 8 is in position upon the meeting ends of the rails 9, and before the nuts 10 are placed upon the bolts 11, the base-plate 1 is placed directly upon the face of the fish-plate 8, the bolts 11 extending through the slots 2 in said base-plate adjacent the rounded ends 3 thereof. The nuts 10 are now firmly screwed upon the bolts 11, until they contact with the ends of the base-plate 1 and become squared with said plate, or in the position as shown in Fig. 3. The locking-plate 5 is now placed directly against the base-plate 1, the outer edges of said locking-plate 5 and the upper edges of the portions 6 lying immediately against the lower and inner edges of the nuts 11. A bolt 12 of small diameter is now passed through the registering apertures, or bolt-holes, 4 and 7, and similar bolt-holes formed in the fish-plate and rail, and a nut 13 located upon the screw-threaded end thereof. By this means the two plates 1 and 5 are securely held in position upon the fish-plate and between the nuts.

In the modified form shown in Figs. 5, 6, 7, and 8, the plates 1 and 5 are identical in form with those just described, with the exception that in the plate 1 directly above the aperture 4, and in its center longitudinally, is formed a depression 14. This can be formed by either stamping, or by a punch and the repeated blows of a hammer.

Formed integral with the locking-plate 5, directly above the aperture 7 and in its longitudinal center, is a hook 15, said hook ex-

tending a slight distance above the upper edge of the plate 5 and from thence bent directly downward in a vertical plane with the body of said plate 5. The positioning of these modified forms of plates is identical with that of the plates previously described. The hook 15 engages within the depression 14 in the plate 1. By this means the locking-plate 5 is securely held to the base-plate 1, even though the nut 13 should become loosened from the bolt 12. In some instances where the modified forms of my plates are used, the locking-bolt 12 and the nut 13 can be dispensed with, as the hook 15 alone would serve to securely lock said plates. By reason of the nuts 10 engaging against the upper edges of the portions 6 and the outer edges of the locking-plate 5, it will be seen how said nuts are securely and rigidly held in a locked position.

In Figs. 3 and 7, I have illustrated my device as operated with either an ordinary, or hexagonal nut.

As it is the intention to stamp the plates

from sheet metal, it will be seen how they can be produced at a minimum cost.

What I claim is—

In a nut lock, the combination of a rectangular base-plate having longitudinal slots therein adapted to engage around the bolts on which the nuts are located, a locking-plate 5 rectangular in form and provided with the extending portions 6 on the lower corners of the body portion, the outer edges of said body portion and the upper edges of said extending portions adapted to engage the inner and under sides of the nuts that are positioned upon the bolts, and a locking-bolt 12 passing through the plate 5, the base-plate, the fish-plates and the web of the rail, thus rigidly securing the plate 5 and the base-plate in the desired positions.

In testimony whereof I affix my signature in presence of two witnesses.

JACOB DITTMANN.

Witnesses:

E. E. LONGAN,  
JNO. C. HIGDON.