

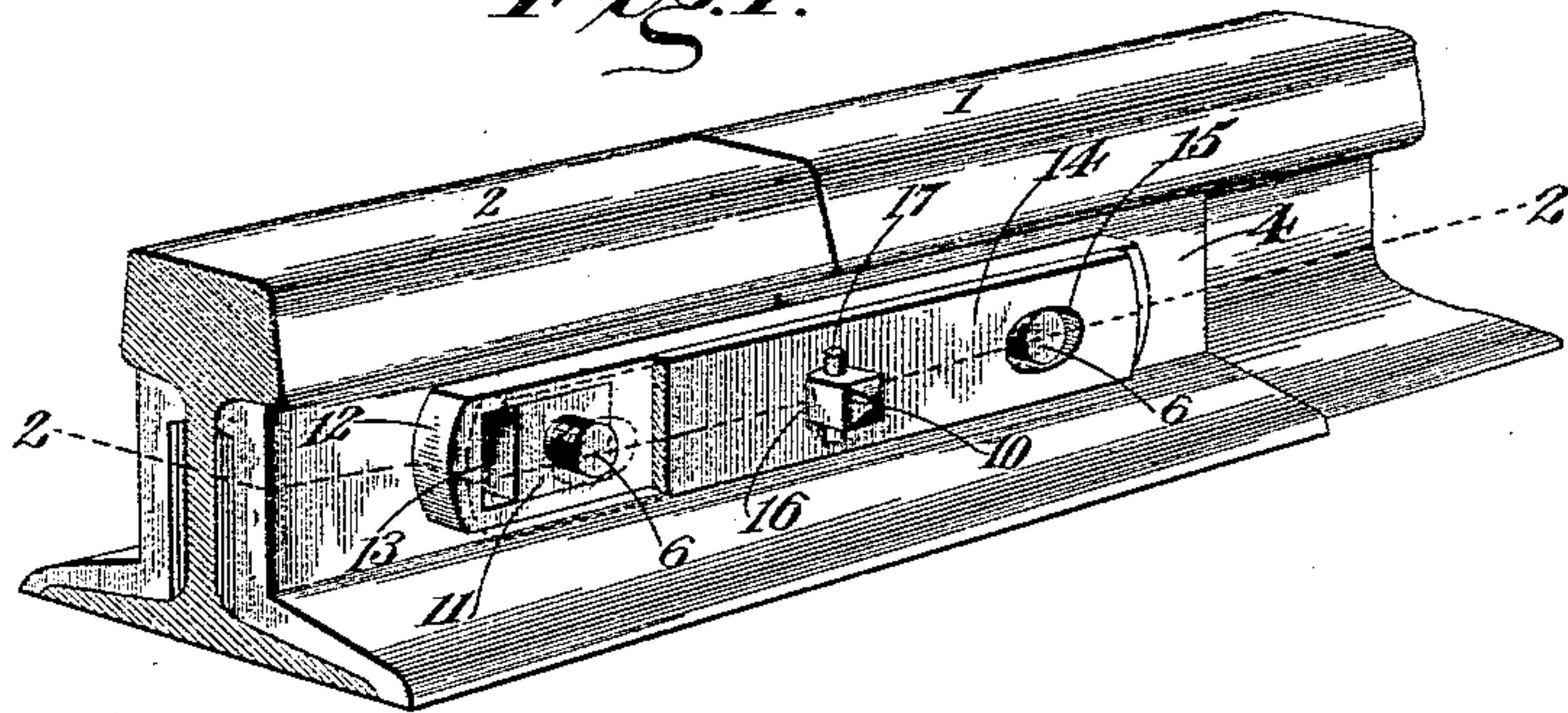
(No Model.)

G. W. PACKER.  
NUT LOCK.

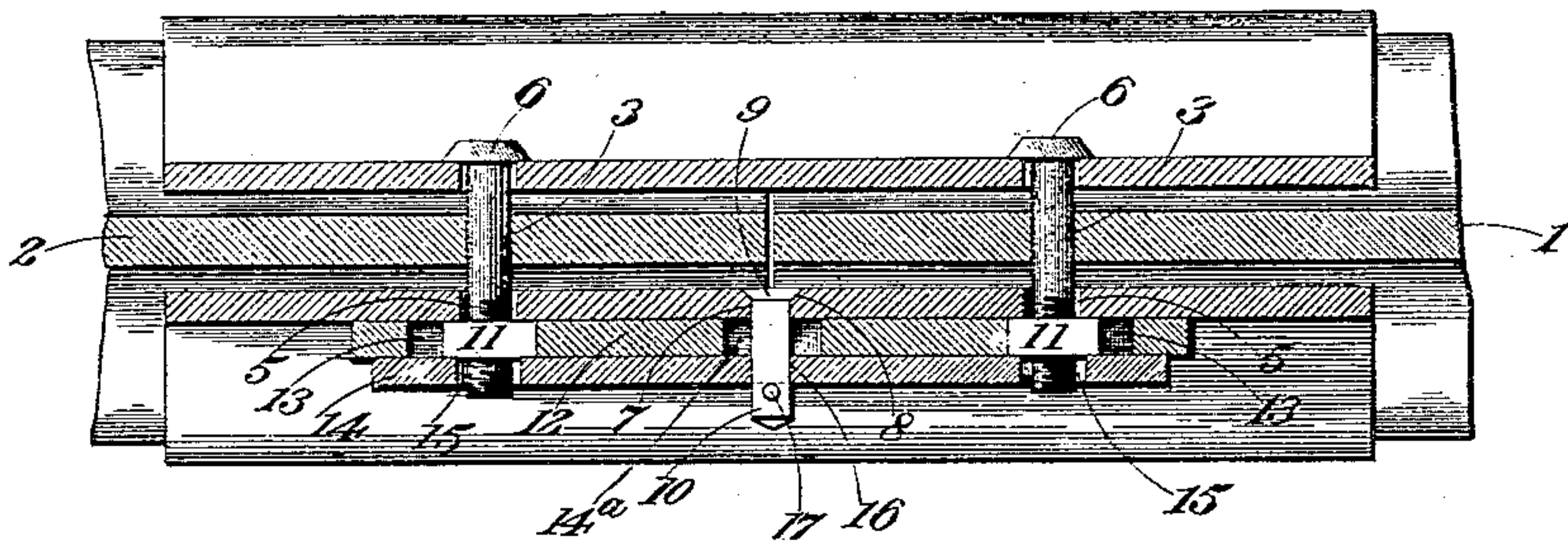
No. 555,396.

Patented Feb. 25, 1896.

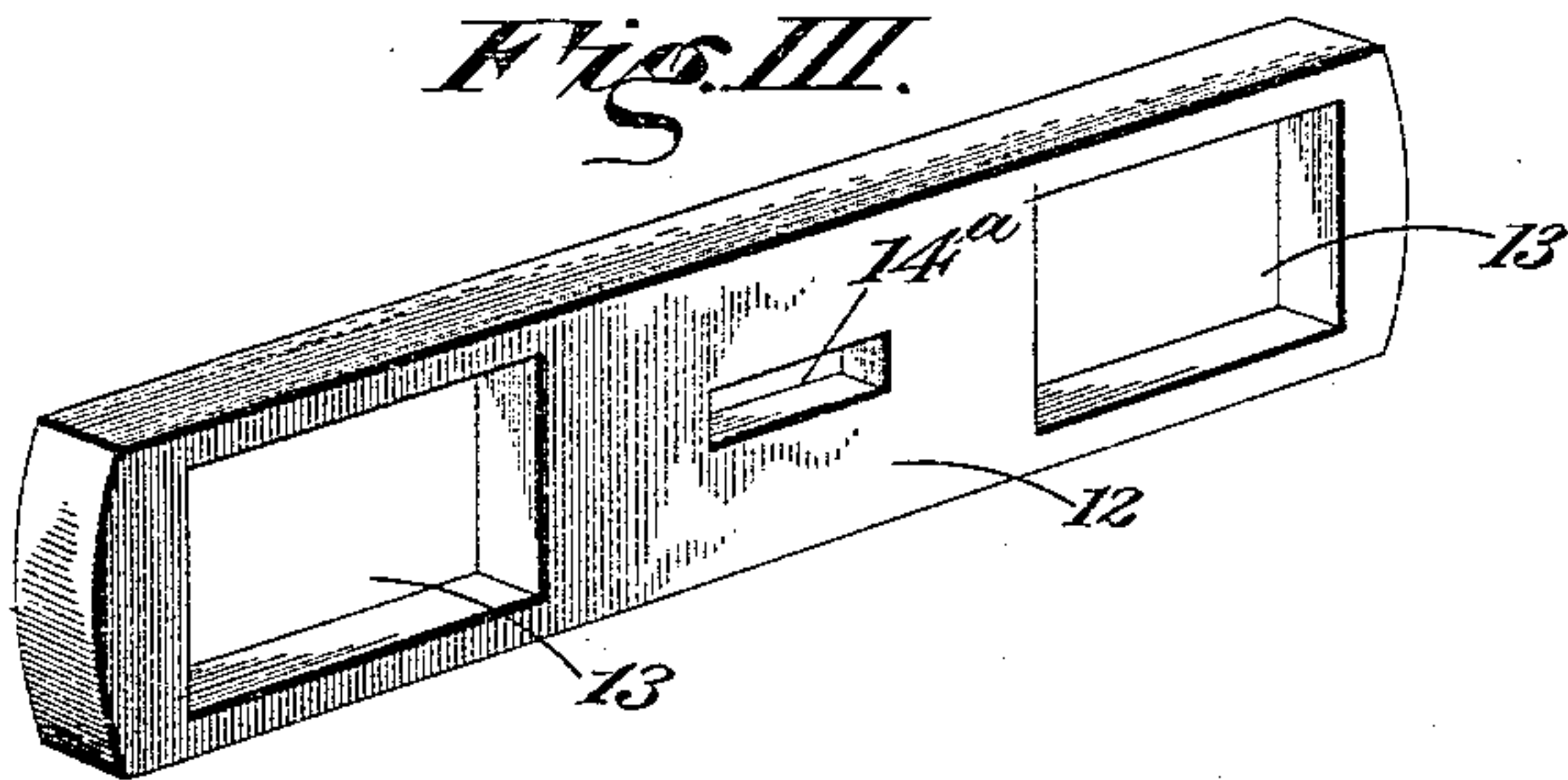
*Fig. I.*



*Fig. II.*



*Fig. III.*



WITNESSES

*M. C. Fowler*  
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INVENTOR

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# UNITED STATES PATENT OFFICE.

GEORGE W. PACKER, OF BEECH CREEK, PENNSYLVANIA.

## NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 555,396, dated February 25, 1896.

Application filed August 15, 1895. Serial No. 559,410. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. PACKER, of Beech Creek, county of Clinton, State of Pennsylvania, have invented certain new and useful Improvements in Nut-Locks, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce a nut-locking device particularly adapted for use upon bolts securing the fish-plates to the adjacent ends of rails of railroad-tracks; and it consists in providing a fish-plate of novel construction and a nut-lock secured to the fish-plate and having longitudinal movement with respect thereto in either direction, and in the employment of a nut-lock-securing plate designed to guard the nut-lock while permitting of the movement of the latter to accommodate the expansion and contraction of the rails.

In the accompanying drawings, Figure I is a perspective view of the adjacent ends of a pair of rails, showing my fish-plate, nut-lock, and nut-lock-securing plate in position. Fig. II is a horizontal longitudinal section on the line 2 2 of Fig. I. Fig. III is a perspective view of the nut-lock detached.

Referring to the figures on the drawings, 1 and 2 indicate the adjacent ends of the rails provided with the usual bolt-holes 3 and having secured thereto a fish-plate 4 of substantially the usual shape, provided with somewhat elongated apertures 5 correlative to the bolt-holes in the rails and secured to the rails by bolts 6, the threaded ends of which project a considerable distance beyond the fish-plate.

7 indicates a preferably square medial aperture in the fish-plate, surrounded upon the side nearest the rail with a countersunk recess 8 for the reception of the head 9 of a securing-post 10, which extends through the fish-plate and to a considerable distance beyond its face. The head of the post, seated in the recess 8, is designed to be flush with the inside of the fish-plate, as illustrated. Nuts 11 are, as usual, screwed upon the threaded extremities of the bolts and firmly against the fish-plate.

12 indicates my improved nut-lock, which consists of an elongated flat plate provided with elongated nut-apertures 13 of a width

corresponding to the smallest diameter of the nuts and with a medial elongated aperture 14<sup>a</sup> of a width corresponding to the diameter of the post 10.

In practice the nut-lock is secured against the face of the fish-plate by a nut-lock-securing plate 14, provided with elongated apertures 15 for the reception of the extremities of the bolts, and with a medial aperture 16, within which is designed to fit closely the extremity of the post 10 projecting beyond the nut-lock.

Any suitable means may be employed for preventing the securing-plate from sliding off of the post, but I prefer to employ a pin 17, as shown, extending diametrically through the extremity of said post.

In practice the nuts secured between the sides of the apertures 13 are prevented from rotating, but are capable of transverse movement under the contraction and expansion of the rails by reason of the length of the apertures. This particular feature, however—namely, the elongated slots in the plate for securing the nuts—is old, and such I do not claim broadly as my invention.

The construction illustrated and described provides, moreover, for contraction and expansion of the rails and for their continued and unequal contraction and expansion by means of the elongated medial aperture in the nut-lock. This not only permits lateral movement of the nuts within the lock, but also permits of longitudinal movement in either direction of the entire nut-lock, the nut-lock-securing plate being immovably secured and serving not only to guard the nut-lock but to prevent the accidental unscrewing of the nuts in the event of the nut-lock proper becoming broken.

I do not desire to limit myself to the details of construction herein shown and described, but reserve to myself the right to vary, modify or change the same within the scope of my invention.

What I claim is—

1. The combination with a pair of rails, securing bolts and nuts, of a fish-plate provided with elongated bolt-apertures, a medial aperture and a countersunk recess, a nut-lock provided with elongated nut-apertures and an elongated medial aperture, a nut-lock-

securing plate provided with a medial aperture corresponding to and correlative with the medial aperture in the fish-plate and with elongated apertures for the reception of the  
5 extremities of the bolts, a securing-post within the medial apertures in the fish-plate, nut-lock and nut-lock-securing plate and provided with a head within the countersunk recess in the fish-plate and flush with the inner face of the latter, and means for securing  
10 the post, substantially as specified.

2. The combination with a fish-plate provided with a medial aperture, a recess and elongated bolt-apertures, of a securing-post  
15 passing through the medial aperture provided with a head designed to be seated with-

in the recess, a nut-lock provided with an elongated medial aperture and with elongated nut-apertures, and a nut-lock-securing plate provided with a medial aperture designed to  
20 fit closely upon the post, and with elongated bolt-apertures of a smaller diameter than the diameters of the nut-apertures in the nut-lock, and means for preventing the casual displacement from the post of the nut-lock-  
25 securing plate, substantially as specified.

In testimony of all which I have hereunto subscribed my name.

GEORGE W. PACKER.

Witnesses:

GEO. WILLIAMS, Jr.,  
P. C. GOULD.