(Model.)

R. WALKER & R. S. ELLIOTT.

NUT LOCK.

No. 245,985. Patented Aug. 23, 1881.

Fig. 1.

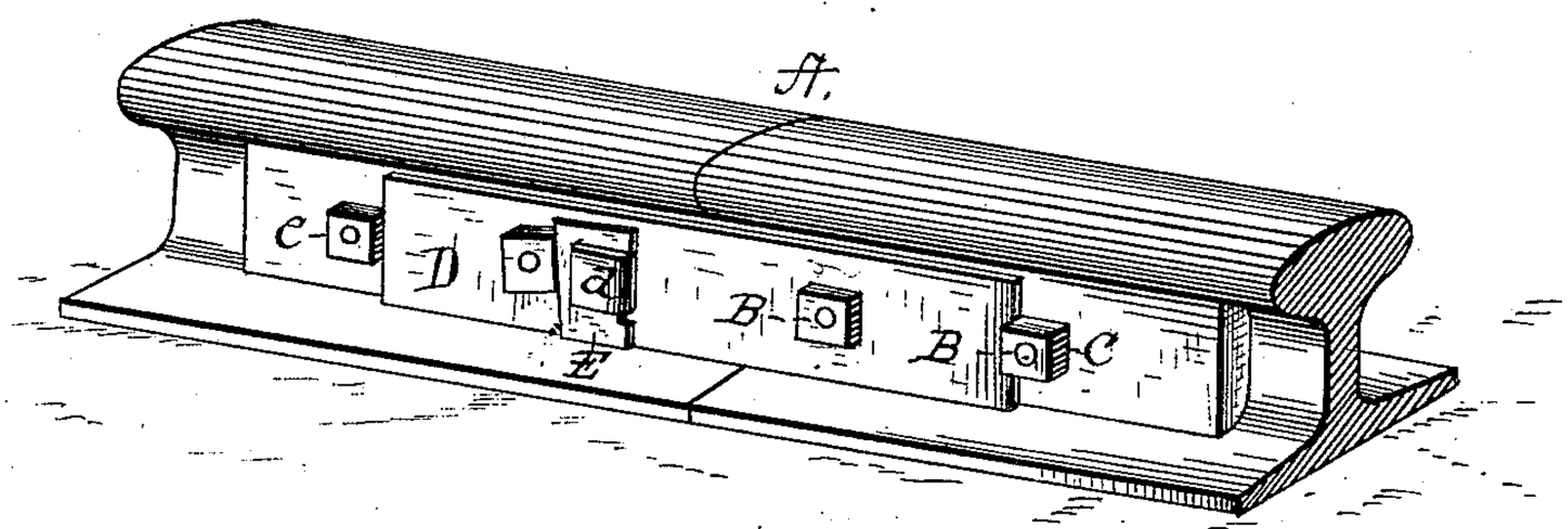


Fig. 2.

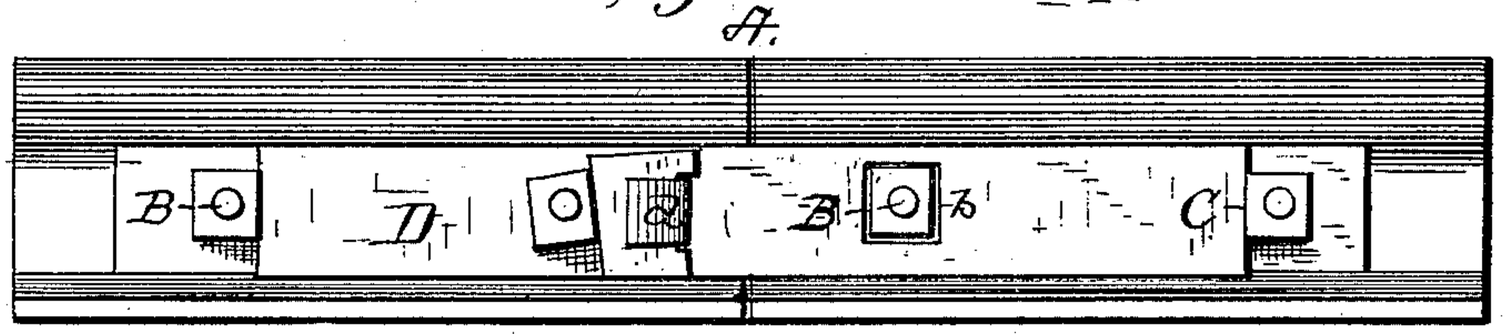


Fig. 4.

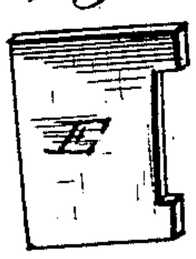


Fig. 3.

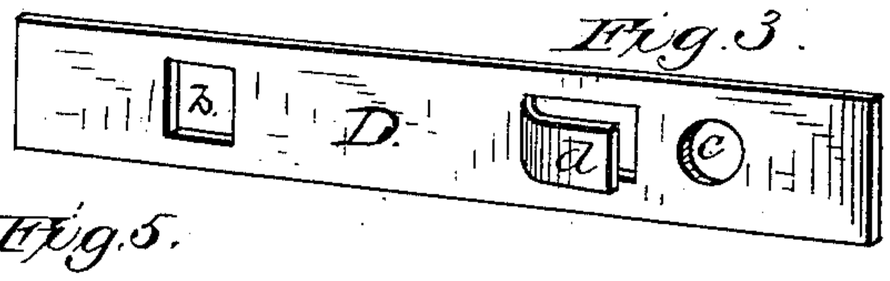


Fig. 5.

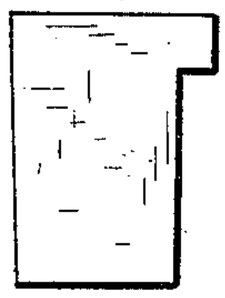
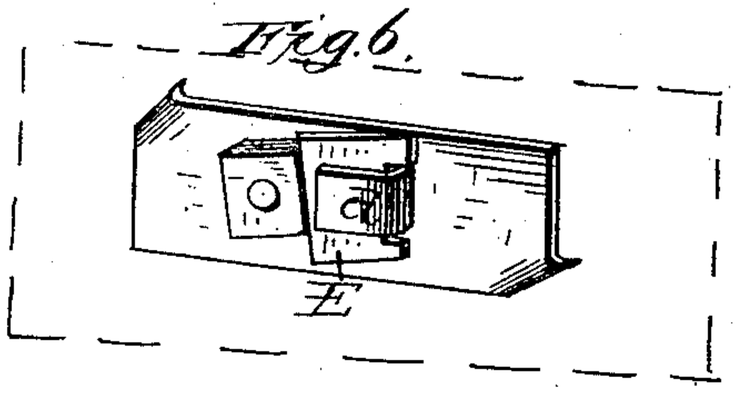


Fig. 6.



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UNITED STATES PATENT OFFICE.

ROBERT WALKER AND ROBERT S. ELLIOTT, OF SHREVEPORT, LOUISIANA.

NUT-LOCK.

SPECIFICATION forming part of Letters Patent No. 245,985, dated August 23, 1881.

Application filed May 20, 1881. (Model.)

To all whom it may concern:

Be it known that we, ROBERT WALKER and ROBERT SIDNEY ELLIOTT, citizens of the United States of America, residing at Shreveport, in the parish of Caddo and State of Louisiana, have invented certain new and useful Improvements in Nut-Locks for Railroad-Rails and other Nuts; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to certain improvements in nut-locks for railroad-rails and other nuts; and its objects are to effect the insertion of the locking-key with side projections or lips under a raised tongue formed on the locking-plate, when one of the fastening-nuts is turned vertical to the horizontal plane of the rail, and to securely lock the key and the nut by turning the latter against the key and forcing it against the base of the tongue.

Our invention therefore consists in the novel construction of the locking-plate having the usual round and square holes for the passage of bolts and the reception of a nut, and also formed with a struck-up tongue to receive a locking-key which shall rest against the nut.

Our invention further consists, in combination, with the rails and fish plate or bars, of a locking-plate formed with a struck-up tongue, and a key formed with upper and lower side projections for operation, as will be hereinafter more fully set forth and described.

Figure 1 of the drawings is a representation, in perspective, of our improvements applied to two sections of a railroad-rail. Fig. 2 is a front or side view of the same. Fig. 3 is a perspective view of the fish-plate, showing the struck-up tongue and the usual round and square openings for the passage of bolts and nuts. Fig. 4 is a perspective view of the locking-key. Fig. 5 is a side view of a locking-key, showing only the upper projection or lip. Fig. 6 is a perspective view, showing the application of our invention to a single bolt and nut.

In the annexed drawings, the letters A represent the portions of two sections of a railroad-rail united together by the ordinary fish plates or bars, and the letters B represent the bolts passing through the rails, and the fish plates or bars arranged on opposite sides of the rails. These bolts are provided with the usual square nuts, C, substantially as shown.

The letter D (see Fig. 3) represents the locking bar or plate, formed in this case of sheet metal and of a sufficient length to fit and be adjusted on and over two bolts, with the ends of the locking-plate abutting against the inner face walls of the outer nuts, substantially as seen in Figs. 1 and 2 of the drawings. These locking plates or bars are preferably formed from sheet metal, and of a uniform length and width, or nearly so, and are produced by a power punching-machine, which may form in the same operation the square hole *b*, round holes *c*, and the tongue *d;* or they may be produced by means of dies.

The letter E (see Fig. 4) represents the locking-key, which is also made of sheet metal of a width that is equal to or greater than the width of the locking-plate. This locking-key, it will be observed, has one of its vertical edges beveled or inclined and the other vertical and formed with upper and lower projections.

Our improvements are adapted to all railroad-rails using fish bars or plates and the connecting-bolts and nuts, and are applied in the following manner: The locking-plate is adjusted over one of the inner bolts, having its nut previously removed, and over the nut of another inner bolt, after which the nut is applied to the bolt and adjusted in position. The lower beveled end of the locking-key is now passed between the tongue *d* of the locking-plate D and the adjacent nut, the edges of which are in vertical planes. The nut is now turned at a slight angle to the left, which adjustment of the nut causes the projecting lips or portions of the key to straddle the tongue of the locking-plate, and the vertical wall of the key to fit against the nut, as seen in Figs. 1 and 2, forming the lock.

To remove the locking-key from its seat the nut is turned so as to present its edges in vertical planes, which permits the heel end of the key to be released from contact with the tongue of the locking-plate and assume a vertical position, when it is readily removed by lifting.

The other nuts are prevented from turning by contact with the plate, as shown.

The bolts are provided with the ordinary square shoulders below the head, to prevent them from turning after being seated in the fish-plates and rail.

It is obvious that slight changes may be made in the construction of the locking plate or bar and key; hence we reserve the right to vary the parts without departing from the spirit of the invention.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. In a nut-lock for railroad-rails, the combination of the locking plate or bar, formed with square and round holes for the passage of connecting-bolts, and the raised tongue and the locking-key, having vertical and inclined walls and upper and lower lips or projections to rest below and above the tongue of the locking-bar, substantially as described.

2. The improved locking key or wedge E, as shown and described.

In testimony whereof we affix our signatures in presence of two witnesses.

ROBERT WALKER.
ROBERT SIDNEY ELLIOTT.

Witnesses:
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R. I. B. SWEARINGEN.