A. E. FRY.

RAIL LOCK.

APPLICATION FILED MAR. 30, 1911.

1,014,589. Patented Jan. 9, 1912.

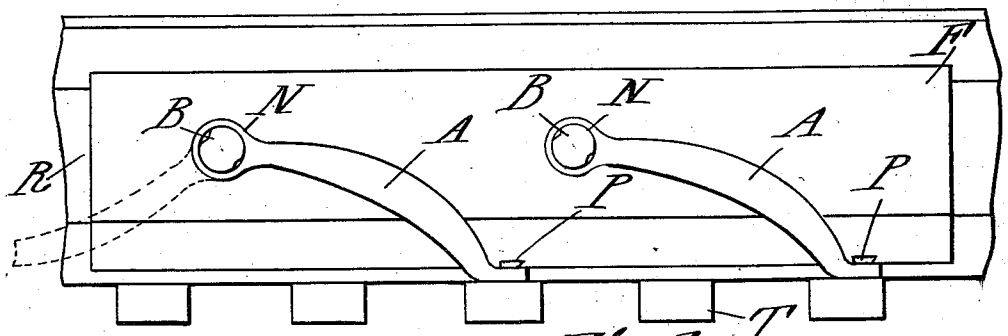


Fig. 1.

Fig. 2.

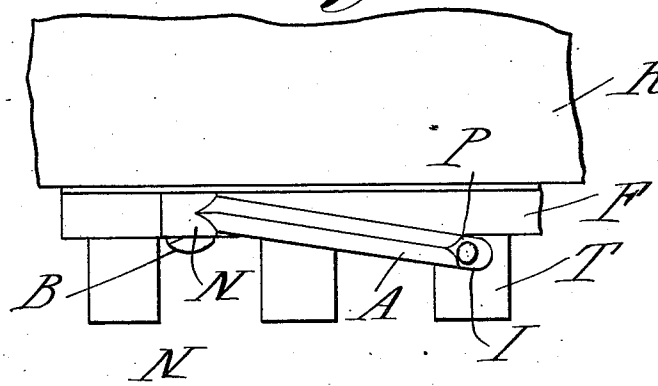
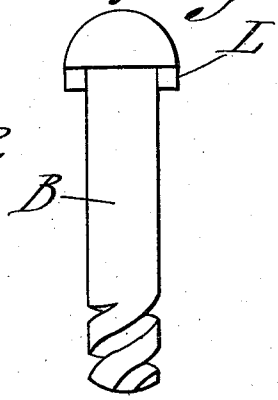


Fig. 3.



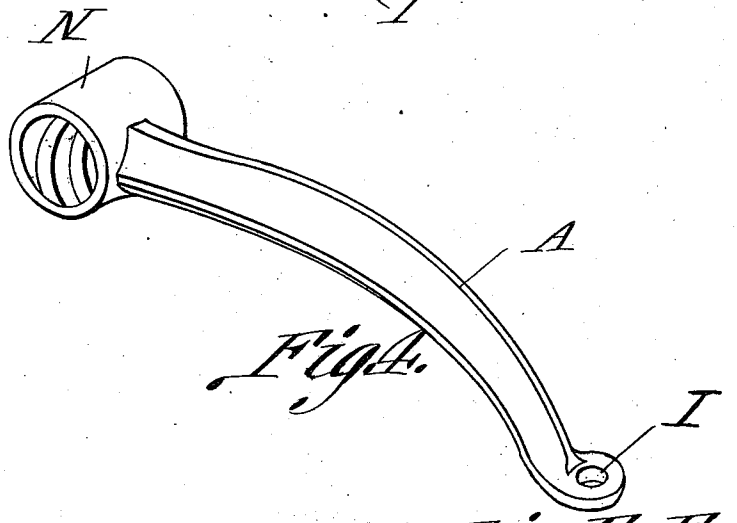


Fig. 4.

Witnesses

J. P. Tinsley

L. H. Wilson.

Archie E. Fry, Inventor

by C. A. Snow & Co.

Attorneys

UNITED STATES PATENT OFFICE.

ARCHIE E. FRY, OF SALEM, WEST VIRGINIA.

RAIL-LOCK.

1,014,589. Specification of Letters Patent. Patented Jan. 9, 1912.

Application filed March 30, 1911. Serial No. 617,887.

To all whom it may concern:

Be it known that I, ARCHIE E. FRY, a citizen of the United States, residing at Salem, in the county of Harrison and State of West Virginia, have invented a new and useful Rail-Lock, of which the following is a specification.

This invention relates to rail locks and has for its object to provide a simple and effective means for locking the rails of a railroad track to the ties thereof.

To the above end this invention is embodied in the novel construction, the arrangement and combination of parts as herein described and as illustrated in the accompanying drawings, in which similar reference characters indicate similar parts, and in which,—

Figure 1 is a side view of a rail joint showing the fish plate thereon with an embodiment of the present invention. Fig. 2 is a plan view, parts broken away. Fig. 3 is an elevation of a bolt used. Fig. 4 is a perspective of the locking device.

Referring specifically to the drawings, T designates the usual ties employed in railroad constructions and R, one of the rails thereon. The fish plate F is also shown in the drawings as applied to the web of the rail. In place of the usual bolts for securing the fish plate to the rail or rails I employ a pair of bolts B which are provided with lugs L and are inserted as usual through the web of the rail or rails as is customary, the lugs L engaging in suitable notches to retain the bolts against rotation. The bolts B are provided at their projecting ends with a screw thread of large pitch and a nut N having a screw thread of equally large pitch is adapted to engage on the end of each of the bolts and bind against the web of the rail or against the fish plate upon less than a complete turn. Each nut N is provided with an integral arm A having an eye I at the other end thereof. These arms A extend diagonally downward and are deflected outwardly beyond the base of the rail and the outer ends thereof are secured rigidly to the respective ties by means of a spike or pin P secured through the eyes I. To remove the nut N the spikes or pins P are extracted from the respective ties and by turning the arms A less than a complete turn, the nuts are disengaged from the ends of the bolts, thus permitting the bolts to be removed. In Fig. 1 the dotted line to the left designates the position of the arm A when the nut is disengaged from the end of the bolt B and upon the arm A being turned to the right the nut is caused to engage the bolt and bind against the web of the rail or fish plate at the same time that the free end of the arm strikes the tie.

The arms A extending diagonally through the ties, lock the rail or rails against longitudinal movement and against lateral displacement, thus preventing creeping. The nut binding against the web of the rail or rails also prevents the rail or rails from being lifted from the ties. To disengage the bolts, therefore, it is only necessary to remove the spikes or pins C and give the arms a swing to the opposite side of the bolts whereupon the nuts become disengaged from the bolts, permitting the bolt to be removed. This invention therefore combines a means for securing the ends of two abutting rails together, for locking the rails against movement and for permitting the rapid removal of the bolts.

What is claimed as new is:—

The combination with a rail and a tie, of a bolt passing through the web of the rail and having its threaded end projecting therefrom and being constrained against rotatable movement, the thread of the bolt being of a large pitch, and a nut engaging the threaded end of the bolt and binding against the web of the rail, being removable upon less than a complete turn, the nut having a projecting arm extending diagonally downward and deflected outwardly beyond the base of the rail and having its outer end secured to the tie, the end of said arm being arranged to strike the tie upon the nut binding against the web of the rail.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ARCHIE E. FRY.

Witnesses:
ORAL FORD,
ROY DINERS.