H. EDWARDS.

TIE PLATE.

APPLICATION FILED FEB. 20, 1911.

997,909. Patented July 11, 1911.

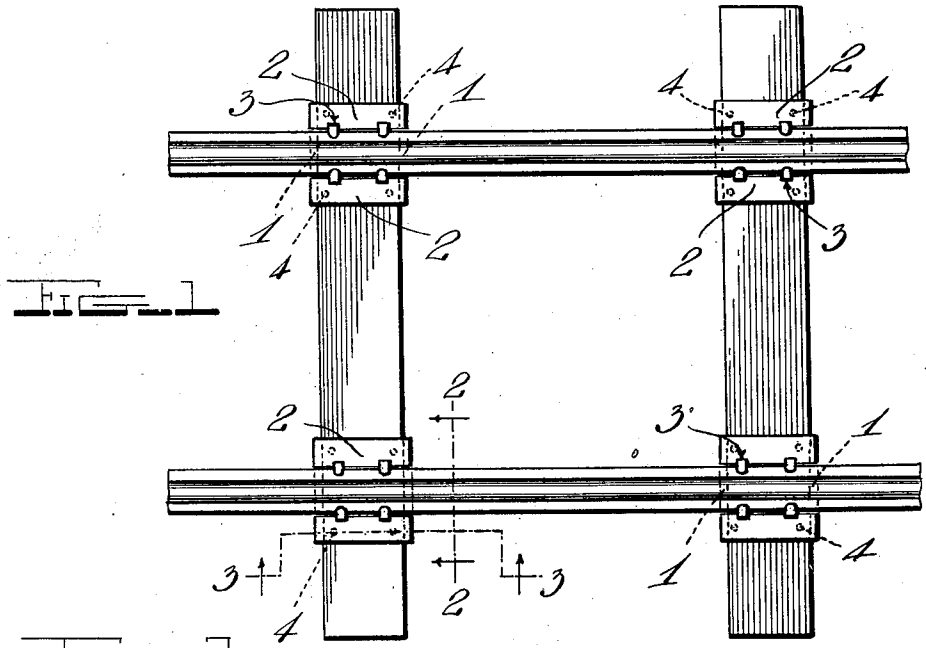
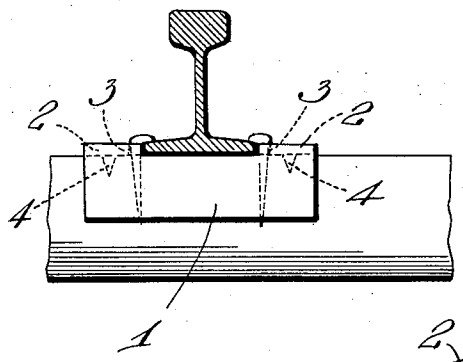
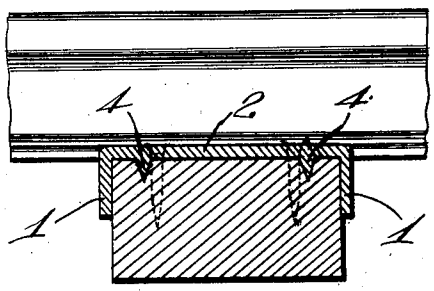


Fig. 1

Fig. 2

Fig. 3





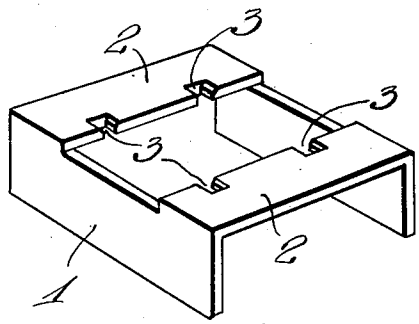


Fig. 4

Witnesses

E. C. Kilton

Inventor

Harrison Edwards

by H. B. Williamson & Co

Attorneys

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

# UNITED STATES PATENT OFFICE.

HARRISON EDWARDS, OF WAMPUM, PENNSYLVANIA.

## TIE-PLATE.

997,909. Specification of Letters Patent. Patented July 11, 1911.

Application filed February 20, 1911. Serial No. 609,792.

*To all whom it may concern:*

Be it known that I, HARRISON EDWARDS, a citizen of the United States, residing at Wampum, in the county of Lawrence and State of Pennsylvania, have invented certain new and useful Improvements in Tie-Plates; and I do 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.

This invention relates to improvements in tie plates.

One object of the invention is to provide a plate constructed in such manner that the rails are permitted to engage or rest on the ties, but are effectually prevented from cutting or sinking into the same.

Another object is to provide a tie plate which will prevent the spreading of the rails or movement of the ties, and which will also prevent the ties from splitting.

With these and other objects in view, the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings: Figure 1 is a plan view of a portion of a railway road bed showing the application of the invention to the ties thereof; Fig. 2 is a cross sectional view on the line 2—2 of Fig. 1; Fig. 3 is a similar view on the line 3—3 of Fig. 1; Fig. 4 is a perspective view of one of the tie plates.

My improved tie plates comprise side bars 1, of suitable width and length, said bars being connected at their opposite ends and on their upper edges by transversely disposed supporting plates 2, which are preferably formed integral with the bars 1, as shown. The plates 2 are spaced a sufficient distance apart on the bars 1 to permit the base of a rail to enter between the inner edges of the side bars 1. In the inner edges of the plate 2 near each end of the same are formed tapered spike receiving notches 3, through which the rail fastening spikes are driven into engagement with the flanges of the rail said notches serving to hold the spikes in frictional contact therewith, thereby preventing water from running into said notches. On the under side of the supporting plates 2 near each corner of the same are formed pointed or conical-shaped spurs 4 which, when the plates are engaged with the ties, are forced into the latter, thus rigidly holding the plates in place.

In arranging my improved tie plates, one of the same is placed on the ties near each end thereof, said plates being spaced the proper distance apart for receiving the rails. When arranging the tie plates the side bars 1 are engaged with the opposite sides of the tie and the plates 2 engage and rest on the top of the ties, as shown. When thus arranged the upper edges of the side bars 1 will be flush with the tops of the tie, and when the rails are placed on the ties the base flanges thereof will rest on the top of the ties and also on said upper edges of the bars 1, which will effectually prevent the rails from cutting or sinking into the ties. After being thus arranged the rail holding spikes are driven into the ties through the notches 3, said spikes thus fastening the rails to the ties and also holding the tie plates in position. When thus secured the plates will firmly hold the rails in position and will prevent the ties from splitting or from moving out of place.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Having thus described my invention, what I claim is:

A structure of the character described comprising cross bars connected by oppositely disposed depending side bars, said cross bars being spaced apart and having their inner edges arranged above the upper edges of the side bars between the cross bars, said inner edges of the cross bars each having a plurality of tapering notches therein, said side bars adapted to be mounted over a tie so that the cross bars will contact with the upper surface of the same, a rail having its base flange mounted on the side bars and between the spaced cross bars and having its outer edges contacting with the

inner edges of the cross bars so as to be flush therewith, said cross bars having spurs on their under faces which are adapted to be driven into said tie to prevent lateral movement of the plate, and spikes inserted in the tapering notches and driven into the tie so as to hold the rail against displacement.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HARRISON EDWARDS.

Witnesses:
T. J. DOUTHITT,
A. R. SEABURN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."