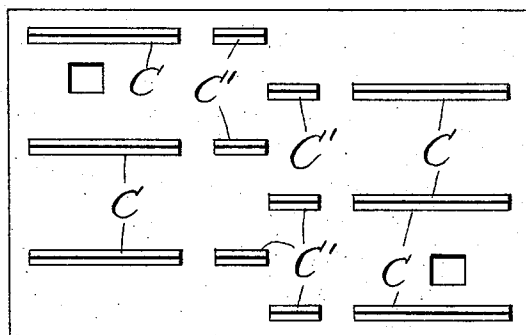
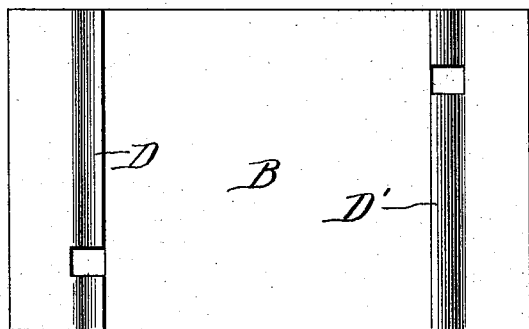
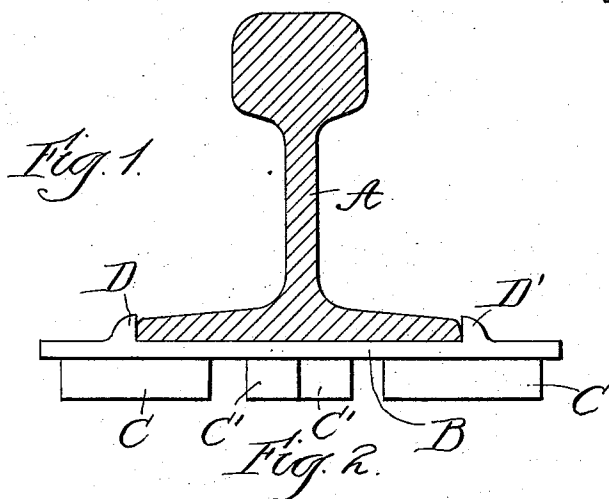


(No Model.)

B. WOLHAUPTER.
TIE PLATE.

No. 538,808.

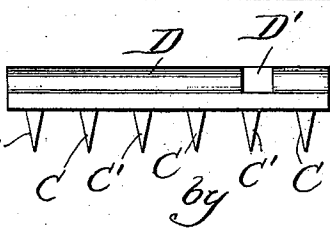
Patented May 7, 1895.



Witnesses *Fig. 4.*

Wm. J. Hanning
Wm. M. Rheems

by



Inventor
Benjamin Wolhaupter
By Walter H. Chambers
Atty.

UNITED STATES PATENT OFFICE.

BENJAMIN WOLHAUPTER, OF MORGAN PARK, ILLINOIS.

TIE-PLATE.

SPECIFICATION forming part of Letters Patent No. 538,808, dated May 7, 1895.

Application filed November 23, 1894. Serial No. 529,690. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN WOLHAUPTER, a subject of the Queen of Great Britain, residing at Morgan Park, county of Cook, State of Illinois, have invented a certain new and useful Improvement in Tie-Plates; and I 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 pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object the production of a railway tie plate of that class in which the engaging devices on the under side of the plate which enter the tie extend parallel with the grain of the tie.

The invention relates more particularly to that style of plate shown in my pending application for railway tie plate filed March 10, 1894, Serial No. 503,111.

The invention consists in a combination of devices and appliances hereinafter described and claimed.

In the drawings, Figure 1 is a cross-section of a railway-rail, showing an edge elevation of my plate. Fig. 2 is a plan view; Fig. 3, a view of the under side of the plate, and Fig. 4 an end elevation thereof.

In carrying out the invention E represents the rail and B the body of my plate. On the under side of the plate as shown in Fig. 3 is a series of divided ridges C, C'. It will be observed that these divided ridges are staggered, that is to say, they are not in longitudinal alignment with each other. On the upper side of the plate are flanges D, D', forming rail abutting flanges to prevent lateral movement of the rail upon the plate itself.

By the above construction it will be observed that I have obtained a maximum efficiency for the plate against a creeping of the plate, longitudinally of the tie, while at the same time I have provided the plate with the transverse top ridges D, D' to prevent absolutely lateral movement of the rail upon the plate. The particular form of the flanges on the under side of the plate being divided (into the portions C, C') and at the same time staggered as shown gains for the plate that essential quality of being able to resist the lateral thrusts of the rail while at the same time the advantageous features of having the engag-

ing devices parallel with the grain of the wood of the tie are retained.

The advantages of this style of construction are more particularly set forth in my above named application, and I would have it understood that I do not herein broadly claim elongated divided ridges on the under side nor elongated divided ridges in combination with rail abutting flanges on the upper side since the claims of my above named application broadly cover these features, but

What I claim is—

1. A railway tie plate provided on its under side with a series of elongated divided ridges inside the outer edges of the plate and extending when in position on the tie parallel with the grain thereof, and on its upper side with one or more rail abutting flanges extending substantially parallel with the rail flange, substantially as described.

2. A railway tie plate provided on its under side with a series of elongated divided ridges extending when in position on the tie parallel with the grain thereof, said ridges being out of longitudinal alignment with each other, and each ridge being out of transverse alignment with the ridge next adjacent, whereby said ridges are arranged in a zigzag or staggered form and the plate provided on its upper side with one or more rail abutting flanges, substantially as described.

3. A railway tie plate provided on its under side with a series of elongated, divided, staggered ridges extending when in position on the tie parallel with the grain thereof, and on its upper side with one or more rail abutting flanges extending substantially parallel with the rail flange, substantially as described.

4. A railway tie plate provided on its under side with a series of elongated ridges inside the outer edges of the plate and extending when in position on the tie parallel with the grain thereof, and on its upper side with one or more rail abutting flanges extending above and across the under flanges and substantially parallel with the rail flange, substantially as described.

In testimony whereof I sign this specification in the presence of two witnesses.

BENJAMIN WOLHAUPTER.

Witnesses:

W. H. CHAMBERLIN,
FLORENCE KING.