

J. W. WALTON & W. H. DAYTON.

TIE PLATE.

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1,032,520.

Patented July 16, 1912.

Fig. 1.

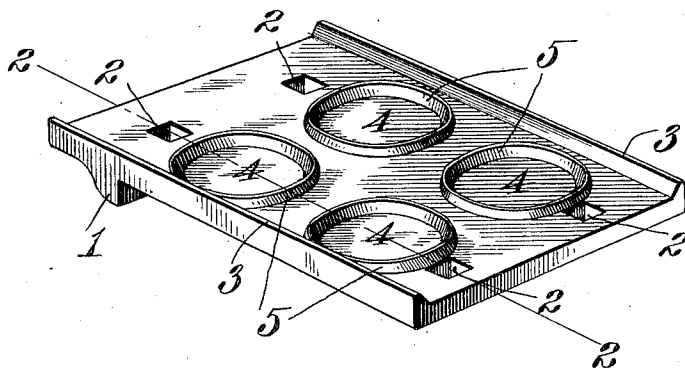
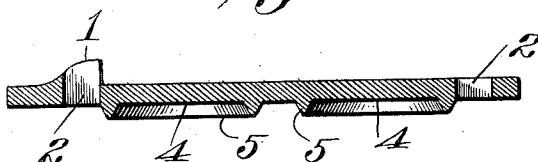


Fig. 2.



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UNITED STATES PATENT OFFICE.

JAY W. WALTON, OF DENISON, TEXAS, AND WILLIAM H. DAYTON, OF ST. LOUIS,
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TIE-PLATE.

1,032,520.

Specification of Letters Patent.

Patented July 16, 1912.

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To all whom it may concern:

Be it known that we, JAY W. WALTON and WILLIAM H. DAYTON, citizens of the United States, and residents of Denison, Texas, and St. Louis, Missouri, respectively, have invented certain new and useful Improvements in Tie-Plates, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

Our invention relates to railway tie-plates and consists in the novel construction and arrangement of parts hereinafter described and pointed out in the claim at the termination of this specification.

The object of our invention is to provide an improved tie-plate, which shall have an abundance of adhesion without unnecessary cutting of the tie; which shall economize in the weight of metal; and which shall, by reason of the novel construction of circular inclosures upon its underside, exclude the moisture and thereby prolong the life of the ties.

In the drawings: Figure 1 is a perspective view of our improved tie-plate, showing the bottom thereof; and Fig. 2 is a sectional elevation on the line 2—2 of Fig. 1.

Our improved tie-plate is preferably rolled from wrought iron or steel billets.

We first produce a bar of metal having sufficient length to make numerous tie-plates, and then the bar is sawed, sheared, or otherwise cut up into tie-plates of the dimensions desired, which are those shown in the drawing. However, it is obvious that the tie-plate may be made of malleable iron by the usual casting process, or it may be stamped or cut, as may be preferred.

The upper face of the tie-plate is provided with the usual shoulder 1, to take the strain off the spikes which latter are driven through the spike holes 2.

The bottom surface of the tie-plate is provided with opposite marginal straight flanges 3, which are substantially V-shape in cross section and project downwardly a sufficient distance to be pressed into the tie without cutting the fibers thereof, and yet firmly grip the tie. Also projecting from the un-

der surface of the tie-plate are a series of separate circular inclosures 4, formed by the separate rings 5, which are integral with the body of the tie-plate and project downwardly from the underface thereof. Said rings 5 are preferably V-shape in cross section, as shown, and are adapted to be pressed into the tie to engage the fibers thereof without cutting them, and securely hold the tie-plate in position upon the tie and to protect the tie by excluding moisture from the interior of the said circular inclosures 4. We have discovered that the circular inclosures 4, having endless side walls in the form of rings 5, possess the peculiar function of engaging the tie with great tenacity without the disadvantage of sharp angles, which have been found to lacerate and injure the tire.

In our improved tie-plate the rings 5 have continuous inclined walls, of course devoid of sharp angles. By means of our improved construction of the rings 5, much less weight of metal is required to produce a highly efficient tie-plate, as compared with tie-plates which have numerous sharp, angular ribs, claws or corrugations upon their underside.

What we claim is:

The improved tie-plate having upon its under-surface a series of circular inclosures, the walls of which are continuously curved, V-shaped in cross-section, attenuated at their lower edges and endless, and the base-wall of all the spaces within said inclosures and the under-surface of the plate being located in the same plane.

In testimony whereof, we have signed our names to this specification, in presence of two subscribing witnesses.

JAY W. WALTON.

WILLIAM H. DAYTON.

Witnesses to the signature of Jay W. Walton:

HOUSTON WOOD,
CLOYD COX.

Witnesses to the signature of William H. Dayton:

E. L. WALLACE,
JOHN C. HIGDON.