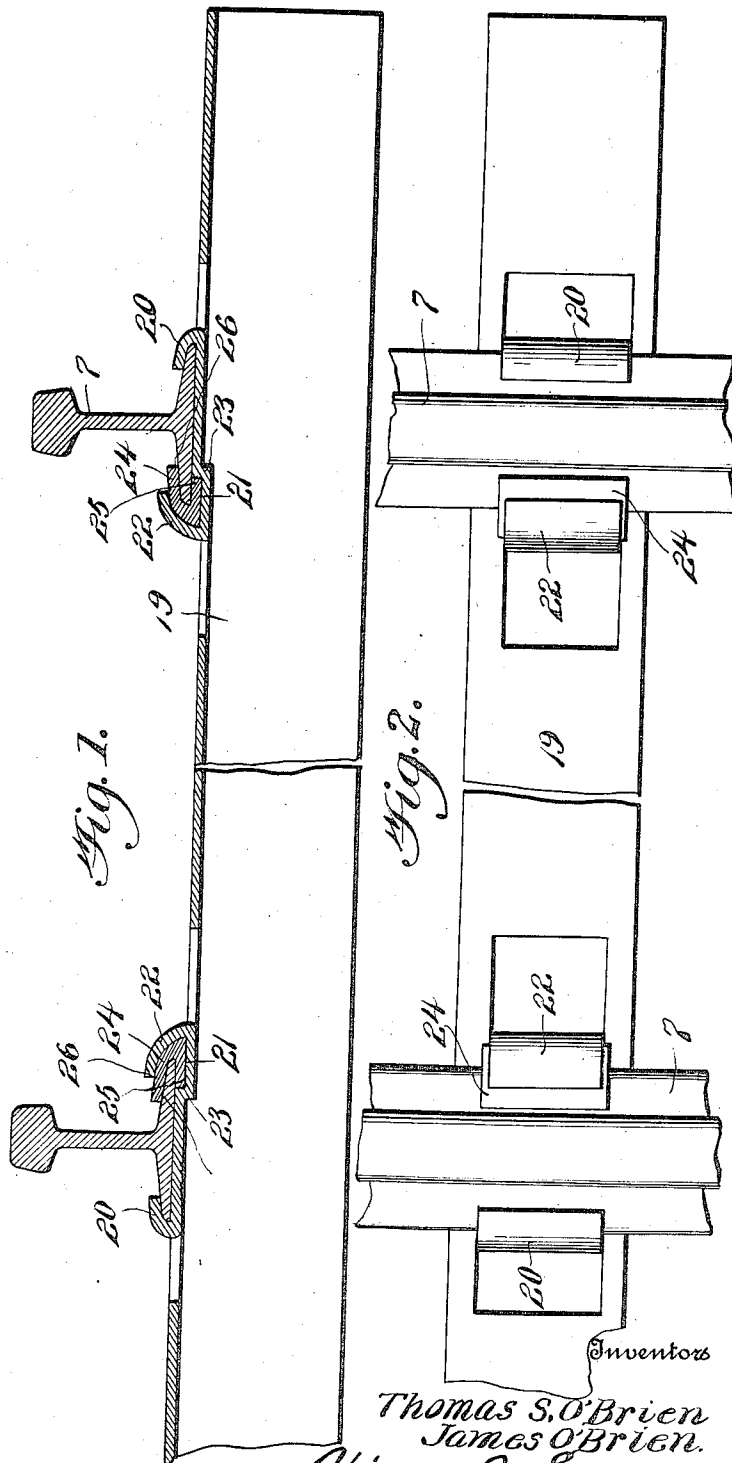


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TIE PLATE AND RAIL LOCKING KEY.
APPLICATION FILED SEPT. 28, 1911.

1,060,485.

Patented Apr. 29, 1913.



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UNITED STATES PATENT OFFICE.

THOMAS S. O'BRIEN AND JAMES O'BRIEN, OF KINGMAN, ARIZONA.

TIE-PLATE AND RAIL-LOCKING KEY.

1,060,485.

Specification of Letters Patent.

Patented Apr. 29, 1913.

Application filed September 28, 1911. Serial No. 651,730.

To all whom it may concern:

Be it known that we, THOMAS S. O'BRIEN and JAMES O'BRIEN, citizens of the United States, residing at Kingman, in the county of Mohave and State of Arizona, have invented new and useful Improvements in Tie-Plates and Rail-Locking Keys, of which the following is a specification.

This invention relates to railway ties and more particularly to a tie plate used in connection therewith.

The object of the invention is to provide a device of this character in which the rails may be firmly secured without the use of spikes or bolts and in such a manner that they may be readily removed therefrom when necessary.

A further object of the invention is the provision of a device of this character wherein the rails are secured without the employment of spikes or bolts and which absolutely prevents the tracks from getting out of gage.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing which forms a part of this application, and in which—

Figure 1 is a side elevation partly in section. Fig. 2 is a top plan view.

In the specific embodiment of the invention, a metallic tie 19 is shown having a plurality of fingers 20 bent up therefrom to overhang the base flange of the rail, and adjacent the fingers, a depressed seat 21 is formed with fingers 22 bent up upon one side thereof and a vertical wall 23 at one side of the recess. One of the fingers 22 is closer to the vertical wall than the other so as to produce a wedge channel in which is

received a wedge-shaped locking member 24 having a flange 25 to abut the vertical wall 23 and to lie beneath the base flange of the rail and inclined flange 26 to overhang the base of the rail. One side of the wedge is inclined in a similar manner to the inclination of the wedge 11, so that as the locking device is driven home, this inclined side will act in conjunction with the fingers 22 to, not only clamp the device in the channel, but to draw the flange 26 down upon the base flange of the rail. The fingers 20 and 22 may, however, be in the form of flanges and extending entirely across the tie if found to be necessary.

Having thus described the invention, what we claim as new, is:—

In combination, a tie having shoulders and a tie plate and rail seat consisting of a plate adapted to extend transversely beneath a pair of rails and having an offset portion between the rail seats to engage the shoulders on the tie and provided with inwardly directed overhanging tongues stamped out of said plate and outwardly directed tongues stamped out of said plate and adapted to overhang the bases of the rails, the base of the last tongues being located below the plane of the first tongues and providing a recess, and locking keys disposed in the recesses of said second tongues and held by said second tongues in engagement with the bases of the rail.

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

THOMAS S. O'BRIEN.
JAMES O'BRIEN.

Witnesses:

C. G. KROOK,
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