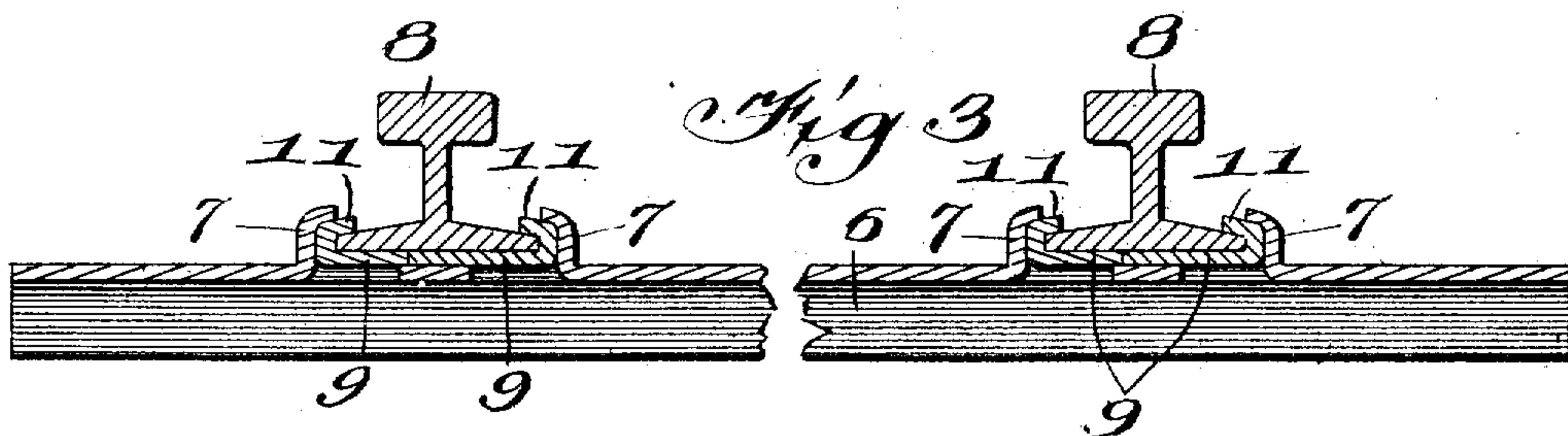
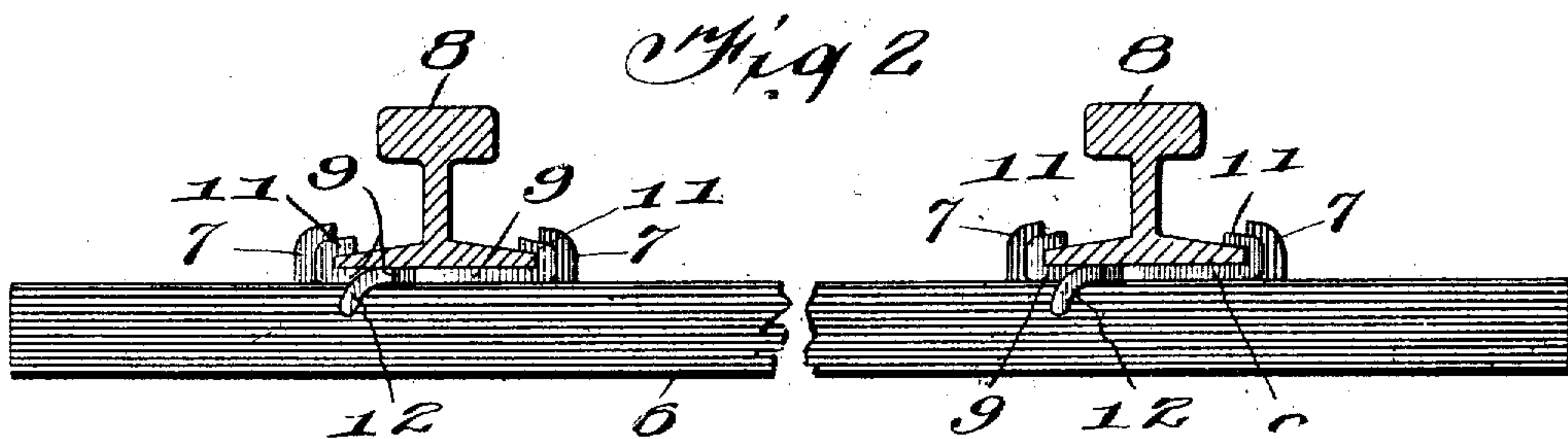
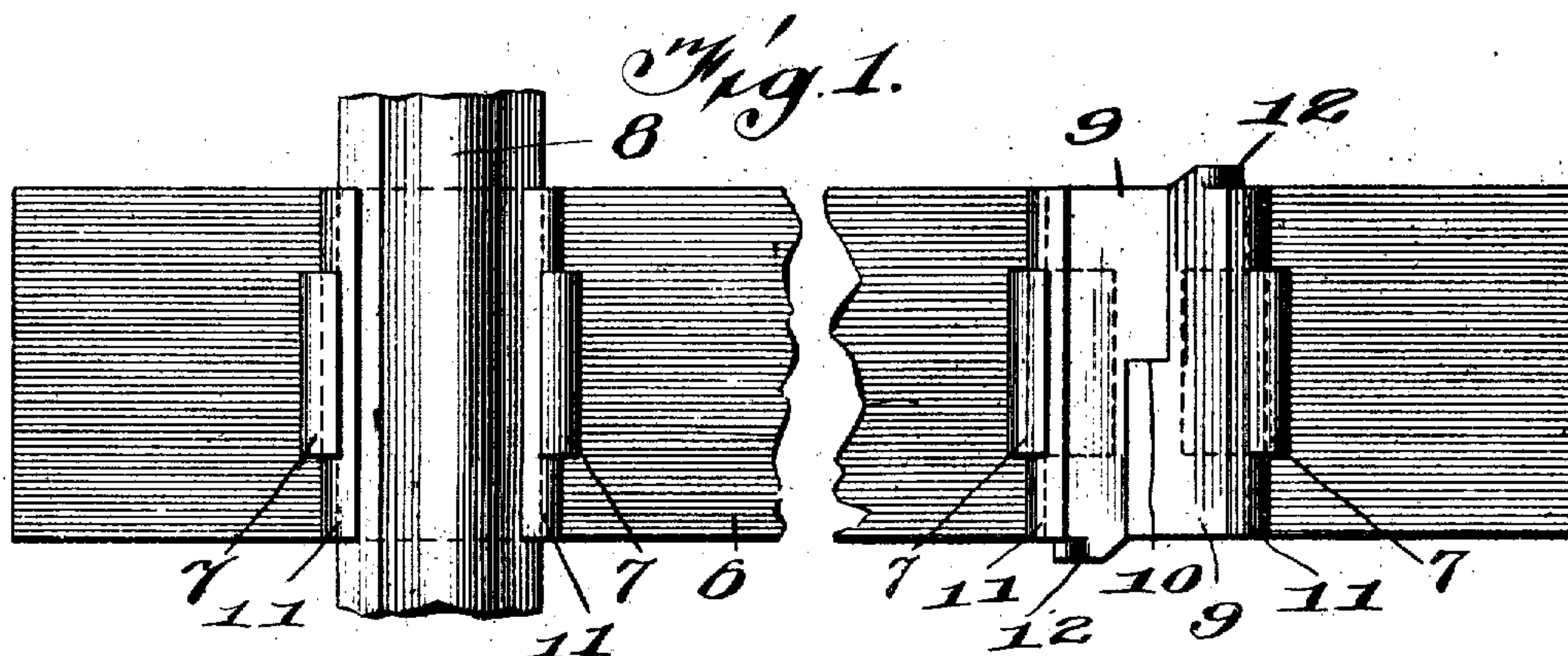


Z. MROCZKOWSKI.  
METALLIC RAILROAD TIE.  
APPLICATION FILED JULY 17, 1908.

905,344.

Patented Dec. 1, 1908.



Inventor  
Zygmunt Mroczkowski.

Witnesses

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By

*Geo. E. Tew*  
Attorney



# UNITED STATES PATENT OFFICE.

ZYGMUNT MROCZKOWSKI, OF CHICAGO, ILLINOIS.

## METALLIC RAILROAD-TIE.

No. 905,844.

Specification of Letters Patent.

Patented Dec. 1, 1908.

Application filed July 17, 1908. Serial No. 443,994.

*To all whom it may concern:*

Be it known that I, ZYGMUNT MROCZKOWSKI, a subject of the Czar of Russia, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Metallic Railroad-Ties, of which the following is a specification.

This invention relates to metallic railroad ties and fastenings and has for its object to provide a metallic tie improved particularly with respect to the means for fastening the rail to the tie, the fastening devices being such that the rail may be readily attached or detached, without the use of spikes, bolts, screws and the like.

The invention embodies a channel metal tie, having lips struck up therefrom, and a chair or plate on which the rail rests, said plate being formed in two sections which are locked together and which are fastened to the tie in such manner that they cannot become unintentionally released.

The construction of the device will be more clearly evident from the following description and the accompanying drawings in which—

Figure 1 is a plan view of the tie and fastening, one rail being shown removed and the other being shown in place; Fig. 2 is a side elevation of the tie; Fig. 3 is a longitudinal vertical section thereof.

The tie 6 preferably consists of a channeled steel bar the flanges of which are directed downwardly when the tie is set in position. The top of the tie has lips 7 struck up therefrom, the distance apart of these lips being somewhat greater than the width of the rail base, the rail being shown at 8. The lips 7 for the respective rails are curved inwardly or toward each other to engage over the chair or fastening plate. This chair or plate consists of two sections 9 which are similar in all respects except that they are made rights and lefts. Each section of the plate extends across the tie, and they meet at their inner side edges with a butt or shoulder joint indicated at 10, whereby movement of the plates with respect to each other is prevented in one direction. At the outer edge of each section of the plates is a flange 11 curved up and over to engage over the rail base, and the two sections, when placed together, form a plate of proper width to fit snugly within or between the lips 7. At one end each section

has a tongue 12 which is adapted to be bent or pounded down to engage beside the edge of the tie, as shown, and when these lips are so pounded down they act to prevent movement of the sections in a direction opposite to that mentioned above. In other words, the shoulder at 10 locks the sections together one way, and the tongues prevent movement the other way. The plate formed of the two sections is thus held in place on the tie, the lips 7 acting to prevent lift of the plate. As stated, the curved flanges 11 engage over the edges of the rail base, and so the rail is held in position.

To attach the fastening the two sections 9 are placed on the base of the rail beside the tie and are then slid along on the rail to position within or between the lips 7. The tongues 12 are then pounded down, and the fastening plates are thus held as set. To remove the plates and detach the rail it is only necessary to knock up the tongues 12 after which the plates 9 can be hammered along until they are disengaged from the lips 7, when the fastening plates can be removed from the rail base and the rail can be detached from the tie. The sections of the rail plate are made of metal sufficiently malleable to enable the tongues 12 to be pounded down or up without fracture. Said plates support the rail which rests thereon, instead of directly on the tie. There are no loose parts such as bolts or screws, and no tools except a hammer are required to place or remove a set of fastenings. The tie itself can be cheaply constructed since no special work is necessary, except to strike up the lips 7, and inasmuch as these lips are integral with the tie, there is little or no possibility of the fastenings becoming loose accidentally.

I claim:

1. The combination of a tie having lips projecting upwardly therefrom, and a tie plate held on the tie by said lips, said plate being formed in two sections, and having means at its side edges to engage the rail base, and means to prevent separation of the sections.

2. A tie plate comprising two sections which meet on a line transverse of the tie, with a shouldered joint, each section having a tongue at the end adapted to be bent down over the side edge of the tie, and a curved flange at the outer edge adapted to engage over the margin of the base of the rail, and means to fasten the rail plate to the tie.

3. The combination of a metallic tie having opposite lips struck up from the top thereof, a tie plate fitting closely between said lips which overhang the edges of the plate and retain the same on the tie, said plate being made in two sections which meet under the rail, and having a curved flange at each outer edge thereof which engages over the margin of the rail base, and means to

prevent lateral movement of the tie plate in sections with respect to the rail.

In testimony whereof, I affix my signature in presence of two witnesses.

ZYGMUNT MRÓCZKOWSKI.

Witnesses:

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WILLIAM J. ROBINSON.