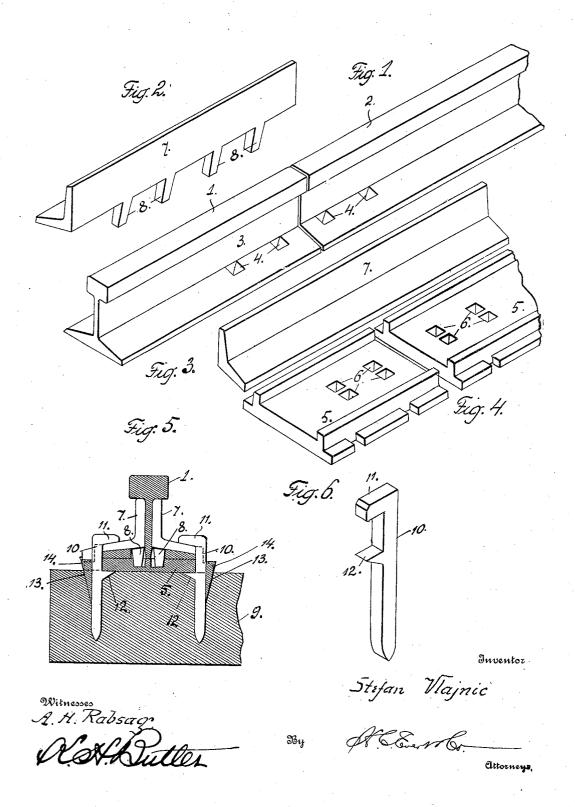
S. VLAJNIC.
RAIL JOINT.
APPLICATION FILED AUG. 15, 1907.



## UNITED STATES PATENT OFFICE.

STEFAN VLAJNIC, OF MCKEESPORT, PENNSYLVANIA.

## RAIL-JOINT.

No. 880,938.

Specification of Letters Patent.

Patented March 3, 1908.

Application filed August 15, 1907. Serial No. 388,606.

To all whom it may concern:

Be it known that I, STEFAN VLAJNIC, a subject of the King of Hungary, residing at McKeesport, in the county of Albelgheny and State of Pennsylvania, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to rail joints, and its object is to provide a simple and inexpensive device of this character, for firmly securing together the meeting ends of rail sections without the employment of the usual nuts

15 and bolts.

The invention comprises rails and fish plates of novel form, in combination with base plates and spikes, and means for reliably securing said spikes in position.

The construction of the improvement will be fully described hereinafter, in connection with the accompanying drawing, which forms a part of this specification, and its features of novelty will be defined in the ap-

25 pended claims.

In the drawing:—Figure 1 is a view in perspective of two rail sections constructed in accordance with the invention, Fig. 2 is a similar view of one of the fish plates showing 30 the inner side thereof, Fig. 3 is a similar view of the other fish-plate showing the outer side thereof, Fig. 4 is a view in perspective of the base-plate upon which the ends of the rails rest, Fig. 5 is a vertical sectional view illussitating the parts assembled, and, Fig. 6 is a perspective view of one of the improved spikes.

The reference numerals 1 and 2 designate the meeting ends of two rails, each formed in 40 its base adjacent to the web 3 and on either side thereof with openings 4. The rails 1 and 2 rest upon base plates 5 formed with recesses 6, registering with the openings 4 of the rails. In connection with the rails and 45 the base plates, I employ fish-plates 7 each formed with integral depending tongues 8 which extend through the openings in the bases of the rails, and into the recesses 6 of the base-plates.

The numeral 9 designates a railway-tie,

and to secure the rails thereto I first bore the upper surface of the tie to provide seats for the improved spikes employed, and their securing wedges.

Each of the spikes 10 is formed with a head 55 11 to overlap the base of the rail, and with a prong 12 to engage below the base plate 5 as

shown in Fig. 5.

After the base-plates, rails and fish-plates are assembled, the flared upper ends 13 of 60 the holes formed in the tie permit the spikes to be applied, after which wedges 14 are driven into the tie against the spikes, to firmly clamp them in position and insure a substantial and reliable connection between 65 the rails.

It will be obvious that the wedges may be removed to permit the removal and renewal of the rails, I would have it understood that the invention includes all such modifications 70 in the details of construction as may fall within the terms and scope of the claims.

Having fully described my invention what I claim and desire to secure by Letters Pat-

1. The combination with the meeting ends of railway rails, having openings formed in their base portions, of base-plates below said rails formed with recesses registering with said openings, fish-plates having integral depending tongues fitting said openings and recesses, and spikes for securing said fish-plates in position.

2. The combination with the meeting ends of railway rails, having openings in their 85 base portions, of base-plates below said rails formed with recesses registering with said openings, fish-plates having integral depending tongues fitting said openings and recesses, spikes for securing said fish-plates in place, 90 said spikes having heads overlapping the bases of the rails, and prongs extending below the base-plates, and means for clamping said spikes.

In testimony whereof I affix my signature 95 in the presence of two witnesses.

STEFAN VLAJNIC.

Witnesses:

A. H. RABSING, MAX H. SROLOVITZ.