M. L. LEONARD.

RAIL JOINT.

APPLICATION FILED OCT. 31, 1911.

1,038,908. Patented Sept. 17, 1912.

Fig. 1.

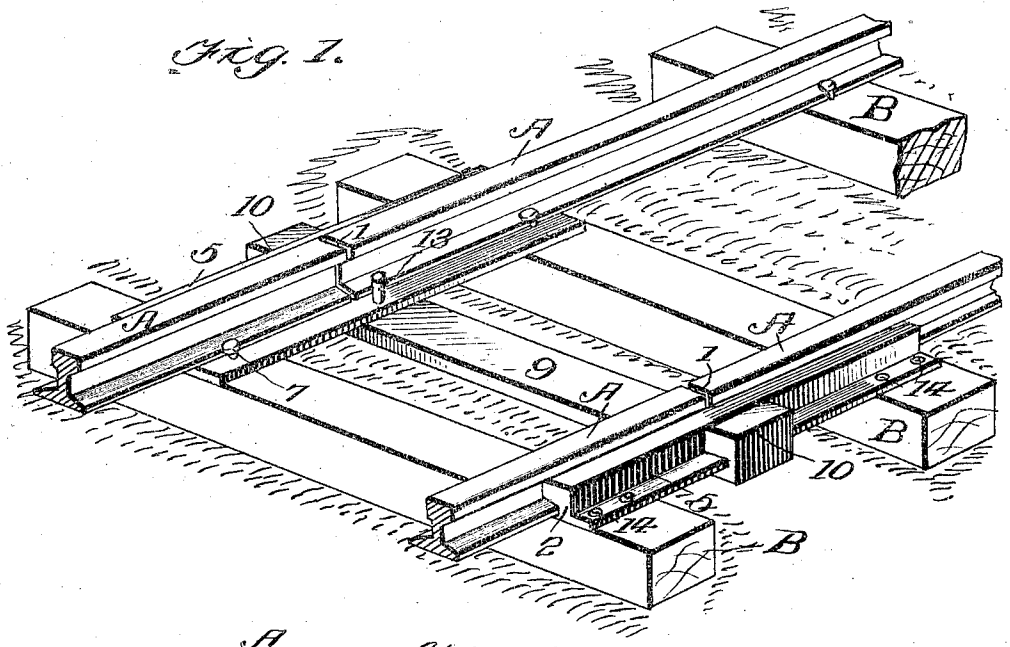


Fig. 2.

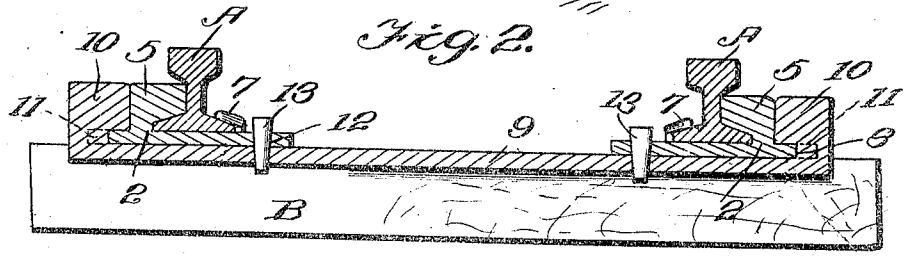
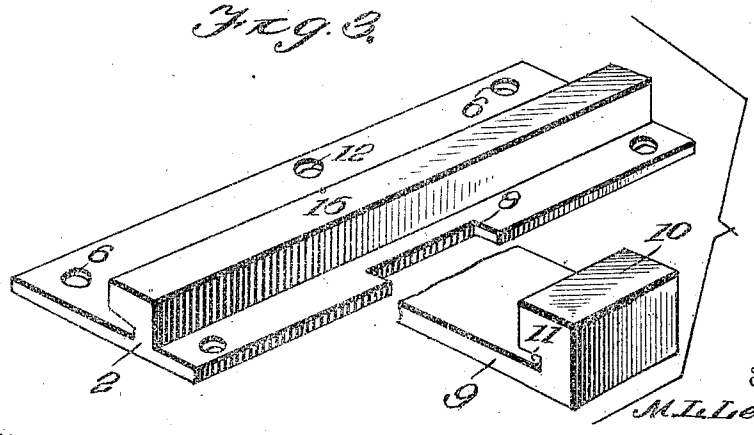


Fig. 3.



Witnesses

Edward P. Rea.

Juana M. Fallin.

Inventor

M. L. Leonard,

By

A. M. Macey, Attorney

UNITED STATES PATENT OFFICE.

MARSHAL L. LEONARD, OF NIDA, OKLAHOMA, ASSIGNOR OF ONE-SIXTH TO GEO. W. STEPHENS AND ONE-SIXTH TO WILLIAM C. BLANCHARD, OF NIDA, OKLAHOMA.

RAIL-JOINT.

1,038,908. Specification of Letters Patent. Patented Sept. 17, 1912.

Application filed October 31, 1911. Serial No. 657,752.

To all whom it may concern:

Be it known that I, MARSHAL L. LEONARD, citizen of the United States, residing at Nida, in the county of Johnston and State of Oklahoma, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to rail joints and aims to provide simple and durable means for securing together abutting rail ends and at the same time allow for the longitudinal movement due to the expansion and contraction of the rails and also to prevent sagging of the rail ends at the joint.

A further aim is the provision of a rail joint having a locking member adapted to operatively engage the two track rails and secure them in their proper spaced relation to each other.

A still further aim is to provide a non-spreading joint, the construction of which is such as to make this class of devices more practical and efficient and more readily and cheaply manufactured, thus tending to make more general the use of this type of rail joint.

For a full understanding of the invention and the merits thereof, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view of a portion of track, showing the improved joint in operation; Fig. 2 is a transverse section through the track and the joint; Fig. 3 is a perspective view of the tie-spanning plate and a portion of the transverse bar.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

The rail joint of this invention includes a locking member adapted to maintain the track rails in their proper spaced relation and for the purpose of illustration the complete device is shown in connection with a portion of track in which A designates the rails and B the ties thereof. Two adjacent rail ends meet intermediate the ties B at the point 1 where sagging of the joint is prevented by a longitudinally extending plate 2 which is disposed beneath the rails and spans the ties B, being secured to and supported thereby.

The plate 2 carries an upstanding longitudinal rib 5, the inner face of which conforms to and is adapted to engage the outer face of the rails. The plate 2 provides a seat for the rail base and is formed with apertures 6 adapted to receive bolts or spikes 7 which engage the rail base, and enter the cross ties B. The plate 2 is provided at its outer edge with a recess 8 directly opposite the joint 1, said recess being adapted to receive a transverse locking or spacing bar 9 which passes beneath the plates 2 and engages the outer edges of said plates, there being an upstanding enlargement 10 on each end of the bar, said enlargement being recessed as at 11 to receive the edge and permit the inner face of the enlargement to bear against the outer face of the rib 5.

In order to secure the parts in their assembled position, the plate 2 and the bar 9 are provided with registering apertures 12 adapted to receive a tapered locking pin 13.

It will be readily seen that the plate 2, disposed beneath the joint 1, prevents sagging of the rails and the subsequent hammering and pounding of the rail ends since a firm rigid seat is provided on the plate for the rail base. The rib 5 being integral with the plate 2 acts as a lateral stop to the meeting rails and prevents spreading at this point, non-spreading being further insured by the bar 9.

The locking pin 13 prevents any movement of the plates 2 independently of the bar 9 so that spreading of the rails is positively prevented, there being also bolts or spikes 14 in the outer portion to further secure the plates 2 in engagement with the cross ties.

Attention is called to the fact that the rails are capable of longitudinal movement as the spikes 7 co-acting with the rib 5 merely limit the lateral movement of the rails. It will further be noted that the construction of this rail joint effectually prevents the rails from rolling over as they are thoroughly braced in the direction in which they might roll, by the ribs 5.

As previously stated, both ends of the bar 9 need not necessarily engage plates 2 as where the rail joints are staggered in the parallel rails, one end of the bar might directly engage the rail base intermediate the rail ends.

Having thus described the invention, what is claimed as new is:

1. The combination with a railroad track,

of plates secured to and spanning the cross ties beneath the track rails, each plate being formed with a longitudinal rib adapted to engage the outer face of the adjacent rail, each plate being recessed at a point intermediate its ends, and a transverse bar provided with upstanding terminal enlargements each having a recess, each enlargement being adapted to fit into the recess of the plate with the recess of the enlargement adapted to receive a portion of the plate so that each enlargement engages the rib of the adjacent plate.

2. The combination with a railroad track, of plates secured to and spanning the cross ties beneath the track rails, and provided with apertures, a transverse bar adapted to pass under the plates and engage the outer edge of each plate, and locking members passing through the apertures in the plates and entering registering apertures in the bar.

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

MARSHAL L. LEONARD. [L. S.]

Witnesses:

J. A. ALEXANDER,

J. T. POPE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents Washington, D. C."