

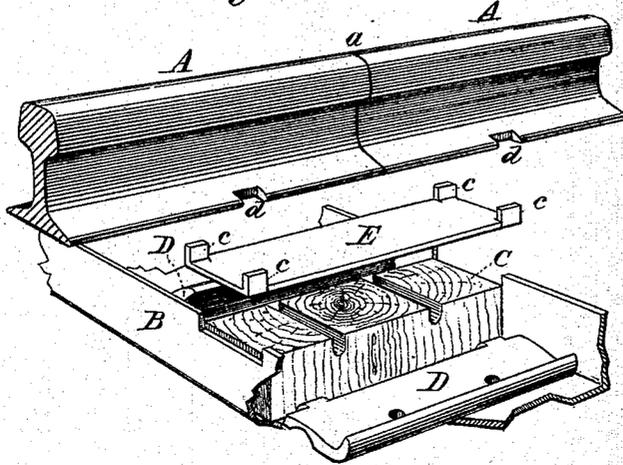
(No Model.)

I. S. MCGIEHAN.  
RAIL JOINT PLATE.

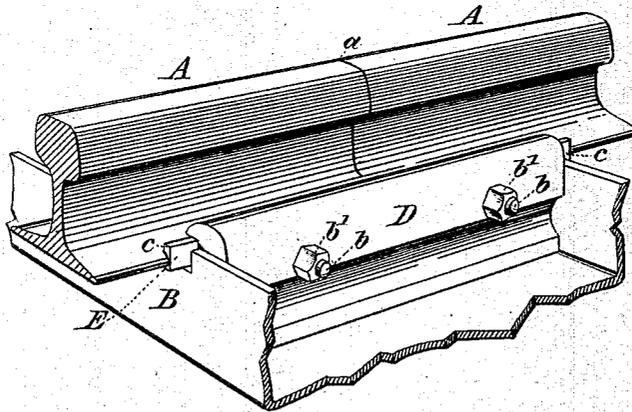
No. 413,454.

Patented Oct. 22, 1889.

*Fig. 1*



*Fig. 2*



Witnesses  
Nathan Barney  
W. H. Spencer

Inventor  
I. S. McGiehan  
By his Attorney  
Saml. J. Storor.

# UNITED STATES PATENT OFFICE.

ISAAC S. MCGIEHAN, OF BERGEN POINT, NEW JERSEY, ASSIGNOR TO THE STANDARD METAL TIE AND CONSTRUCTION COMPANY, OF NEW JERSEY.

## RAIL-JOINT PLATE.

SPECIFICATION forming part of Letters Patent No. 413,454, dated October 22, 1889.

Application filed January 7, 1889. Serial No. 295,611. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC S. MCGIEHAN, of Bergen Point, county of Hudson, and State of New Jersey, have invented certain new and useful Improvements in Rail-Joint Plates, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

10 The object of this invention is to provide a suitable device for preventing the so-called "creeping" of railway-rails. The device is especially adapted to be applied together with a metal railway-tie.

15 Reference is to be had to the accompanying drawings, forming part of this specification, wherein the letters of reference indicate corresponding parts in all the figures.

20 Figure 1 shows in perspective two rail ends or pieces of rail abutting together, a portion of a metal tie with rail-clamps and rail-supporting block, and the anti-creeping rail-joint plate, all in readiness to be put in position. Fig. 2 is a perspective view of the same in position.

25 In the drawings, A A represent two rails with ends abutting against each other, forming a rail-joint *a*.

30 The tie B is that shown and described in United States Patent No. 386,356, wherein the block C, placed within the tie-channel, is for the rails to rest upon, and the clamps D are to hold the rail or rails in place, and the bolts *b* are to draw and hold the clamps in position.

35 This rail-joint plate E is designed to be of a length (when used with this tie) somewhat exceeding the width of the tie. It is a flat rectangular plate with a lug *c* turned up at right angles at each corner, which lugs are designed to be engaged in corresponding slots *d*, made

in both sides of the rail-bases, as indicated in Fig. 1, said slots *d* being made somewhat wider than the said lugs, so that the rails may freely expand and contract without bringing any undue strain upon the lugs. The block C being in position shown in Fig. 1, the plate E is laid thereon with its ends extending beyond the tie sides. The rails are then laid with the joint *a* as nearly as possible centrally over said block. Then the clamps D are turned up in place and the bolts *b* and nuts *b'* applied to draw and hold the clamps together to keep rails and plate in place. It is designed that the distance along a side of the said plate between the lugs shall slightly exceed the width of a clamp, so that when the said plate is in position the clamp-lips fit between said lugs, as shown in Fig. 2, thereby absolutely preventing the end movement of the plate.

45 50 55 60 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with rails A A, metal tie B, block C, and clamps D D, of a flat rectangular rail-joint plate E, provided with vertical corner-lugs, substantially as and for the purposes described.

2. The combination, with rails A A, tie B, and clamps D D, of a rail-joint plate provided with vertical corner-lugs, substantially as herein shown and described, the distance between said lugs along a side of the said plate being greater than the width of a clamp, as set forth.

75 In testimony that I claim the foregoing I have hereunto set my hand, in the presence of two witnesses, this 2d day of January, 1889.

ISAAC S. MCGIEHAN.

Witnesses:

JACOB J. STORER,  
W. H. SPENCER.