

W. J. McKINNEY.
RAIL JOINT.
APPLICATION FILED OCT. 4, 1912.

1,055,934.

Patented Mar. 11, 1913.

FIG. 1.

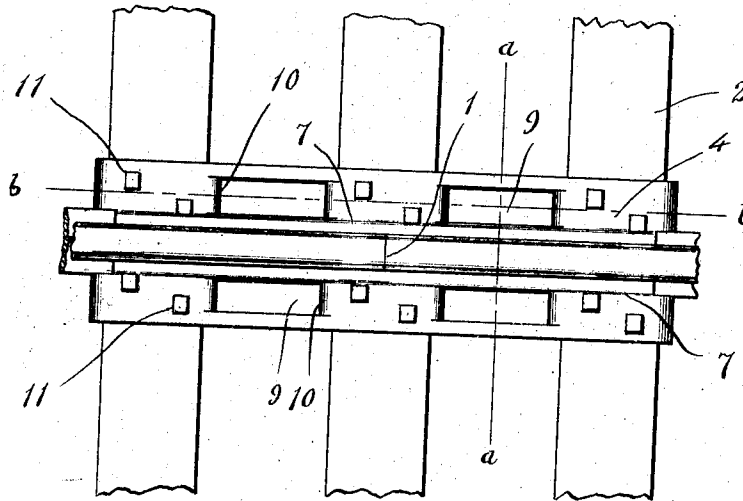


FIG. 2.

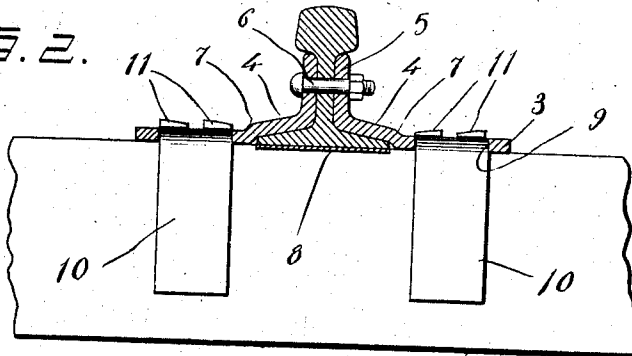
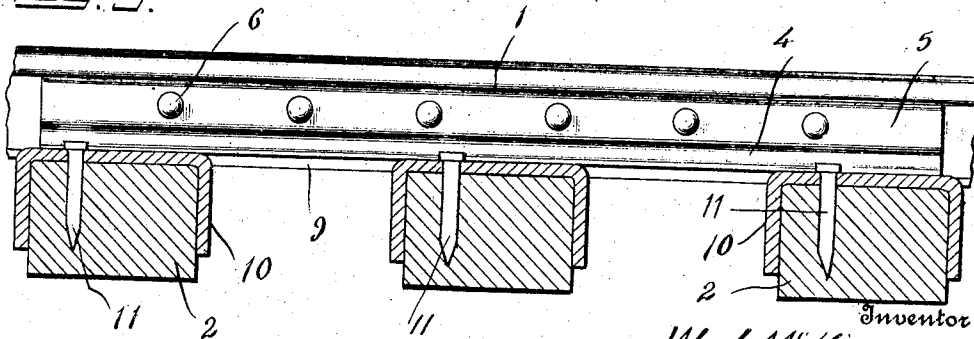


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM J. McKINNEY, OF CLINTON, KENTUCKY.

RAIL-JOINT.

1,055,934.

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Application filed October 4, 1912. Serial No. 723,915.

To all whom it may concern:

Be it known that I, WILLIAM J. McKINNEY, a citizen of the United States, residing at Clinton, in the county of Hickman and State of Kentucky, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to improvements in rail joints and especially with reference to the construction of an improved form of bed plate to connect the ends of the rails and rest on several ties at the joint so as to greatly strengthen the joint, prevent the rail ends from working vertically at the joint and also prevent the rails from spreading or being overturned by the stress imposed on them by passing trains and to also prevent the creeping of the rails, the invention consisting in the construction, combination and arrangement of devices hereinafter described and claimed.

In the accompanying drawing:—Figure 1 is a plan of a rail joint constructed in accordance with my invention. Fig. 2 is a sectional view of the same on the plane indicated by the line *a—b* of Fig. 1. Fig. 3 is a similar view on the plane indicated by the line *b—b* of Fig. 1.

For the purposes of this specification, the meeting ends of a pair of rails are indicated at 1 as resting on ties 2 there being three of such ties, one directly under the joint between the rails and the others being spaced equi-distant from opposite sides of the center tie.

In accordance with my invention, I provide a pair of base plates 3 each of which comprises a base portion 4 to bear on the ties and a vertical web 5 to bear against one side of the webs of the rails at the joint. Two of my base plates are provided for each rail joint and are arranged on opposite sides of the rails and secured to the rails by means of bolts 6 which pass through openings in the webs of the base plates and the webs of the rails. The base portions 4 of the base plates are upturned as at 7 sufficiently to bear on the base flanges of the

rails. The usual tie plates 8 may, if desired, be employed as here shown between the bases 50 of the rails and the ties.

The base portions 4 of my improved base plates are provided with openings 9 between the ties and downturned flanges 10 are struck up from and formed integrally with the base portions of the plates at the ends of the plates and also at the ends of the said openings 9, the said flanges bearing against opposite sides of the ties and, hence, locking the base plates to the ties against movement on the latter and since the base plates are thus securely locked to the ties and are bolted to the rails, the latter are effectually prevented from creeping. The base plates are also secured on the ties by means of spikes 11. Since my improved base plates are so constructed and arranged as to bear on several ties at and near the joint between the rails, the said plates serve to effectually strengthen the rails as well as to secure the rail ends together and also serve to distribute the stresses from the rail joints over a number of ties, thus enabling the roadbed to effectually stand the stress of passing trains, and effectually preventing the vertical working of the rail ends.

It will be observed upon reference to the drawings that my base plates bear directly on the ties and are arranged on opposite sides of the rails and in a common plane with the rail base flange and it will also be observed that the downturned end and intermediate portions of the base plates extend transversely of the base plates and bear squarely against the vertical longitudinal sides of the ties.

I claim:—

In a rail joint, the combination with the ends of a pair of meeting rails, ties on which the rails rest, and a pair of base plates on opposite sides of the joint and bearing directly on the ties and lying in a common plane with the rail base flanges, the said base plates being provided with upwardly extending portions at their inner sides bearing against the sides of the rails and being fur-

ther provided with downturned transversely
arranged end portions and being also pro-
vided at points intermediate their ends with
openings above the spaces between the ties
and with integral downturned flanges at the
5 ends of said openings to engage opposite
sides of the ties, said downturned flanges
and the downturned ends of said base plates
being arranged transversely of said base

plates and bearing squarely against oppo- 10
site sides of the ties.

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

WILLIAM J. McKINNEY.

Witnesses:

W. H. VAN HOOK,
E. W. BROCK.

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