

J. P. NOONAN.
INSULATED RAIL JOINT.
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1,062,296.

Patented May 20, 1913.

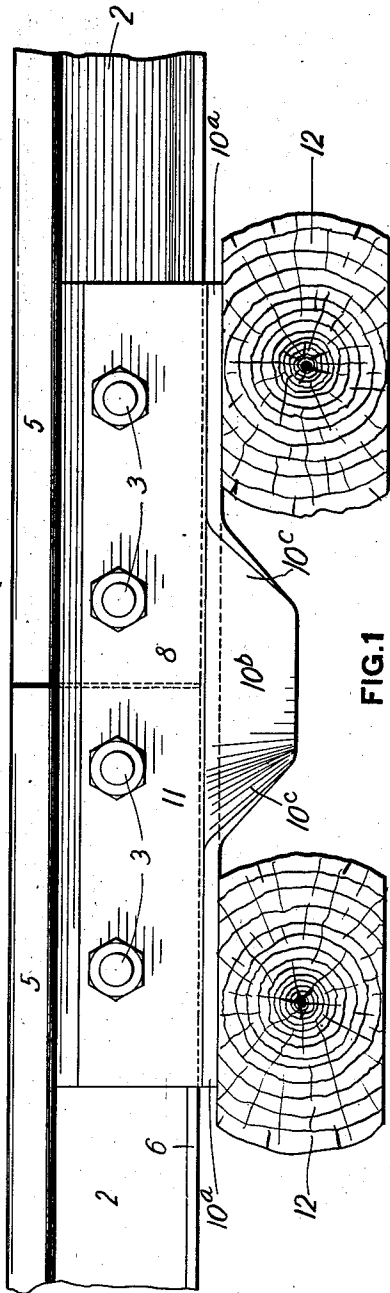


FIG. 1

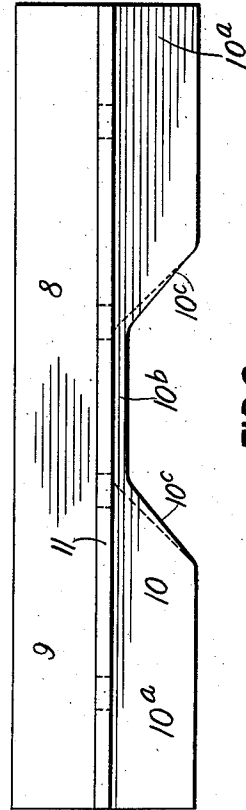


FIG. 3

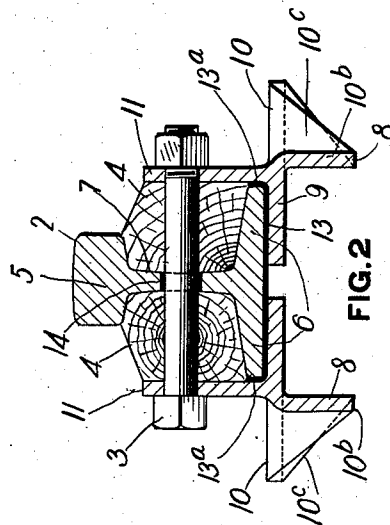


FIG. 2

WITNESSES

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JOHN P. NOONAN, OF PITTSBURGH, PENNSYLVANIA.

INSULATED RAIL-JOINT.

1,062,296.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN P. NOONAN, a citizen of the United States, residing at North Side, Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Insulated Rail-Joints, of which the following is a specification.

My invention relates to the construction of insulated rail joints employed to connect together the ends of the rails in constructing a railway track, and more particularly relates to the construction of insulated joints used in connection with railway tracks employing wooden rail ties.

One object of my invention is to provide an insulated rail joint having novel means whereby the strength of the joint is materially increased with but a slight increase in the weight or amount of metal used in making the splice bars used in forming the joints.

Another object of my invention is to provide a rail joint having means whereby the metal splice bars are effectively insulated from the track rails and having improved means whereby the bearing surface of the splice bars on the wooden ties is very largely increased and a more durable and lasting rail joint is obtained.

Still further objects of the invention will appear as the invention is more fully described hereinafter.

Referring to the accompanying drawings forming part of this specification, Figure 1 is a longitudinal side elevation of an insulated rail joint as constructed and arranged in accordance with my invention and applied for use to connect the ends of the track rails. Fig. 2 is a transverse section of the same, and Fig. 3 is a plan showing a detail of the splice bar as formed in accordance with this invention.

In the drawings, the numeral 2 designates track rails having their adjacent ends secured together by means of track bolts 3. A wooden block 4 is shaped to snugly fit between the opposite inclined faces of the head 5 and flange 6 and against the faces of the web 7 of the track rails, one of these blocks being provided on each side of the web of the track rails.

Secured on the outside of the wooden filler blocks are the rolled metal splice bars 8 forming the novel feature of this inven-

tion. As will be seen by reference to the drawings, the splice bars comprise flat horizontally extending flange portions 9 and 10 and vertical flange portions 11 which extend upwardly from about the middle of the width of the horizontal base flange. The base flange formed by the flange portions 9 and ends 10^a of the flange portion 10 extend horizontally on opposite sides of the vertical flange portions 11, so as to provide a wide flat bearing surface which bears on the rail ties 12 of the track.

The outer horizontally projecting portions of the base flange 10 located between adjoining ties 12 are bent downwardly. The downwardly bent portions 10^b extend for some distance on either side of the middle of the length of the metal splice bars in a vertical direction, parallel with the upwardly extending flange portions 11, and inclined portions 10^c connect the vertical flange portions 10^b with the flat portions 10^a of the horizontal base flanges 10.

The inwardly projecting base flange portions 9 extend beneath the flanges 6 of the track rails 2 and a sheet of insulating material 13 is interposed between the upper surface of these flange portions 9 and the bottom surface of the rail flanges 6 so as to insulate the rail flanges from the metal splice bars. The side edges 13^a of the sheet of fiber or other insulating material 13 are turned upwardly so as to extend between the marginal side edges of the rail flanges 3 and the adjacent surface of the vertical flanges 11 of the splice bars.

The bolts 3 securing the splice bars to the rails extend through suitable registering holes provided in the vertical upwardly extending flanges of the splice bars, in the wooden filler blocks and in the web of the rails, and a ferrule or washer 14 formed of fiber and threaded on the bolts is located in the holes in the rail flanges so as to prevent contact of the metal bolts with the metal of the rail flanges.

The advantages of my invention will be apparent to those skilled in the art. By the provision of horizontal flanges extending on opposite sides of the vertical flange of a rail splice, a broad base which will provide bearing surface on the ties of largely increased area is obtained. By bending the outer horizontal flange portions downwardly between the ties of the railway track the splice joint

is very materially stiffened and strengthened and bending of the splice bars is prevented.

5 Modifications in the construction of the splice bars and in the wooden filler blocks may be made without departing from the spirit and scope of my invention as defined in the appended claim.

I claim:—

- 10 . A rolled splice bar comprising a base, an integral substantially vertical flange extending lengthwise of the base at the longitudinal center thereof, the middle portion of the base at one side only of the flange hav-

ing a girder portion bent downwardly into 15 a substantially vertical part and inclined parts connecting the ends of the vertical part with the horizontal part of the base, the base at the opposite side of the flange being continuous from end to end of the 20 splice bar, substantially as described.

In testimony whereof, I have hereunto set my hand.

JOHN P. NOONAN.

Witnesses:

N. M. HEUCH,
R. N. McELHENY.