

(No Model.)

J. R. PFLANZ.
RAILWAY CROSSING.

No. 492,228.

Patented Feb. 21, 1893.

Fig. 1.

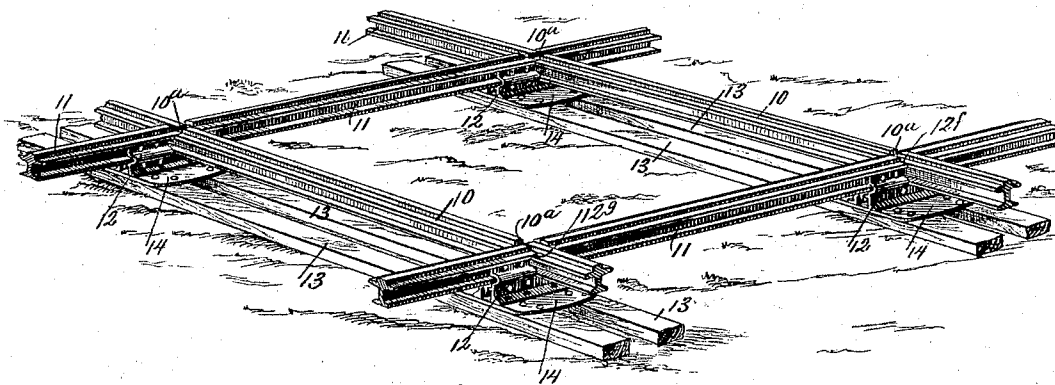


Fig. 2.

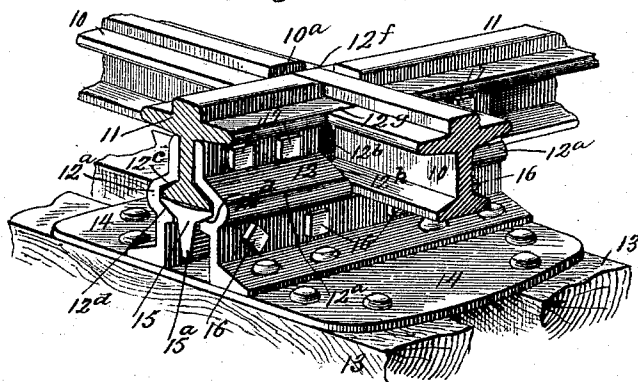


Fig. 3.

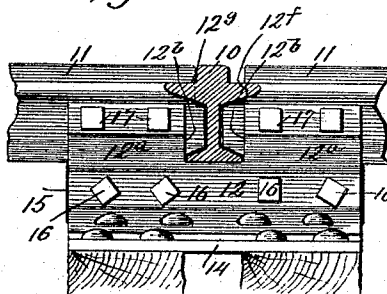
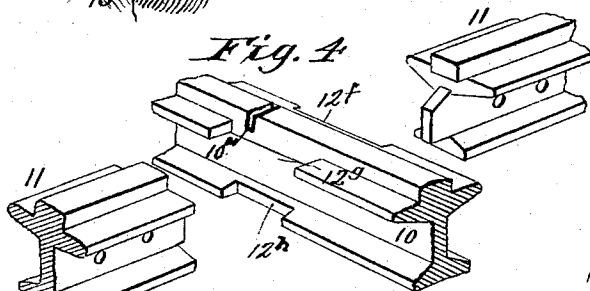


Fig. 4.



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RAILWAY-CROSSING.

SPECIFICATION forming part of Letters Patent No. 492,228, dated February 21, 1893.

Application filed March 2, 1892. Serial No. 423,547. (No model.)

To all whom it may concern:

Be it known that I, JOHN R. PFLANZ, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and useful Improvement in Railway-Crossings, of which the following is a specification.

This invention relates to railway crossings and has for its object to provide certain improved constructions therein by means of which the intersecting rails are held in close contact with one another, and the jolting or jarring of cars passing over the joint entirely avoided.

A further object of my invention is to provide certain novel features of construction which form a secure support for the short rails of the crossing.

My invention consists in the peculiar construction of the several parts and their novel combination or arrangement, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming a part of this specification and in which the same reference numerals indicate the same parts—Figure 1 is a perspective view of a crossing constructed in accordance with my invention. Fig. 2 is a perspective detail view of the two rails and chair. Fig. 3 is a side view and Fig. 4 show the details of the rails detached.

Referring to the drawings 10 indicates the solid main rails and 11 the sectional crossing rails, which are represented as constructed with a T-shaped head, a central web, and a broad base. These rails are supported at their intersections by means of the rail chairs 12, which rest upon and are secured to the cross ties 13, metallic plates 14 being interposed between the ties and chairs to provide a safe and rigid seat for the chairs. The rail chairs 12 are formed in two sections 12^a, said sections being secured upon opposite sides of the sectional crossing rails 11, as clearly shown, the upper portions of said sections being slotted transversely as at 12^b to receive the solid main rails 10. The sections 12^a of the chair are formed with horizontal grooves 12^c in their inner sides, the bottoms of said grooves being beveled or inclined downwardly as at 12^d the purpose of which will appear farther on. A bearing plate 15 is arranged

between the sections of the rail chair, said plate being adapted to occupy a portion of the grooves 12^c. A vertical depending flange 15^a is formed upon the lower face of the bearing plate, and upon each side of this flange, the lower face of the plate is beveled to correspond with the bottoms of the grooves, and upon which it rests. Bolts 16 are passed through the lower portion of the rail chair and the depending flange 15^a thus securing the bearing plate within the chair, and bolts 17 are passed through the upper portions of the chair and the webs of the rails 11 thus securing the rails within the chair. The solid main rail 10 is arranged in the transverse slot of the chair and the sectional crossing rails are secured on each side of the main rail within the chair, and resting on the bearing plate, the base of the said crossing rails occupying the rest of the grooves 12^c as clearly shown. The base of the main rail is notched on each side at 12^a to receive the ends of the bases crossing rails and the head flanges of the main rail are notched at 12^f and 12^g to receive the ends of the crossing rail heads, the notch 12^g extending to the tread of the rail by means of which the tread of the crossing rail contacts with the tread of the main rail. The tread of the rail 11 that is received in the notch 12^f extends beyond the flanges of said rail and rests upon the flange of the main rail, thus leaving only space enough for the passage of the wheel flange along the flange of the main rail. The tread of the main rail is notched at 10^a to permit the passage of the wheel flange from the tread of one sectional rail 11 to the other, and as the treads and flanges of all the rails lie respectively in the same horizontal planes, there will be no jolting or jarring of the car, and as the notch 10^a, or space between the projecting end of cross rail tread and main rail tread is only the width of the wheel flange they will occasion no jolt to the car in passing over the same. The webs of the sectional rails extend beyond the heads and bases of the same in order to contact with the web of the main rail thereby insuring a safe joint as by the construction above described the rails are in contact at their bases, webs and heads.

From the above it will be seen that I pro-

vide a cheap, simple and efficient construction of crossing.

The main and crossing rails are so jointed that no jolting or jarring is occasioned by passing over the joint, and by means of the bearing plate within the chair the sectional crossing rails are given an additional support and by having the grooves beveled and the lower face of the plate correspondingly beveled, the plate is made adjustable to a certain extent by tightening the section of the chair.

Having thus described my invention, what I claim is—

1. In a railway crossing the combination with a plurality of ties, of the metallic plate resting thereon, the rail chair secured upon the plate and the main and cross rails secured in the chair, substantially as shown and described.

2. The combination with the rail chair formed in two sections, and slotted transversely as described, of the solid main rail resting in the transverse slot, the crossing rails, and the supporting plate secured between the sections of the rail chair substantially as shown and described.

3. In a rail road crossing the combination with the main and cross rails, of the sectional rail chair slotted transversely and provided with longitudinal grooves having inclined lower faces, and a rail supporting plate secured between the sections beneath the cross

rails, resting in the grooves and having a beveled lower face substantially as and for the purpose described.

4. The combination with the main rail of the crossing rails, the sectional rail chair, the bearing plate arranged between the said sections beneath the bases of the main and crossing rails, and the depending flange formed upon the said plate, and the bolts for securing the sections, rails, and plate in proper position substantially as shown and described.

5. In a rail road crossing, the combination with a rail chair slotted transversely to support the main rail, of the main rail supported therein, the crossing rails arranged within the rail chair, the supports within the chair adapted to hold the cross rails in proper horizontal position, said cross rails being adapted to contact with the main rail within the chair substantially as shown and described.

6. The combination with the main rail notched at its head and base, of the sectional rails adapted to contact with the main rail and fit the said notches, the sectional rail chair slotted transversely, the bearing plate arranged within the chair and the bolts for securing the rails and plate within the chair substantially as shown and described.

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