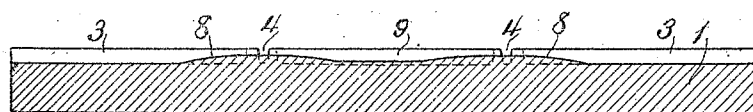
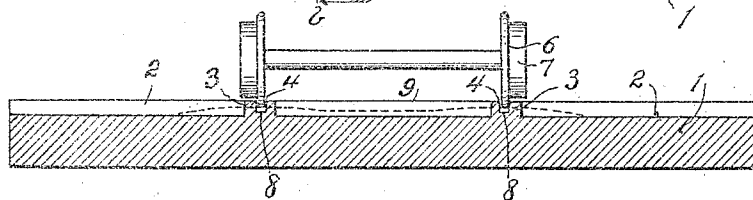
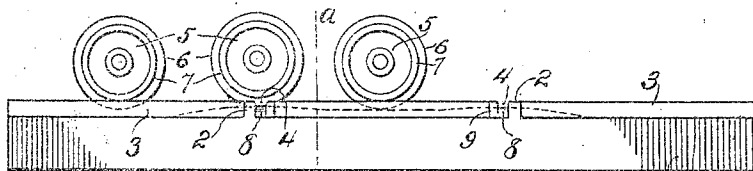
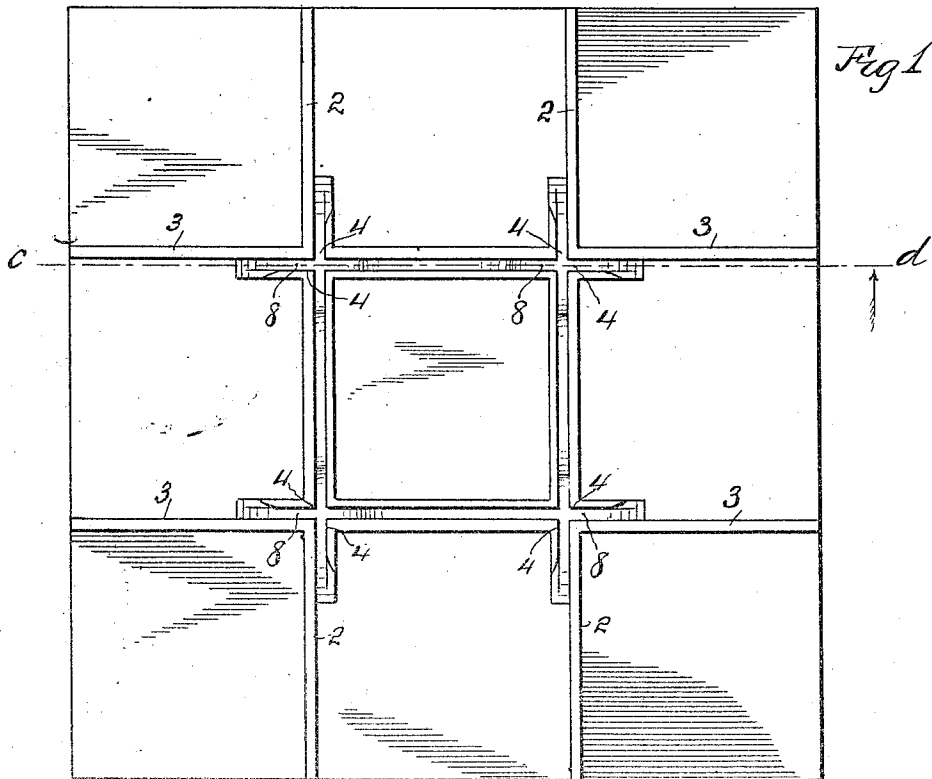


I. L. EARNHEART.
RAILROAD CROSSING.
APPLICATION FILED MAR. 15, 1910.

1,007,024.

Patented Oct. 24, 1911.



WITNESSES:

R. Hamilton
E. B. House

INVENTOR.

Isaac L. Earnheart
BY
Warren D. House
His ATTORNEY.

UNITED STATES PATENT OFFICE.

ISAAC L. EARNHEART, OF KANSAS CITY, KANSAS, ASSIGNOR OF ONE-HALF TO ALBERT J. ALFES, OF KANSAS CITY, MISSOURI.

RAILROAD-CROSSING.

1,007,024

Specification of Letters Patent.

Patented Oct. 24, 1911.

Application filed March 15, 1910. Serial No. 549,469.

To all whom it may concern:

Be it known that I, ISAAC L. EARNHEART, a citizen of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Railroad-Crossings, of which the following is a specification.

My invention relates to improvements in railroad crossings.

The object of my invention is to eliminate the noise and jolting caused by car wheels crossing intersecting tracks.

My invention relates to the type of track crossings in which the rails at the intersecting points are grooved in their upper sides to permit the passage of the flanges of wheels running on the intersecting rails.

My invention provides a support for the wheels so disposed that as the wheels cross the grooves in the rails the wheels will be elevated and their treads removed from contact with the rails on which they are traveling. Preferably the wheel-support is disposed so as to support the flanges of the wheels at the time the wheels are crossing the grooves.

The novel features of my invention are hereinafter fully described and claimed.

In the accompanying drawings illustrative of my invention, Figure 1 is a plan view of my improved crossing plate which embodies the preferred form of my invention. Fig. 2 is a side elevation of the crossing plate showing car wheels supported thereon. Fig. 3 is a cross section on the dotted line *a-b* of Fig. 2. Fig. 4 is a longitudinal section on the dotted line *c-c* of Fig. 1.

Similar reference characters denote similar parts.

1 denotes a horizontal plate on the upper side of which are provided the rails 2 and 3 of two crossed tracks, said rails being integral with the plate 1 or separate parts attached thereto as may be preferred. The upper side of each rail 2 and 3 is provided at the intersecting points with transverse grooves 4 located at the inner sides of the crossing rails for receiving the flanges of the wheels running on the crossing rails.

5 denotes the car wheels and 6 and 7 the flanges and treads thereof. At the rail intersections are provided supports by which the wheels 5 are elevated as they cross the grooves 4 so that their treads 7 do not have

contact with the rails at opposite sides of the grooves 4. The jar and noise usually produced by wheels crossing the grooves in the rails are thus eliminated.

Preferably as a means for so elevating the wheels, I provide raised supports 8 which may be integral with or separate from the plate 1. The supports 8 are preferably disposed at the intersections of the grooves 4 respectively and at the inner sides of the rails 2 and 3. The height of such supports 8 is such that as the wheels are crossing the grooves 4 the wheels will be supported by their flanges 6 on the supports 8. Preferably the upper sides of the supports 8 are below the level of the tops of the rails 2 and 3, so that the rails may serve to prevent lateral movement of the wheels. As shown in the drawings, the supports 8 at opposite sides of the grooves 4 incline downwardly from said grooves so that the flanges 6 will gradually ride onto and off of the supports as the wheels approach and recede from the grooves 4. The usual flange guards 9 may be provided on the plate 1 intermediate of the rails of each track.

In the operation of my invention, the wheel approaching a rail intersection will first have its flange run upon the adjacent inclined end of the adjacent support 8. When the wheel reaches the adjacent groove 4 the tread 7 will be out of contact with the rail and the flange 6 will support the wheel. As the wheel travels along the flange 6 will run down the oppositely inclined part of the support 8 until the tread 6 again rests upon the rail. In practice the inclination of the ends of the supports 8 may be as gradual or as abrupt as desired, and the height of the supports 8 may be also as desired, it being of course understood that the height may be just sufficient to prevent the tread of the wheel striking the rail at opposite edges of the groove. It is also desirable to have relatively long inclined portions of the supports so that the wheels will be gradually shifted from the treads to the flanges.

I do not limit my invention to the specific structure shown and described, as it is obvious that many modifications of my invention, within the scope of the appended claims, may be made without departing from its spirit.

Having thus described my invention, I

what I claim and desire to secure by Letters Patent, is:—

1. A rail road track crossing having two crossed rails, each at the point of intersection having a transverse groove in its upper side to receive the flanges of wheels running on the other rail, and a flange support, the height and disposition of which is such that as the wheels cross said grooves they will be supported by said support on their flanges, said support at opposite sides of each of said grooves being downwardly inclined from said groove, whereby the weight will be gradually shifted from the treads to the flanges and from the flanges to the treads as the wheels approach and recede respectively from said grooves, the tread portions of the rails alongside of the flange supports being in the same horizontal plane as the remaining tread portions of the rails.

2. A rail road crossing plate having on its upper side two pairs of crossed rails, each rail at its point of intersection with another of the rails having in its upper

side a transverse groove to receive the flanges of wheels running on a crossing rail, and supports for the flanges of the wheels located respectively at the different groove intersections and having a height and disposition such that as the wheels cross the grooves they will be supported by said supports on their flanges, each of said supports at opposite sides of the adjacent groove inclining downwardly from the groove, whereby the weight will be gradually shifted from the treads to the flanges and from the flanges to the treads as the wheels approach and recede from said grooves, the tread portions of the rails alongside of the flange supports being in the same horizontal plane as the remaining tread portions of the rails.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

ISAAC L. EARNHEART.

Witnesses:

E. B. HOUSE,
ALBERT J. ALFES.