H. JEFFREY.

Railway-Crossing.

No. 218,632. Patented Aug. 19, 1879.

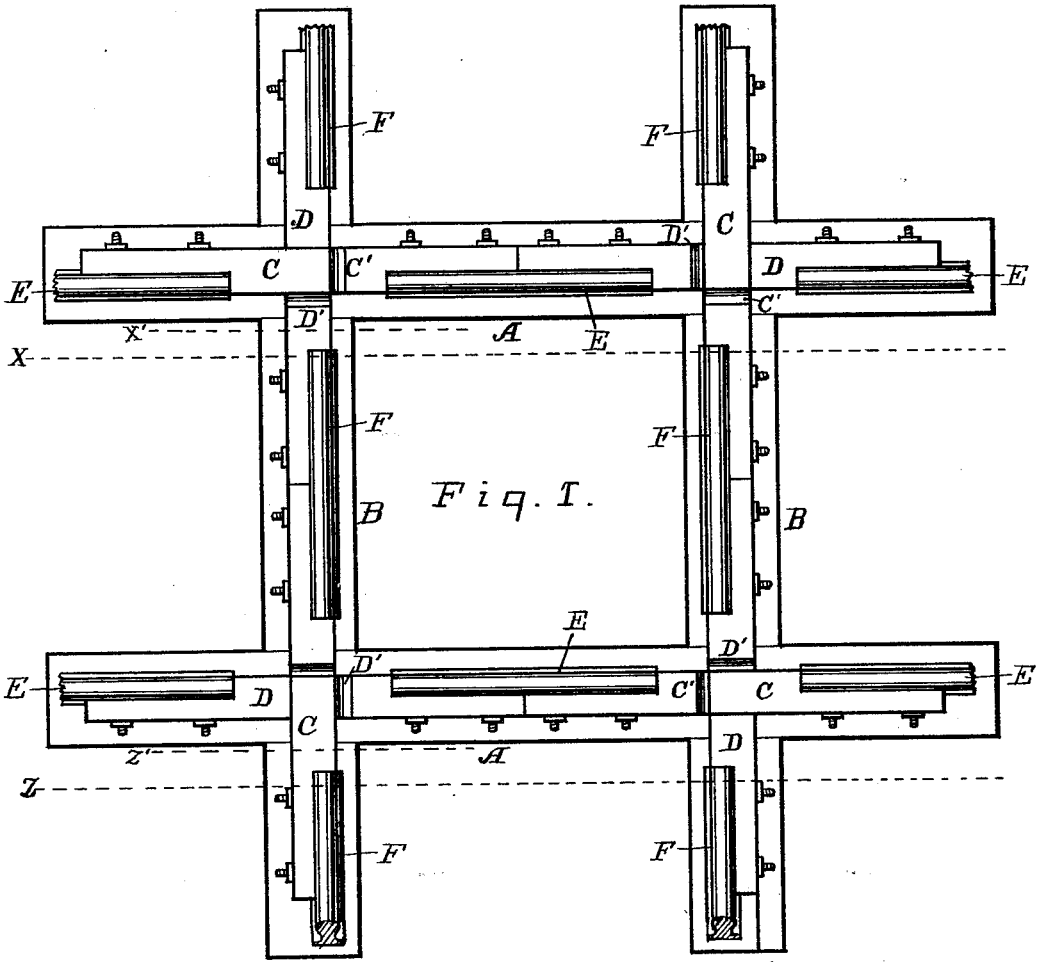

Fig. 1.

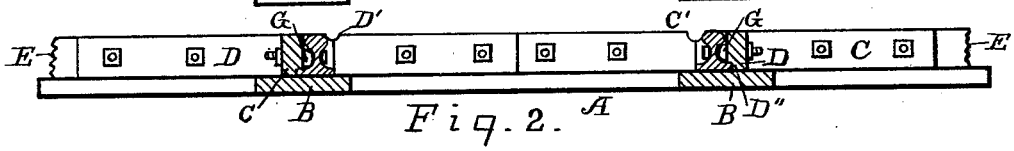

Fig. 2.

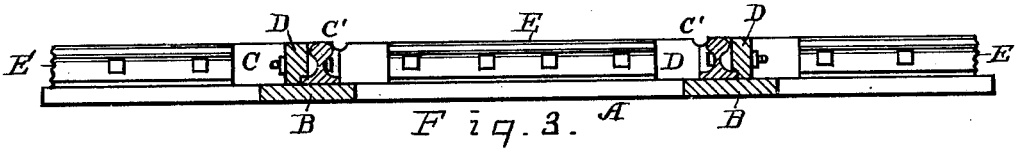

Fig. 3.

Fig. 4.

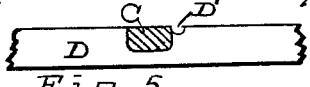

Fig. 5.

Witnesses:
J. Bailey
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Atty

UNITED STATES PATENT OFFICE.

HENRY JEFFREY, OF AURORA, INDIANA.

IMPROVEMENT IN RAILWAY-CROSSINGS.

Specification forming part of Letters Patent No. **218,632**, dated August 19, 1879; application filed May 3, 1879.

To all whom it may concern:

Be it known that I, HENRY JEFFREY, of Aurora, in the county of Dearborn and State of Indiana, have invented a new and useful Improvement in Railway-Crossings, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 is a plan view of the crossing. Fig. 2 is a cross-sectional view of Fig. 1 through the line Z. Fig. 3 is a cross-sectional view of Fig. 1 through the line X. Fig. 4 is a cross-sectional view of corner through the line X′, and Fig. 5 a cross-sectional view through the line Z′.

The object of my invention is to construct a railroad-crossing in which the various corners forming the crossing are made in separate pieces, easily removable, and so arranged that any part can be removed without disturbing other portions. I also provide a ready means for enabling the most common workman to take up and replace the damaged part of the crossing. The whole, when constructed, shall be solid and prevent rattling, as is the case with crossings now in use, all of which will be fully explained hereinafter.

In the drawings, A B represent the pieces forming the base or bed of the crossing, such as are usually employed for this purpose. Upon this are placed corner-pieces C D, constructed as shown in Figs. 4 and 5, by being gained, the top pieces, C, being correspondingly gained to fit in.

These gains are made in the ordinary manner, except that the gains in the lower pieces, D, are somewhat deeper than the gains in the pieces C, to give increased strength to the piece C, owing to the groove C′, as shown in Fig. 4.

To still further increase the strength across the part at C′, Fig. 4, indicated by dotted line, I have also made the gain narrower in the upper piece, C, as shown.

These corner-pieces C B are halved at the ends, or cut away for a certain distance along their inner face the thickness of the T-rail, and a gain, D′, is cut along the lower inner corner, as shown in Figs. 2 and 3, to permit the flange of the rail to pass under the said pieces. Bolts are then used for fastening the rails to the pieces C D. The pieces C D abut each other midway between the track, and a section of ordinary rail is bolted to them in the cut-away portion, as shown. In like manner, at their outer ends the main rails are also bolted to the pieces C D, thereby breaking joints, and enabling the track-man to tighten the spliced parts and prevent rattling of the same.

E E represent the rails of one track, and F F the rails of the other track.

To more securely bolt the rails to the parts C D, I employ a key or wedge, G, Fig. 2, which is placed between the pieces C D and the rails. C′ D′ are the grooves formed in the parts C D, to permit the flange of the car-wheel to pass over the cross-pieces.

It will be noticed that by having this groove, as shown, in tracks crossing each other at right angles, it will necessarily cause a slight jar as the wheel passes over the same; but this, by experiment, has been found not to be objectionable, nor liable to cause damage to the crossing, since it will be seen that the parts C D are as wide as the face of the car-wheel, and able to sustain more wear than crossings having only a narrow bearing for the wheels at this point. In oblique crossings no jar is occasioned, since the face of the wheel will at all times rest on the pieces C D on one side of the face or the other.

Every available part of the pieces C D is made square, so that the track-man can readily fit the rails to the crossing without the aid of other than ordinary tools.

In the crossings now used the face of the car-wheel does not tread evenly on the crossing, but is apt to turn the same to one side, on account of uneven pressure, or injure the ends of the pieces forming the crossing. I obviate this difficulty by making the pieces C D as broad as the face of the wheel, and joining the rails to the crossing as with the ordinary fish-joint.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a railway-crossing, the independent and separable pieces C D, forming the corner and lapping upon the track-rails E and F, substantially as shown and described.

2. The parts C D, their under portions being joined to form the corner, and their ends serving as splice-plates with the track-rails, in combination with said rails, substantially as shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 25th day of April, A. D. 1879, in the presence of witnesses.

HENRY JEFFREY.

Witnesses:
J. S. ZERBE,
J. BAILEY.