(No Model.)

J. F. CROWELL & F. C. WEIR.

RAILWAY CROSSING.

No. 378,827. Patented Feb. 28, 1888.

Fig. 1.

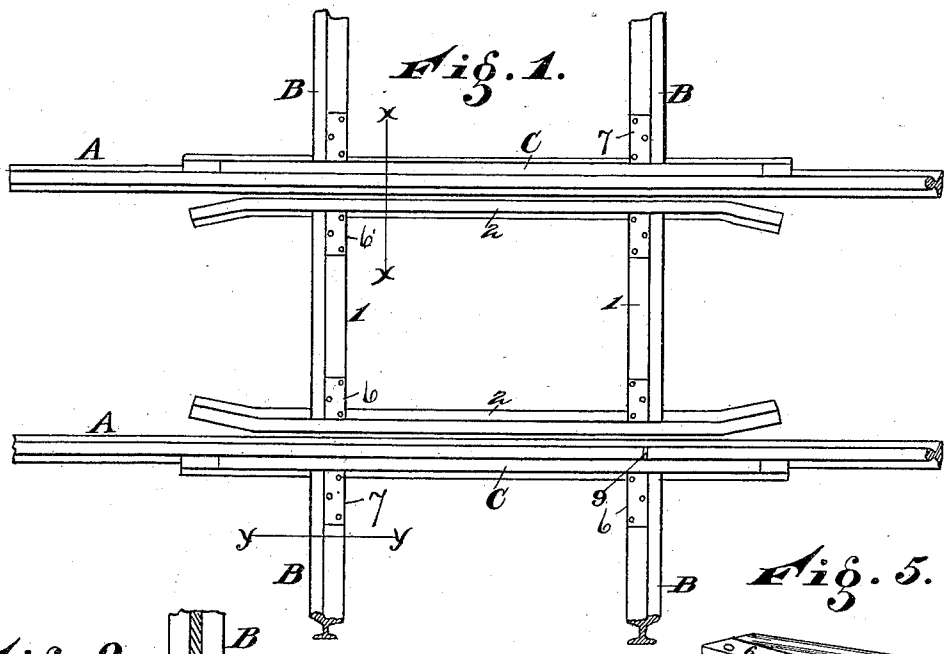


Fig. 5.

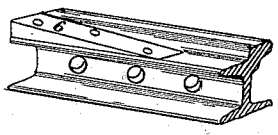


Fig. 2.

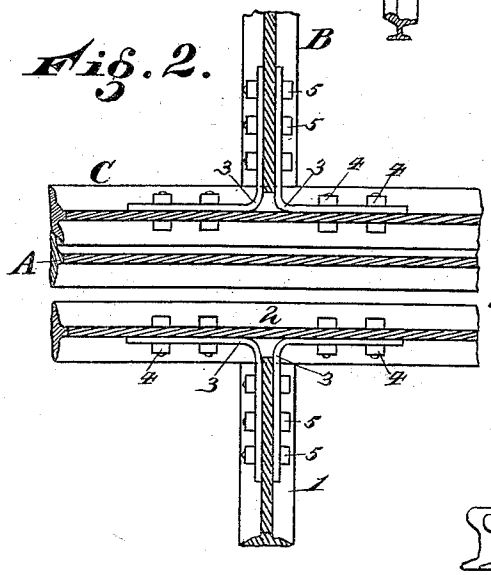


Fig. 3.

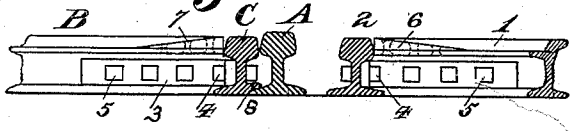


Fig. 4.

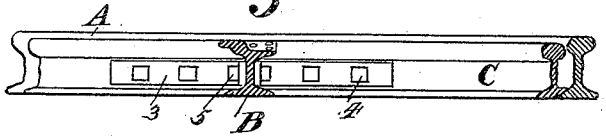
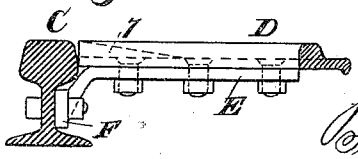


Fig. 6.



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UNITED STATES PATENT OFFICE.

J. FOSTER CROWELL AND FREDRIC C. WEIR, OF CINCINNATI, OHIO.

RAILWAY-CROSSING.

SPECIFICATION forming part of Letters Patent No. 378,827, dated February 28, 1888.

Application filed December 9, 1887. Serial No. 257,444. (No model.)

To all whom it may concern:

Be it known that we, J. FOSTER CROWELL and FREDRIC C. WEIR, residents of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Railway-Crossings, of which the following is a specification.

Our invention is peculiarly adapted for street-car crossings, and is illustrated as applied to a street-car railway crossing the ordinary T-rail.

The object of our invention is, first, to provide a street-railway crossing which can be put down without disturbing the ordinary steam-railway track.

Another object of our invention is to construct a crossing which will pass over the T-rails without necessitating their being cut, all of which will be fully set forth in the description of the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top plan view of our improvement. Fig. 2 is a plan view of one corner of the crossing with the heads of the rails removed. Fig. 3 is a section on line *x x*, Fig. 1. Fig. 4 is a section on line *y y*, Fig. 1. Fig. 5 is a detail view of the supplemental inclined rail. Fig. 6 is a modification showing the method of connecting the ordinary flat tram-rail to the guard and abutting rails.

A A represent the ordinary T-rail, which is laid upon ties and spiked in the usual manner.

B represents the Johnson tram-rail usually employed in street-railways.

The crossing is constructed of the following parts:

1 represents tram-rails placed within the T-rails A A. They are united to guard-rails 2 by means of knees or angle-braces 3, one arm of which angle is connected to the guard-rail 2 by means of bolts 4 and the other arm to the tram-rail 1 by means of bolts 5. Thus the four corners of the rails 1 and 2 are connected in this manner and placed within the rails A A and spiked to the ties.

In order to carry the wheels of the street-car over the T-rails, we have provided the following instrumentalities:

6 represents a supplemental inclined rail, made of the form shown in Fig. 5. It is bolted onto the tram-rail 1, its end abutting the guard-rail 2, in the manner shown in Fig. 3. This raises the wheel and its flange so that it passes over the rail 2, and thence onto the rail A, riding over the same.

In order to prevent a jump, we provide a similar descent or inclined sub-rail, 7, upon the opposite side.

In order that the rails B outside of the rails A may be laid without disturbing said rails, and to secure a perfect crossing, we provide the outside abutting rail, C, the flange of which at 8 is upset or grooved out, so as to rest upon the flange of rail A and to allow the head of rail C to abut against the rail A, thereby making a firm support. The rails B are secured to the abutting rail C by knees or angle-braces 3 and bolts 4 and 5, as before explained for uniting the tram-rails 1 to the guard-rail 2. By this means the rails B may be laid without disturbing or cutting the rails A, for the ordinary street-cars will ride over the rails 2 C A without detriment to the car or liability of its running off the track. The head of the rails A, however, may be creased, if desired, to form a groove, as indicated in line 9, Fig. 1; but ordinarily this precaution will not be necessary.

Fig. 6 of the drawings shows a modification when the ordinary flat tram-rail is used. D represents the ordinary flat tram-rail, and E F the angle-brace for uniting this flat rail to the ordinary T-rail. The arm E is bolted onto the under side of the tram-rail D, and it is bent down with the arm F bolted to the flange, the same as before described for the ordinary angle-brace. The sub-incline 7 is bolted to the tram-rail in the same manner as shown in Fig. 3.

Having described our invention, what we claim as new is—

1. The combined tram-rails 1 and T-rails 2, the former having supplemental inclined portions to carry the wheels over the latter without cutting the same, substantially as described.

2. In combination with the rails 1 and 2, secured by braces 3 and bolts 4 5, the sub-rail 6, bolted to the top of rails 1, substantially as specified.

3. The combination of the abutting rail C with the rails B B, secured together by braces

3 and bolts 4 5, to form the continuation of a crossing over the rails A, substantially as specified.

4. In combination with the rails B and the abutting rail C, secured together, the inclined sub-rail 7, secured to rails B, substantially as specified.

5. In combination with a railway-crossing having the heads of the two lines of rails A B at a different plane, the sub-rail bolted to the top of the lower rails, B, forming an incline to form a crossing over the other set of rails, A, which are higher and continuous, substantially as specified.

In testimony whereof we have hereunto set our hands.

J. FOSTER CROWELL.
FREDRIC C. WEIR.

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