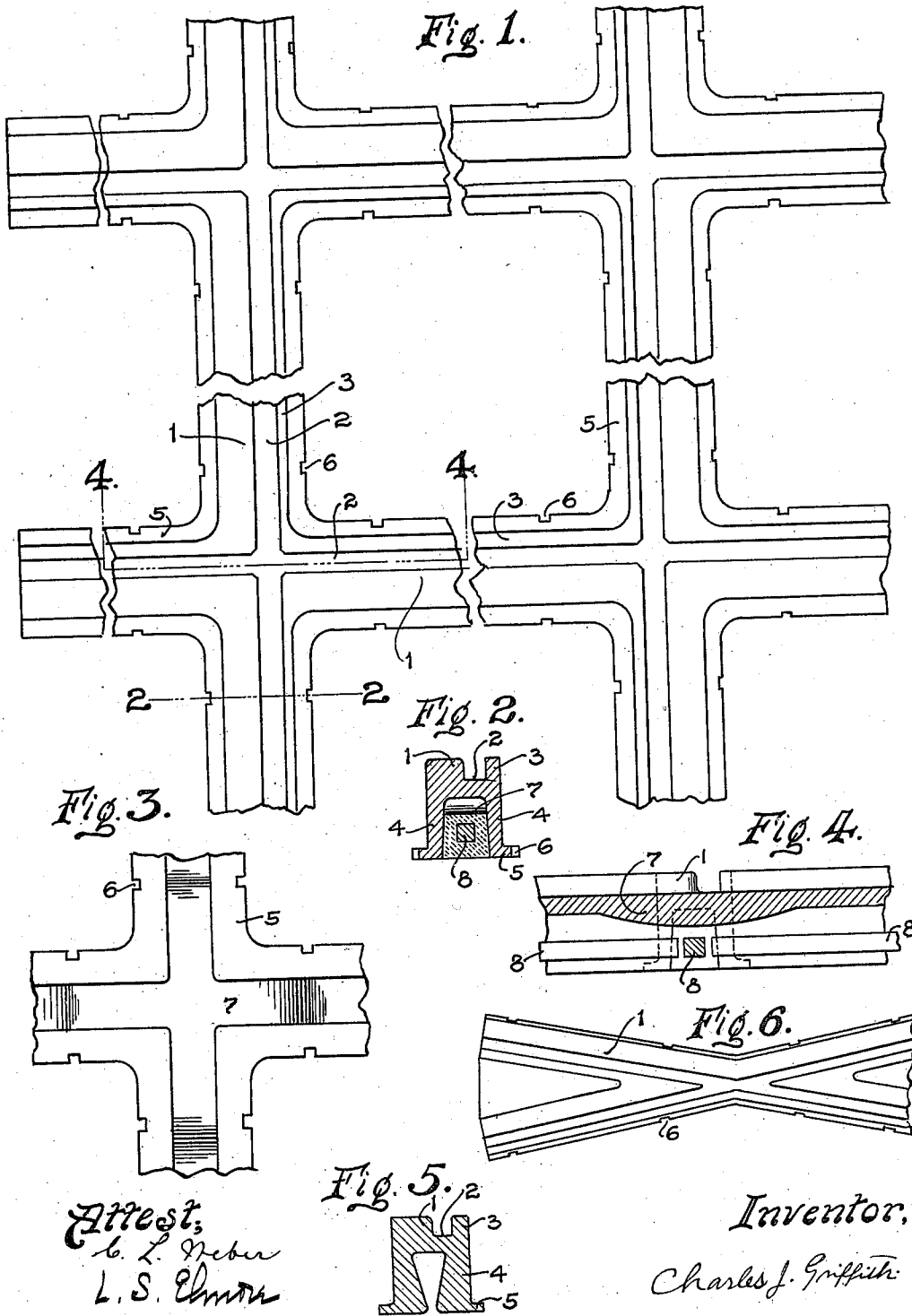


Patented July 12, 1910.

963,758.



UNITED STATES PATENT OFFICE.

CHARLES J. GRIFFITH, OF ST. LOUIS, MISSOURI.

RAILWAY-CROSSING.

963,758.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES J. GRIFFITH, a citizen of the United States, and resident of St. Louis, Missouri, have invented certain new and useful Improvements in Railway Crossings, of which the following is the specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to a railway crossing wherein the intersecting crossing rails are cast solid with one another, and which crossing rails are in box form, or in the shape of an inverted letter U.

A further object of my invention is to construct a railway crossing the rails of which are of inverted U-shape and the space within said rails being filled with reinforced concrete in order to provide a very solid, strong and substantial crossing.

My invention consists in features of novelty hereinafter shown, described and claimed.

In the drawings Figure 1 is a plan view of a crossing constructed in accordance with my invention. Fig. 2 is a cross section taken on the line 2-2 of Fig. 1. Fig. 3 is a view looking at the underside of the rails at the point where the same intersect. Fig. 4 is a cross section taken on the line 4-4 of Fig. 1. Fig. 5 is a cross section taken through a modified form of the rail. Fig. 6 is a plan view of a frog constructed in accordance with my invention.

Referring by numerals to the accompanying drawings, 1 designates the balls of the crossing rails, and formed integral with the sides thereof are flange tracks 2 with the inner edges of which are formed integral flange guards 3, thus forming the entire upper portion of the rail, and formed integral with the ball 1 and with the flange guard 3 are the vertically disposed webs 4, and these webs 4 are flanges 5 in which are formed notches 6 which receive the spikes or like fastening devices. The intersecting crossing rails thus constructed are all cast solid with one another, and are preferably constructed of hardened steel, such as manganese or other metal equally as hard or harder. Formed integral with the bottom surfaces of the flange tracks 2 at the points where the rails intersect, are strengthening ribs or lugs 7 which add strength to the

crossing rails at the points where the same intersect.

When the crossing of my improved construction is positioned for use, the space between the webs 4 is filled with concrete, or a suitable hardened plastic material in which is embedded longitudinally disposed reinforcing bars 8, thus adding strength and rigidity to the entire crossing.

In Fig. 5 I have shown the vertical webs of the crossing rails as being formed wider toward their lower ends, thus forming a V-shaped opening in the rail, which construction is applicable for railway construction requiring an extra heavy rail.

In Fig. 6 I have shown a frog constructed in accordance with my invention and where in the crossing rails are of inverted U-shape.

A crossing of my improved construction can be readily cast in one solid piece, and forms a very strong and durable structure, and where the crossing is constructed of extra hard metal the same will readily resist the wear to which railway crossings are ordinarily subjected.

I claim:

1. A railway crossing constructed of intersecting rails which are of inverted U-shape in cross section, and said rails being cast solid with one another.

2. A railway crossing constructed of intersecting rails which are of inverted U-shape in cross section, and a filling of hardened plastic material in the spaces within said rails.

3. A railway crossing constructed of intersecting rails which are of inverted U-shape in cross section, a filling of hardened plastic material in the spaces within said rails, and reinforcing bars embedded in said filling of plastic material.

4. A railway crossing constructed of intersecting rails cast solid with one another, and each of which rails comprises a pair of vertical webs and a ball and flange track connecting the upper ends of said webs.

5. A railway crossing constructed of intersecting rails which are of inverted U-shape in cross section, and there being reinforcing ribs formed integral with the under surfaces of the upper portions of said rails at the points where the same intersect.

6. A railway crossing constructed of intersecting rails which are of inverted U-shape in cross section, base flanges formed integral with the lower ends of the vertical

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webs of said rails, and a filling of reinforced concrete in the spaces within said rails.

5 7. A railway crossing constructed of intersecting rails which are of inverted U-shape in cross section, there being reinforcing ribs formed integral with the under surfaces of the upper portions of said rails at the points where the same intersect, and a

filling of reinforced concrete in the spaces within said rails. 10

In testimony whereof; I have hereunto set my hand in the presence of two witnesses.

CHARLES J. GRIFFITH.

Witnesses:

C. L. WEBER,
L. S. ELMORE.