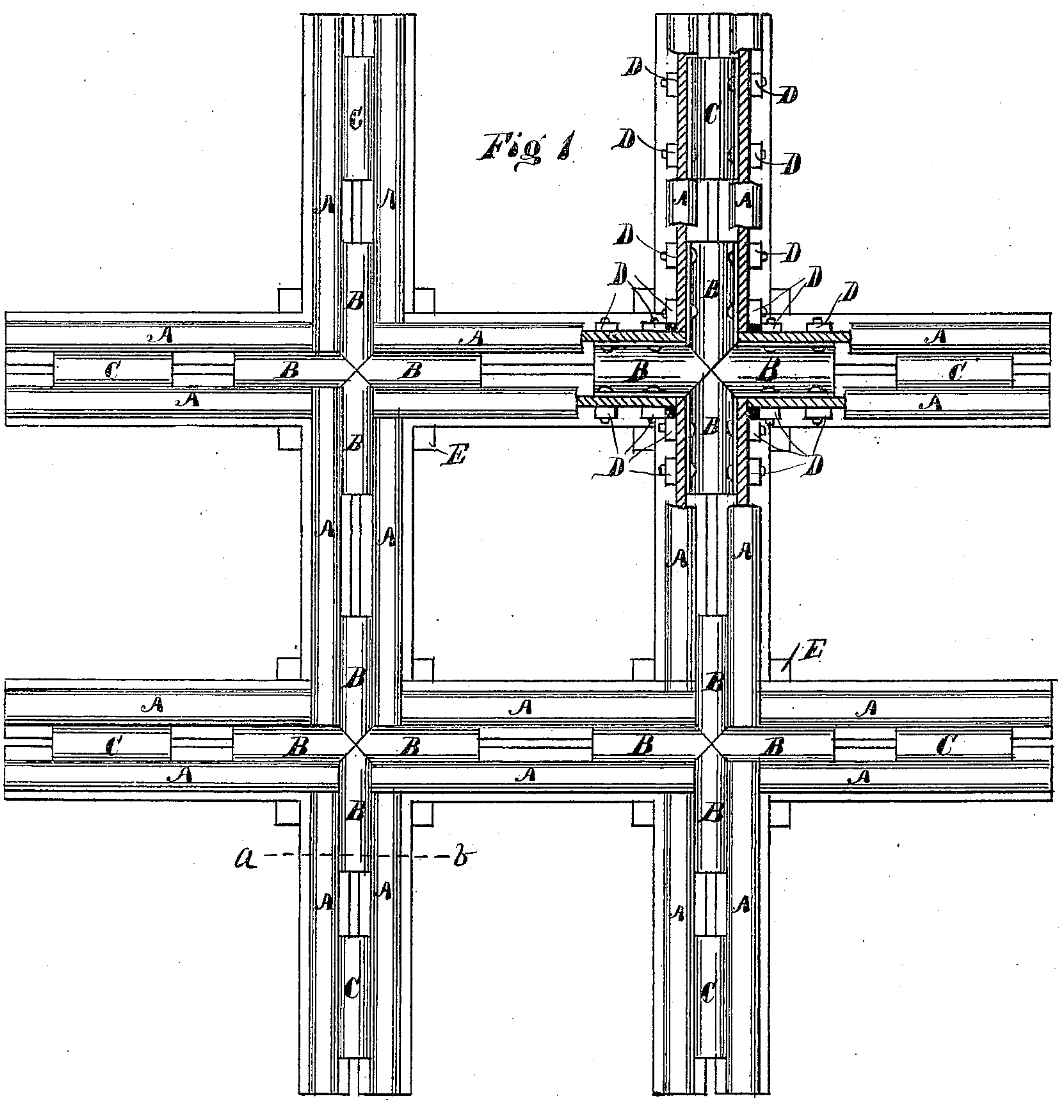
W. J. MORDEN.
Railway-Crossing.

No. 205,496. Patented July 2, 1878.



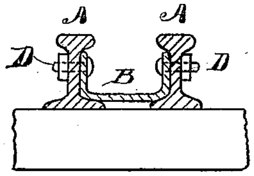


Fig. 2.

Witnesses;
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Inventor.
William J. Morden,
Per E. C. Frink,
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UNITED STATES PATENT OFFICE.

WILLIAM J. MORDEN, OF INDIANAPOLIS, INDIANA.

IMPROVEMENT IN RAILWAY-CROSSINGS.

Specification forming part of Letters Patent No. **205,496**, dated July 2, 1878; application filed March 11, 1878.

To all whom it may concern:

Be it known that I, WILLIAM J. MORDEN, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Railroad-Crossing Frog, of which the following is a specification, reference being had to the accompanying drawing.

My invention relates to a metallic channel-iron fish-plate or trough for uniting parallel rails at crossings, and is designed as an improvement on my Patent No. 173,804, granted February 22, 1876, whereby the trough-shaped plate is adapted to parallel rails.

The object of my invention is to provide a light, strong, and elastic joint or fastening for rails at railroad-crossings that is not liable to become disarranged by constant use, and which will give free passage to the flanges of wheels.

My invention consists of a metallic trough or channel-iron fish-plate having two parallel sides, and forming a U-shaped trough of equal width from end to end, the parallel sides of which are designed to be bolted to the web of the main-track rails and to the wing or guard rails, whereby a strong elastic joint at the junction of the rails in a crossing is obtained, with no obstruction to the free passage of flanges of wheels.

In the accompanying drawing, in which like letters of reference in the different figures indicate like parts, Figure 1 represents a plan view of my newly-organized railroad-crossing frog, with some of the rails partially broken away to show the manner in which the metallic trough-plates are attached to the web of the rails. Fig. 2 is a cross-section of the rails and trough-plate, taken at the line *a b* of Fig. 1.

A represents the main-track and guard rails. B and C represent the metallic U-shaped parallel trough or channel-iron fish-plates, which are bent, swaged, or formed into the shape as shown in the drawing, the sides of which are made to conform with the shape of the web of the rails. and are provided with bolt-holes at each end to receive the bolts D.

The sections of all the rails at the crossing are united together, as shown in Fig. 1, and a strong, durable, elastic joint is made by plates of sufficient thickness to withstand any strain to which the joint may be subjected.

The joint may be further strengthened by the base-plate E, which may be riveted to the rails or spiked to the crossing-timbers below; and the main-track rails and wing or guard rails may be protected from spreading by other short sections of channel-iron or trough plates, C, in the manner shown.

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

A railroad-crossing consisting of a series of main-track and wing rails united together by channel-iron fish-plates having their sides that bolt to said rails parallel, in the manner and for the purpose substantially as shown and described.

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

WILLIAM J. MORDEN.

Witnesses:

E. O. FRINK,

S. C. FRINK.