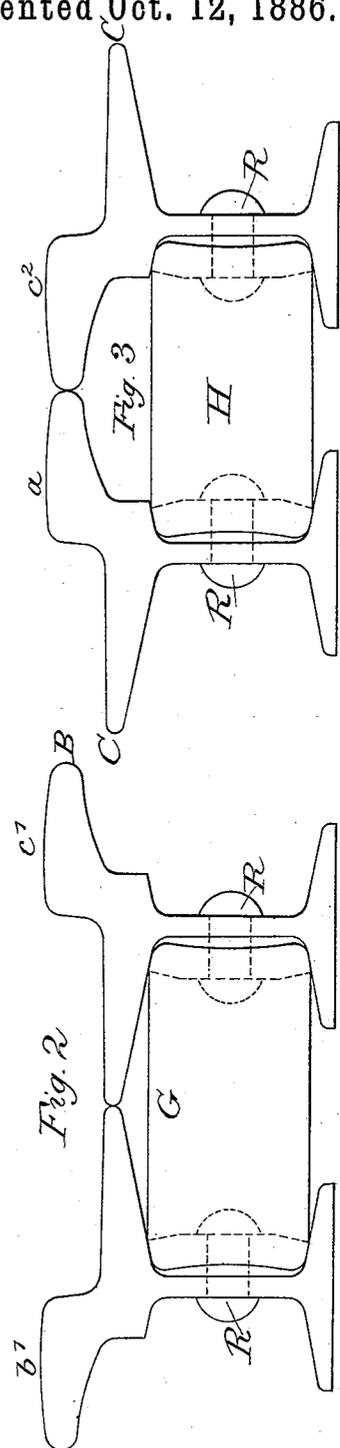
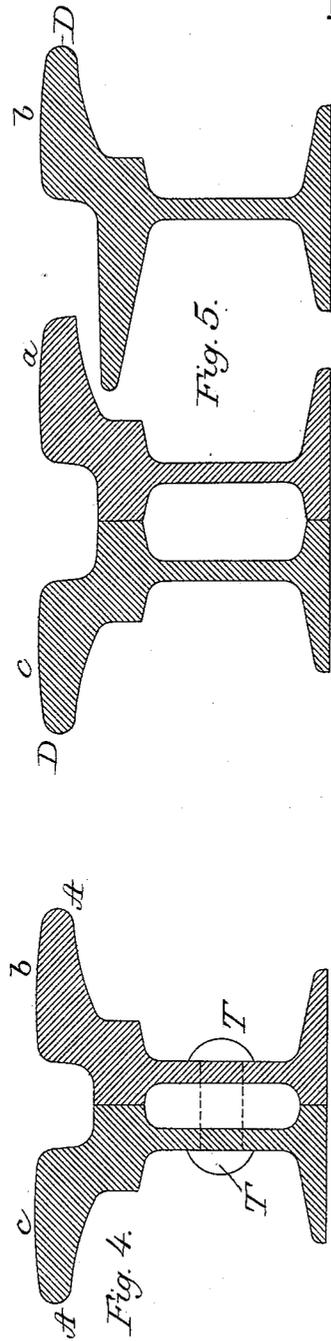
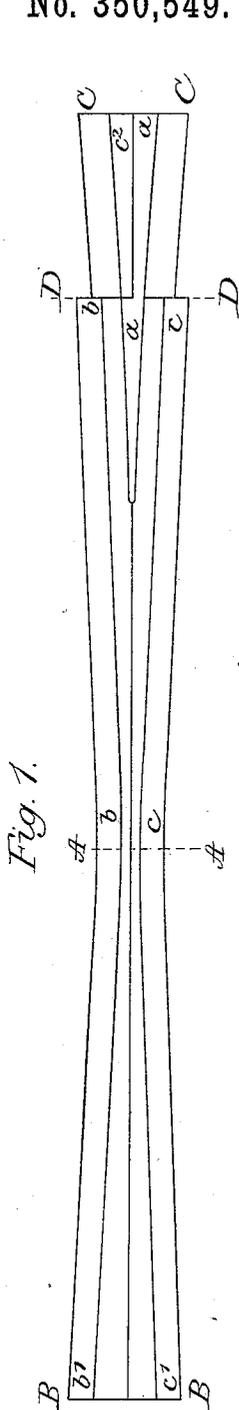


(No Model.)

A. J. MOXHAM.
RAILROAD FROG.

No. 350,549.

Patented Oct. 12, 1886.



WITNESSES
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UNITED STATES PATENT OFFICE.

ARTHUR J. MOXHAM, OF JOHNSTOWN, PENNSYLVANIA.

RAILROAD-FROG.

SPECIFICATION forming part of Letters Patent No. 350,549, dated October 12, 1886.

Application filed August 25, 1885. Serial No. 175,291. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR J. MOXHAM, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Railroad-Frogs, which invention or improvement is fully set forth and illustrated in the following specification and accompanying drawings.

The object of this invention is to provide a form of frog, more particularly for street-car tracks, which shall be made of side-bearing girder-rails capable of being connected by splice-bars to the rails which are used for the rest of the track.

The invention consists of the combination of parts, as hereinafter described and set forth in the claim.

In the accompanying drawings, Figure 1 shows the frog in plan. Fig. 2 shows an end view of the frog at the letters B B, from the left. Fig. 3 shows an end view of the frog at the letters C C, from the right. Fig. 4 shows a vertical cross-section at the line A A, Fig. 1. Fig. 5 shows the rails as viewed in vertical cross-section, taken at the line D D, Fig. 1.

In said figures the several parts are respectively indicated by letters, as follows: As shown in Figs. 2 and 3, the divergent ends of the frog are tied together by flanged chocks riveted through the webs of the rails. G indicates the chock in Fig. 2, and H indicates the chock in Fig. 3, the rivets being indicated in each figure by the letters R, the flanges of the chocks and the inner heads of the rivets being shown in dotted lines. Where the rails converge at the line A A, Fig. 1, as shown in cross-section in Fig. 4, the rivets T tie the cut tram and lower flange of each rail into close and firm contact through the webs of said rails.

The detailed parts, as lettered on Figs. 2 to 5, inclusive, where they appear in plan in Fig. 1, are therein indicated by like letters.

It will be observed that the tongue of the frog is formed by jointing the heads of the rails *a* and *c'*, Fig. 3, so that the head *a* forms the point and part of the base of said tongue, as shown in Fig. 1, while *c'* forms the remainder of the base, the two parts abutting at a right-angle in the line D D, Fig. 1.

It will be noted in Fig. 1 that from the point A to B the head of the side-bearing girder-rail performs the province of a head proper—that is to say, it supports the tread of the car-wheel. From the point A toward D the tread of the wheel departs from the head of the rail—that portion of the rail from A to D performing the joint province of head for part of the way for the outgoing car, and the guard the balance of the way for the incoming car.

It is obvious that the chocks G and H may be dispensed with, if desired, proper precautions being taken to make the central riveting and end fastenings to the main rails of the track sufficiently strong and rigid.

The frogs herein-described are built up of rolled side-bearing girder-rails, preferably rolled steel, and of the same material as that composing the rails of the track, and, if used with switches of the same material, make a homogeneous, strong, and very durable track in all its parts. Superior economy in time, labor, repairs, and investment outlay is thus largely secured by the use of such uniformity of design throughout the track structure.

For connecting the ends of these frog-rails to the line of track-rails any of the various known forms of splice-bars may be used.

I make no claim herein to the frog constructed of rolled girder-rails patented to me June 2, 1885, No. 319,011.

Having thus fully described my said improvement as of my invention, I claim—

A frog, forming a crossing for the wheels of railway-cars, composed of rolled side-bearing girder-rails provided with level side trams, the heads of the rails performing at the same time the province of head and guard, the webs of said rails being secured together by rivets or bolts with or without interposed chocks, and the divergent ends of said rails secured to the rails of the track, substantially as and for the purposes set forth.

ARTHUR J. MOXHAM.

Witnesses:

W. E. HOOPER,
E. F. CREED.