

No. 627,543.

Patented June 27, 1899.

P. G. STORMER.
RAILWAY FROG.

(Application filed Mar. 28, 1899.)

(No Model.)

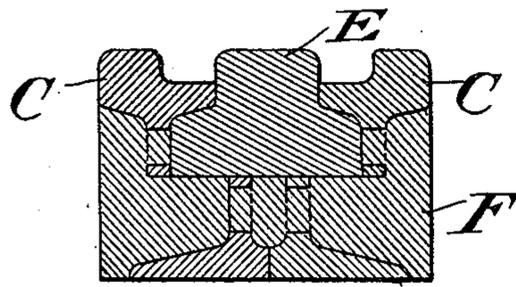
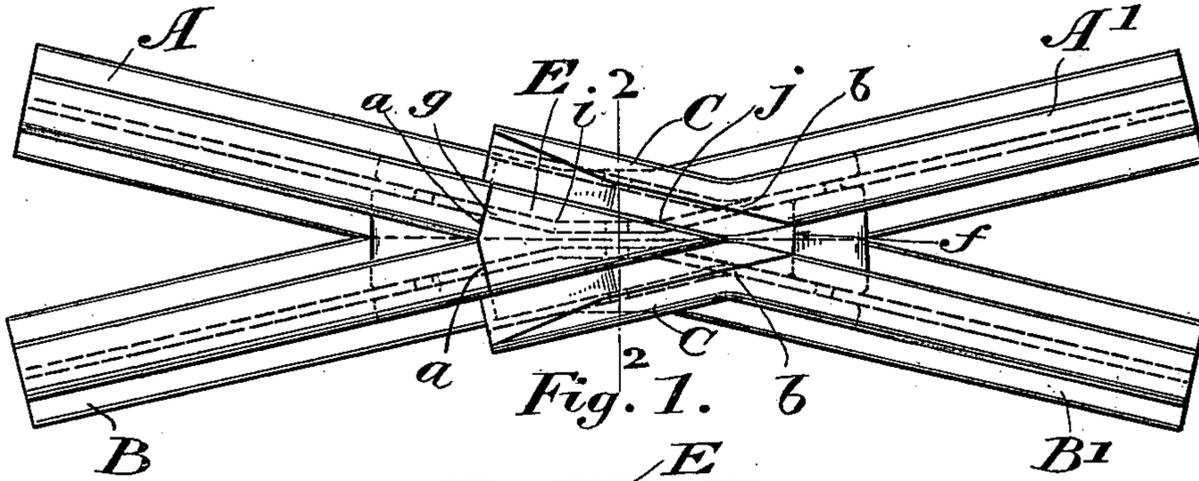


Fig. 2.

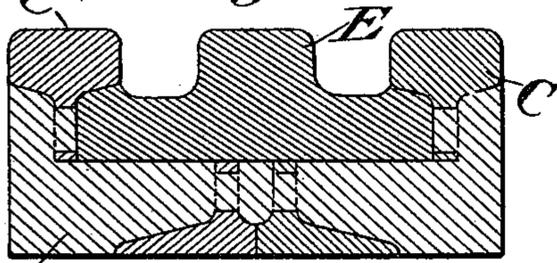
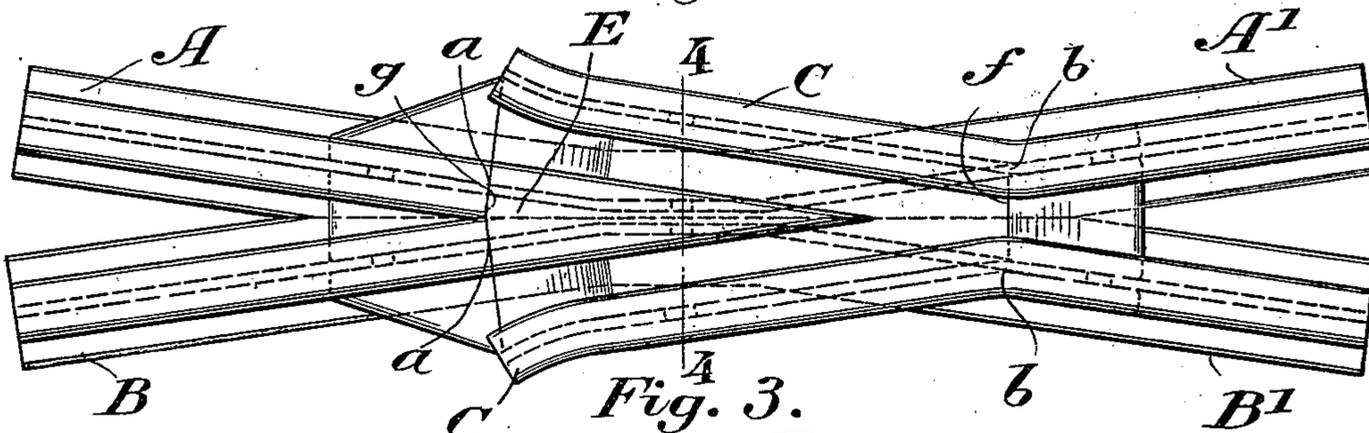


Fig. 4.

WITNESSES:

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RAILWAY-FROG.

SPECIFICATION forming part of Letters Patent No. 627,543, dated June 27, 1899.

Application filed March 28, 1899. Serial No. 710,797. (No model.)

To all whom it may concern:

Be it known that I, PETER G. STORMER, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Railway-Frogs, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to railway-frogs, and is especially designed for that class of structures in which plates are inserted at the intersection of the two tracks.

My invention resides in the novel means I employ by which I can dispense with one or more of the rails of the structure by displacing laterally the top of a suitable length of the rail from the bottom, so that a single rail may be utilized for the regular track-service and for a guard as well, and, indeed, even be used as a foundation for the inserted plate. The plates and rails I preferably connect together with cast metal; but this is by no means essential to my invention.

On an even date herewith I have filed an application for improvements in railway-track structures in which is included a frog constructed in accordance with my present invention, and I have claimed therein my broad invention.

In the present application I lay claim only to certain specific features of my broad invention residing in the application thereof to a frog or crossing.

In the drawings accompanying this application, Figure 1 is a plan view of a railway-frog embodying my invention. Fig. 2 is a transverse section on the line 2 2 of Fig. 1. Fig. 3 is a plan view of a modified form of railway-frog embodying my invention, and Fig. 4 is a transverse section on the line 3 3 of Fig. 3.

Like parts of the drawings are indicated by similar symbols.

The principal parts of the frog are two rails A and B of an exactly similar construction. Rail A is cut at *a* to some point below its head (preferably to about the center of its web) and longitudinally severed to the point *b*. In order to utilize the cut severed upper

portion C of the rail as a guard or wing member, the upper portion is displaced laterally from the lower portion until it is substantially parallel with one side of the point of the inserted plate E. By slightly angularly disposing the lower portion of the rail from the point *i* to *j* the end A' of the rail A is brought in alinement with the opposite end of rail B and forms a continuation thereof. A similar operation is performed on rail B. At the point *a* it is vertically cut to some part below its head, thence longitudinally severed through its web to the point *b*. The upper part is then laterally swung from the base until the cut severed portion C of the rail B is parallel with the opposite side of the point of the inserted plate E. By slightly angularly disposing the lower part of the rail B from *i* to *j* the part B' is brought into alinement with one end of the rail A and forms a continuation thereof. A plate E, preferably of hardened metal, is inserted and occupies the part from *f* to *g*. At *g* it abuts the cut rail ends. It will be noted that the severed webs of the two rails form a substantial foundation for the plate E.

The different parts of the railroad-frog are placed together and cast metal, preferably cast-iron, is poured about them. The metal passes through perforations in the rails and integrally unites the rails and plate into one firm substantial structure. It is, however, obvious that other means of rigidly securing together the different parts of my track structure may be used, so that I am not limited to this method of uniting the parts.

In Fig. 3 a railway-frog is illustrated more suitable for heavy traffic, such as a steam-railroad. The principal difference in construction between this structure and that of the frog shown in Fig. 1 consists in the forming of the flangeways in the plate E instead of in the heads of the rails.

I do not limit myself to the exact details shown and described, for these are immaterial to my invention.

Having thus described my invention, what I claim, and desire to protect by Letters Patent, is—

1. A railway-frog rail bent so that one end

forms the track portion of one, and the other end forms the track portion of the other, of the crossing tracks, said rail, intermediate its ends, having its upper portion displaced laterally from its lower portion, said displaced upper portion being adapted to form a guard, substantially as described.

2. In a railway-frog, a pair of rails, each of said rails having one end forming part of one, and the other end forming part of the other of the crossing tracks, each of said rails intermediate its ends having a laterally-displaced upper portion, the two upper portions being adapted to inclose a crossing-plate, substantially as described.

3. A railway-frog composed of two rails, an interposed crossing-plate and means for securing the plate and rails together, each end of each rail being in alinement with the opposite end of the other rail, while the central part of each rail is divided into a lower portion uniting the two ends and forming a base for the said plate, and an upper portion laterally displaced from said lower portion, the two laterally-displaced upper portions inclosing the said plate and forming guards therefor, substantially as described.

4. In a railway-frog, a pair of rails, each of said rails having one end forming part of one, and the other end forming part of the other, of the crossing tracks, each of said rails intermediate its ends having a laterally-displaced upper portion adapted to act as a

guard-rail, in combination with a crossing-plate inserted between said upper portions, substantially as described.

5. In a railway-frog, a pair of rails, each of said rails having one end forming part of one, and the other end forming part of the other of the crossing tracks, the said ends being united by the lower portion of the rail only, the upper portions at the center of each rail being laterally displaced, in combination with a crossing-plate inserted between said upper portions of the two rails and upon the connecting lower portions, substantially as described.

6. In a railway-frog, a pair of rails, each of said rails having one end forming part of one, and the other end forming part of the other of the crossing tracks, the said ends being united by the lower portion of the rail only, the upper portion at the center of each rail being laterally displaced, in combination with a crossing-plate inserted between said upper portions of the two rails and upon the connecting lower portions, and cast metal integrally uniting the said rails and plate, substantially as described.

In testimony whereof I have affixed my signature in presence of two witnesses.

PETER G. STORMER.

Witnesses:

R. M. EVANS,
JOHN H. KENNEDY.