

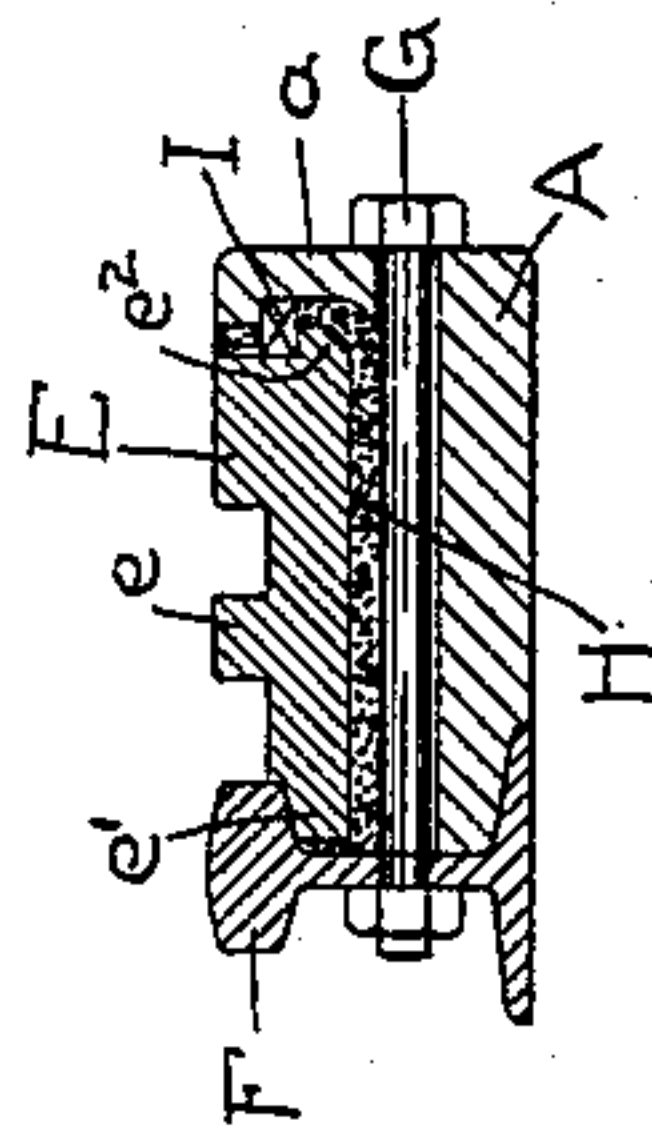
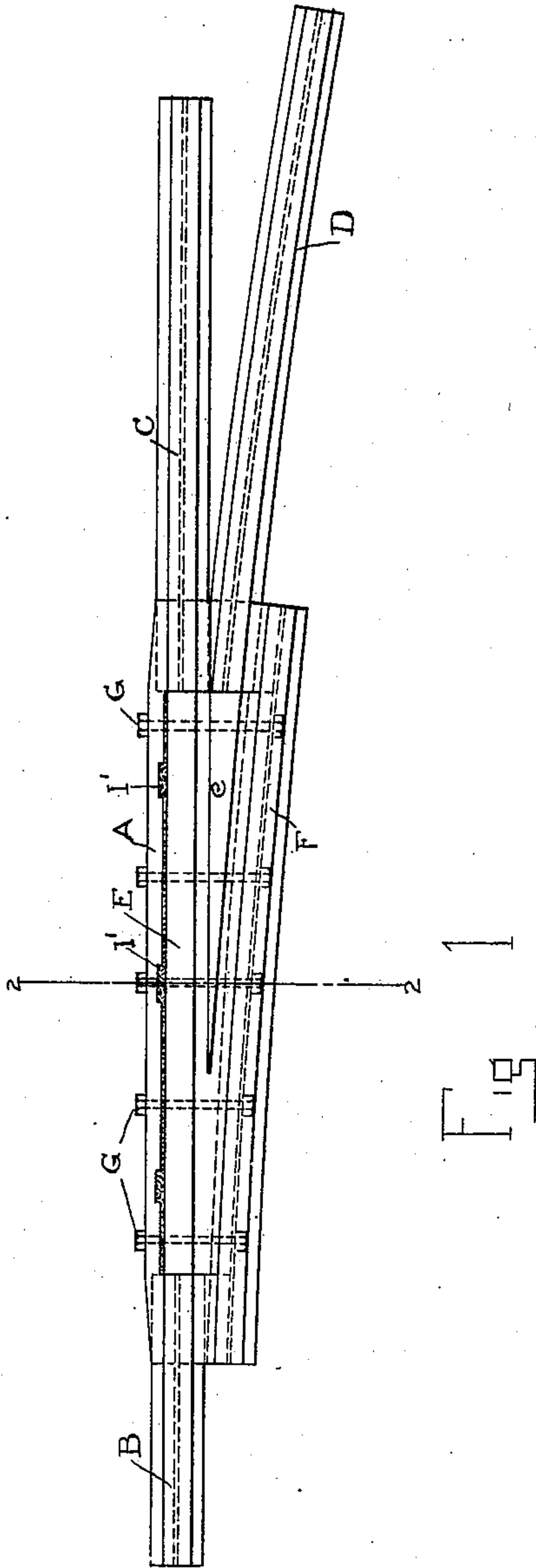
No. 709,975.

Patented Sept. 30, 1902.

E. B. ENTWISLE.
RAILWAY TRACK STRUCTURE.

(Application filed Feb. 8, 1902.)

(No Model.)



WITNESSES:
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UNITED STATES PATENT OFFICE.

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RAILWAY-TRACK STRUCTURE.

SPECIFICATION forming part of Letters Patent No. 709,975, dated September 30, 1902.

Application filed February 8, 1902. Serial No. 93,229. (No model.)

To all whom it may concern:

Be it known that I, EDWARD B. ENTWISLE, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Railway-Track Structures, 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 has relation to certain new and useful improvements in railway-track structures, and more particularly to that class of such structures known as "switch mates," and is designed to provide a mate of simple and durable construction in which those portions of the track-surfaces subject to the greatest wear are formed on a hard-metal plate, which is removably seated in the structure in a novel manner.

With this object in view the invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of a switch mate embodying my invention, and Fig. 2 is a transverse section on the line 2 2 of Fig. 1.

In the figures the letter A designates the body portion of the structures, and B, C, and D the rail-member extensions thereof for connection to the adjacent main and branch track rails. In the manufacture of the structure these rail members are placed in the mold in which the body portion A is to be cast, and their end portions are embedded in the casting in the usual manner.

Cored in the upper surface of the body A is a recess or seat for a plate E, of manganese steel or other suitable hard steel or steel alloy, on which is formed the point *e* and the adjacent track-surfaces of the structure. One of the side walls of this recess or seat is formed by an overhanging flange *a* of the body A; but the other side wall instead of being formed by a similar flange, as is customary in such structures, is formed by a section F of T-rail, which also acts as a guard-rail and which is secured to the body A by means of through-bolts G, the seats for which are cored in the casting.

The plate E is seated on a bed of spelter or other similar material, (shown at H.) It is formed at one edge with a lip *e'*, which fits underneath the head of the rail F, and at its other side with a lip *e''*, between which and the overhanging wall of the flange *a* are driven securing-wedges I, which are seated through the recesses I' and are afterward covered in by spelter, as shown. The plate can be readily removed at any time by cutting out the spelter and removing the wedges or by removing the guard-rail F.

While I have shown the rail members B, C, and D as consisting of pieces of T-rail, it is obvious that girder-rails may be employed instead of suitably cutting or planing off the flanges of the members C and D where they enter the body A.

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

1. In a switch mate, a body portion formed of cast metal, rail members extending therefrom for connection with the adjacent track-rails, a guard-rail secured to one side of said body portion, and a hard-metal track-surfaced plate seated on said body portion between a flange thereof and the said guard-rail.

2. In a switch mate, a body portion of cast metal having an upwardly-extending flange at one side, a guard-rail secured to the opposite side of said body portion, and a hard-metal track-surfaced plate seated between said flange and guard-rails.

3. In a switch mate, a body portion of cast metal having an upwardly-extending flange at one side, a guard-rail removably secured to the opposite side of said body portion, and a hard-metal track-surfaced plate seated between said flange and guard-rail.

4. The herein-described switch mate, consisting of the body A of cast metal, having the side flange *a*, the rail members cast into said body portion, the guard-rail secured thereto, and the hard-metal track-surfaced plate seated between the said flange and the guard-rail, and provided with a lip which fits under the head of the said rail.

5. A track structure, consisting of a body of cast metal having rail-member extensions for connection with the adjacent rails of

main and branch tracks, a guard-rail remov-
ably secured to one side of said body, and a
hardened track-surfaced plate whose ends
abut the inner ends of said extensions, and
5 which is seated in a recess or pocket, one wall
of which is formed by the removable guard-
rail.

In testimony whereof I have affixed my sig-
nature in presence of two witnesses.

EDWARD B. ENTWISLE.

Witnesses:

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