

JOSEPH H. CONNELLY.

Improvement in Railway-Tracks.

No. 128,120.

Patented June 18, 1872.

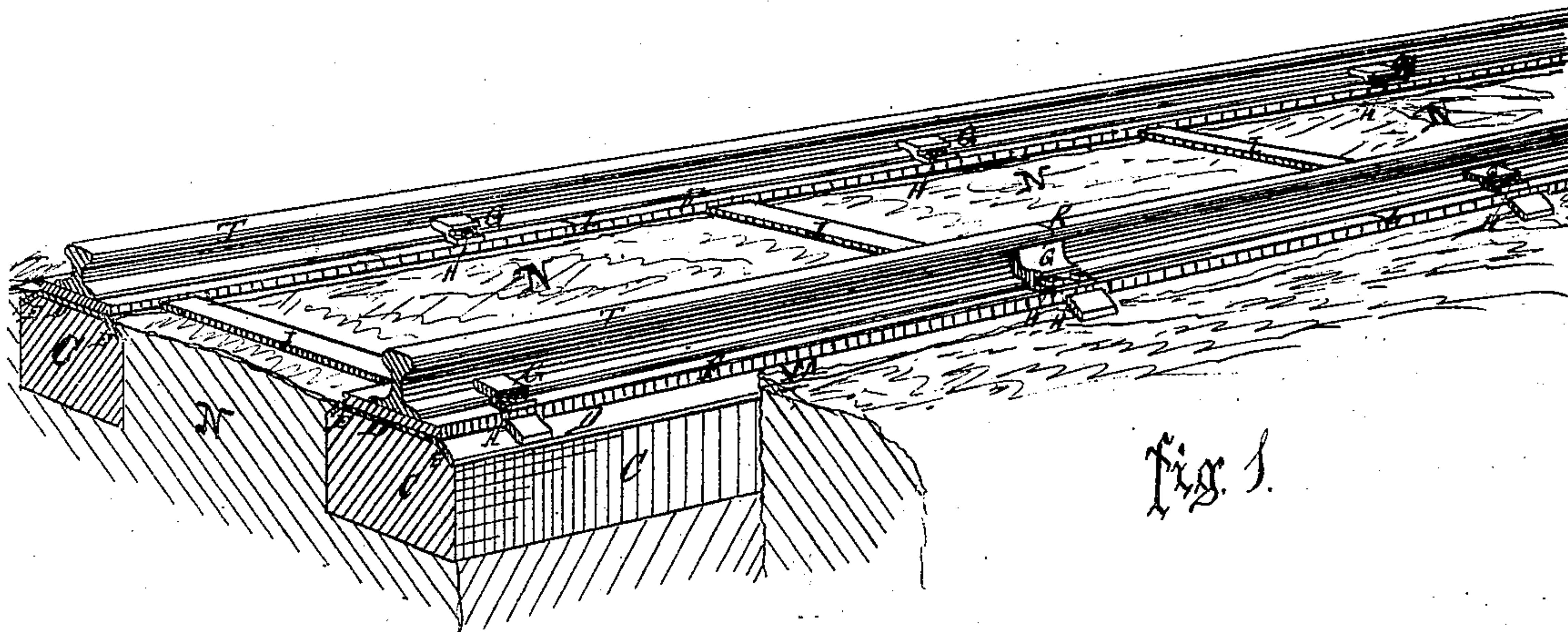


Fig. 1.

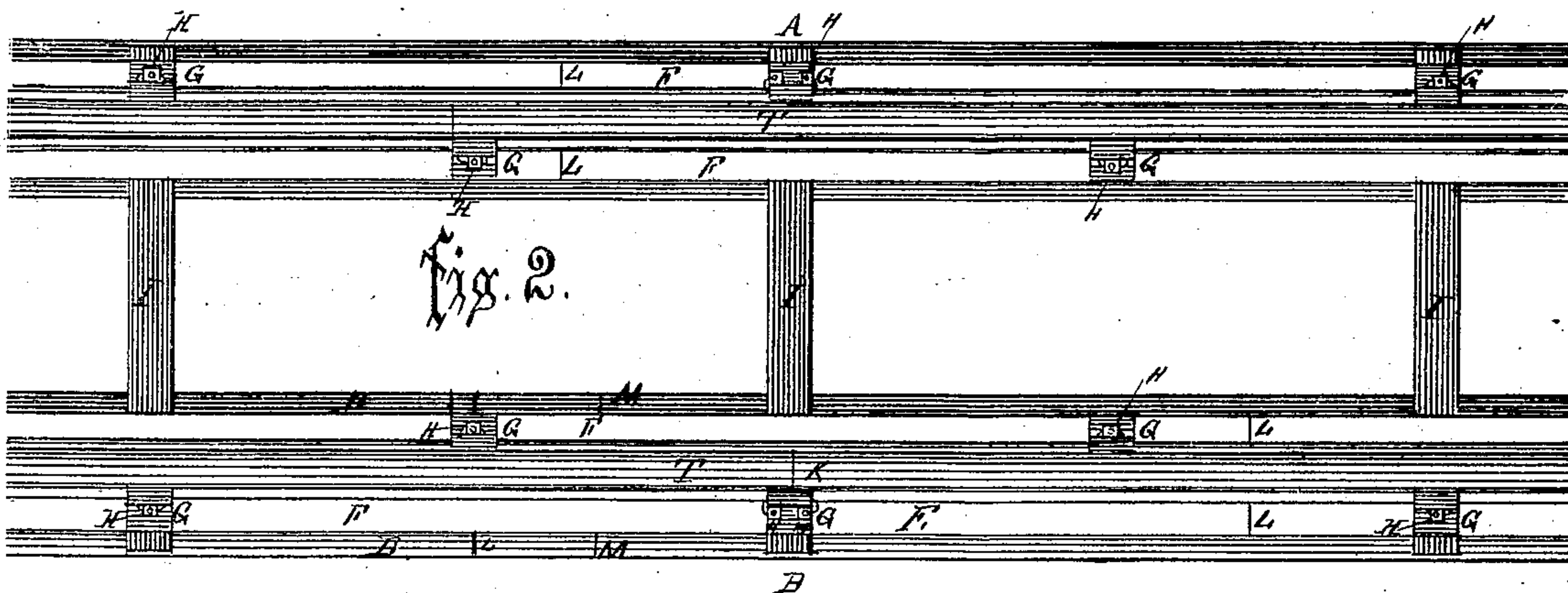


Fig. 2.

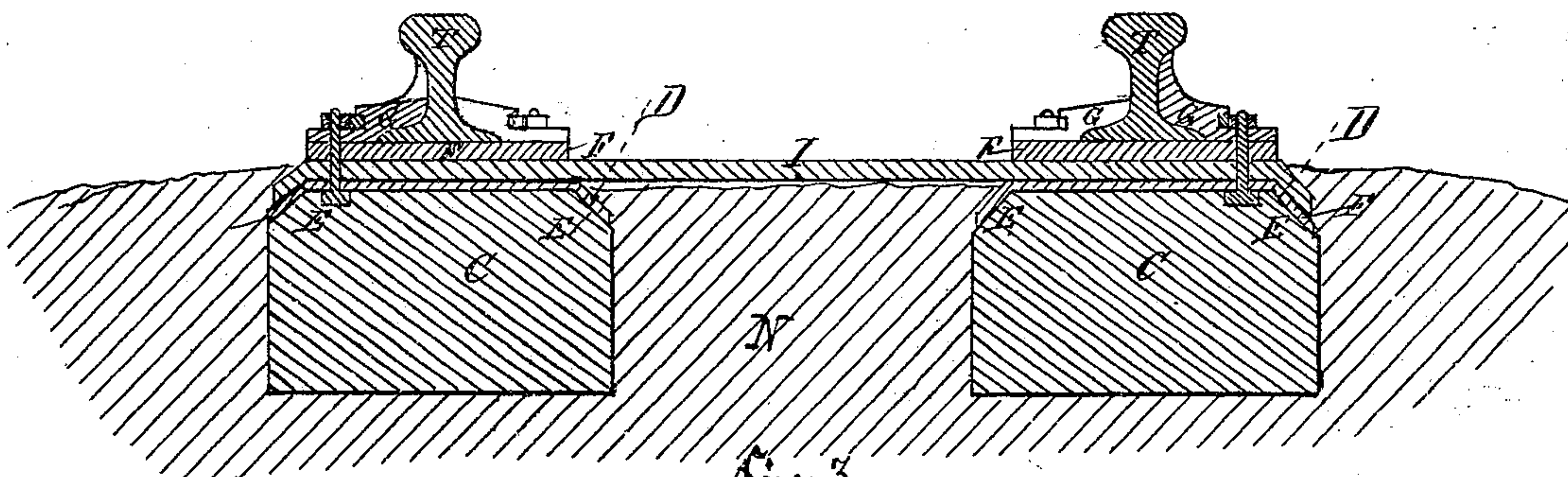


Fig. 3.

Witnesses { Francis L. Clark Inventor Joseph H. Connelly
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UNITED STATES PATENT OFFICE.

JOSEPH H. CONNELLY, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO JOSEPH C. TILTON, OF SAME PLACE.

IMPROVEMENT IN RAILWAY TRACKS.

Specification forming part of Letters Patent No. 128,120, dated June 18, 1872.

Specification describing certain Improvements in Railroad Tracks, invented by JOSEPH H. CONNELLY, of the city of Pittsburg, in the county of Allegheny and State of Pennsylvania.

My invention consists of a continuous wall of semi-elastic concrete, covered and protected on the top by a wall plate or cap of boiler-iron, to which the clamps which hold the rail are bolted, a strip of board being interposed between the rail and wall-plate. The center of the wall lies under and parallel to the rail. The track is prevented from spreading and the rails and walls on which they rest securely braced and connected by wrought-iron cross-ties; the object of my invention being to construct a firm but not rigid road-bed which will support the rails at every point, and to dispense almost altogether with the use of wood under the rails.

In the drawing, Figure 1 is a perspective view of my track; Fig. 2, a plan view of the same; and Fig. 3, a cross-section, on an enlarged scale, through the section-line A B of Fig. 2.

C C are concrete walls, which are formed by digging ditches in the ballast of the width and depth desired, and filling these ditches with broken stones, gravel, and sand combined with a sufficient quantity of cement or lime and coal-tar to give it consistency. This concrete sets in a short time, forming a strong, continuous, semi-elastic wall, which is less dense and rigid than a similar wall of masonry would be. The walls are covered on the top by the iron plates D D, the edges of which are turned

down and fit over the beveled edges E E of the wall C, clamping and holding the walls securely together. On the top of the plates D D the boards F F, which are about one inch in thickness, are placed, these boards being the only wood used. The rails T T rest on the boards F F, and are secured to the wall plates or caps D D by the clamps G G and bolts H H. The boards F F are inserted between the rail T and wall-cap D to obviate the noise, jar, and wear and tear caused by passing trains. The rails and walls are securely tied together by the wrought-iron ties I I, the ends of which turn over the outer bevel of the wall-caps D D. The ties pass under the boards F F, which are mortised out to fit them. Care is taken in laying the track to break all joints, as shown in Figs. 1 and 2, K showing rail-joint; L, joint in board F; and M, the joint in the wall plate or cap D. The ballast N, Figs. 1 and 3, is brought up level with the board F both between the rails and along the sides, being rammed firmly to support the walls C C.

Any suitable clamps and cross-ties may be used; but I prefer using those shown in the drawing.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The concrete walls C C, iron wall-caps D D, and boards F F, constructed and arranged as described, and for the purpose specified.

JOSEPH H. CONNELLY.

Witnesses:

FRANCIS L. CLARK,
ANDREW HUMBERT.