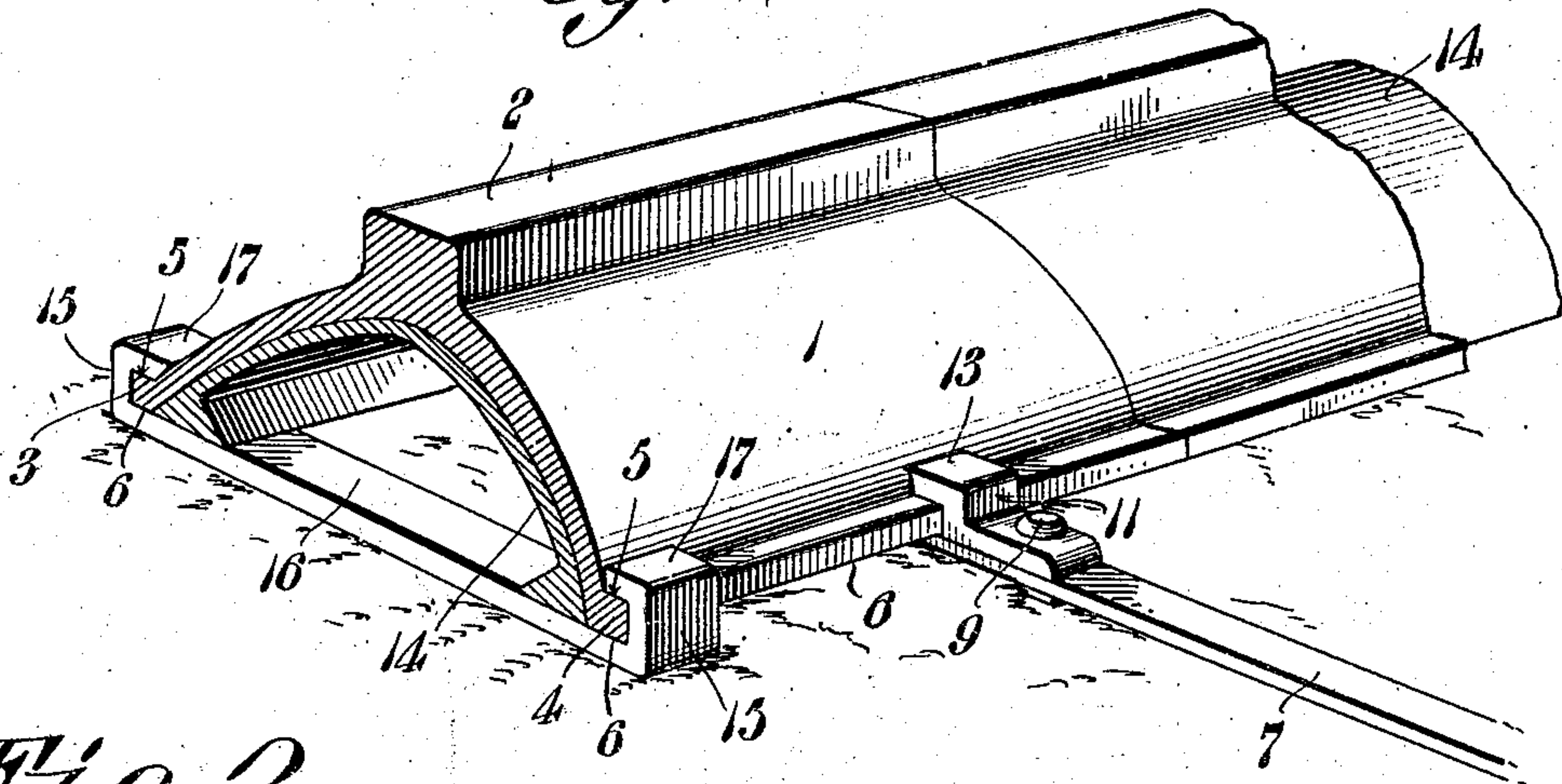


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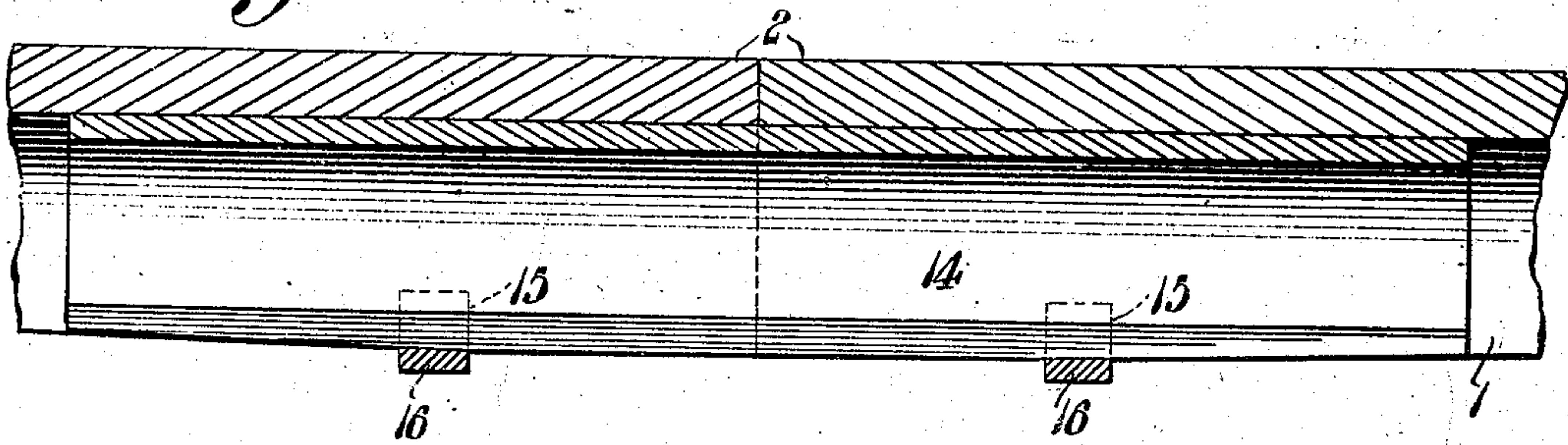
PATENTED JULY 9, 1907.

A. E. PARR.  
RAILWAY RAIL.  
APPLICATION FILED MAR. 29, 1907.

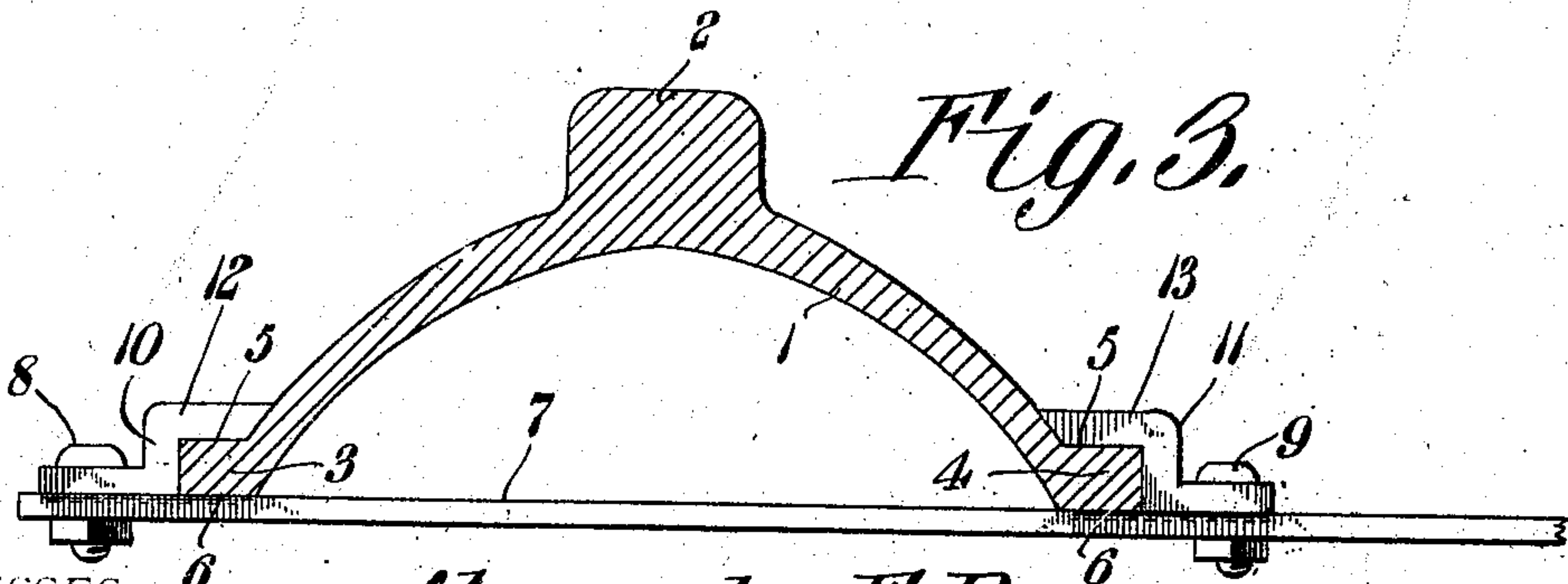
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:

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ATTORNEYS

INVENTOR.



# UNITED STATES PATENT OFFICE.

ALEXANDER E. PARR, OF HANNA CITY, ILLINOIS.

## RAILWAY-RAIL.

No. 859,834.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed March 29, 1907. Serial No. 365,421.

*To all whom it may concern:*

Be it known that I, ALEXANDER E. PARR, a citizen of the United States, residing at Hanna City, in the county of Peoria and State of Illinois, have invented  
5 a new and useful Railway-Rail, of which the following is a specification.

My present invention relates to improvements in rails adapted for use in forming a solid track for vehicles of various descriptions, and it has for its object  
10 to provide a rail of this character that is adapted for use in connection with vehicles having flanged wheels as well as those of wagons and other ordinary vehicles, and it is so constructed that it will obtain a solid support when laid directly on the ground without the use  
15 of the usual tie, although it is capable of use with the latter, to provide an efficient joint or coupling for connecting the rail ends, and, furthermore, to provide means for maintaining the rail in upright position and at the proper gage.

20 To these and other ends, the invention comprises the various novel features of construction and arrangement and combinations of parts, which will be hereinafter more fully described, and pointed out particularly in the appended claims.

25 In the accompanying drawings:—Figure 1 is a perspective view of a rail constructed in accordance with my present invention. Fig. 2 represents a longitudinal section through the rail and the connecting member. Fig. 3 represents a transverse section  
30 through the rail showing the mode of attaching the stay rod thereto.

Corresponding parts in the several figures are indicated throughout by similar characters of reference.

The present invention provides a novel form of rail  
35 that is so constructed as to enable it to be laid directly upon moderately firm ground without the use of the usual tie, thus adapting it for use particularly in connection with relatively light railways such as used in excavating, mining, or for temporary trackage  
40 during reconstructing work, and it is also adapted to provide a metallic railway to be laid in the ordinary street or road to form a solid track for heavy vehicles, such as drays, the wheels of which readily cut through the pavement of the ordinary street or road.

45 The rail shown in the present embodiment of the invention has a base 1 of segmental or arch-shaped form, the width of the base being determined according to the relative firmness of the ground or other support on which the rails are to be laid, and also according  
50 to the weight of the vehicles to be supported by the rail. Extending longitudinally along the top of the base is a tread 2, the latter being relatively narrow when the rails are employed to form a track for vehicles having flanged wheels and being proportionately  
55 wider when the rails are employed to form a track to receive the ordinary vehicle wheels. The

longitudinal edges of the base are provided with out-turned horizontally extending flanges 3, 4, the upper and lower surfaces of these flanges, 5 and 6, being  
60 substantially parallel and lying preferably in a horizontal plane and serving as means of attachment for the devices which secure the connecting member in place and the fastening devices on the stay rods which connect the rails of the track and maintain them at  
65 the proper gage.

The cavity formed within the base is adapted to receive earth or other material when the rails are laid, and the packing of material into this cavity provides a supporting surface for the rail that is equal in area to  
70 the distance between the flanges of the base.

In order to maintain the rails of the track at the proper gage, stay rods 7 are employed, the latter extending between the rails of the track and engaging the under surfaces 6 of the flanges at the base of each  
75 rail, clips being secured by means of bolts or other suitable devices 8 and 9 to the stay rod at each side of the rail, each clip being provided with a shouldered portion 10 or 11 adapted to engage the outer edge of the  
80 corresponding flange, the inturned ends 12 and 13 of the clip fitting above and cooperating with the upper surfaces 5 of the respective flanges, relative lateral or upsetting movement of the rail on the stay rod being prevented by the clips, and the intermediate section of the rod connecting the rails serving to prevent spreading  
85 or other variations in the gage.

The abutting ends of adjacent rails are connected by a member 14 which is adapted to overlap for a suitable distance beyond the joint between the cooperating rail ends, and it is segmental in form to correspond with  
90 and fit within the base, the edges of the connecting member lying in a plane below the lower surfaces 6 of the flanges on the base and tapering upwardly toward their ends. These connecting members are held in cooperative relation with the abutting rail ends by means  
95 of the yokes or clevises 15, the latter each having an intermediate portion 16 adapted to cooperate with the lower edges of the base and connecting member, the ends of the yoke being turned inwardly, as at 17 and 18, to engage the upper surfaces 5 of the flanges on the  
100 base.

The connecting members are secured in cooperative relation with the respective rail ends by a longitudinal movement of the yokes or clevises 15, the connecting portions 16 of the yokes cooperating with the inclined  
105 or tapered surfaces on the lower edges of the connecting member.

Rails embodying my present invention may be rolled of steel or formed of other suitable material, the base being either concavo-convex, as shown in the form of  
110 a box having more or less vertical sides or legs, and a substantially flat top, or it may be made in various forms to provide a base having an arch shape, the legs



- of the base being spread to provide a relatively wide support for the rail that will afford the latter sufficient stability to enable the rail to be laid directly on the ground or other suitable support without the use of the usual ties, the cavity between the legs of the base being adapted to receive earth or other material that will provide a bearing surface of sufficient area to enable the rail to support relatively heavy loads and to prevent lateral displacement of the rail.
- 10 The novel form of coupling or joint for the abutting rail ends may be readily applied without the use of bolts or spikes, a relative longitudinal movement of the yokes or closures serving to lock and unlock the connecting member relatively to the rails, and it compensates for expansion and contraction of the rails due to temperature variations, and the out-turned flanges on the base of the rail provide means for fastening the coupling yokes and the stay-rod clips.

What is claimed is:—

- 20 1. A rail of the character described embodying a base having a concavo-convex cross section, the width between the longitudinal edges being greater than the altitude, and a tread resting directly on the convex surface of the base.
- 25 2. A rail of the character described embodying a hollow base having laterally spread legs forming an earth receiving cavity between them, and a tread of substantially rectangular cross section extending longitudinally on and proceeding directly from the upper side of the base.
- 30 3. A rail of the character described embodying a base substantially concavo-convex in cross section and forming an earth receiving cavity between its legs, and a tread extending longitudinally and resting directly on the convex surface of the base.
- 35 4. The combination with a rail having a hollow base, of a connecting member shaped to fit the hollow of the base, and devices movable longitudinally of the rail for moving the said member into cooperative relation with the rail.

5. The combination with a rail having an arch-shaped base, the longitudinal edges of the base being provided with out-turned flanges, of a connecting member shaped to fit the under side of the arch-shaped base, and devices cooperating with the lateral flanges of the base for moving the connecting member into cooperative relation with the rail.

6. The combination with a rail having an arch-shaped base, the longitudinal edges of the base being provided with out-turned horizontal flanges, of a connecting member shaped to fit the concavity of the arch-shaped base and having tapered or wedge surfaces toward its ends, and yokes having portions adapted to operate longitudinally of the said flanges and cooperate with the wedge surfaces of the connecting member for locking the latter in cooperative relation with the rail.

7. The combination with a rail having a concavo-convex base, out-turned flanges on the longitudinal edges of the base, and a tread extending longitudinally of the convex surface of the base, of a connecting member having a shape corresponding to and adapted to fit the concave surface of the base and having its lower edges tapered toward the ends, and yokes having intumed ends cooperating with the flanges of the base and cooperating at intermediate points with the wedge surfaces of the connecting member for locking the latter in cooperative relation with the base of the rail.

8. The combination with a rail having an arch-shaped base provided with outturned flanges on its longitudinal edges, and a tread arranged on the top of the base, of a stay rod, and clips secured thereto having shoulder portions arranged to cooperate with the outer edges of the flanges, and intumed ends arranged to cooperate with the upper surfaces of the flanges.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ALEXANDER E. PARR.

Witnesses:

LORRETTO WHITE,  
A. KEITHLEY.