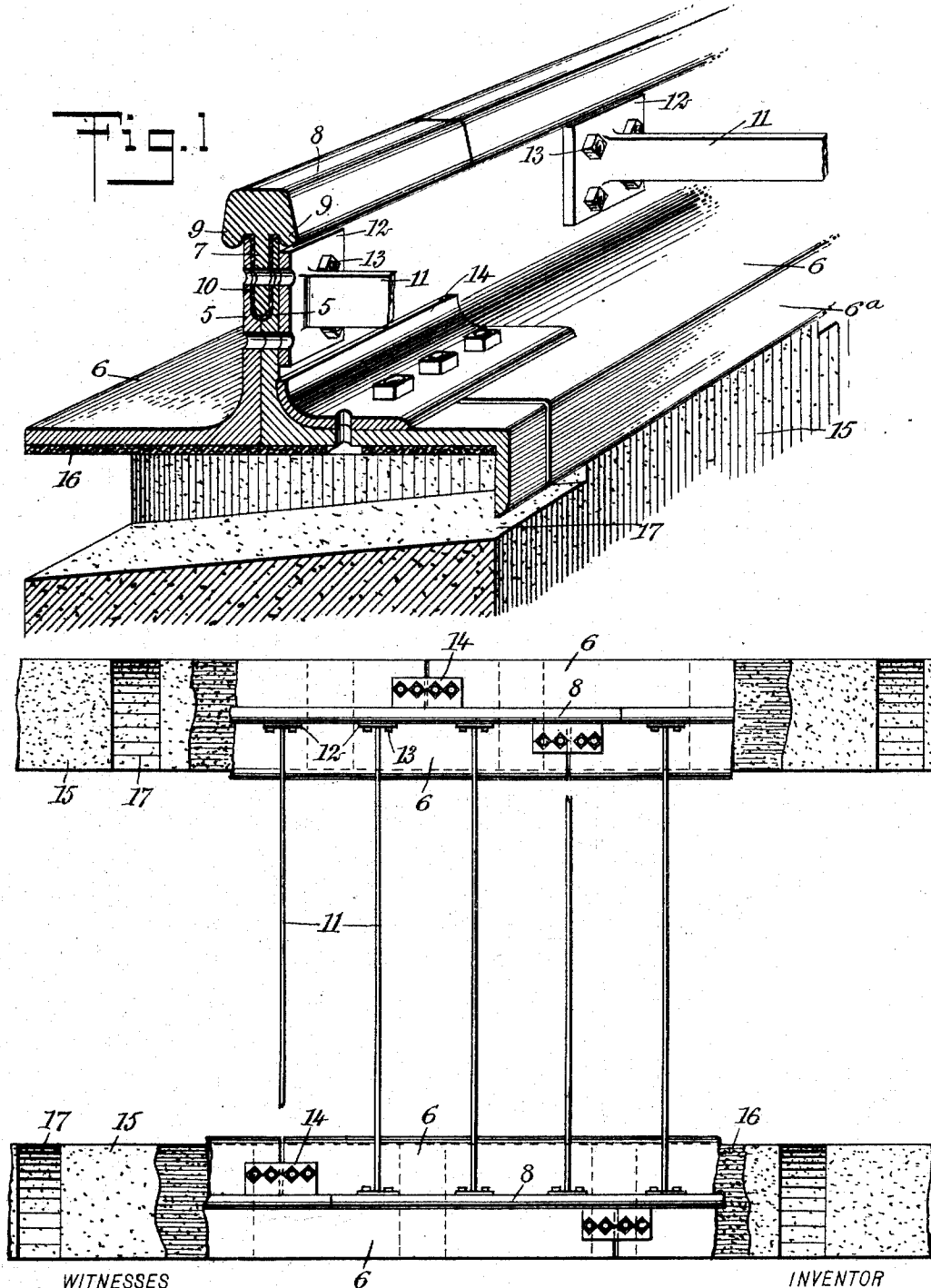


J. H. F. SCHULZE.  
RAILWAY TRACK CONSTRUCTION.  
APPLICATION FILED MAY 5, 1908.

927,175.

Patented July 6, 1909.



WITNESSES  
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# UNITED STATES PATENT OFFICE.

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## RAILWAY-TRACK CONSTRUCTION.

No. 927,175.

Specification of Letters Patent.

Patented July 6, 1909.

Application filed May 5, 1908. Serial No. 431,037.

*To all whom it may concern:*

Be it known that I, JOHN H. F. SCHULZE, a citizen of the United States, and a resident of the city of New York, Jamaica, borough of Queens, in the county of Queens and State of New York, have invented a new and Improved Railway-Track Construction, of which the following is a full, clear, and exact description.

This invention is an improved construction of railway tracks and has for its purpose to provide for the easy removal and replacement of the head of the rail, which is the only part worn, without interfering with the rail connection with the road bed. This I accomplish by constructing the rail web of longitudinal sections, each having a recess in its upper edge forming, when the sections are placed together, a longitudinal groove, and the rail head with a depending flange fitting into said groove. The sections of the rail web and the intermediate rail flange of the rail head are secured together by bolts which also pass through tie-bars extending between the rails.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in both views.

Figure 1 is a perspective view, partly in section, of a rail, and the foundation on which it is placed, constructed in accordance with my invention; Fig. 2 is a plan of my improved railway track.

Described in detail, the rail of my improved track has a web substantially centrally divided on a vertical plane, forming it into two longitudinal separable half sections 5, 5, each section being integral with the usual flange 6, the edge of the inner flange being downwardly turned as indicated at 6<sup>a</sup>. In the top edge of the rail web sections are recesses forming, when the sections are placed together, a groove for receiving a depending flange 7 formed integrally with the head 8 of the rail, the bottom edges of this head preferably extending slightly below the top of the flange to form the beads 9 at opposite sides. Between the flange 7 and the walls of the groove of the web is placed a layer 10 of sound deadening material, such, for example, as mineral wool. Extending between the opposite rails at suitable intervals are tie-bars 11 having flattened or headed opposite ends 12 which are secured to the

rails by cross-bolts 13, these bolts also passing through and securing the rail sections, and the upper bolts in addition to securing the two sections of the rail web and the tie-bar together further pass through and secure the depending flange 7 of the rail head. The flanges 6 of abutting rails are connected together by fish-plates 14, and the rail heads are made of such length that the joint between them will fall intermediate the ends of the flange and web sections in order that no further joining means between them will be necessary.

Each complete rail is supported on a concrete or other like foundation 15 which extends inwardly of the road bed to the flanges 6<sup>a</sup> only, the intermediate space between the rails being filled with any suitable ballast. Between the rails and their respective foundations is placed a layer of sound deadening material 16, such as mineral wool, and the foundations at suitable points are constructed with cross channels 17 for the purpose of drainage.

It will be seen from Fig. 1 that the layer of mineral wool between the flange 7 and the walls of the web, is also extended at opposite sides over the top edge of the web, terminating adjacent to the beads 9, the latter operating to prevent the side portions of the web from springing outwardly or becoming upset by the pounding of the car wheels, which obviously greatly adds to the strength of the construction.

When the rail becomes worn, or it is necessary to renew it for other reasons, it is only necessary to take out the upper bolts 13 in order to remove the rail head from the web, thus in no way interfering with the connections of the rail flanges to the road bed. This removing and replacing of the rail head may be quickly performed and accordingly may be done without interfering with the ordinary traffic.

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

1. In a railway rail, the combination of a web composed of longitudinal sections each having a recess in its upper edge, forming, when the sections are placed together, a longitudinal groove, a rail head having a depending flange received in the groove, a layer of sound deadening material interposed between the depending flange of the rail head and the walls of the groove, a tie-bar, and

bolts securing the sections of the web, the depending flange and the tie-bar together.

2. A railway track construction comprising rails each having flanges, with the inner  
5 flanges downwardly turned at their edges, concrete foundations supporting the rails terminating at the inside of the road bed at the downwardly turned edges of said flanges and provided with cross drain channels, and

a layer of sound deadening material interposed between each rail and its foundation. 19

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN H. F. SCHULZE.

Witnesses:

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