

J. W. BLOWER.
RAILWAY TRACK CONSTRUCTION.
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954,163.

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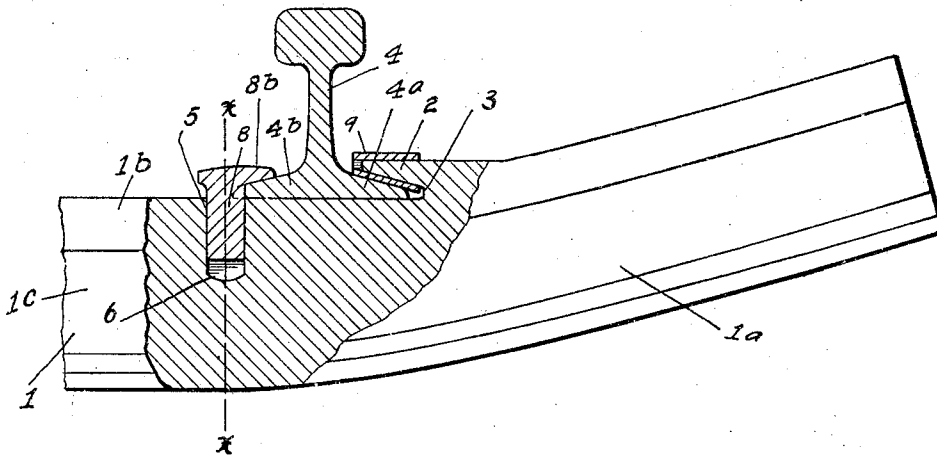


Fig. 1.

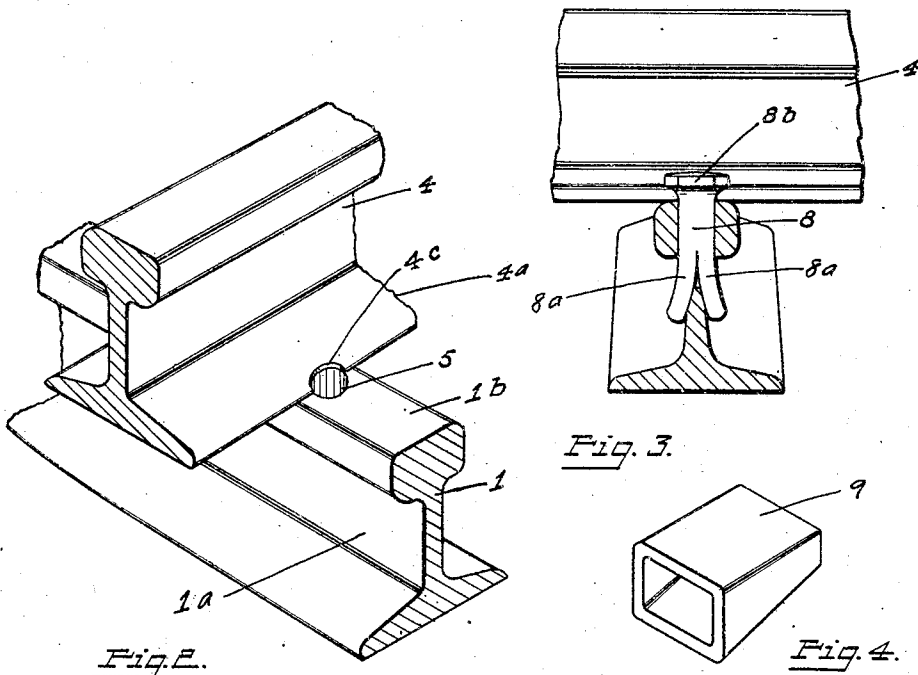


Fig. 2.

Fig. 3.

Fig. 4.

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RAILWAY-TRACK CONSTRUCTION.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH W. BLOWER, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Railway-Track Construction, of which the following is a specification.

My invention relates to railway track construction and the objects of my invention are to provide improved means for supporting and retaining track rails in connection with the ties; to provide improved means for compensating for the wear on track rails about track curves and thus maintaining the proper gage of the track rails on curves and to produce other improvements the details of which will be more fully pointed out hereinafter. These objects I accomplish in the manner illustrated in the accompanying drawing, in which—

Figure 1 is a transverse section of a track rail showing partially in section and partially in elevation, a portion of one of my improved ties, Fig. 2 is a detail view in perspective of portions of the track rail at its intersection with the tie, Fig. 3 is a transverse section on line $x-x$ of Fig. 1, and, Fig. 4 is a detail view in perspective of a tongue

thimble which I employ in the manner hereinafter described.

Similar numerals refer to similar parts throughout the several views.

1 represents a railway tie body or rail, which is preferably formed of a section of railway track rail of the usual T-form, each end of said tie rail being preferably bent upward and outward as indicated at 1^a in the manner and for the reasons set forth in a pending application filed of even date herewith. As also described in said co-pending application, I provide the upper side or ball of the tie rail at a point on each side of the center of the length thereof, with an inwardly projecting tongue 2 which overhangs the body of the rail and between which and the body of the rail is formed a recess 3. This recess is designed to receive the outer base flange 4^a of a track rail 4, which crosses the tie transversely. In order to further retain the rail 4 in connection with the tie, I form through the ball 1^b of the tie rail at a suitable distance on the inner side of each of the tongues 2 a vertical opening 5 which leads into an opening 6 in the web 1^c of the

tie rail. Into this opening 5 is adapted to be inserted the shank or stem portion of a locking pin 8, said pin being as indicated more clearly in Fig. 3 of the drawing, split centrally toward its lower end upward to form two separated members 8^a, the lower ends of which when the pin is driven downward through the openings 5 and 6, contact with the metal forming the web 1^c at the bottom of the opening 6 and spread on opposite sides thereof. The head or upper end of the opening 8 is formed with a laterally projecting portion 8^b which engages the upper side of the inner base flange 4^b of the track rail.

It will be understood that the recess 3 and opening 5 toward one end of the tie are arranged at such distances from the corresponding recess and opening toward the opposite end of the tie, as to insure the maintenance of the proper gage between the track rails. However, it is well known that where track rails are curved to afford a change of direction of the track, the swinging of the car trucks and the consequent additional lateral bearing of the wheel flanges against the inner sides of the rail sections, results in the wearing of said rail sections until the standard or proper gage between the parallel track rails, is lost. In order to compensate for this change of gage in the track rails on curves, I provide oblong and tapering metallic thimbles or sleeves 9, the openings or sockets of which are shaped to conform to the shapes of the tongues 2. When rails on a curve of the track become worn for the reasons set forth, it is obvious that the locking pins 8 may be temporarily withdrawn and the thimbles 9 slipped over the tie tongues 2 in the manner indicated in Fig. 1 of the drawing. This fitting of the thimbles over said tie tongues, results in a substantial enlargement of the tongues and a reduction in the height of the recesses 3, thereby limiting the degree of insertion of the outer flange of the track rail within said recesses and resulting in the track rail being shifted toward the opposing rail. In this manner the gage of the worn track rails is again restored. As this inward movement of the track rails, however, must result in the track base flanges 4^b extending partially over the pin openings 5 in the ball of the tie rails, I uncover said pin holes to permit of the reinsertion of the locking pins, by form-

ing in the inner base flange of the track rail a recess such as is indicated at 4° in Fig. 2 of the drawing.

5 It is obvious that the provision of the thimbles 9 and the track rail recesses 4° will also permit of the substitution of track rail sections of different sizes or weights or in which the base flanges vary in width.

10 From the construction and operation which I have described it will be readily understood that a strong and durable railway track is provided and that novel means are employed in connection therewith for compensating for the wear on curved track rails and for the use of track rails and base
15 flanges of different widths.

From the foregoing description, it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention, but while the elements
20 shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the in-

vention is not limited to the precise construction set forth, but includes within its pur- 25 view such changes as may be made within the scope of the appended claim.

What I claim, is—

In a railway track construction, the combination with ties comprising transversely 30 arranged metal bars, each of said bars having on opposite sides of the center of its length an upper side tongue extending upwardly from the body of the tie, of track rails the outer base flanges of which are 35 adapted to extend beneath said tongues, metallic thimbles or sleeves adapted to be slipped on to said tongues when desired, and means for retaining the inner flanges of said track rails in connection with the ties. 40

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

JOSEPH W. BLOWER.

Witnesses:

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