

No. 762,373.

PATENTED JUNE 14, 1904.

J. C. ALLENDORPH.

RAILWAY RAIL.

APPLICATION FILED JULY 14, 1903.

NO MODEL.

Fig. 1.

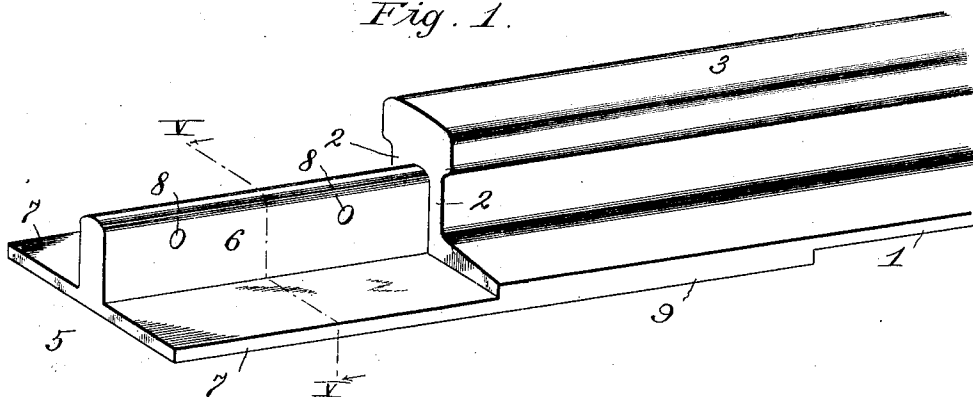


Fig. 3.

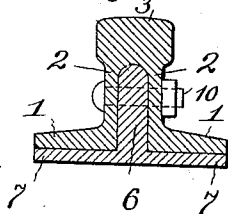


Fig. 2.

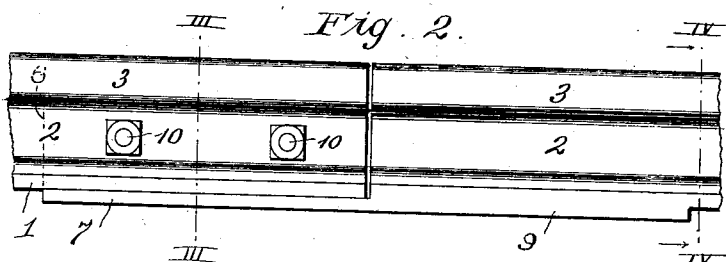


Fig. 4.

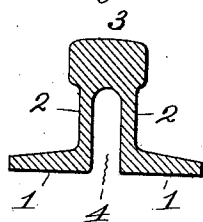
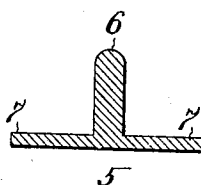


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN C. ALLENDORPH, OF KANSAS CITY, MISSOURI.

RAILWAY-RAIL.

SPECIFICATION forming part of Letters Patent No. 762,373, dated June 14, 1904.

Application filed July 14, 1903. Serial No. 165,470. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. ALLENDORPH, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Railway-Rails, of which the following is a specification.

My invention relates to railway-rails, and more particularly to a rail so constructed that the use of the ordinary rail-joint is avoided.

My invention further consists in the method for producing a rail of this character.

My object is to produce a rail containing less metal than those generally in use, to provide this rail with suitable means for connecting it to the adjoining rail, and to simplify the process by which the rail is produced.

In constructing my improved rail I prefer to make it of less height than the standard rail, but provide it with a wider base, so that it will be almost impossible for it to tip or turn over while a heavy or rapidly-moving train is passing over the same. By thus guarding against tipping of the rail the latter, in addition to giving good service on a straight track, is exceptionally desirable on a curve, where the outer rail is subjected to a tremendous outward pressure, which acting as it does against the inner surface of the ball of the rail exerts a tendency to turn the latter over.

In the manufacture of my rail I prefer to use the standard ball; but instead of employing the high centrally-disposed web I substitute a double web, the two members of which are united at their upper ends by the ball, while their lower disconnected ends are formed integral with base members, giving them the appearance in cross-section of two oppositely-disposed angle-irons.

In order that the invention may be fully understood, reference will now be made to the accompanying drawings, in which—

Figure 1 represents a broken perspective view of one end of my improved rail, showing the extension member welded or otherwise integrally secured in place. Fig. 2 is a broken side elevation showing the adjoining ends of two of my rails. Fig. 3 is a transverse section taken on line III III of Fig. 2. Fig. 4 is a transverse section taken on line IV IV of

Fig. 2, showing the continuous groove which runs through the body of the rail. Fig. 5 is a transverse section taken on line V V of Fig. 1.

In said drawings, 1 designates the two members forming the base of the rail, which are formed integral at their inner ends with web members 2, that are united at their upper ends by a ball 3, forming the upper portion of the rail.

4 designates a centrally-disposed longitudinal groove formed by the web members and the ball of the rail and extending the length of the rail. Within one end of the rail is integrally secured by welding, brazing, or otherwise an inverted-T-shaped extension member 5, consisting of a centrally-disposed shank 6, fitting within the groove 4, and a base member 7, which fits beneath and supports base members 1 of the rail. Shank 6 is provided with a plurality of transverse apertures 8, adapted when in position in the groove of the adjacent rail to register with a like number of apertures in the latter for the reception of transverse bolts 10, employed to hold the extension and the end of the adjacent rail together. As illustrated in Fig. 2, the base of the extension member extends beneath and supports the base of the adjoining rail, while forming with the base of its own rail a double thickness, as at 9, whereby the rail-joint is suitably supported. The base portion 7 is of such length that when the joint between two rails comes between two ties the ends of the base member rest upon said ties and provide sufficient support for the ends of the rails without the addition of the customary fish-plates, and as the tongue is formed integral with the end of one of the rails it is obvious that but one-half the usual number of bolts 10 is necessary, thereby lessening the time and work in keeping the taps tightened on the latter. A further advantage possessed by the tongue over the ordinary fish-plates is that shank 6 snugly fits within groove 4 of the adjacent rail, and consequently holds the ends of the rails in alinement, so that even if bolts 10 should become loose it would be impossible for the end of one of the rails to have independent lateral movement, and thereby pro-

ject into the path of the flanges on the car-wheels, with the resultant danger of derailing the train.

In constructing a rail as described above I first roll the groove 4, extending from the bottom of the body portion of the rail into the web, throughout the length of the rail. I next form strips of the T-shaped member and cut them into suitable sections for connecting the adjacent ends of two rails. Finally, I secure one of these sections within one end of the rail by welding or brazing the shank within the groove base portion 7 beneath the base of the rail, or both.

The ease and cheapness of rolling rails over casting them is well known, and I find it easier to roll a rail with the groove extending throughout the length, forming a seat for the reception of the tie member, than to cast a solid rail with a tongue member formed integrally with one end thereof or to cut a seat within the end of a solid rail for the reception of a joint member such as I have illustrated. Moreover, my process has an additional advantage of producing a rail which contains less metal than those ordinarily in use, with the extra strength due to the presence of two parallel web members instead of a single web member. Finally, when a section of track is being constructed and the gang of workmen has laid the rails up to the starting-point of the gang ahead it is well known that the last rail laid must be of odd length to preserve the continuity of the track. With my improved rail it is obvious that no matter where it is cut off the groove remaining will fit the extension on the adjacent rail already laid, and to this extent it differs from those rails which are solid for substantially their entire length.

What I claim as new is—

1. A railway-rail consisting of a body portion and an extension portion integral with and projecting beyond one end of the body portion, the latter being continuously grooved from a point near said end throughout the remainder of its length.

2. A railway-rail consisting of a body portion and an extension portion integral with and projecting beyond one end of the body portion, the latter having a groove extending from its bottom upward into the web and from a point near said end throughout the remainder of the length of the body portion.

3. A railway-rail consisting of a body portion and an extension portion of inverted-T-shaped cross-section integral with and projecting beyond one end of the body portion, the latter having a groove extending from its bottom upward into the web and from a point near said end throughout the remainder of the length of the body portion.

4. A railway-rail consisting of a body portion having a groove extending from its bottom upward into the web and from near one end throughout the remainder of the length of the body portion; and an extension portion of inverted-T-shaped cross-section integral with and projecting beyond said end with its shank corresponding in cross-section with said groove and the plane of the upper surface of its base coincident with that of the bottom of the body portion.

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

JOHN C. ALLENDORPH.

Witnesses:

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LESLIE E. BAIRD.