No. 838,295. PATENTED DEC. 11, 1906.

J. C. ALLENDORPH.

RAILWAY RAIL.

APPLICATION FILED OCT. 23, 1905.

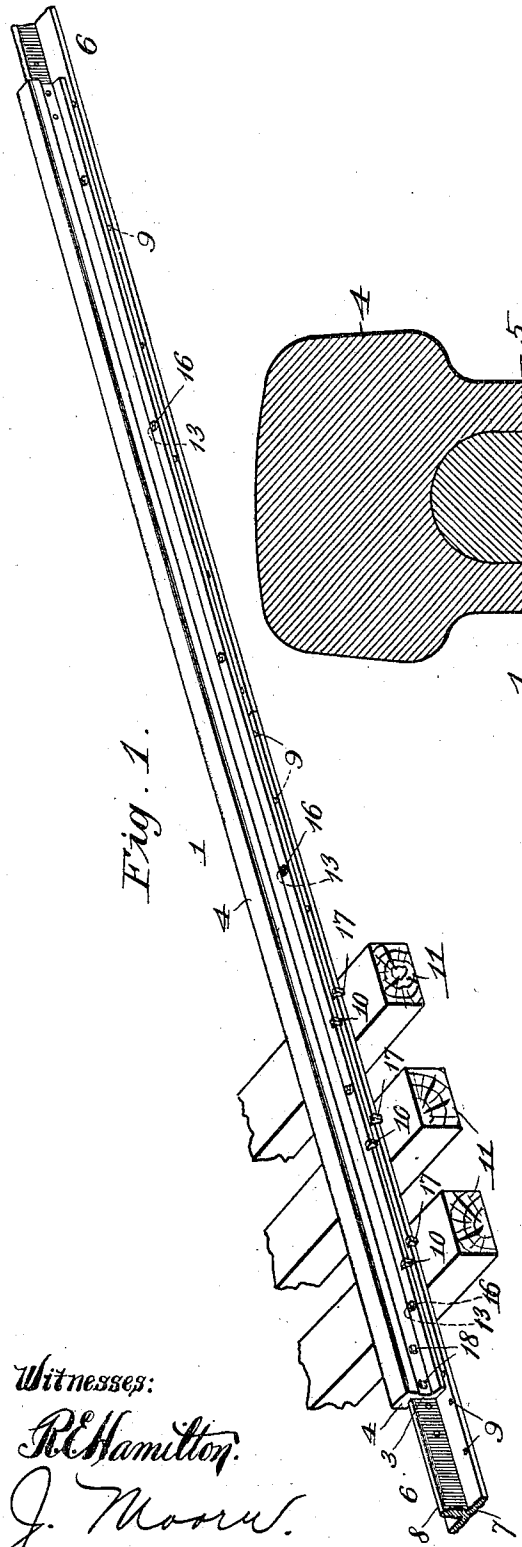

Fig. 1.

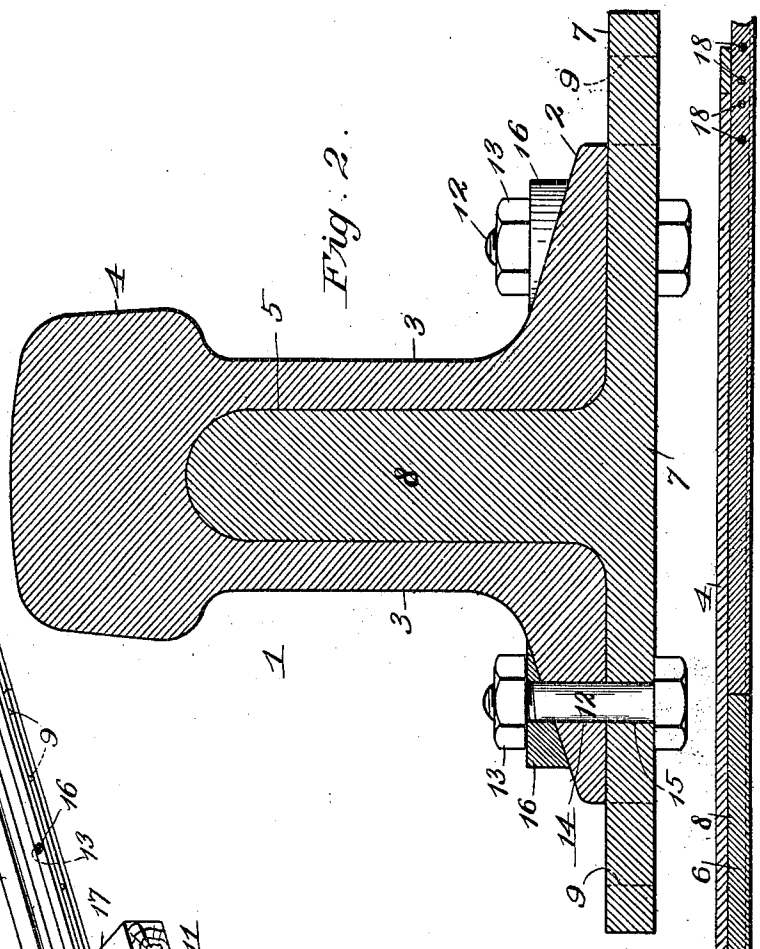

Fig. 2.

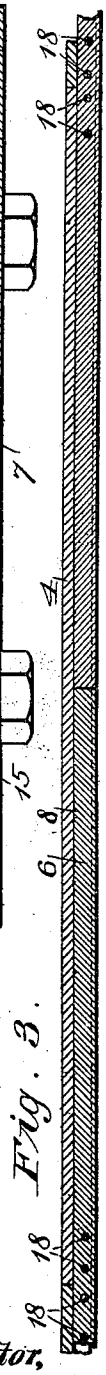

Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

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RAILWAY-RAIL.

No. 838,295. Specification of Letters Patent. Patented Dec. 11, 1906.

Application filed October 23, 1905. Serial No. 283,875.

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 is an improvement over my Patent No. 762,373.

The present invention embraces all of the features of advantage enumerated in the patent referred to and also the additional features of advantage hereinafter pointed out.

The invention embodies a two-piece rail consisting of a main rail, which is hollow throughout its entire length, and a supplemental rail, which fits into and supports the hollow rail, said supplemental rail preferably extending throughout the length of the main rail. This construction admits of the main rail, which is subjected to all of the wear incident to trains traveling thereover, being made considerably harder than usual to better withstand the wear to which it is subjected.

By combining more than the customary amount of carbon with the other ingredients composing the main rail the latter is made harder than usual and will not wear so rapidly as a softer rail. The danger of breaking the rail, however, is proportionally increased; but the additional risk may be safely assumed, because the supplemental rail, which is softer and more pliable than the main rail, will reliably hold the broken parts in alinement, so that a train may safely pass over them.

While the first cost of constructing a track with my improved rails will be somewhat greater than usual, the cost of maintenance will be less, because the main rails being harder will last longer, and when finally it becomes necessary to replace one this can be done without ascertaining the gage, as the latter will be maintained by the supplemental rails, which being exposed to but little or no wear will last an indefinite period of time and will seldom have to be removed from the ties. Hence they will maintain the proper gage between the rails.

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

Figure 1 represents a perspective view of a portion of track constructed of my improved rail. Fig. 2 is an enlarged transverse section of the rail. Fig. 3 is a longitudinal section of same.

In said drawings, 1 designates the main rail, which consists of a pair of oppositely-extending base members 2, formed integral at their inner ends with a pair of upwardly-extending web members 3, united at their upper ends by a ball 4.

5 designates a groove centrally disposed between the web members and extending vertically from the bases of the latter to the lower portion of ball 4, as shown in Fig. 2. This construction is similar to that disclosed in Patent No. 762,373, with the exception that groove 5 extends through the entire length of the main rail, as shown in Fig. 3.

6 designates a supplemental rail of inverted-T form in cross-section, consisting of a base-plate 7 and a centrally-disposed tongue 8, which latter preferably fits snugly within groove 5 and extends throughout the length of the supplemental rail, as shown in Fig. 3. The sides of base-plate 7 project beyond the outer sides of base members 2 and are provided with perforations 9 for the reception of spikes 10, the heads of which overlap base members 2, as shown in Fig. 1, and thus reliably hold both the main rail and the supplemental rail to the ties 11. The main rail and the supplemental rail are further reliably secured together by means of bolts 12 and clamping-nuts 13, the former of which extend through vertically-registering holes 14 15 in base members 2 and the base-plate 7, respectively. These holes are preferably arranged midway between the perforations 9, so that the heads of bolts 12 will come between the ties, and thus avoid the necessity of countersinking them in said ties. This arrangement also permits of replacing the bolts when necessary without removing the rails from the ties. Clamping-nuts 13 engage the upper threaded ends of bolts 12, and in order that the under sides of said clamping-nuts may have square bearing-surfaces I interpose wedge-shaped washers 16 between them and the upper surfaces of the base members 2, as clearly shown in Fig. 2.

The supplemental rails, in addition to being secured to the ties with spikes 10, are secured to said ties with additional spikes 17, so that when a main rail becomes worn or broken it may be replaced by removing spikes 10 and bolts 12, the object being to permanently secure the supplemental rails to

the ties with spikes 17, so that said supplemental rails will always maintain the proper gage between the two lines of rails forming the track.

In laying the track the abutting ends of the supplemental rails are arranged midway between the ends of the main rails, as shown in Fig. 3, so that the joints of said main and supplemental rails will not register. By thus breaking joints between the main and supplemental rails the ends of the main rail will rest upon the solid portions of the base-plate 7. Consequently said ends will at all times be reliably held in alinement and one will be prevented from sinking lower than the abutting end of the adjacent rail. The ends of the main rails are also reliably secured to tongues 8 of the supplemental rails by means of bolts 18. Spikes 10 extend through perforations 9 and prevent the supplemental rails from creeping on the ties, while bolts 12 and 18 will prevent the main rails from creeping on the supplemental rails. Consequently this source of danger and annoyance is avoided. As my improved rail is of less height than the standard rail and has a much broader base than the latter, accidents due to spreading or turning of the rails will be avoided, and as the main rail contains less steel than a standard rail it is obvious that the cost of maintaining a track constructed with my rails will be less, as of course the main rails are the only ones which will have to be replaced.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A two-piece rail consisting of a main rail having a groove extending throughout its entire length, base members forming the lower portions of said rail and provided with bolt-holes, a supplemental T-shaped rail for supporting said main rail, a tongue extending throughout the length of said supplemental rail and fitting snugly within the groove, a base-plate forming the lower portion of said supplemental rail and underlying the base members of the main rail, said base-plate extending beyond the sides of the base members and having bolt-holes registering with those in said base members, bolts extending through the registering holes for holding the base members upon the base-plate, and means engaging the extensions for securing the supplemental rail independently of the main rail.

2. A two-piece rail consisting of a main rail having a groove extending throughout its entire length, base members forming the lower portion of said rail, a supplemental T-shaped rail for supporting said main rail, a tongue extending throughout the length of said supplemental rail and fitting within the groove, a base-plate forming the lower portion of said supplemental rail and underlying the base members of the main rail, extensions on said base-plate projecting beyond the sides of the base members and provided with perforations, means for securing the base members to the base-plate, and spikes extending through the perforations for securing the supplemental rail independently of the main rail.

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

JOHN C. ALLENDORPH.

Witnesses:
J. W. BOLING,
F. G. FISCHER.