

No. 765,764.

PATENTED JULY 26, 1904.

W. BERTLING.  
STREET RAILWAY RAIL.  
APPLICATION FILED APR. 29, 1903.

NO MODEL.

Fig: 1.

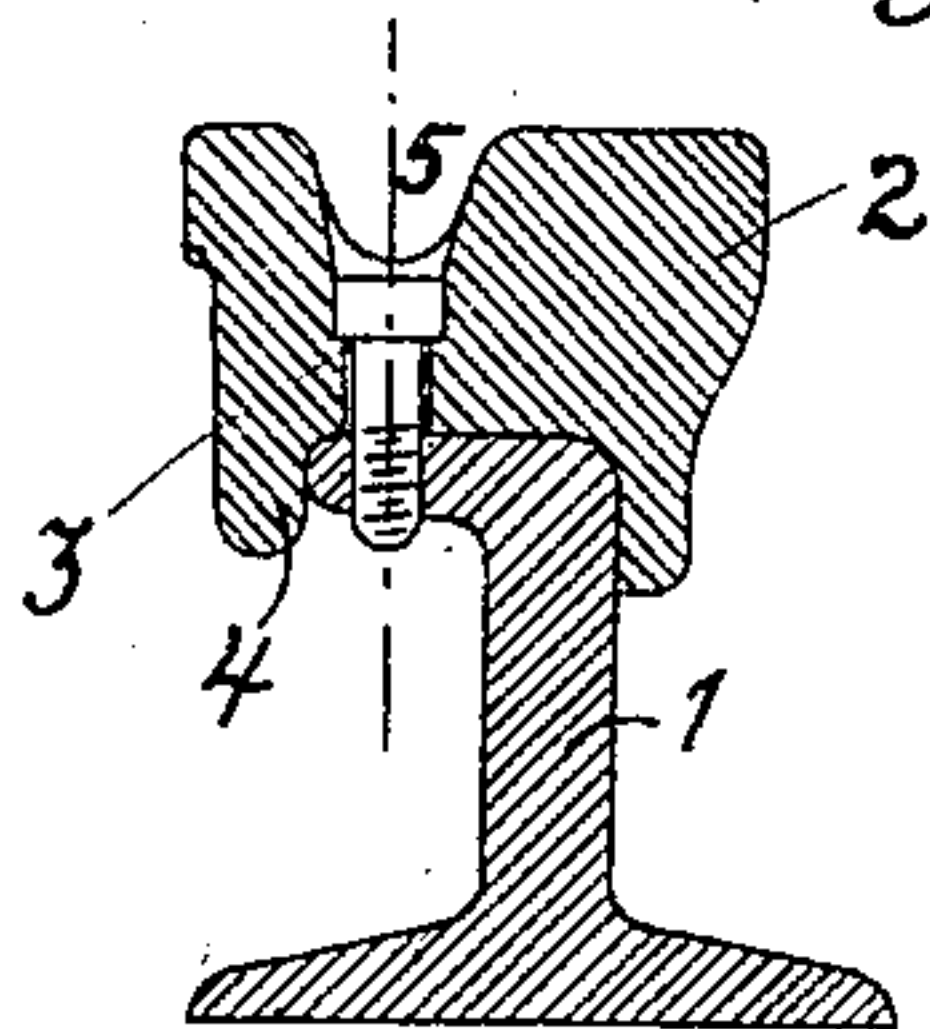


Fig: 2.

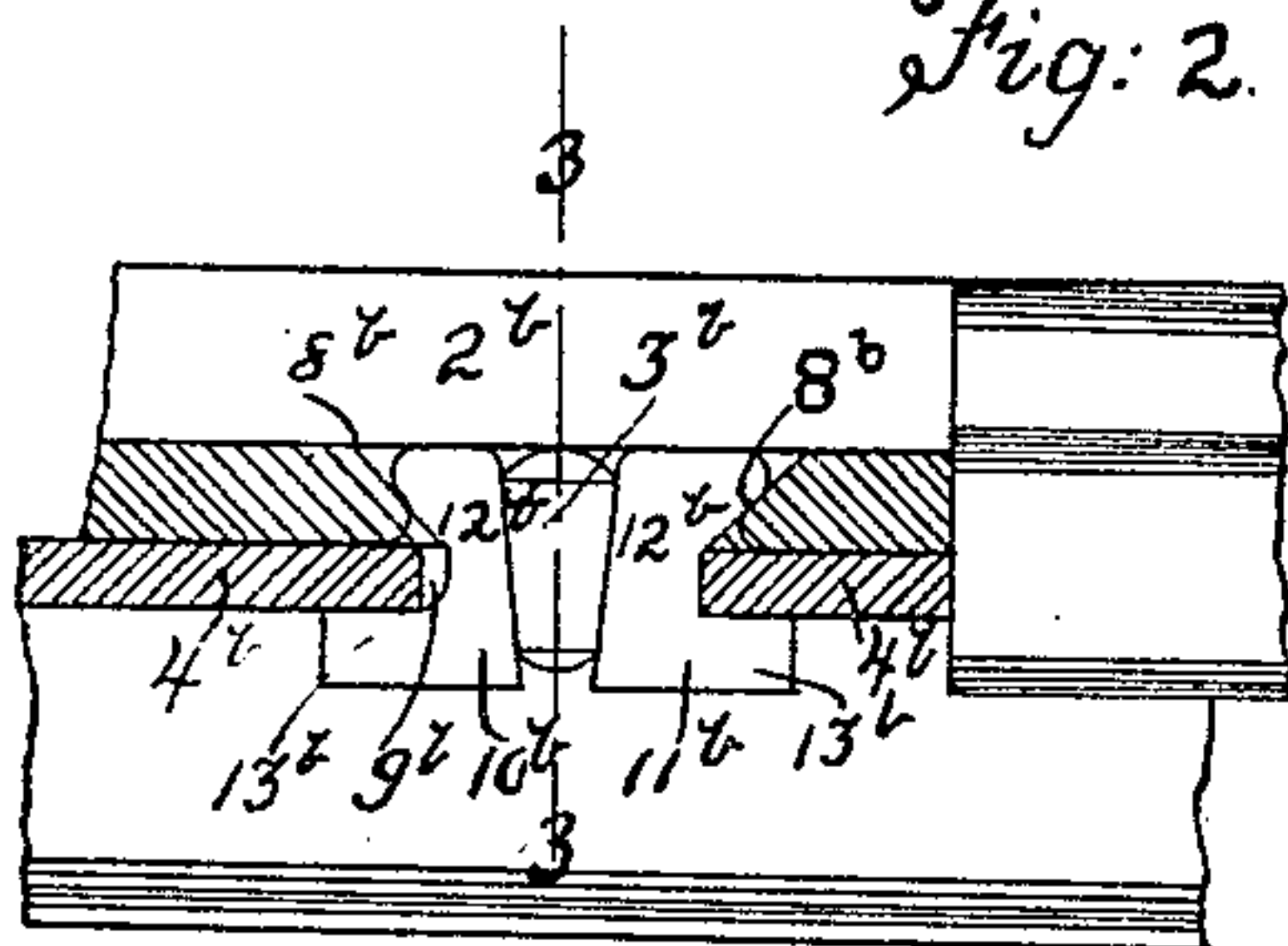
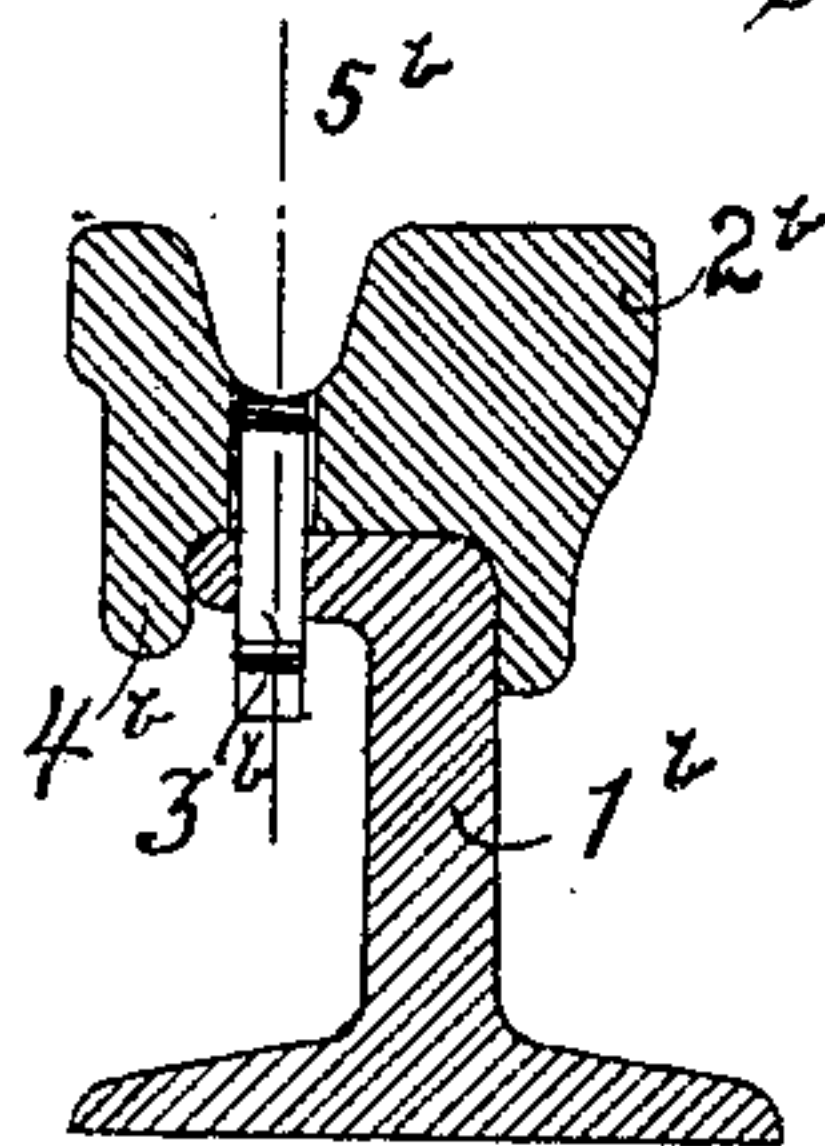


Fig: 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILHELM BERTLING, OF BERLIN, GERMANY.

## STREET-RAILWAY RAIL.

SPECIFICATION forming part of Letters Patent No. 765,764, dated July 26, 1904.

Application filed April 29, 1903. Serial No. 154,892. (No model.)

*To all whom it may concern:*

Be it known that I, WILHELM BERTLING, a subject of the German Emperor, residing at Berlin W., Germany, have invented certain new and useful Improvements in Street-Railway Rails, of which the following is a specification.

This invention relates to street-railway rails, and has for its object to provide improved constructions of such rails, whereby economy in construction and the wearing qualities are promoted.

With these objects in view the invention consists in the improved construction, arrangement, and combination of parts, hereinafter fully described and afterward specifically claimed.

In the accompanying drawings, which illustrate my invention, Figure 1 is a cross-section through a rail. Fig. 2 is a view in side elevation, partly broken away and in section, showing a modified form of connection between the top and bottom or ground rail. Fig. 3 is a transverse section on the line 3 3 of Fig. 2.

Referring specifically to the drawings, 1 and 2 indicate, respectively, the bottom or ground rail and the top or head rail. The bottom rail is provided with the usual T-flange for resting upon the ties or earth, the usual web, and a horizontal longitudinal flange 4, projecting laterally from the top of the web to one side. The head rail is provided with the usual longitudinal groove 5, in which the flanges of the wheels run. Bolts or screws 3 are passed through openings in the bottom of the groove 5 and threaded into holes formed at suitable distances apart in the flange 4.

Under some circumstances the bolt used for securing the top and bottom rail together might rust, and thus become difficult to remove. To provide against such a contingency is the object of the construction shown in Figs. 2 and 3, in which openings 8<sup>b</sup> and 9<sup>b</sup> in the bottom of the groove 5<sup>b</sup> and the flange 4<sup>b</sup> are elongated, the openings 9<sup>b</sup> being plain and the end walls of the opening 8<sup>b</sup> being inclined outward from the bottom to top, or wedge-shaped.

Clamp-blocks 10<sup>b</sup> and 11<sup>b</sup> are passed into

the openings 8<sup>b</sup> and 9<sup>b</sup> and wedged apart by wedge-blocks 3<sup>b</sup>, so that the lateral flanges 12<sup>b</sup> and 13<sup>b</sup> embrace the walls of the openings 8<sup>b</sup> and 9<sup>b</sup> and securely clamp the two rails together. The flanges 12<sup>b</sup> and 13<sup>b</sup> being constructed to correspond with the end walls of the openings 8<sup>b</sup> and 9<sup>b</sup> will not prevent the proper clamping of the rails together.

Constructed as hereinbefore described, the top rails when worn or broken may be readily removed and replaced without the necessity of renewing the bottom rails. The bottom rails may be connected together in any usual manner and by ordinary means, such as fish-plates.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A street-railway rail comprising a bottom or ground rail provided with a horizontal longitudinal flange at the top of the web and at one side thereof having holes at intervals therethrough, a top or head rail straddling with downwardly-projecting flanges over said one-sided top flange of the web, and provided with a longitudinal groove to receive the flanges of the wheels and having openings through the bottom of said groove corresponding in position with the openings in the flange of the bottom rail, and connecting means engaging in the openings in the top and bottom rails, substantially as described.

2. A street-railway rail comprising a bottom or ground rail provided with a horizontal longitudinal flange at the top of the web having holes at intervals therethrough, a top or head rail provided with a longitudinal groove to receive the flanges of the wheels and having openings through the bottom of said groove corresponding in position with the openings in the flange of the bottom rail, clamping-blocks inserted in the openings of both rails and embracing the end walls thereof and a wedge-block between the clamping-blocks substantially as described.

In testimony whereof I affix my signature.

WILHELM BERTLING.

In presence of—

HENRY HASPER,

WOLDEMAR HAUPT.