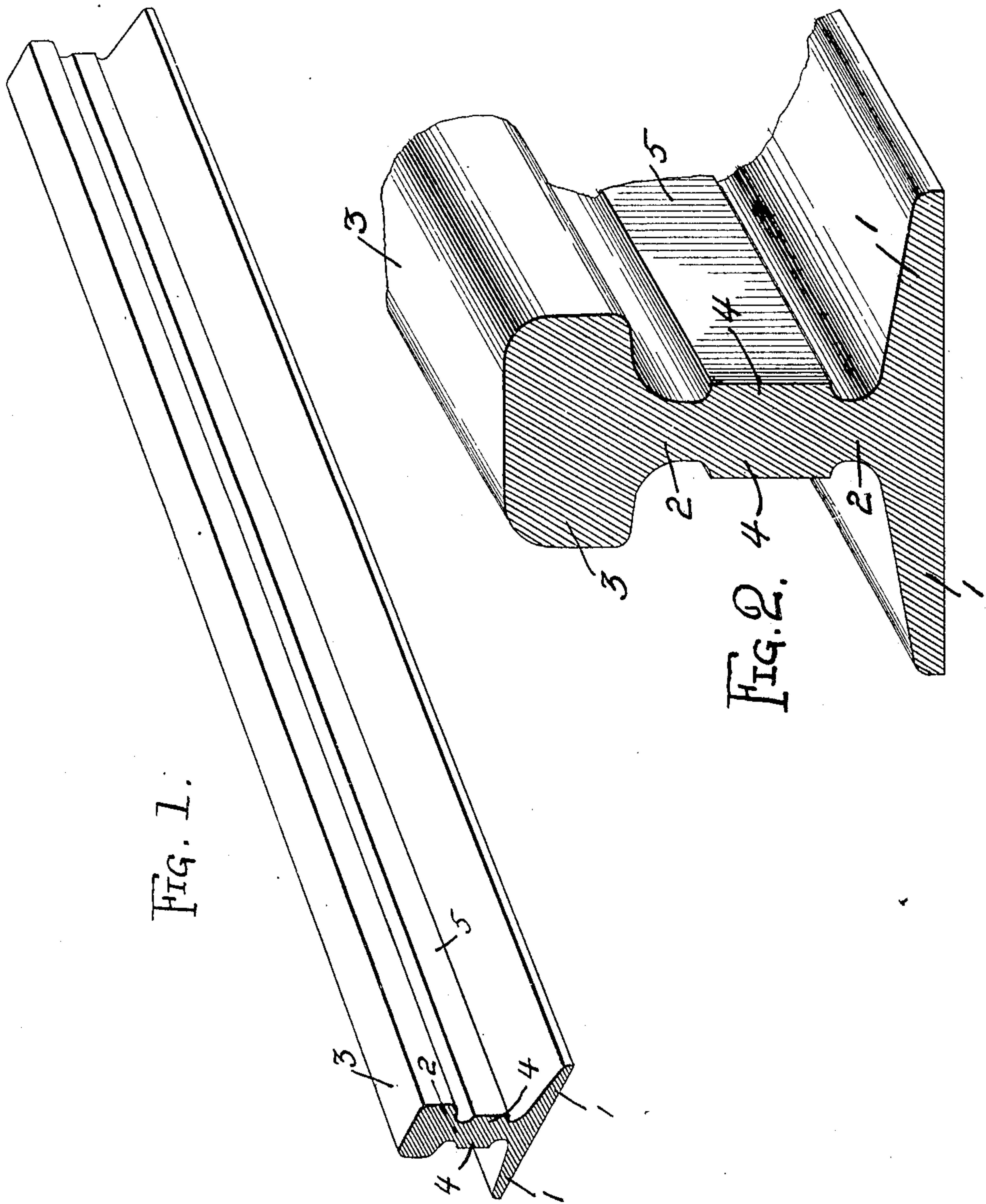


No. 887,512.

PATENTED MAY 12, 1908.

G. PEARCE.
RAIL.

APPLICATION FILED JULY 30, 1907.



Witnesses
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GEORGE PEARCE, OF PITTSBURG, PENNSYLVANIA.

RAIL.

No. 887,512.

Specification of Letters Patent.

Patented May 12, 1908.

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To all whom it may concern:

Be it known that I, GEORGE PEARCE, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Rails, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to rails, and more particularly to rails providing a track for the rolling stock of steam railways.

15 The web 2 of the rail is provided with a pair of contracted portions, one arranged at the top of the web and the other at the bottom of the web, so that between the thickened intermediate portion 4 of the web and the lower face of the tread 5 a longitudinally-extending groove will be provided at each 20 side of the web and between the intermediate portion 4 and the upper face of the base of the rail a longitudinally-extending groove will be formed on each side of the web, the lower longitudinally-extending grooves being of less width than the upper longitudinal 25 grooves. By the foregoing arrangement the intermediate portion of the web is of greater thickness than the remaining portion of the web so that the cross sectional area of the 30 web at its weakest portion will be increased without adding considerable additional weight to the rail.

35 It is a well known fact that the web of a rail is the weakest part thereof, and is subjected to shearing and breaking stresses due to the weight of the rolling stock and of vibratory stresses and strains of the same, particularly upon curves. Further, I aim to provide a more equal distribution of metal 40 in a rail, whereby a higher quality of rail can be rolled than heretofore realized, due to the unequal distribution of metal when rolling rails.

45 In the drawings forming a part of this specification, Figure 1 is a perspective view of a portion of a rail constructed in accordance with my invention, and Fig. 2 is a similar view on a larger scale.

In the drawings, 1 designates the base flange of a rail, 2 the web thereof, and 3 the 50 tread or head of the rail.

My invention resides in providing the web 2 upon its sides with longitudinally disposed ribs or reinforcements 4 having flat sides for engaging splice bars or similar rail fastening 55 means. The ribs or reinforcements 4 increase the cross sectional area of the web 2 at its weak point, without adding considerable additional weight to the rail.

It is obvious that a rail conforming in 60 cross section to my improved rail can be easily rolled, with better results than accomplished with an ordinary rail. My improvement can be adapted to rails of various sizes.

The reinforcement of the rail as above de- 65 fined provides a brace for that portion of the rail which is pierced to provide bolt openings for rail fastening means, in consequence of which, rails will not be weakened at their adjoining ends by ordinary bolt openings. 70

I would like it to be understood that such modifications as fall within the scope of the appended claims can be made without departing from the scope of the invention.

Having now described my invention, what 75 I claim as new, is:—

A railway rail embodying a base, a tread and a web provided with a relatively small contracted portion with both faces curved at its top and a relatively small contracted por- 80 tion with both faces curved at its bottom thereby providing an intermediate portion of greater cross-sectional area than the upper and lower portions of the web, said intermediate portion in connection with the tread and 85 with the base forming the web at its top and bottom and at each side with a longitudinally-extending groove with a curved wall.

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

GEORGE PEARCE.

Witnesses:

WILLIAM KELSO,
JAMES PHILP.