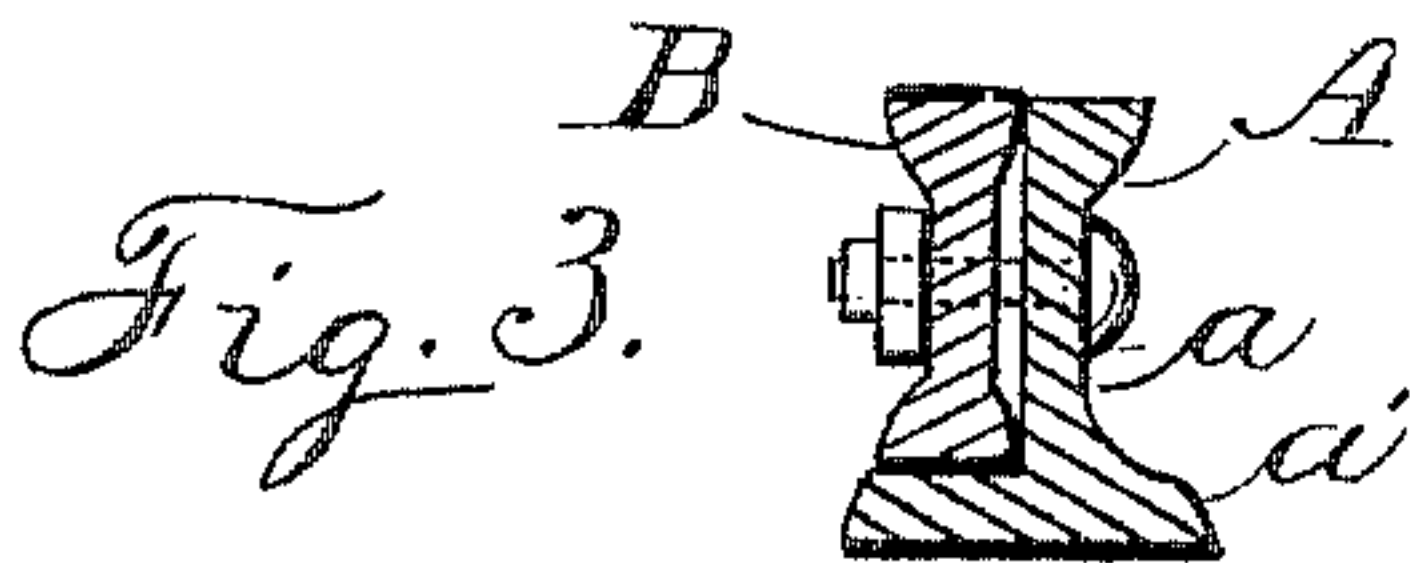
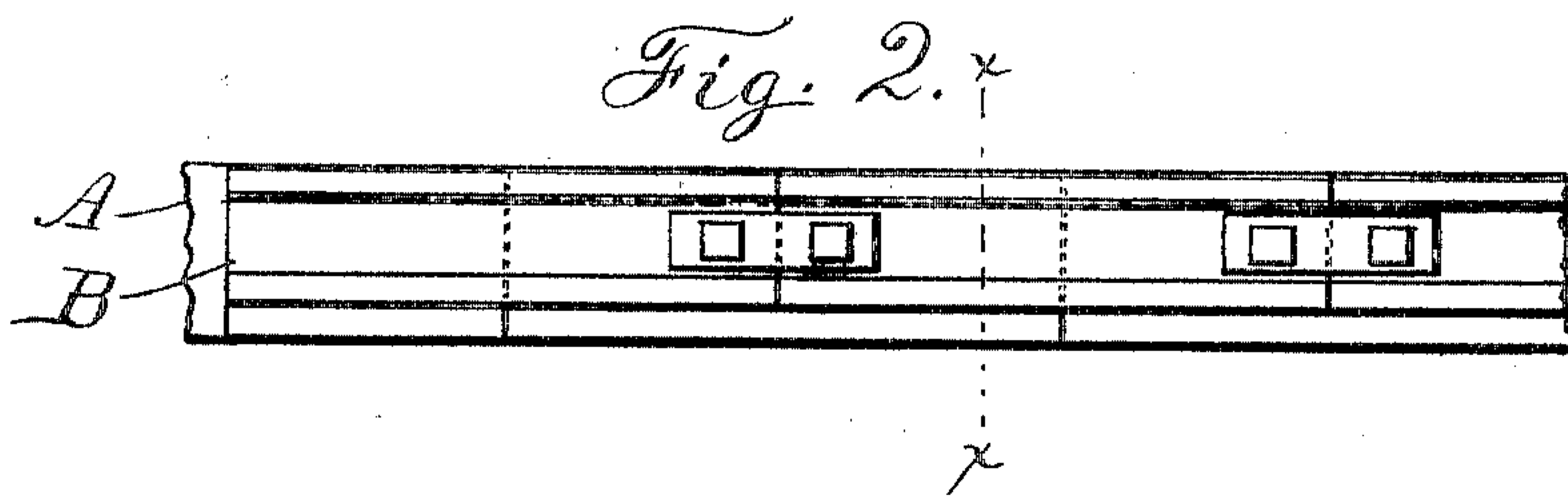


No. 797,810.

PATENTED AUG. 22, 1905.

G. E. KEPHART.  
RAILROAD RAIL.  
APPLICATION FILED JAN. 17, 1905.



Witnesses

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# UNITED STATES PATENT OFFICE.

GEORGE E. KEPHART, OF NORRISTOWN, PENNSYLVANIA.

## RAILROAD-RAIL.

No. 797,810.

Specification of Letters Patent.

Patented Aug. 22, 1905.

Application filed January 17, 1905. Serial No. 241,523.

*To all whom it may concern:*

Be it known that I, GEORGE E. KEPHART, a citizen of the United States, residing at Norristown, in the county of Montgomery and State of Pennsylvania, have invented new and useful Improvements in Railroad-Rails, of which the following is a specification.

One object of this invention is to avoid the end joints which form the weak points in the track and injure the rolling-stock.

Another object is to greatly prolong the life of the permanent track-rail.

The rail which is principally worn in using the track I make detachable and so that the bearing edges may be presented to the wheel or turned away from it. The track consists of a base-flange bearing the web on which is a part of the bearing-surface. To this rail is bolted a rail or series of rails, whose lower edges rest upon the flange of the first rail and which has a bearing-surface to connect with the bearing-surface of the main rail and so form a complete T-rail.

The accompanying drawings illustrate the invention, similar letters of reference denoting corresponding parts in the several views.

Figure 1 is a plan of a part of a railroad-rail, showing my invention. Fig. 2 is a side elevation of the same. Fig. 3 is a cross-section on line  $x x$  of Fig. 2, and Fig. 4 is a sectional view of a modification of the device. Figs. 3 and 4 are somewhat enlarged.

In the drawings, A indicates the outer section of the rail, integral with the web  $a$  and the base-flanges  $a'$ , and B is the inside or principal bearing-section on which the car-wheels run. These sections A and B are bolted together in any suitable manner, so as to allow for contraction and expansion and so as to break joints with each other about midway of their length. The permanent or main rail A above its base  $a'$  is preferably made of the usual T-rail form on its outer side and plane or vertically straight on its inner side and about one-half the usual thickness of a rail, and the adjustable rail B is preferably made with a tread at each edge of its web, one tread being adapted to complement the fragmentary tread of the main rail, while the other tread rests upon the underlying flange of said main rail. This rail B is also made high enough to take the wear

of travel, so that the main rail A is scarcely worn at all. As the inner edge of the tread of a rail in all cases wears away first, when the inner edge of the adjustable rail B becomes worn this rail is turned around side for side until the other edge of the same tread is also worn down. Then this rail B is turned over and adjusted with the unworn tread at the top, which is also turned around when worn, and thus four bearing-edge surfaces are supplied by each rail B, and when these surfaces are all worn a new rail is put in its place. It will also be readily seen that I form practically a continuous rail without the usual end joints, which have to be supported by chairs or fish-plates, while the length of the ordinary rail renders it liable to spread apart at the end joints.

My rail being made in short sections which mutually support each other, the track-rails are not liable to spread apart, while the most of the wear being on the inner section B the latter may do duty by being turned over when one edge is worn down or be replaced with new rails without disturbing the section A.

Having now described the invention, what I claim, and desire to secure, is—

1. A railroad-rail having a permanent base-flange, web and tread, said web and tread being cut away approximately one-half their thickness and an adjustable rail attachable thereto having a tread at each edge and adapted to be reversed both vertically and laterally, as described.

2. In a railroad-rail the combination with a main rail having a base-flange, a web and a tread, said web and tread being cut away approximately one-half their thickness, of an adjustable rail having a tread at each edge and adapted to be reversed both vertically and laterally, either tread complementing the fragmentary tread of the main rail while the other tread rests upon the subjacent base-flange of said main rail, and bolts to removably secure said rails together, substantially as herein set forth.

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

GEORGE E. KEPHART.

Witnesses:

HENRY I. FOX,  
JOHN J. FERRY.