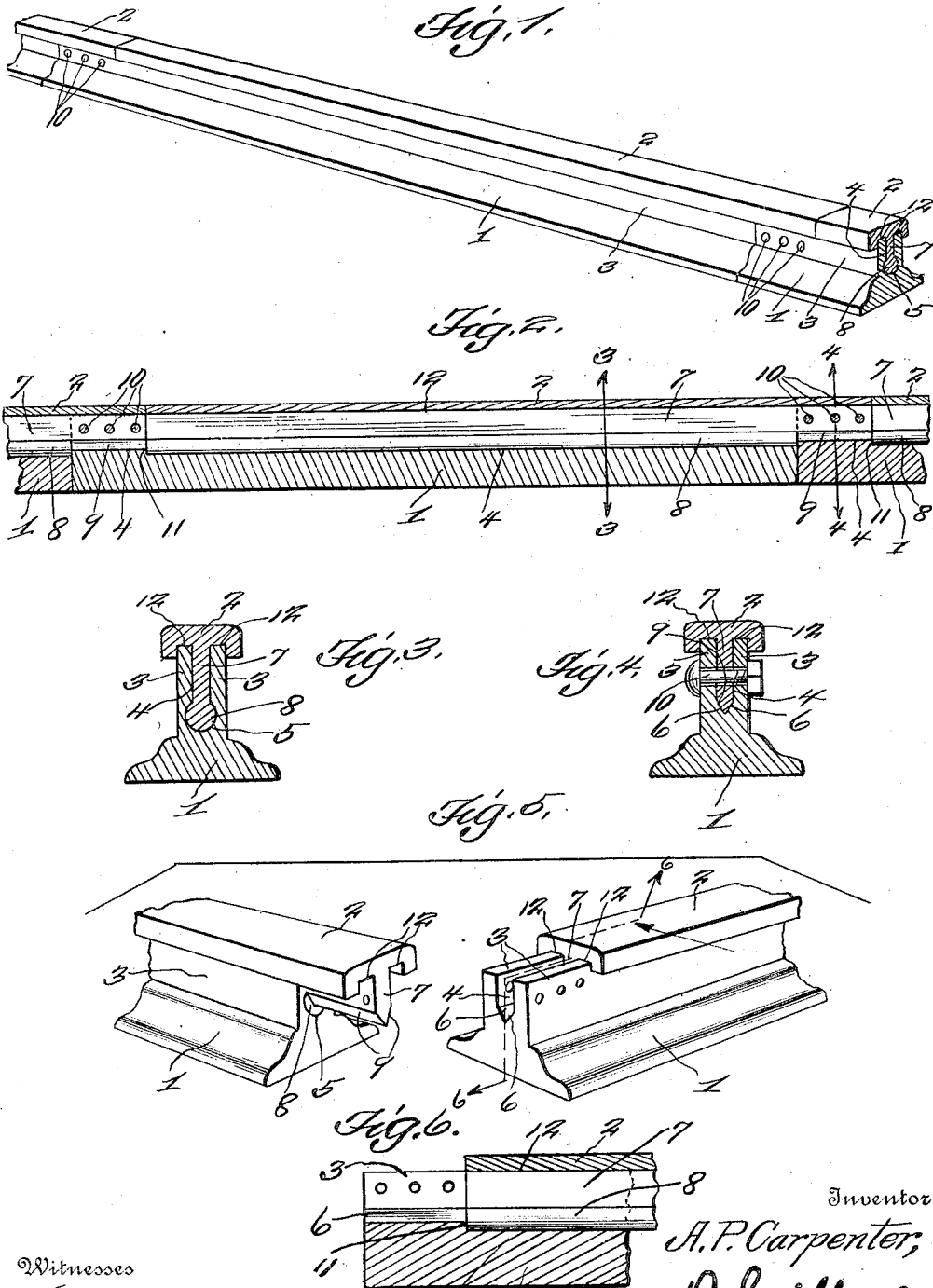


A. P. CARPENTER.
COMBINATION RAILWAY RAIL AND RAIL JOINT.
APPLICATION FILED JUNE 25, 1912.

1,057,478.

Patented Apr. 1, 1913.



Witnesses

Francis J. Boswell, 5 1
Rohr Meyer.

Inventor

A. P. Carpenter,

By *D. Swift & Co*

Attorney

UNITED STATES PATENT OFFICE.

ABRAM P. CARPENTER, OF GOSHEN, NEW YORK.

COMBINATION RAILWAY-RAIL AND RAIL-JOINT.

1,057,478.

Specification of Letters Patent.

Patented Apr. 1, 1913.

Application filed June 25, 1912. Serial No. 705,762.

To all whom it may concern:

Be it known that I, ABRAM P. CARPENTER, a citizen of the United States, residing at Goshen, in the county of Orange and State of New York, have invented a new and useful Combination Railway-Rail and Rail-Joint; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a new and useful combination rail and rail joint.

The principal object of the invention is to provide a replaceable rail tread, which is so arranged and constructed with relation to the rail bed, as to afford a secure rail joint between two rails.

The invention aims as a further object to provide novel means for anchoring the rail tread in the rail bed or base.

The invention comprises further features and combination of parts, as hereinafter set forth, shown in the drawings and claimed.

In the drawings:—Figure 1 is a view in perspective of the improved combination rail and rail joint constructed in accordance with the invention. Fig. 2 is a longitudinal sectional view. Fig. 3 is a sectional view on line 3—3 of Fig. 2. Fig. 4 is a sectional view on line 4—4 of Fig. 2. Fig. 5 is a view, showing two sections of the rail in perspective ready to be joined. Fig. 6 is a sectional view on line 6—6 of Fig. 5.

Referring to the drawings 1 designates the rail base or bed, which is constructed of soft steel or the like, while 2 denotes the rail tread, which may be constructed of hard steel, in order to stand the wear and tear. The bed rail is provided with a pair of upwardly extending elongated flanges 3, which extend the entire length of the bed rail, and between which a trough-like groove 4 is provided. The lower portion of the groove 4 terminates in a supplemental groove 5, which is substantially circular in cross section. This supplemental groove 5 at one end terminates a short distance from the end of the bed rail, while the lower portions of the walls of the trough-like groove 4 at one end merge into converging inclined walls 6.

The rail tread 2 is provided with a tongue 7, which extends longitudinally of the tread for its full length. This tongue 7 is adapted

to be received in the trough-like groove 4, while the substantially cylindrical bead 8 of the tongue 7 is received in the supplemental groove 5. This bead 8 terminates a short distance from the end of the tongue 7 at one end, and the lower portion of the tongue, beyond where the bead 8 terminates is constructed with converging inclined walls 9, adapted to engage the inclined converging walls 6 of the groove 4, thereby affording a very secure rail joint, there being bolts passed through the flanges 3 and the tongue 7, to hold the parts together. The bolts are designated by the numeral 10.

To connect the rail tread and the bed rail together, one is inserted substantially telescopically and longitudinally in the other, and the rail tread is limited in its movement within the bed rail by the end of the bead coming in contact with the shoulders 11, which are formed at the termination of the supplemental groove 5 at the ends of the converging walls 6. The under face of the rail tread, upon each side of the tongue 7 is provided with an elongated groove 12, extending longitudinally and the full length of the tread. These grooves 12 receive the upper edge portions of the flanges 3.

From the foregoing it will be noted a novel form of replaceable rail tread has been devised, and one, which, when the same has become distorted and worn considerably may be easily and quickly detached.

The invention having been set forth, what is claimed as new and useful is:—

1. In combination, a bed rail of soft steel having a trough-like groove including an alining supplemental substantially cylindrical groove, a rail tread of hard steel having an elongated tongue extending longitudinally thereof having a bead substantially circular in cross section, the trough-like groove and the alining supplemental groove adapted to receive the tongue and the bead, when the two parts are joined longitudinally, one within the other.

2. In combination, a bed rail of soft steel having a trough-like groove including an alining supplemental substantially cylindrical groove, a rail tread of hard steel having an elongated tongue extending longitudinally thereof having a bead substantially circular in cross section, the trough-like groove and the alining supplemental groove adapted to receive the tongue and the bead, when the two parts are joined longitudinally,

nally, one within the other, the bead of the tongue at one end thereof terminating a short distance from the end of the tongue, while the supplemental groove at one end
5 opposite to where the bead terminates in a shoulder a short distance from the end of the bed rail, with which one end of the bead contacts, the trough-like groove of one bed rail beyond the shoulder adapted to receive
10 the tongue which extends beyond the bead of the tread rail of an adjacent rail, thereby

affording a rail joint, and means penetrating the bed rail and the tongue, for rendering the joint secure.

In testimony whereof I have signed my 15 name to this specification in the presence of two subscribing witnesses.

ABRAM P. CARPENTER.

Witnesses:

FRANK R. BRADY,
THOMAS J. KENNEDY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."
