No. 739,823. PATENTED SEPT. 29, 1903.

J. S. & N. R. BRIEL.

RAIL JOINT.

APPLICATION FILED JUNE 9, 1903.

NO MODEL.

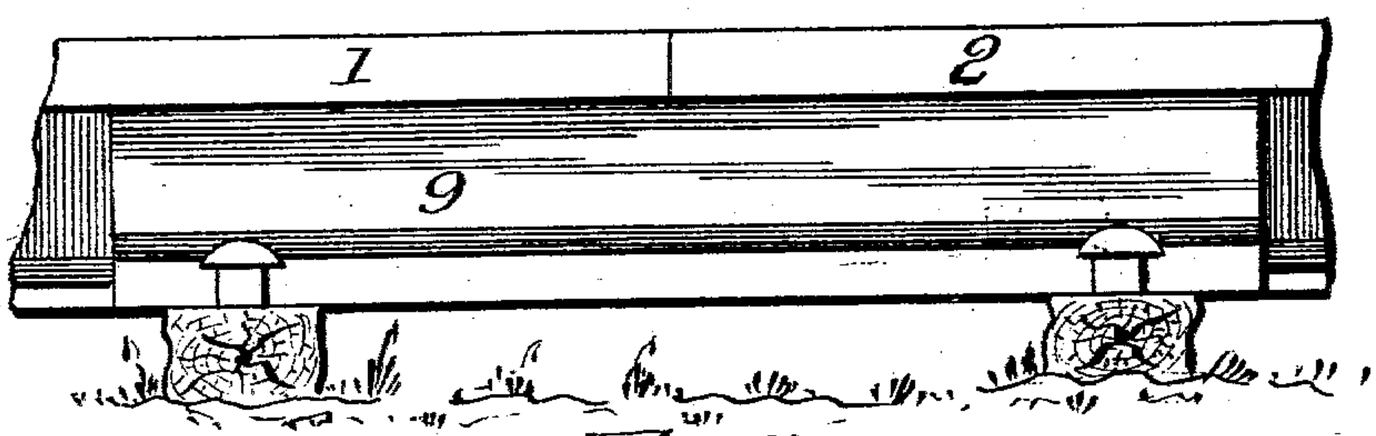

Fig. 1.

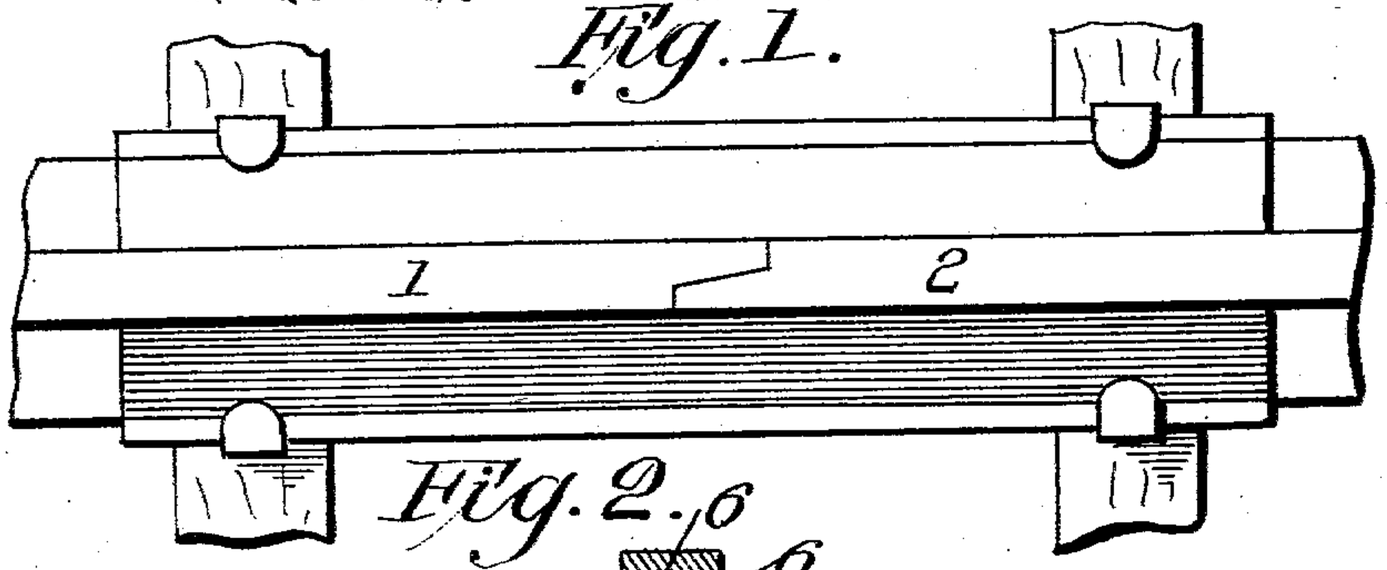

Fig. 2.

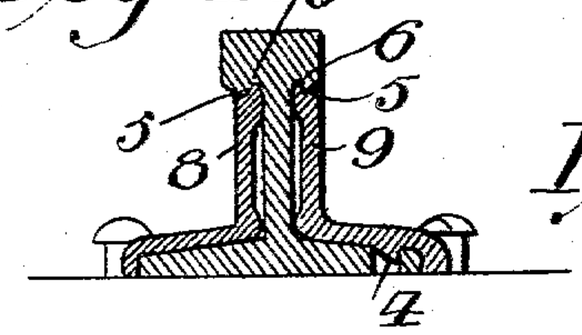

Fig. 3.

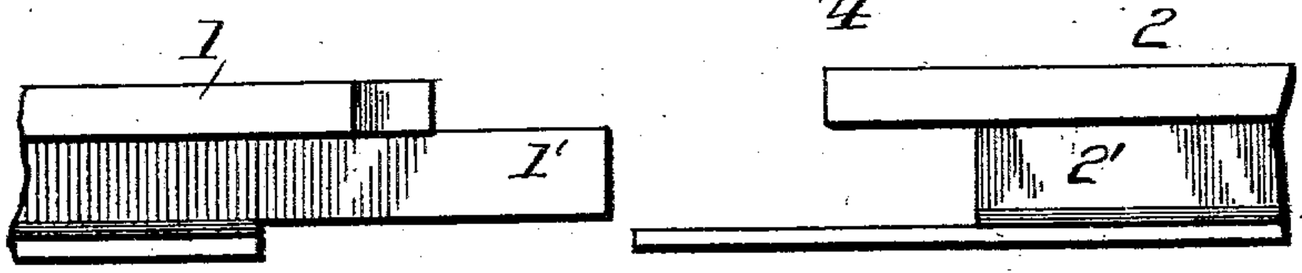

Fig. 4.

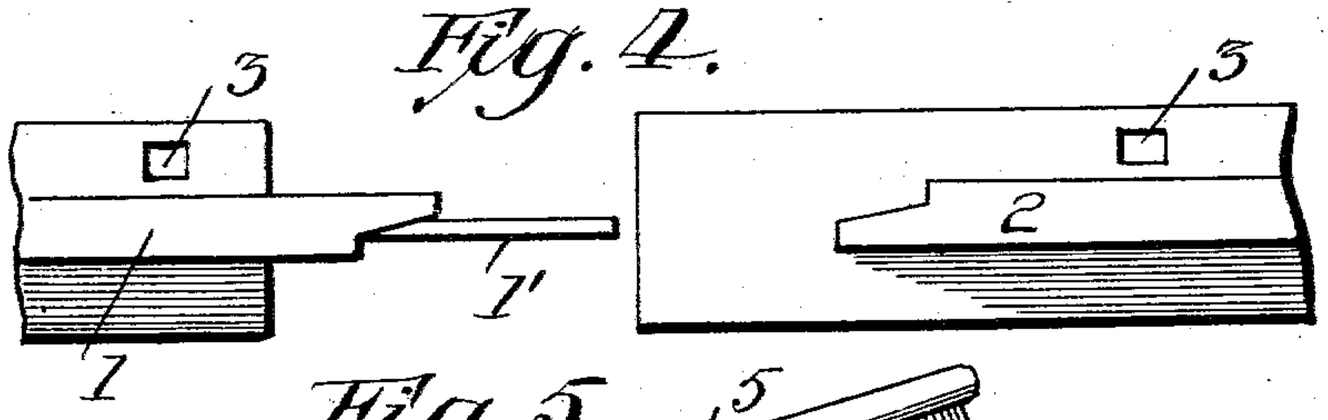

Fig. 5.

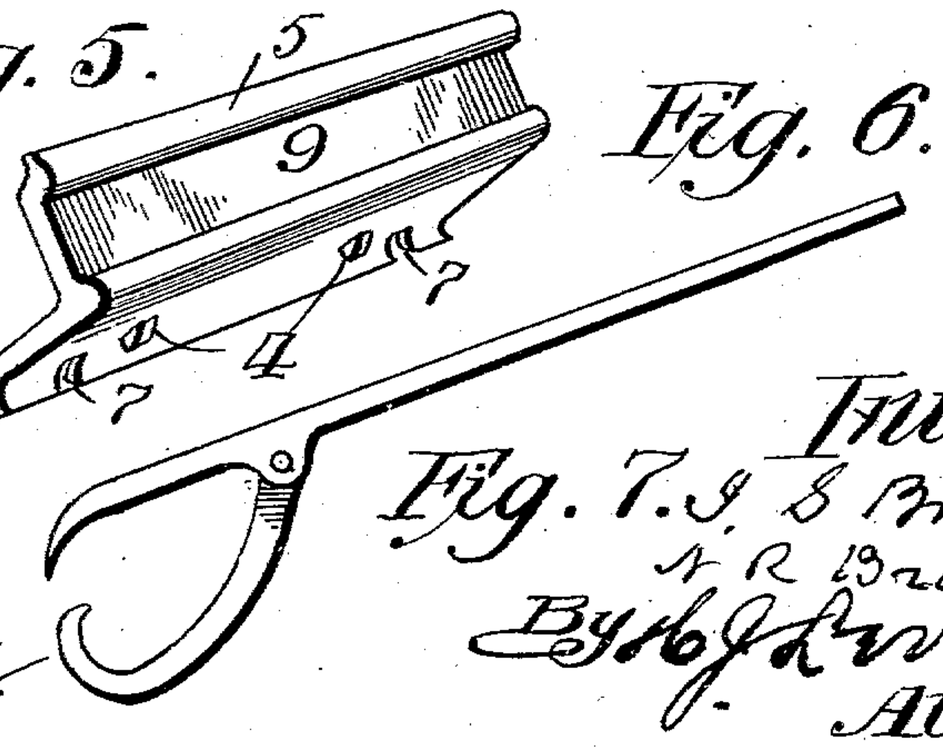

Fig. 6.

Witnesses:
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J. Leet Ross.

Inventors.
Fig. 7. J. S. & N. R. Briel
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Attorney.

No. 739,823. Patented September 29, 1903.

UNITED STATES PATENT OFFICE.

JOHN S. BRIEL AND NICOL R. BRIEL, OF BROWNSVILLE, PENNSYLVANIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 739,823, dated September 29, 1903.

Application filed June 9, 1903. Serial No. 160,689. (No model.)

To all whom it may concern:

Be it known that we, JOHN S. BRIEL and NICOL R. BRIEL, citizens of the United States, residing at Brownsville, in the county of Fayette and State of Pennsylvania, have invented a new and useful Improvement in Rail-Joints, of which improvement the following is a specification.

This invention relates to certain new and useful improvements in rail-joints, and relates more particularly to that class of joints wherein a continuous tread for the wheel is obtained.

The object of this invention is to provide a rail-joint whereby a continuous tread is presented to the surface of the wheel and in which the two sections of the rails to be joined are securely and permanently held in place without the use of bolts or nuts.

Describing the invention in detail, reference will be had to the accompanying drawings, forming part of this specification, in which like reference-numerals indicate like parts throughout the several views, in which—

Figure 1 is a side elevation of our improved rail-joint in position on the ends of two rails. Fig. 2 is a plan view of the same. Fig. 3 is a cross-sectional view. Fig. 4 is a view showing the formation of the ends of the rails to be joined in elevation. Fig. 5 is a plan view of the same. Fig. 6 is a detail perspective view of one of the splice-bars used in this joint. Fig. 7 is a view showing the tool which is used in making the joint between two rail-sections.

Reference-numeral 1 indicates one section of the rail which is to be joined, and 2 the other section thereof. Both of these sections have the tread of the rail cut on a Z shape, as clearly shown in Fig. 4, said sections being adapted, when the rails are in the joined position, to have these Z-shape cuts overlap each other, thereby presenting a continuous tread. The web 1′ of the rail-section 1 is so cut that it extends beyond the end of the Z-shape cut on said rail. The base of the rail is cut off a slight distance before the Z-shape cut, and the other rail member 2 has the web 2′ cut off a short distance before the Z-shape cut and the base extended, as shown in Fig. 4, these different lengths being for the purpose of better securing the rail and preventing the displacement of the same.

The base of both members 1 and 2 has provided therein apertures 3, and one of the fish-plates, such as illustrated in Fig. 5, is provided with the beveled projections 4 4, which when the same is in position engage the apertures 3, thereby preventing the displacement of the two rail-sections. The upper end of these fish-plates has a projection 5, which when the same is in place is adapted to enter into a notch or slot 6, formed underneath the tread of the rails at either side of the web, as clearly shown in Fig. 3. The fish-plates have also provided therein notches 7, through which the spikes are driven for the purpose of securing the same against lateral displacement. In placing this joint in position the rails are placed in their proper positions upon the ties, the splice-bar 8 is placed in position, and the splice-bar 9 is forced into the position shown in Fig. 3 by the tool shown therefor in Fig. 7. In assuming this position the lug 4 is forced into the apertures 3, and the said plate will thus be sprung into its proper position and held therein by said lugs and extensions 5.

While we have herein described our invention in detail, it will be noted that various slight details may be made in the same without departing from the general spirit of the invention.

Having fully described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a rail-joint, the combination of Z-shaped cuts formed on the ends of the rails to be joined, the web and base thereof being of different lengths for the purpose of interlocking the same, apertures formed in the base of the rails on one side of the web, a longitudinal slot formed in the underside of the head of the rail, adjacent to the web, and a fish-plate having a projection adapted to fit within said slot, and lugs adapted to be sprung into the apertures formed in the base of the rail when the same is in position.

2. In a device of the character described, the combination of rails having their ends

cut on a Z shape at the tread, one of said rails having its web extending beyond said cut and its base behind said cut, the other rail having its base extending beyond said cut, and its web behind said cut, these several cuts being for the purpose of securing a continuous tread, apertures formed in the base of the rail, fish-plates adapted to engage the under side of the tread of the rail, said plates carrying lugs adapted to be sprung into the apertures formed in the base of the rail, substantially as and for the purposes described.

In testimony whereof we have hereunto signed our names in the presence of two subscribing witnesses.

JOHN S. BRIEL.
NICOL R. BRIEL.

In presence of—
F. O. HENZI,
M. C. WELSH.