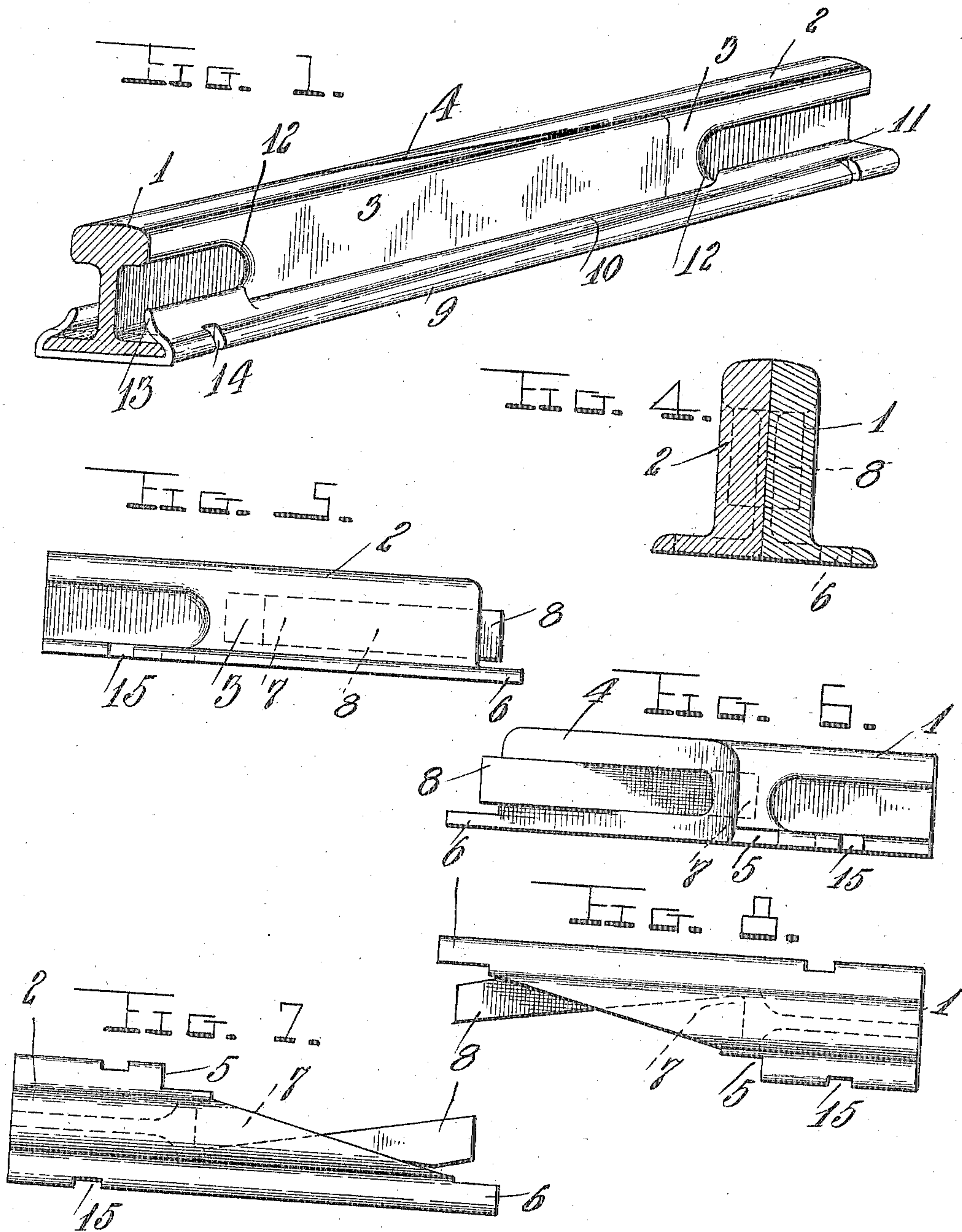


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A. C. JENRICH.
RAIL JOINT.
APPLICATION FILED APR. 17, 1909.

Patented Feb. 1, 1910.
2 SHEETS—SHEET 1.



Witnesses

Morris Lessin
E. M. Ricketts

Arthur C. Jenrich
By Watson E. Coleman
Inventor
Attorney

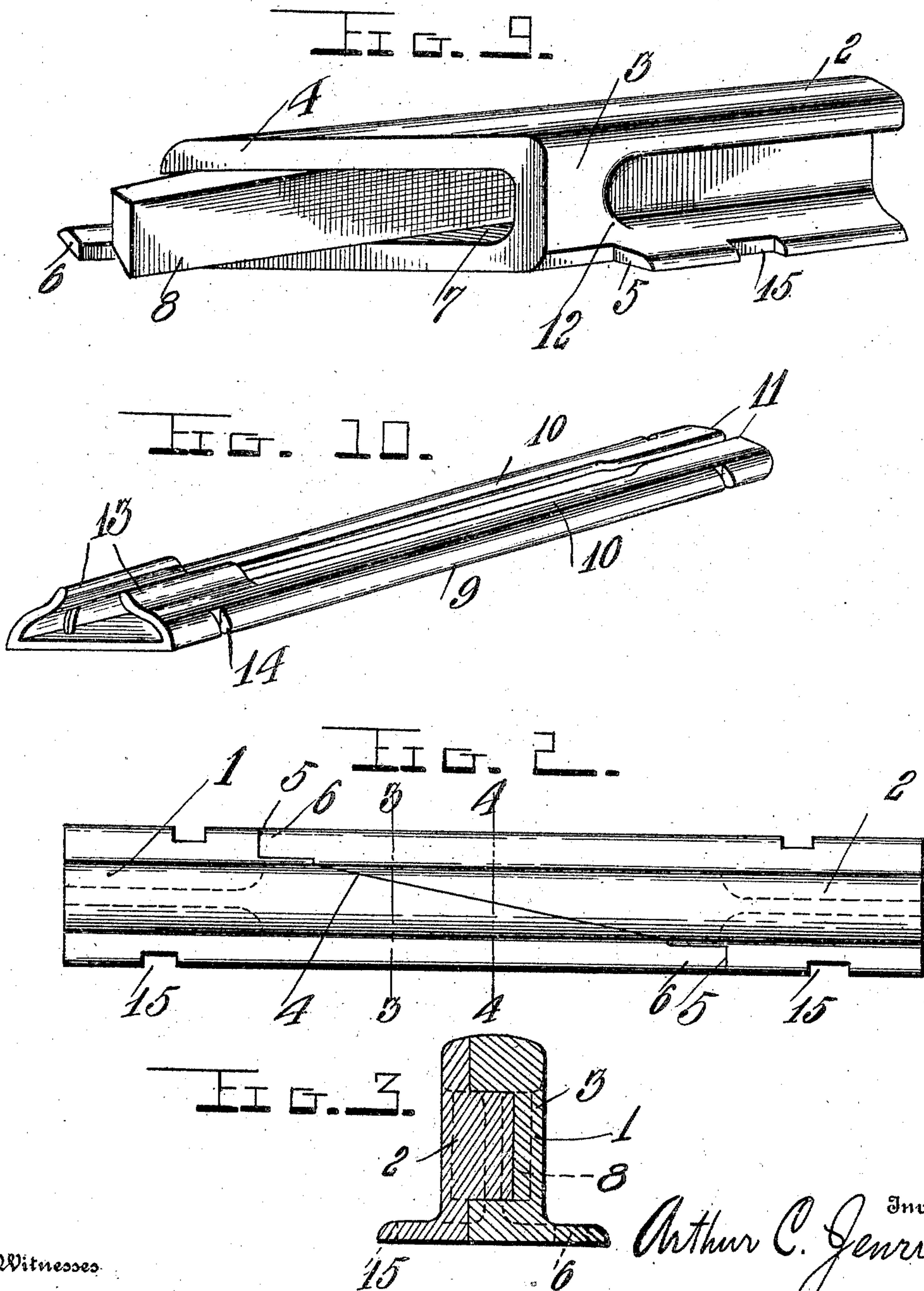
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& M. Ricketts*

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Watson E. Coleman Attorney

UNITED STATES PATENT OFFICE.

ARTHUR C. JENRICH, OF COLUMBIA, NEVADA.

RAIL-JOINT.

948,097.

Specification of Letters Patent.

Patented Feb. 1, 1910.

Application filed April 17, 1909. Serial No. 490,483.

To all whom it may concern:

Be it known that I, ARTHUR C. JENRICH, a citizen of the United States, residing at Columbia, in the county of Esmeralda and State of Nevada, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to improvements in rail joints of that class which have the sections spliced together and secured without the use of the usual bolts and fish-plates.

The object of the invention is to provide a simple and practical splice joint of this character in which the track rail sections will be securely held in perfect alinement with each other so that the joint or connection will be as strong, if not stronger, than the solid rail and there will be little or no wear either upon the ends of the rail sections at the joint or upon the car wheels and their flanges, thereby providing a smooth even track over which cars may travel without the jar, noise and wear incident to the use of ordinary tracks.

With the above and other objects in view, the invention consists of the novel features of construction and the combination and arrangements of parts hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved rail joint; Fig. 2 is a plan view of the meeting ends of the two track rail sections showing them engaged with each other; Figs. 3 and 4 are transverse sections, taken, respectively, on the planes indicated by the lines 3—3 and 4—4 in Fig. 2; Figs. 5 and 6 are side views of the meeting ends of the two track rail sections; Figs. 7 and 8 are plan views of the parts shown in Figs. 5 and 6; Fig. 9 is a detail perspective view of the end of one of the track rail sections; and Fig. 10 is a perspective view of the rail chair.

Referring more particularly to the drawings, 1 and 2 denote the meeting ends of two track rail sections, which ends are thickened at their web portions, as shown at 3, and formed with flat vertical faces 4 arranged diagonally with respect to the length of the rails. The diagonal faces or ends 4 of the two rails extend merely through the tread and web portions and each rail has its base flange on one side at

the inner extremity of the portion 4 cut away to form a recess 5 and the opposite base flange extended beyond the outer end of the face 4 to provide a longitudinally extending tongue 6, which latter is adapted to enter the recess 5 on the abutting rail, as shown more clearly in Fig. 2 of the drawings. Formed in the inner portion of the diagonal face 4 of each track rail is a longitudinally extending recess 7 adapted to receive a substantially triangular-shaped tongue 8 projecting longitudinally from the outer portion of the diagonal face 4 of the abutting rail. By constructing the splice joint in this manner, it will be seen that the two rail sections will be effectively interlocked so that one cannot move vertically or horizontally with respect to the other but each may have a slight longitudinal movement to allow for the expansion and contraction of the rails under changes of temperature.

For the purpose of retaining the ends of the track rails in engagement with each other, I provide a rail chair 9 consisting of a flat metal plate on which the base flanges of the overlapped ends of the rails rest and having its side edges bent upwardly and inwardly to provide longitudinal flanges 10 which receive the base flanges of the rails 1, 2. The side portions or flanges 10 of the chair at one end of the latter are extended inwardly to provide lips or projections 11, which latter engage the shoulders 12 formed by the ends of the enlargements 3. At the other end of the chair 9 the flanges 10 are also extended to provide lips 13 which project upwardly to permit of the insertion of the large portions 3 of the rails into the chair and which are adapted to be bent down to a horizontal position in rear of the shoulders 12 after the rails have been placed in the chair. When said lips 13 are bent down from their full line to their dotted line position shown in Fig. 1, it will be seen that they will engage the shoulders 12 on the rail 1 so that the spliced or interlocked ends of the track rails will be held in engagement with each other and in the chair. The side edges of the chair 9 are formed with notches 14 adapted to register with notches 15 formed in the base flanges of the rails 1, 2, when said rails are in the chair, in order that the usual spikes may be employed for securing the rails and chair to wooden cross ties.

From the foregoing it will be seen that the invention provides an exceedingly simple and practical splice joint which will dispense with the necessity of bolts and nuts and ordinary fish-plates and which will hold the track rails in perfect alinement so that there will be little or no wear at the joint and there will be no projections to catch the car wheels or flanges of the latter. The joint provides a smooth continuous tread surface so that the cars will run easily and smoothly without noise and jar and there will be comparatively little wear upon the car wheels.

Having thus described the invention what is claimed is:

1. A rail joint comprising track rails having the enlarged web portions 3, the abutting ends of said enlarged portions of the rails being formed with diagonally extending vertical faces, each of said faces or ends having its inner portion formed with a recess and its outer portion formed with the longitudinally projecting and angularly disposed tongue 8, the tongue on one rail being adapted to enter the recess in the abutting rail, each of said rails having its base flange on the side nearest the inner end of its diagonal face formed with the rectangular recess 5 and the other base flange extending beyond the outer end of said diagonal face to provide a rectangular tongue to enter the recessed portion of the base flange of the abutting rail and means for holding said rails in interlocked position.

2. A rail joint comprising track rails having the web portions of their abutting ends enlarged and formed with diagonally extending vertical faces, each of said diagonal

faces or ends having its inner portion recessed and its outer portion formed with a longitudinal projecting tongue to enter the recess on the abutting rail and a rail chair having a base portion to support the base flanges of the rails, and upwardly and inwardly extending side flanges to receive said base flanges of the rails, the extremities of the side flanges of the chair being extended inwardly to form lips adapted to be engaged with shoulders formed by enlarging the web portions of the rails.

3. A rail joint comprising abutting track rails having shoulders at their web portions and a one-piece chair formed from a metal plate arranged beneath the base flanges of the abutting ends of the rails and having both of its side edges bent upwardly and inwardly to provide side flanges which receive the base flanges of the rail, the extremities of said side flanges of the chair at one of its ends being extended inwardly to provide lips to engage the shoulders on the web portion of one rail and the extremities of said side flanges of the chair at the other end of the latter being extended upwardly to provide spaced lips between which the other rail may be passed, the last mentioned spaced lips being adapted to be bent down in rear of the shoulders on the web portion of the last mentioned rail to retain the rails in engagement with each other, substantially as shown and described.

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

ARTHUR C. JENRICH.

Witnesses:

GEO. F. THOMAS,
CHRIS HANSEN.