

No. 864,895.

C. C. JANTZEN.
RAIL JOINT.

PATENTED SEPT. 3, 1907.

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Fig. 1.

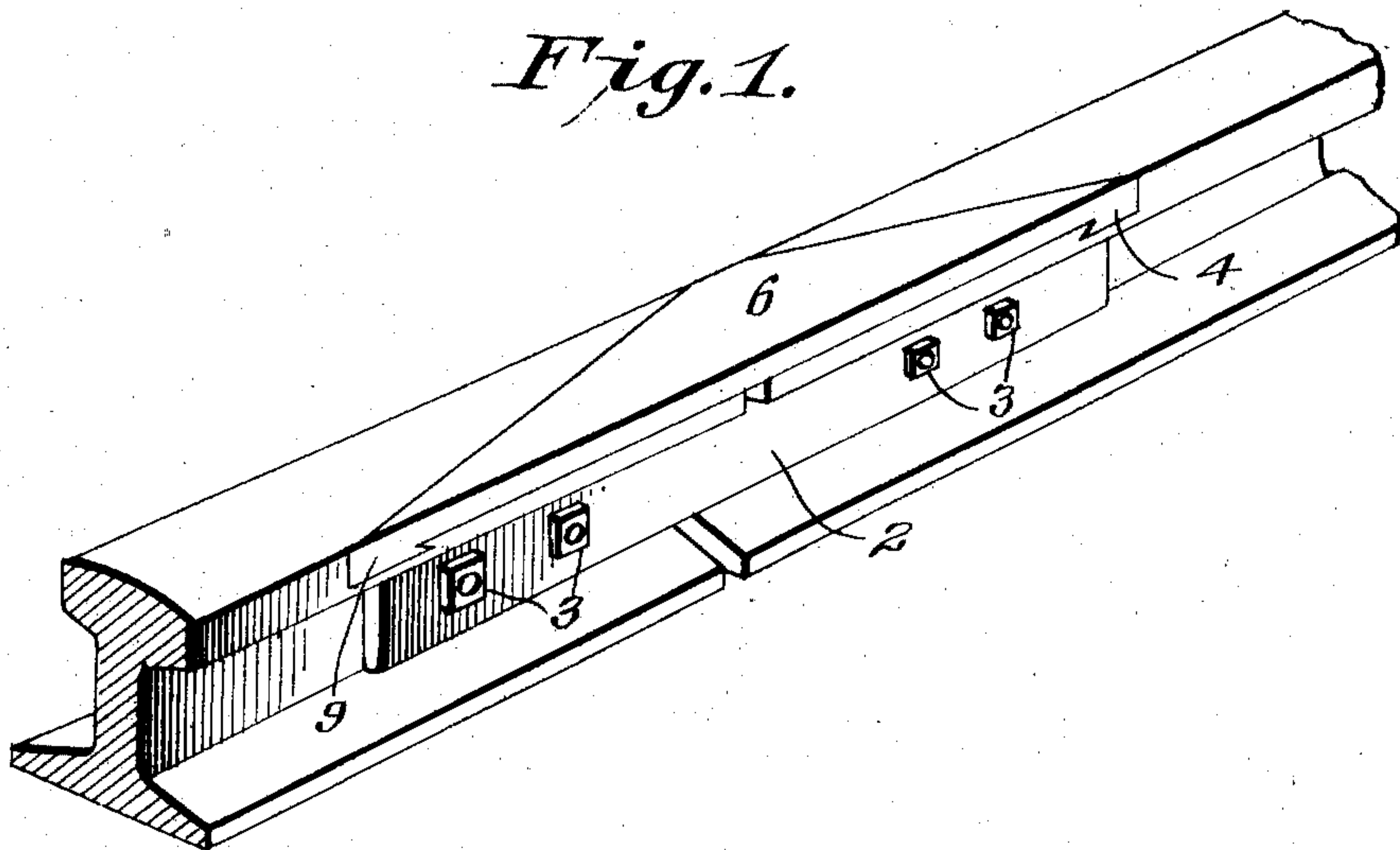
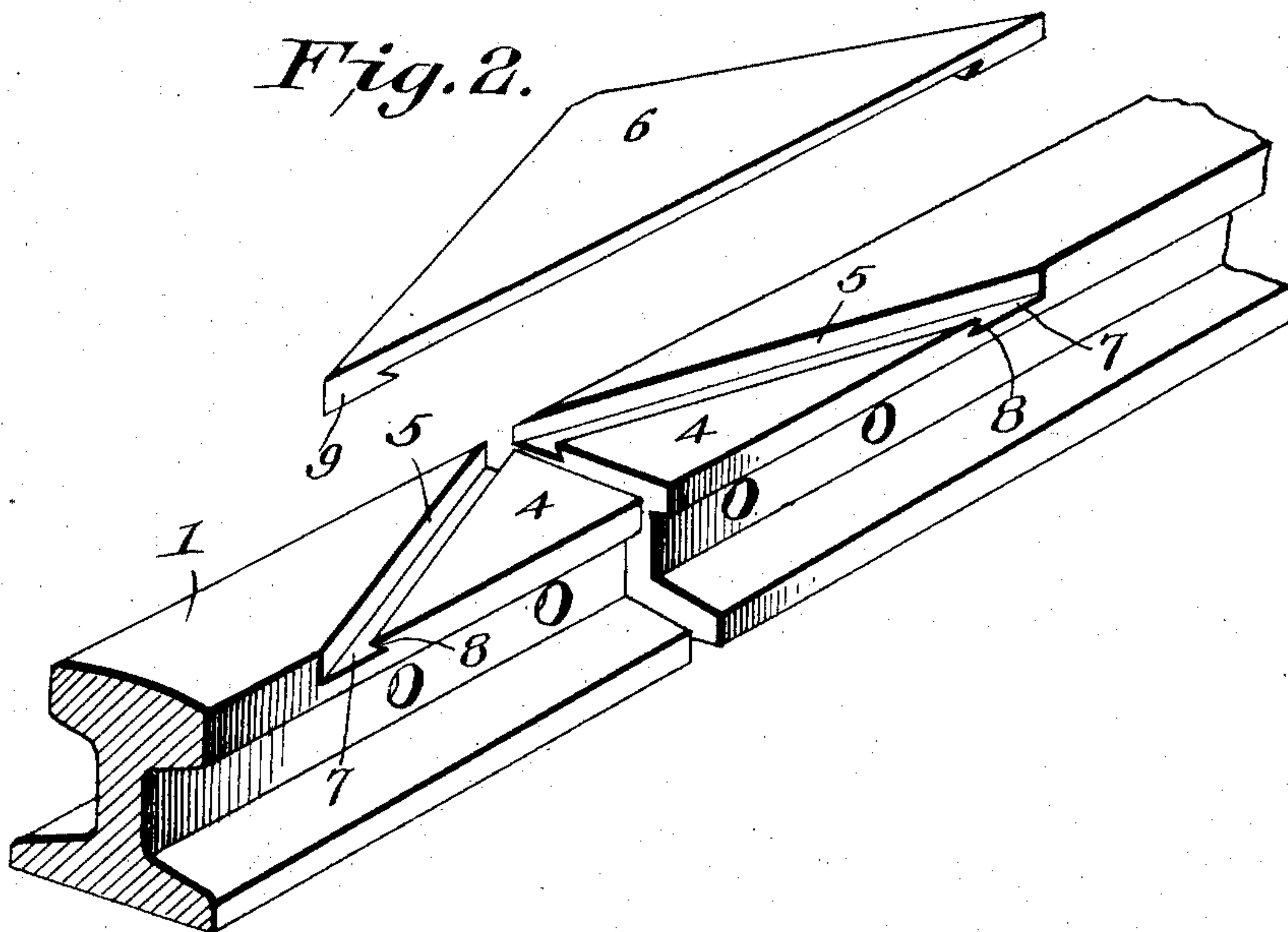


Fig. 2.



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UNITED STATES PATENT OFFICE.

CARL C. JANTZEN, OF HOOD RIVER, OREGON.

RAIL-JOINT.

No. 864,895.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CARL C. JANTZEN, a citizen of the United States, residing at Hood River, in the county of Wasco and State of Oregon, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

The present invention relates to certain new and useful improvements in rail joints and has for its object to provide a novel means for reducing to a minimum the jolting of the rolling stock as it passes over the joint.

With this object in view the invention consists essentially in cutting away the corresponding corners of the tread portions of the rail ends, the said cut away portions in the two rails terminating in oppositely disposed diagonal shoulders, an approximately triangular plate the ends of which are beveled to fit against the said diagonal shoulders being placed within the cut away portions of the two rail ends and the said plate having an interlocking connection with the rail ends and spanning the joint in such a manner as to produce an approximately continuous tread surface,

For a full description of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a rail joint constructed in accordance with the present invention. Fig. 2 is a similar view showing the joint as dismembered.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the invention the abutting rail ends are designated by the numerals 1 and have the web portions thereof connected in the usual manner by means of fish plates 2 applied to opposite sides of the rails and held in position by the fastening members or bolts 3. Corresponding corners of the tread portions of the two rail ends are cut away as indicated at 4, the said cut away portions terminating in vertically and diagonally disposed shoulders 5.

It will be observed that the two shoulders 5 upon the adjacent rail ends are inclined in opposite directions whereby an approximately triangular recess is formed. Fitting within this recess and spanning the joint between the rail ends is a plate 6 the ends of which are beveled to correspond to the diagonal position of the shoulders 5. This plate 6 has an interlocking connection with the two rail ends 1 and produces a continuous tread surface which tends to prevent the jolting of the rolling stock when passing over the joint. The base of each of the cut away portions 4 is formed with a depression which is preferably in the nature of a groove 7

which is located adjacent the shoulder 5, one of the side walls of the groove forming a continuation of the said shoulder, while the opposite side wall is inclined inwardly as indicated at 8 and the groove thereby given an under-cut formation. The plate 6 is formed with pendent projections designed to enter the depressions in the rails for the purpose of producing an interlocking connection between the members, and in the present instance the pendent portions are in the nature of ribs located adjacent the beveled ends of the plates. These ribs 9 correspond to the grooves 7 and have the inner sides thereof inclined outwardly so as to be received under the overhanging side walls 8 of the grooves 7. With this construction it will be readily apparent that when the various members are assembled the plate 6 is held securely in position and can not be displaced either vertically or laterally, while at the same time the rail ends are permitted to have the limit amount of longitudinal movement required by expansion and contraction due to changes in temperature.

Having thus described the invention, what is claimed as new is:

1. In a rail joint, the combination of a pair of abutting rail ends having corresponding corner portions thereof cut away and the cut away portions terminating in diagonally disposed shoulders, and a plate received by the cut away portion of the rail ends and having the ends thereof beveled to correspond to the obliquely disposed shoulders of the cut away portions, the said plate having an interlocking connection with the rail ends.

2. In a rail joint, the combination of abutting rail ends having corner portions thereof cut away and terminating in obliquely disposed shoulders, the said cut away portions having depressions formed therein, a plate spanning the joint and received within the cut away portions of the rail ends, the ends of the plate being beveled to correspond to the obliquely disposed shoulders, and projections pendent from the plate and received by the before mentioned depressions in the base of the cut away portions.

3. In a rail joint, the combination of abutting rail ends having corner portions thereof cut away and terminating in diagonally disposed shoulders, the said cut away portions being formed with grooves, a plate spanning the joint and received within the cut away portions of the rail ends, the ends of the plate being beveled to correspond to the said diagonal shoulders, and ribs pendent from the plate and received by the before mentioned grooves.

4. In a rail joint, the combination of abutting rail ends having corner portions thereof cut away and terminating in diagonally disposed shoulders, the said cut away portions being formed with under-cut grooves, a plate spanning the joint and received by the cut away portions of the rail ends, the ends of the plate being beveled to correspond to the before mentioned diagonally disposed shoulders, and ribs pendent from the plate and received within the under-cut grooves.

5. In a rail joint, the combination of abutting rail ends having corner portions thereof cut away and terminating in diagonally disposed shoulders, the said cut away por-

tions being formed with grooves located adjacent the diagonally disposed shoulders, one of the side walls of each of the grooves forming a continuation of its respective shoulder, while the opposite side wall is inclined inwardly, a plate spanning the joint and received by the cut away portions of the rail ends, the ends of the plate being beveled to correspond to the before mentioned diagonally disposed shoulders, and ribs pendent from the plate and located adjacent the beveled ends thereof, the inner side of

each of the ribs being inclined outwardly and the said ribs being received within the before mentioned grooves.

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

CARL C. JANTZEN. [L. S.]

Witnesses:

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