

J. H. & C. J. TRESSLER.  
RAIL JOINT.  
APPLICATION FILED OCT. 21, 1911.

1,022,279.

Patented Apr. 2, 1912.

2 SHEETS-SHEET 1.

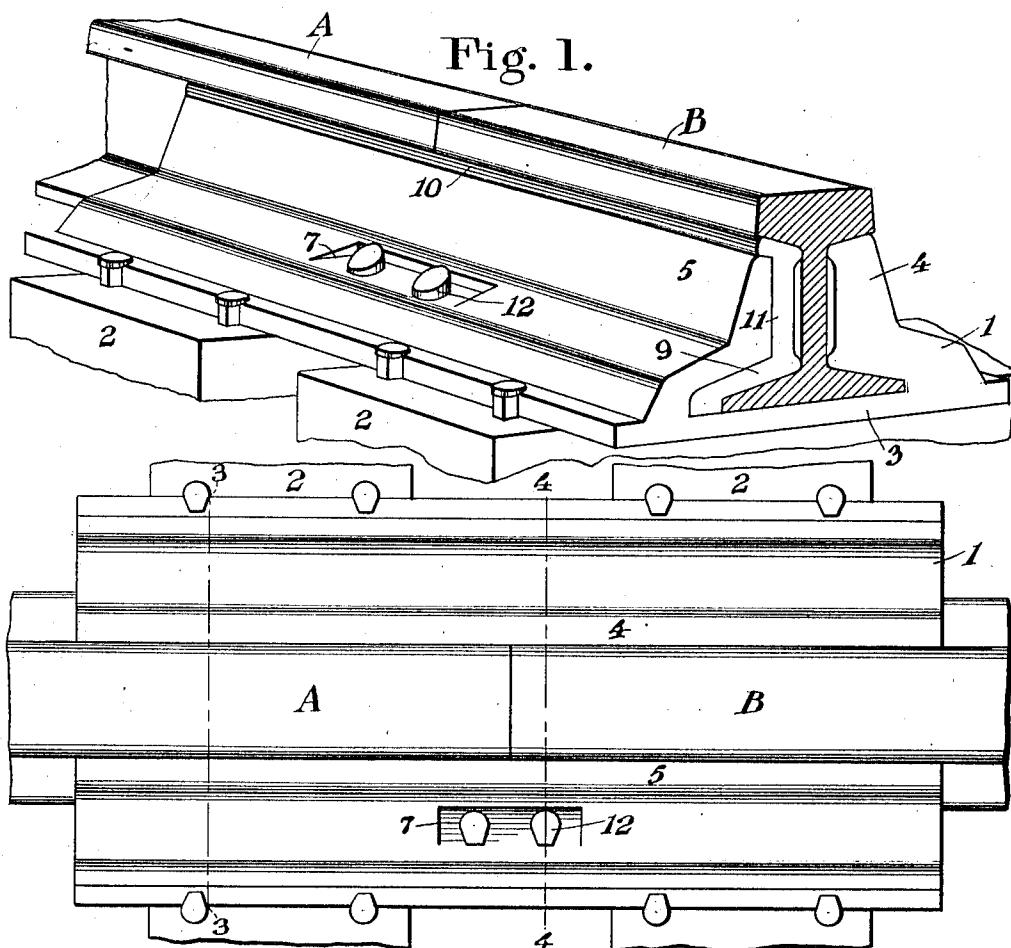


Fig. 2.

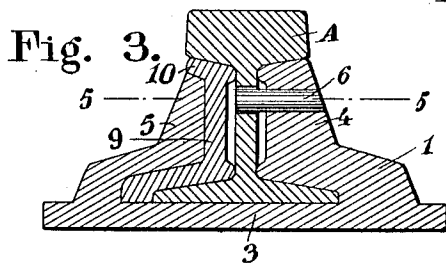


Fig. 3.

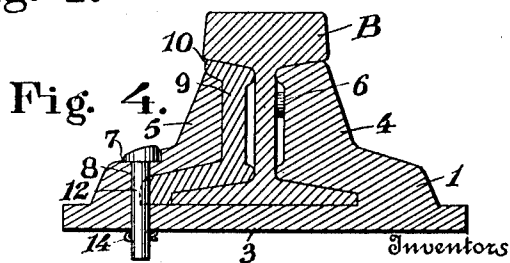


Fig. 4.

Witnesses

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*[Signature]*

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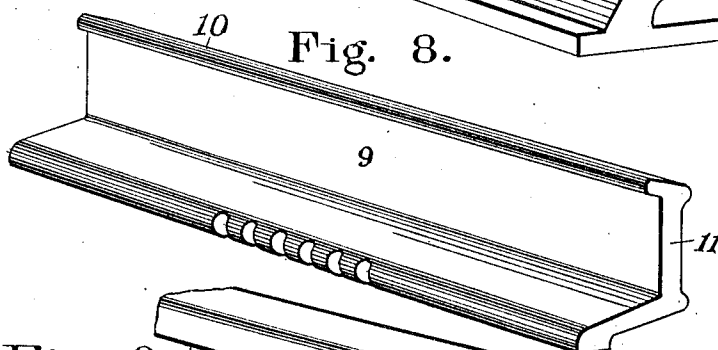
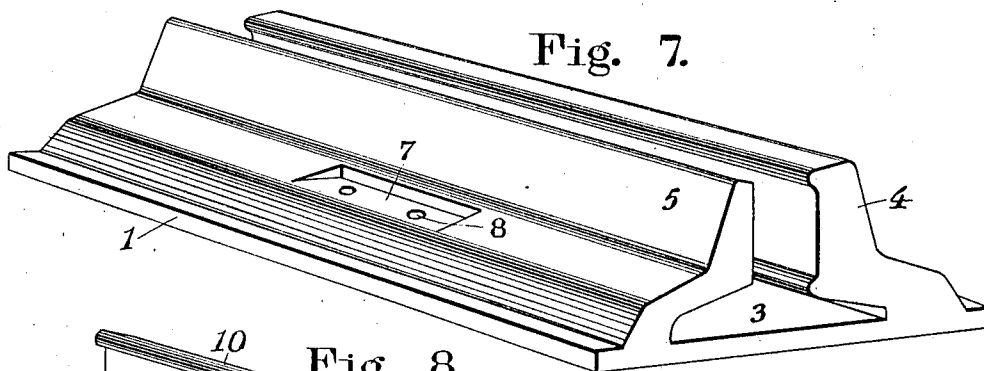
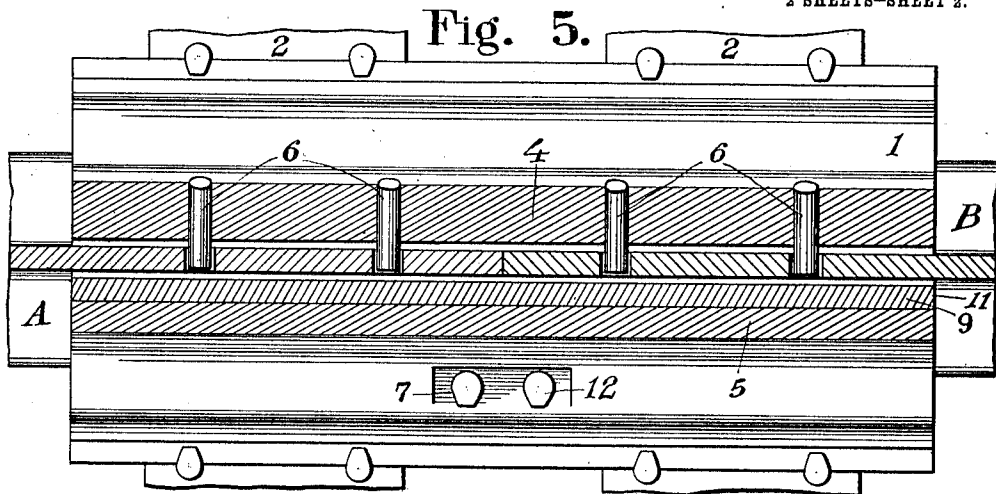


Fig. 9.

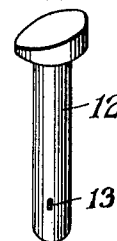
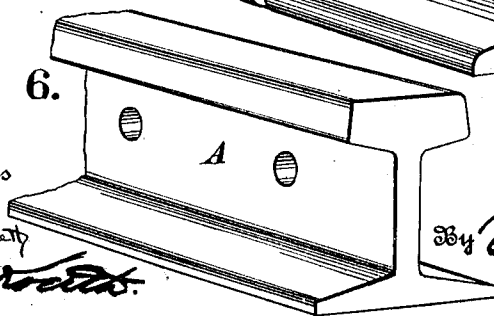


Fig. 6.

Witnesses

M. F. Hammett

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# UNITED STATES PATENT OFFICE.

JOHN H. TRESSLER AND CHARLES J. TRESSLER, OF GLENCOE, PENNSYLVANIA.

## RAIL-JOINT.

1,022,279.

Specification of Letters Patent.

Patented Apr. 2, 1912.

Application filed October 21, 1911. Serial No. 655,831.

*To all whom it may concern:*

Be it known that we, JOHN H. TRESSLER and CHARLES J. TRESSLER, citizens of the United States, residing at Glencoe, in the county of Somerset and State of Pennsylvania, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to certain novel improvements in rail splices or chairs.

In carrying out our invention it is our purpose to provide a device of this character wherein the meeting ends of a pair of rails will be effectively secured together without the employment of nuts and bolts or analogous securing elements.

We further aim to provide a chair having angular sides or fish plates, one of which being formed with projecting studs which are adapted to be received within openings in the webs of the rail ends, means being also provided for sustaining the rails upon the studs so as to prevent the lateral movement of the rails, as well as the sagging movement incident to the rolling stock passing thereover and which will also retain the rails in perfect register or alinement.

With the above recited objects, and others of a similar nature in view, the invention resides in the novel construction, combination and arrangement of parts set forth in and falling within the scope of the appended claim.

In the drawings,—Figure 1 is a perspective view of a pair of railway rails provided with our improved splice or chair. Fig. 2 is a top plan view of the same. Fig. 3 is a sectional view upon the line 3—3 of Fig. 2. Fig. 4 is a similar sectional view upon the line 4—4 of Fig. 2. Fig. 5 is a horizontal sectional view upon the line 5—5 of Fig. 3. Fig. 6 is a detail perspective view of one of the rail ends. Fig. 7 is a perspective view of the chair. Fig. 8 is a similar view of the locking web. Fig. 9 is a similar view of the locking pins.

Referring now to the drawings in detail, A and B designate the meeting ends of a pair of rails. These rails are of the ordinary construction, having their webs provided with a plurality of openings which are normally adapted to receive the bolts of the fish plates when the rail ends are connected in the ordinary manner.

The numeral 1 designates the improved chair. This chair is of a length sufficient

to straddle at least two of the ties 2. The chair comprises a base plate 3 which is formed with the angular fish plates designated respectively by the numerals 4 and 5. These fish plates are preferably formed integrally with the plate but may be, if desired, constructed as separate elements and secured to the base in any desired or preferred manner. The inner face of the angular fish plate 4 corresponds with the contour of one of the sides and base flanges of the rail members, and the vertical wall of the said fish plate is formed with a plurality of extending studs 6. The angular fish plate 5 also corresponds with the cross sectional shape of the opposite face of the rails, but the space between the said angular fish plate 5 and that of the fish plate 4 is of a greater width than the thickness of the rails. The studs 6 project toward the vertical wall of the fish plate 5 a distance approximately equaling or slightly less than the thickness of the webs of the rails, and the space between the studs and the vertical face of the fish plate 5 is sufficient to permit of the webs as well as the base flanges of the rails being slid through the chair without contacting with the said studs. The vertical wall of the fish plate 5 inclines from one of the ends of the chair toward the opposite end and the said fish plate is provided with a recessed portion upon its outer face which is designated by the numeral 7. The lower wall of this recess 7 is provided with a plurality of openings 8, the same registering with similar openings in the base 3 of the chair.

The numeral 9 designates an angular wedge plate, the same being of a shape corresponding with the shape of one side of the rails below the head of the said rails, and this wedge plate has its base portion provided with a plurality of substantially cross sectionally U-shaped depressions, the same being arranged upon the edge of the said base flange. The upper extremity of the wedge plate is formed with a head 10, the latter adapted to underlie the heads of the rails when the said wedge plate is in position. The head projects a suitable distance over the vertical wall of the wedge plate and the said projecting portion is adapted to contact with and snugly engage the upper face or edge of the fish plate 5. It will be noted by reference to the several figures of the drawings that this upper edge

terminates a suitable distance below the upper edge of the vertical member of the fish plate 4, so that when the wedge is positioned the edge of the fish plate 4 as well  
 5 as the head of the wedge will underlie the heads of the rail members A and B.

In assembling the parts the rail members A and B are first passed within the opening or space provided by the fish plate 5 and  
 10 slid until their openings are brought into register with their respective studs which are as stated provided upon the vertical wall of the fish plate 4. It is of course to be understood that the rails are thus inserted  
 15 within the fish plate from opposite directions and when the rails have their openings engaged with the said studs the angular wedge plate 9 is driven within the space provided between the unengaged faces of  
 20 the rails and the inner walls of the angular fish plate 5. The fish plate has one of its ends formed with what may be termed a hammering head 11, the same being adapted to receive the blows of a hammer without  
 25 danger of breaking, and when the fish plate has been driven sufficiently home, its depression will register with the openings 8 and the openings in the base plate. Headed  
 30 locking pins 12 are then passed through the said openings, and the said pins project a suitable distance beyond the under face of the base 3. These projecting portions are provided with slots 13, and the said slots  
 35 are adapted to be engaged by cotter pins 14, the legs of which being spread in opposite directions so as to securely sustain all of the parts in a locked position.

Having thus described the invention, what we claim is:—

40 In combination with the meeting ends of a pair of railway rails having their webs

provided with openings, a chair, said chair being provided with angular fish plates one of the said fish plates having its vertical wall formed with a plurality of inwardly  
 45 extending studs, the said studs being of a length approximately equaling the thickness of the webs of the rails, the second angular fish plate being spaced away from the first  
 50 named plate a distance approximately equaling the thickness of the webs of the rails, the upper edge of the second named fish plate terminating a distance below the upper edge of the first named fish plate, the  
 55 upper wall of the second named fish plate being inclined from one of the ends of the chair toward the opposite end thereof, the said second fish plate being provided with a plurality of openings registering with  
 60 similar openings in the base, an angular wedge plate, said wedge plate having its base flange formed with a plurality of depressions, said fish plate being also provided with a headed portion having an off-set  
 65 which is adapted to lie upon the upper edge of the second fish plate, the studs of the first named fish plate adapted to engage with the openings of the rails, the wedge plate adapted to be inserted within the space  
 70 between the second named fish plates and the rails, pins for the openings and the depressions of the second fish plate and base flange, said pins being provided with slots, and cotter pins for the slots adapted to contact with the under face of the base. 75

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN H. TRESSLER.

CHARLES J. TRESSLER.

Witnesses:

WM. B. COOK,

ROBERT COOK.