F. W. BECKER.

LAP JOINT T-IRON RAIL.

APPLICATION FILED MAY 23, 1908.

968,314. Patented Aug. 23, 1910.

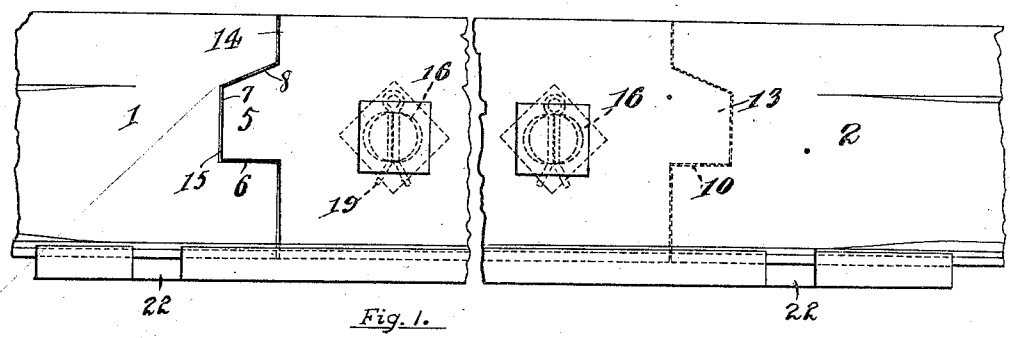

Fig. 1.

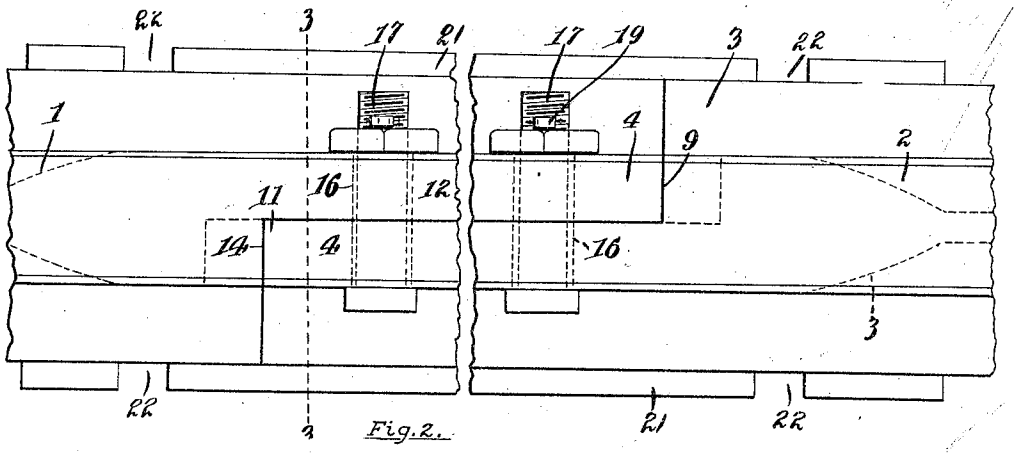

Fig. 2.

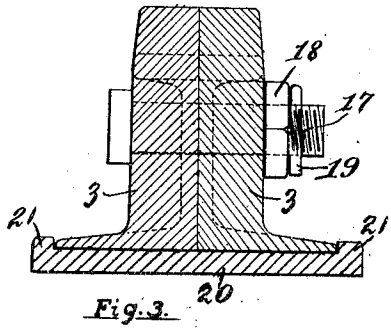

Fig. 3.

Witnesses.

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LAP-JOINT T-IRON RAIL.

968,314. Specification of Letters Patent. Patented Aug. 23, 1910.

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To all whom it may concern:

Be it known that I, FRIEDERICH WM. BECKER, a citizen of the United States, residing at the village of New Athens, in the county of St. Clair and State of Illinois, have invented a new and useful Lap-Joint T-Iron Rail Which Does Not Necessitate the Use of the Present Existing Splice-Bars, and of which the following is a specification.

This invention relates to rail joints, and has for an object to provide a joint of this character obviating the use of the well known splice bars, and to provide a cheap device of this character which will be durable, easily connected, and constructed so that smooth running and safe service of rolling stock is accomplished.

A further object of this invention is to provide a joint in which the adjoining rail ends will be provided with lugs adapted to fit in correspondingly shaped recesses in the said rail ends to relieve the transversely disposed retaining bolts of strain incident to the weight of the rolling stock, and to also provide effective means for preventing breakage of the joint.

Other objects and advantages will be apparent as the nature of the invention is better set forth, and it will be understood that changes within the scope of the claim may be resorted to without departing from the spirit of the invention.

In the drawing, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a side view of the present joint, with parts being broken away. Fig. 2 is a top plan view, with parts being broken away. Fig. 3 is a transverse section taken on the line 3—3 of Fig. 2.

In the drawing, there are shown rail ends 1 and 2, each having a thickened web portion 3. The rail ends are of the usual T-form, and as shown, the end 2 has its thickened portion 3 rabbeted to provide a vertically outwardly extending reduced wing 4 which is provided with a projecting lug 5 at its outer extremity, and it will be seen that the thickened portion of each rail end is equal in diameter to the width of the tread flanges, and that the said wing 4 just described serves as a portion of the said tread flange to be hereinafter more fully described. The lug 5 is provided with a straight or flat lower face 6, a flat vertical face 7 disposed at right angles to the face 6 and an upper inclined face 8. By rabbeting the said rail end 2 it is obvious that a vertically disposed shoulder 9 is provided in which is formed a recess 10. The rail end 1 is identical to that just described, and is provided with a rabbeted portion 11 forming a reduced wing 12 adapted to lie against the wing 4 and serves to form the other portion of the tread flange. The rail end 1 is provided at the end of the wing 12 with a lug 13 identical in construction to the lug 5 and is thus adapted to fit in the recess 10 formed in the shoulder 9. The end 1 is also provided with a shoulder 14 in which is formed a recess 15 disposed in line with the lug 5 and adapted to receive the same. The wings 4 and 12 of the said rail ends are provided with horizontally disposed elongated or elliptical passages 16 to receive clamping bolts 17 having nuts 18 engaged therewith and which are held against rotation when in their locked position by means of cotter pins 19 which are passed through suitable passages formed in the said bolts. The latter construction is not absolutely essential, but it is preferable to provide such nuts and bolts in order that the said rail ends may be more rapidly and accurately connected. The recesses 10 and 15 respectively, are formed in the shoulders 9 and 14 respectively midway between the upper and lower ends thereof. By forming the elongated or elliptical passages in the said rail ends it will be seen that the ends are adapted to be moved in a longitudinal plane incident to contraction and expansion of the rails. A plate or supporting bed is indicated at 20 and is adapted to support the said rail ends. The plate is provided at the sides thereof with vertically extending flanges 21 which extend upwardly at the sides of the base flanges of the rail ends. It will be seen that the said plate provides means for effectively preventing the rail ends from spreading and also affords a better foundation for the joints, and insures better service to which these rails may be applied. The flanges 21 are preferably slotted as indicated at 22 to receive spikes or clamping devices so that the said plate may be engaged effectively with rail ties as will be readily understood.

It will be seen that a simple and inexpensive rail joint is provided, and by providing the lugs 7 and 13 respectively, it will be seen they may engage the adjoining rail ends to

relieve the bolts for retaining the rail ends from strain. The lugs are extremely simple and their construction affords means for easily inserting them in the recesses.

I claim:—

In a rail joint, identically formed rail ends each having an enlarged web portion rabbeted to form an outwardly extending wing, each rail end having a pair of alining shoulders extending at right angles to its wing and provided intermediate of the said shoulders with a recess having upwardly and outwardly extending upper walls which extend toward the portion of the rail ends between the joints thereof, lugs extending from the outer edges of the wings, the said wings each having a pair of alining shoulders respectively associated above and below the said lugs, the said shoulders being adapted for engagement with the first named shoulders, the said lugs conforming in configuration with the said recesses and fitted therein, fastening devices engaged with the wing portions of the said rail ends, and a chair fitted beneath the rail ends at their meeting ends.

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Witnesses:

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FRED. SCHOEPP.