

F. STELZIG.
RAIL JOINT.
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1,066,542.

Patented July 8, 1913.

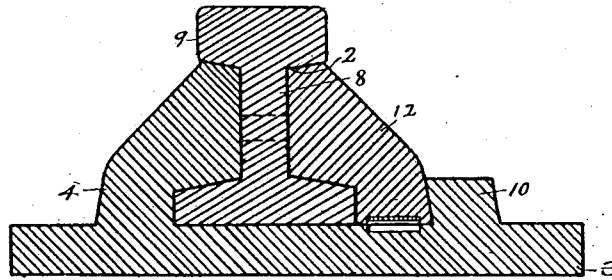


Fig. 1.

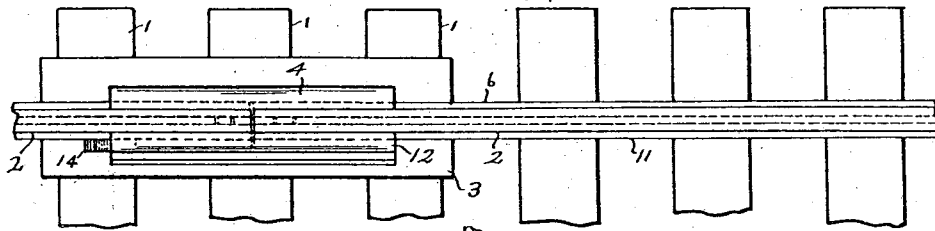


Fig. 2.

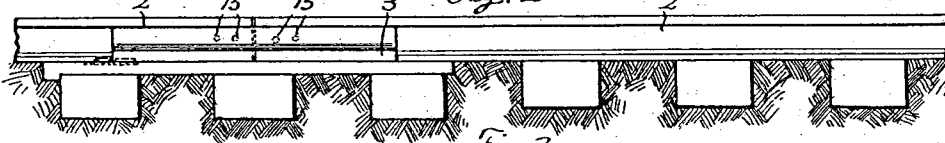


Fig. 3.

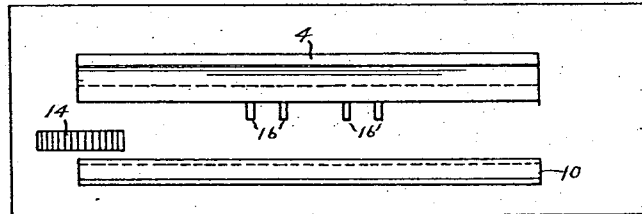


Fig. 4.

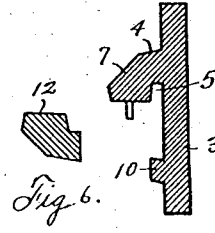


Fig. 5.

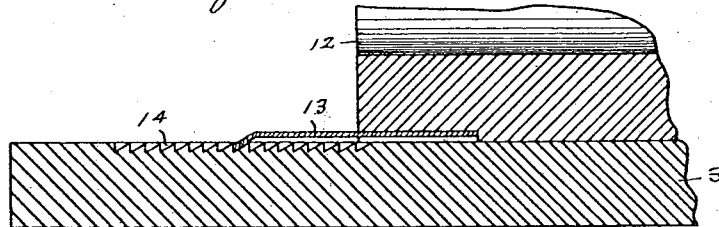


Fig. 7.

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FRANK STELZIG, OF SCHULENBERG, TEXAS.

RAIL-JOINT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK STELZIG, a citizen of the United States, residing at Schultenberg, in the county of Fayette and State of Texas, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification.

My invention relates to new and useful improvements in rail joints.

The object of the invention is to provide a device of the character described, designed to be used to secure together the abutting ends of the rails of a railway, and is intended to take the place of the fish plates now in common use.

By the use of this improved device all bolts and nuts are eliminated, and loose joints, caused by the loosening of the nuts commonly used, thus obviated.

With the above and other objects in view, the invention has particular relation to certain novel features of construction and arrangements of parts, an example of which is given in this specification and illustrated in the accompanying drawings, wherein:—

Figure 1 is a sectional end view of the device. Fig. 2 is a plan view thereof secured to the rails. Fig. 3 is a side elevation of the device secured to the rails. Fig. 4 is a plan view of the base of the device and the parts fixed thereto. Fig. 5 is a sectional end view thereof. Fig. 6 is a sectional end view of the wedge member, and Fig. 7 is a fragmentary sectional side elevation of the device showing the means for locking the wedge member in place.

Referring now more particularly to the drawings wherein like numerals of reference designate similar parts in each of the drawings, the numerals 1, 1, 1, designate the railway ties supporting the joint, and the numerals 2, 2 designate the rails whose abutting edges are secured together by my improved device.

The numeral 3 designates a flat plate of some suitable metal, such as steel, which is of a length sufficient to rest upon three ties and the ties underneath the plate are notched down so that the top of said plate will be flush with the top of the ties. The abutting ends of the rails 2, 2 rest upon this plate. Integral with the plate 3, and extending from end to end thereof along one side of the plate is a brace 4 whose inner side has an undercut groove 5 so shaped as to receive one side 6 of the rail base

which fits snugly therein. The portion 7 of the brace 3 overhangs the groove 5 and fits closely against the rail web 8 and abuts against the underside of the rail tread 9.

On the opposite side of the plate 3 is a lengthwise shoulder 10 integral with the plate and spaced some distance out from the side 11 of the rail base. The inner side of the shoulder is inclined so that the groove, between the same and the outer edge of the side 11 of the rail base, widens downwardly, and it is to be observed that this groove gradually widens from one end to the other. A wedge shaped member 12 is provided, which in cross section is shaped like the portion 7 of the brace 4, and whose base is designed to dove tail in between the side 11 of the rail base and the shoulder 10. This member is inserted into said groove from the wide end of the groove and wedges in between the rail base and shoulder 10. The overhanging portion fits closely against the facing side of the web 8 of the rail and abuts closely up under the corresponding side of the tread 9.

Secured to the member 12 underneath the wide end thereof and resting against the underside thereof is a flexible tongue 13, whose free end projects out from the end of said member and curves downwardly and engages behind one of the teeth of the rack 14, which is formed in the upper face of the plate 3, beneath the member 12. This tongue holds said member 12 against displacement.

In assembling the joint the abutting ends of the rails 2, 2, are placed on the plate 3 so that the orifices 15, 15, through the webs thereof, will aline with the outwardly projecting pins 16, 16 extending from the inner face of the portion 7, and said pins are then made to project through said orifices. The member 12 is then wedged into position and secured at the desired point by means of tongue 13. A strong, secure joint is thus formed without bolts or nuts, or other supports liable to become loose. When it is desired to take the joint apart the tongue 13 may be normally released from the rack 14, and the member 12 removed, and the joint may then be easily taken apart.

The plate 3 should be spiked to the ties or secured in any other desired manner.

A device of the character described will be found to be easily constructed, simple, and easily operated, and will, when of the proper material, make the rail joint stronger

than the main body of the rail, and will be comparatively inexpensive to construct.

What I claim is:—

1. A device of the character described including a base plate, a brace integral with said plate and extending lengthwise thereof and having an undercut groove provided to receive one side of a railway rail base, the upper part of said brace overhanging said groove and abutting against the rail web, and underneath the rail tread on one side, an oblong shoulder integral with said plate and arranged on the opposite side of the rail and spaced a distance therefrom, forming a tapered dove-tailed groove between said rail and shoulder, a wedge shaped member wedging between said shoulder and rail, the upper portion of said member overhanging the rail base and abutting against the rail web and under the tread of the rail, a rack carried by the upper side of the plate, and a flexible tongue secured to the underside of the wedge shaped member and against which said member presses, the free end of the tongue curving downwardly and engaging with the rack and holding said member in position.

2. A device of the character described including a base, a lengthwise brace extending along one side thereof and integral therewith and having an undercut groove to receive the base of the abutting ends of the railway rails, the upper part of said brace overhanging the groove and abutting against the rail webs, pins projecting from said overhanging portion and projecting through corresponding orifices in the webs of said rail ends, an oblong shoulder integral with the base on the other side of the rail and spaced a distance from the rail and forming a tapered dove-tailed groove between said rail and shoulder, a wedge shaped member wedging between said shoulder and rail, the upper portion of said member overhang-

ing the base of said rail ends and abutting against the rail webs and under the treads of the rail ends, a rack carried by the upper side of the plate and underneath the wedge shaped member, and a flexible tongue secured at one end to the underside of the wedge shaped member and having its free end downwardly curved, said wedge shaped member pressing against said tongue and holding the curved end thereof in engagement with said rack.

3. In a device of the character described, the combination with a base plate, a brace integral with said plate and extending lengthwise thereof and having an undercut groove provided to receive one side of a railway rail base, the upper side of said brace overhanging said groove and abutting against the rail web and underneath the rail tread on one side, an oblong shoulder integral with said plate and arranged on the opposite side of the rail and spaced a distance therefrom, forming a tapered dove-tailed groove between said rail and shoulder, of a wedge shaped member between said shoulder and rail, the upper portion of said member overhanging the rail base and abutting against the rail web and under the tread of the rail, a rack carried by the upper side of the base plate and a flexible tongue secured to the underside of the wedge shaped member and against which said member presses, the free end of the said tongue curving downwardly and engaging with the rack and holding the said wedge shaped member in position.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

FRANK STELZIG.

Witnesses:

C. A. VOGT,
FRED EBELING.