

L. R. GARRARD.
RAIL CHAIR AND FASTENING.
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Patented May 18, 1909

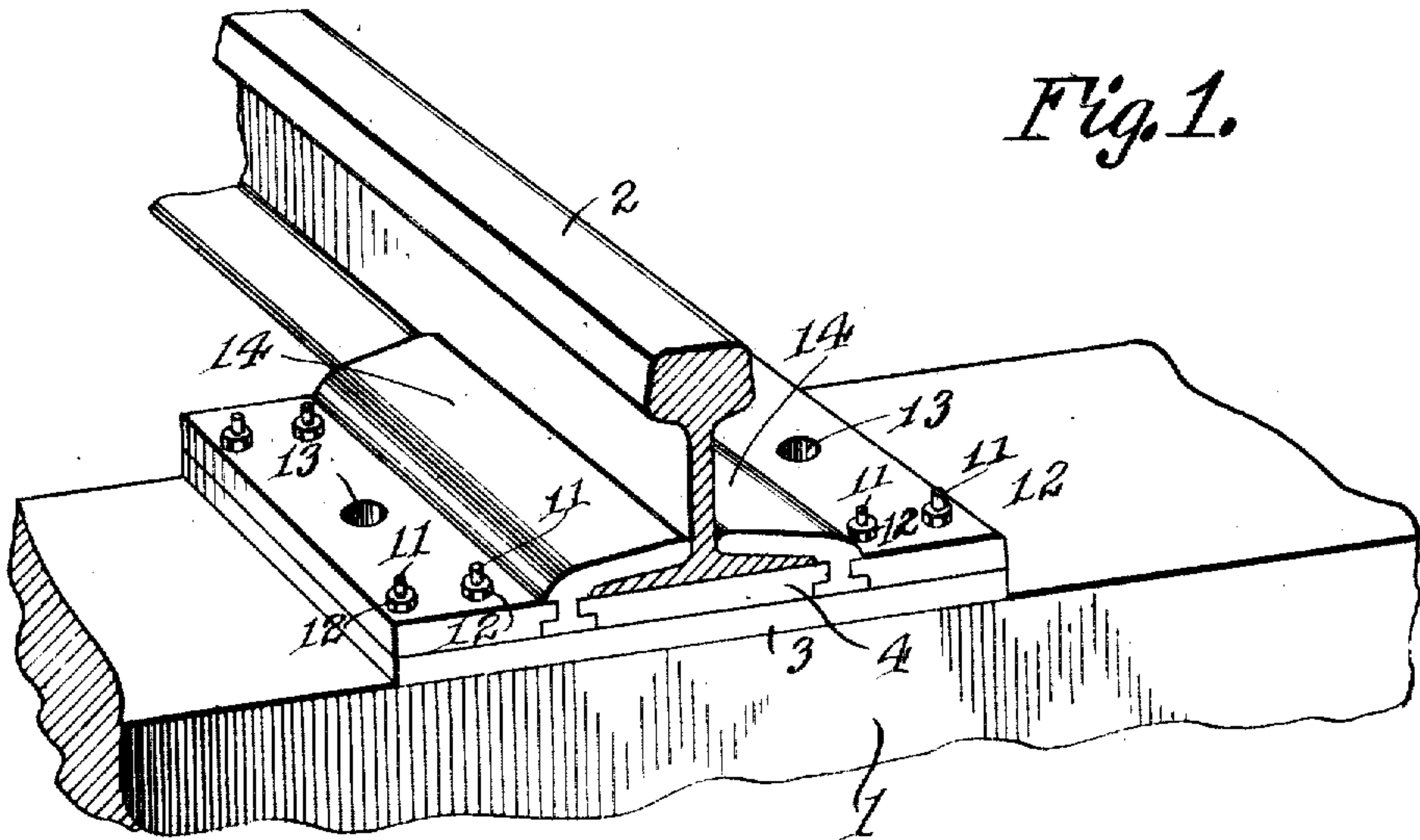
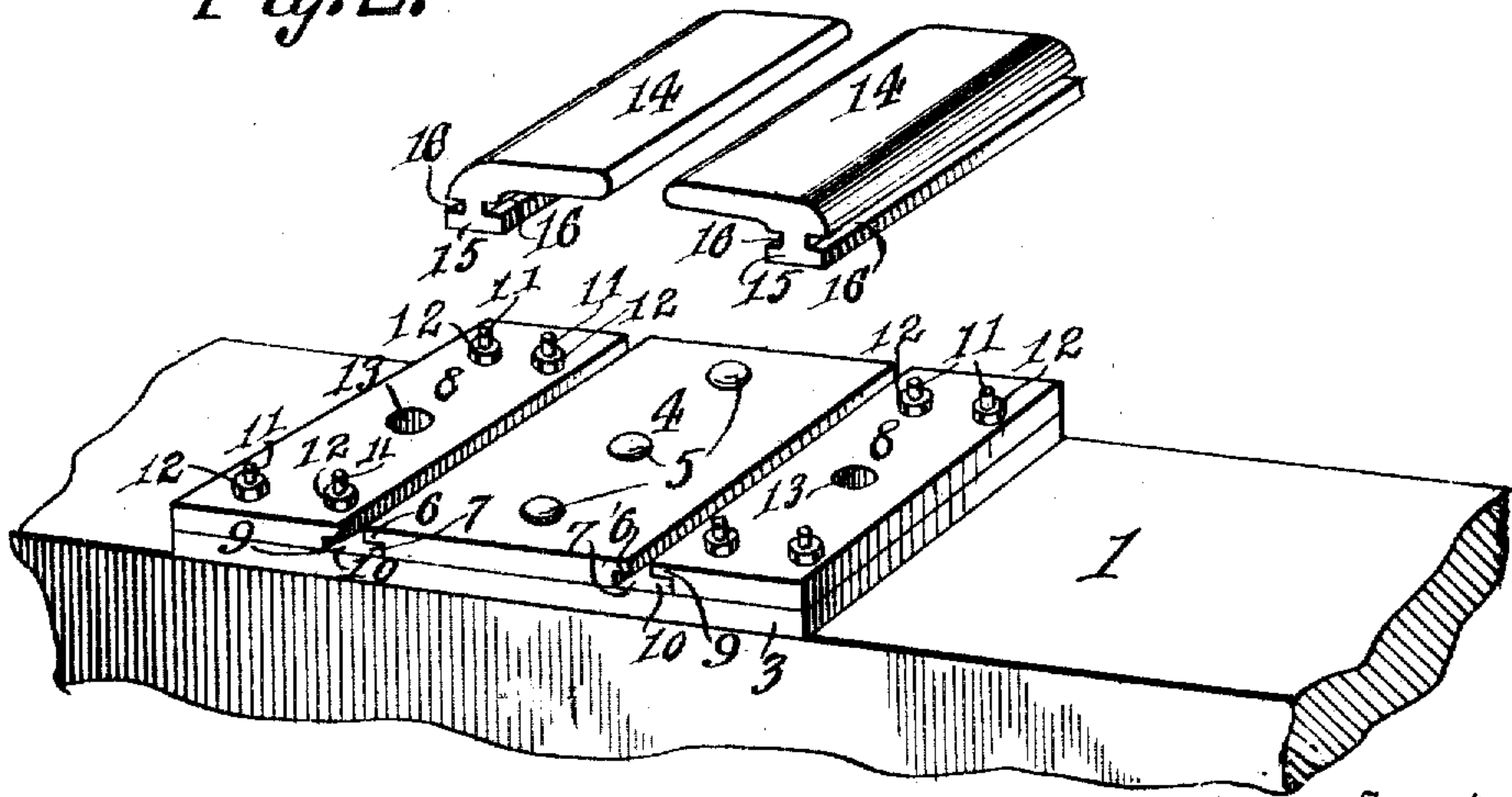


Fig. 2.



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LEONARD R. GARRARD, OF SHERIDAN, MISSOURI.

RAIL CHAIR AND FASTENING.

No. 922,271

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LEONARD R. GARRARD, a citizen of the United States, residing at Sheridan, in the county of Worth and State of Missouri, have invented new and useful Improvements in Rail Chairs and Fastenings, of which the following is a specification.

This invention relates to rail chairs or seats and fastenings, the object of the invention being to provide a simple, effective and inexpensive construction of support and fastening for rails, whereby the rails may be quickly, firmly and conveniently fastened to the ties and as easily released when it is desired to replace an old rail with a new one.

A further object of the invention is to provide a rail seat and fastener the permanent portions of which may be applied to the ties before the latter are laid, thus securing greater convenience and economy in the application of such portions for use, and also to provide a construction whereby the use of angular spikes or other fastenings liable to split a wooden tie is avoided.

The invention consists of the features of construction, combination and arrangement of parts hereinafter fully described and claimed, reference being had to the accompanying drawings, in which:—

Figure 1 is a perspective view showing the application of the invention to a tie and rail. Fig. 2 is a perspective view showing the parts of the invention separated.

Referring to the drawings, 1 designates a tie, which may be of either wood or metal, and 2 a rail secured thereto by my invention.

The improved rail chair or seat and fastening constituting my invention comprises a base or bed plate 3, which may be integral with a metallic tie, or bolted or otherwise suitably fastened to a wooden tie by fastenings of a character not liable to split the tie. This plate is coextensive in length with the width of the tie, and carries a centrally disposed chair or seat plate 4, secured thereto by bolts or other suitable fastenings 5, which may also pass downward through the tie and serve as additional means for securing the bed plate thereto. The side edges of this rail seat plate are provided with outwardly extending flanges 6 overlying the bed plate to provide intervening grooves 7.

Mounted upon the bed plate on opposite sides of and in spaced relation to the seat plate are keeper plates 8, which are identical

in construction, each being provided at its inner edge with a flange 9 arranged in alignment with the flange on the adjacent edge of the seat plate and above the bed plate to provide a longitudinal groove 10 disposed opposite the adjoining groove 7. These keeper plates are secured to the bed plate by bolts 11, the threaded ends of which project upwardly through said keeper plates and are provided with clamping nuts 12, the nuts thus being exposed to enable said plates to be removed when occasion requires. Openings 13 are formed in the keeper plates and register with corresponding openings, not shown, in the bed plate, through which openings round spikes or other fastenings may be passed and driven into a wooden tie to additionally fasten the parts thereto without liability of splitting the tie.

The plate 4 is of proper width to support the base of the rail 2, which rests thereon, the heads of the bolts 5 being preferably countersunk below the top surface of said plate in order to adapt the rail to rest squarely in contact therewith. To fasten the rail in position upon the seat plate, a pair of clamping devices 14 are provided, which are in the form of plates adapted to lap over upon the opposite side flanges of the base of the rail, as shown in Fig. 1. The outer longitudinal side edges of these clamping plates are provided with depending ribs 15, said ribs being of T-form to engage the grooves 7 and 10 in the said plate and keeper plates and to provide inner and outer longitudinal grooves 16 in said ribs to receive the flanges 6 and 9 of said seat and keeper plates.

By this construction it will be understood that the clamping plates are adapted to be applied and removed by sliding them longitudinally into the receiving grooves between the seat plate and keeper plate from either side of the tie, and that when they are applied in position they will overlap the side flanges of the base of the rail and clamp the latter against both longitudinal and lateral movement against the seat plate.

The openings through which the bolts 11 pass are preferably of a proper size to adapt the keeper plates to be shifted inwardly and outwardly to a limited extent without effecting the bolts, so that after application of the clamps the keeper plates may be adjusted to increase the frictional engagement between the walls of the grooves and the tongues or

flanges, to prevent any possibility of longitudinal movement of the clamp and plates in use.

It will of course be understood that the seat plate may be formed integrally with the bed plate, and that other minor changes of this nature may be made without departing from the spirit of the invention as defined in the appended claims.

When the parts are applied as above described, the rail will be firmly clamped, but by forcibly dislodging the rail clamps, it will be understood that the rail may be released for removal, so that a new rail may be readily and conveniently applied in place of an old one. By the use of fastenings which will not split a wooden tie, the bed plate may be fastened to such a tie without weakening the latter in any particular. In practice, the bed plate and keeper plates may be secured to the tie before the latter is laid, thus enabling the permanent fixtures to be applied in the shops at slack periods, with resulting convenience and economy. The advantages of the device over the customary manner of supporting and fastening rails will thus be understood, and its other manifold advantages appreciated.

I claim:—

1. Rail supporting and fastening means comprising a bed plate, keeper plates upon

the bed plate and provided with flanges at their inner edges, a rail seat plate upon the bed plate between said keeper plates and provided with similar flanges at its edges, said flanges forming undercut receiving grooves between the edges of the plates, and clamping plates adapted to engage and hold the base of a rail against said seat plate and provided with ribs of proper form to fit within said grooves and receive said flanges.

2. Rail supporting and fastening means comprising a bed plate, a rail seat plate mounted upon the bed plate, keeper plates detachably secured to the bed plate on opposite sides of said seat plate and spaced therefrom, the adjacent edges of said plates being provided with projecting flanges forming underlying grooves, and clamping plates for overlapping the base of a rail to hold the same against said seat plate, said clamping plates being provided with depending T-shaped tongues forming flanges to engage the aforesaid grooves and grooves to receive the aforesaid flanges on the seat and keeper plates.

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

LEONARD R. GARRARD.

Witnesses:

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