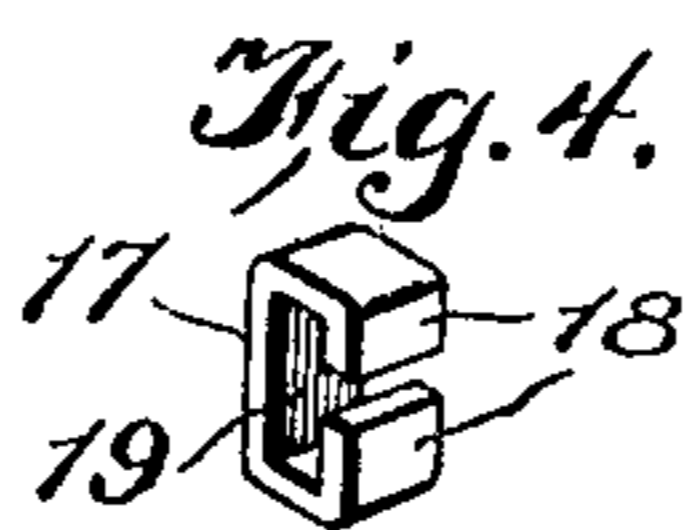
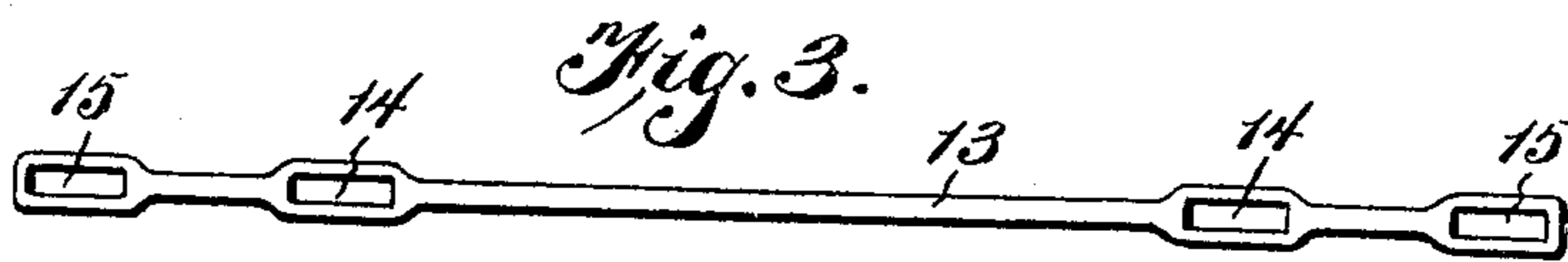
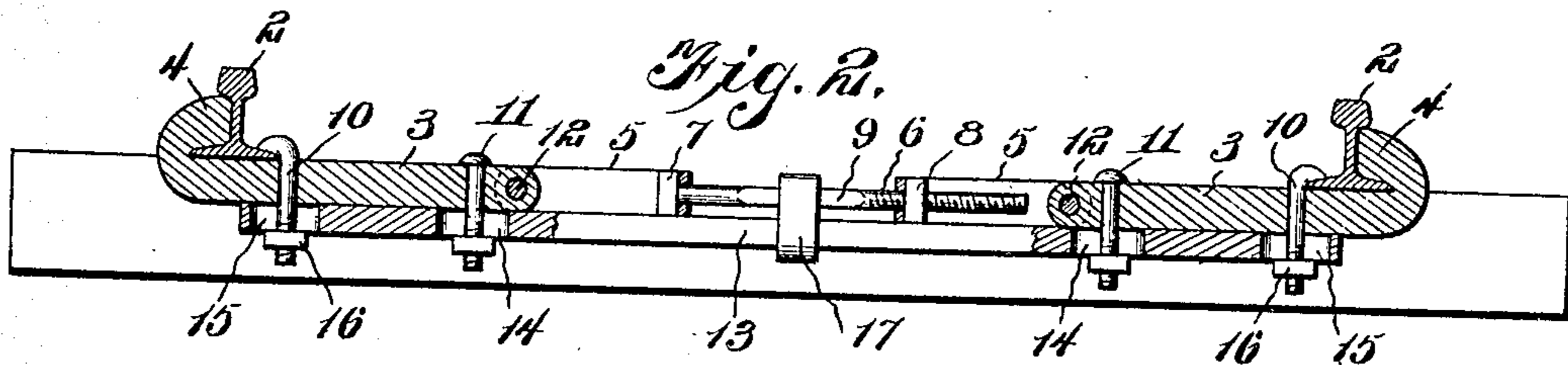
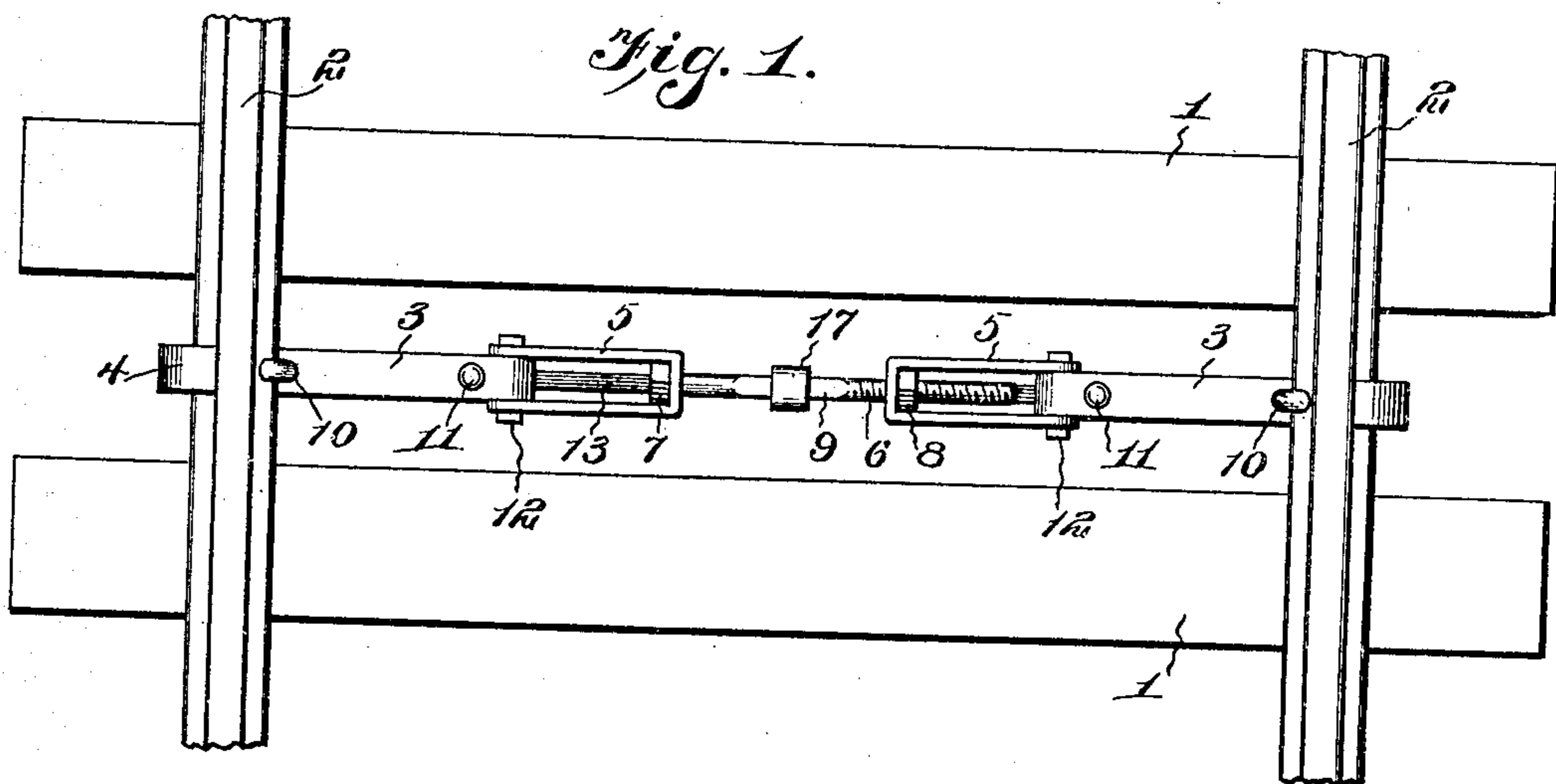


No. 885,595.

PATENTED APR. 21, 1908.

J. FRAMPTON,
RAIL TIE AND BRACE.
APPLICATION FILED JUNE 21, 1907.



Witnesses

Louis R. Heinrichs
[Signature]

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UNITED STATES PATENT OFFICE.

JOSEPH FRAMPTON, OF WILLIS, TEXAS.

RAIL TIE AND BRACE.

No. 885,595.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed June 21, 1907. Serial No. 380,117.

To all whom it may concern:

Be it known that I, JOSEPH FRAMPTON, a subject of Great Britain, residing at Willis, in the county of Montgomery and State of Texas, have invented new and useful Improvements in Rail Ties and Braces, of which the following is a specification.

This invention relates to rail ties and braces, and one of the principal objects of the same is to improve the construction of the device for which a patent was granted to Ned E. Barnes, under date of March 13, 1906, No. 815,059, by the addition of a bar through which the bolts passing through the brace bars are passed, and to provide means for locking the threaded tie bolt between the brace bars.

Another object of my invention is to add strength and efficiency to the rail tie and brace covered by the patent above referred to, and to prevent the brace bars and threaded tie bolt from rising in the center between the rails, and for holding the same in alinement.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing, in which:

Figure 1 is a plan view of a section of a roadbed showing the rails connected by my improved rail tie and brace and cross bar connected thereto. Fig. 2 is a transverse section of the same. Fig. 3 is a plan view of the strengthening bar. Fig. 4 is a detail perspective view of the key for locking the tie bolt against rotation.

Referring to the drawing for a more particular description of my invention, the numeral 1 designates the rail ties, and 2 designates the rails. The ties and braces are designed to connect the rails at suitable distances apart and are used wherever excessive lateral strain is exerted upon the rails, particularly at curves, the purpose being to prevent the spreading of the rails.

The brace bars 3 are provided with hooked terminals or clamps 4 which fit against the web portions of the rails 2 upon the outsides thereof, and connected to the inner ends of said brace bars 3 are bails 5 through which passes the tie bolt 6, said tie bolt being provided with a head 7 at one end and a nut 8 is applied to the opposite end of said tie bolt for adjusting the brace bars 3 to the required gage of the rails. The central portion of the tie bolt 6 is squared, as at 9. Clamping bolts 10, each having a hook at its upper end

to engage the inner side of the base flange of the rails 2, are passed through the brace bars 3 and bolts 11 also extend through the brace bars 3. The bails 5 are pivoted upon bolts 60 or pins 12. As thus far described the construction is substantially identical with that shown in patent to Barnes hereinbefore referred to.

To hold the brace bars 3 in proper alinement and to prevent the upward movement of the tie bolt 9 and the bails 5, I have provided a transverse brace bar 13 which may be made of steel or iron of the required strength and rigidity, said brace being provided with enlarged slotted portions 14 and 15, as shown more particularly in Fig. 3. The central portion of the brace is substantially rectangular in cross section. The clamping bolts 10 pass through the slots 15 in the brace, and the nuts 16 on said bolts are tightened up after the rails have been clamped at the required gage. The bolts 11 pass through the slots 14 and the nuts on said bolts are also turned tightly after the adjustment has been made.

The key 17 is provided with inwardly extending flanges 18 and the space 19 between the flanges and the connecting wall of the key is rectangular and adapted to fit the squared portion of the tie bolt 9 and the squared portion of the brace 13, as shown more particularly in Fig. 2, thus preventing the rotation of the tie bolt 9 and at the same time preventing the upward movement of the brace bars 3, the bails 5, and said tie bolt 9, as will be understood.

From the foregoing it will be obvious that by the addition of the brace 13, the brace bars 3 and the entire structure are rendered rigid and prevented from getting out of alinement.

My invention adds but little to the cost of the construction and adds very materially to the strength and efficiency of the device.

Having thus described the invention, what I claim is:

1. A rail tie and brace comprising brace bars having clamps to engage the rails and an intermediate adjustable coupling, said brace bars being pivotally connected with the coupling, in combination with a brace underneath said brace bars, and means for securing said brace to said brace bars and to said coupling.

2. A rail tie and brace comprising brace bars having clamps to engage the rails, bail

shaped coupling members attached to the bars, an adjustable coupling connection between said bail shaped members, and a brace connected to said brace bars and to said adjustable coupling.

3. A rail tie and brace comprising brace bars provided with means of attachment to the rails, an adjustable, pivotal connection between the bars, and a brace provided with slotted enlargements and connected to said brace bars and pivotal connection.

4. A rail tie and brace comprising brace bars provided with means of attachment to the rails, bail shaped coupling members connected with the inner ends of the bars, and a tie bolt adjustably connecting said coupling members, in combination with a transverse brace secured to said brace bars and to said tie bolt.

5. A rail tie and brace comprising brace

bars provided with means of attachment to the rails, a coupling connection between said bars, a transverse brace secured to said brace bars and coupling, and a key connected to said coupling and to said brace.

6. A rail tie and brace comprising brace bars provided with means of attachment to the rails, coupling members connected in the inner ends of the bars, a tie bolt connecting the coupling members, said tie bolt having a squared portion, a brace connected to the brace bars and provided with a squared portion, and a key fitting the squared portion of the tie bolt and the brace.

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

JOSEPH FRAMPTON.

Witnesses:

M. C. LESLIE,
S. A. McCALL.