A. C. HERBERT.

RAIL BRACE.

APPLICATION FILED MAR. 27, 1911.

1,004,255. **Patented Sept. 26, 1911.**

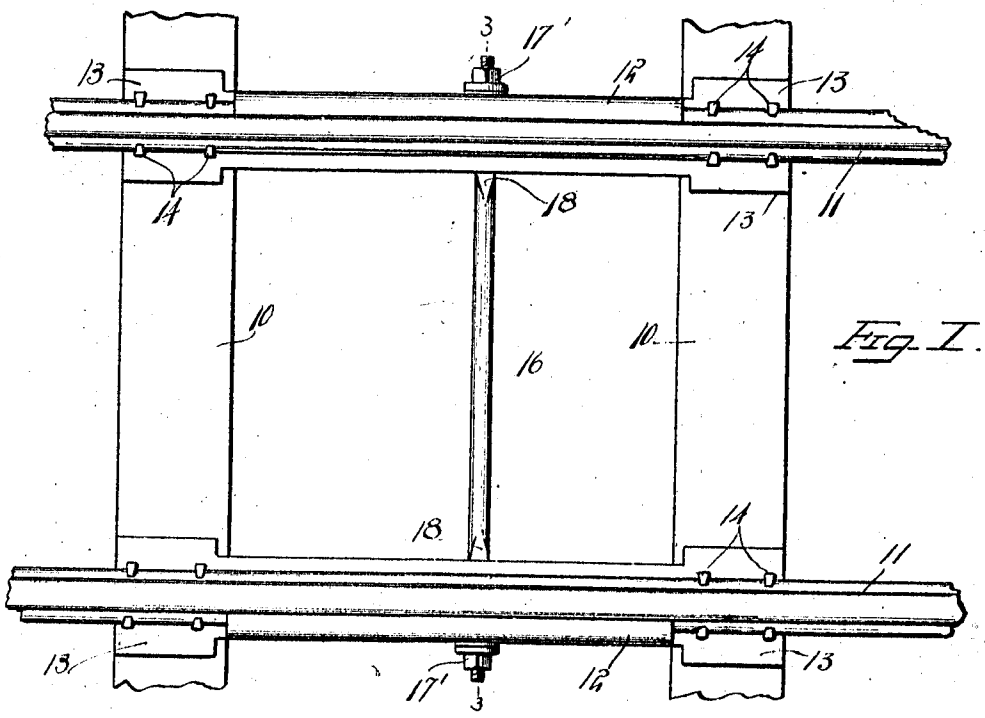


Fig. 1.

Fig. 2.

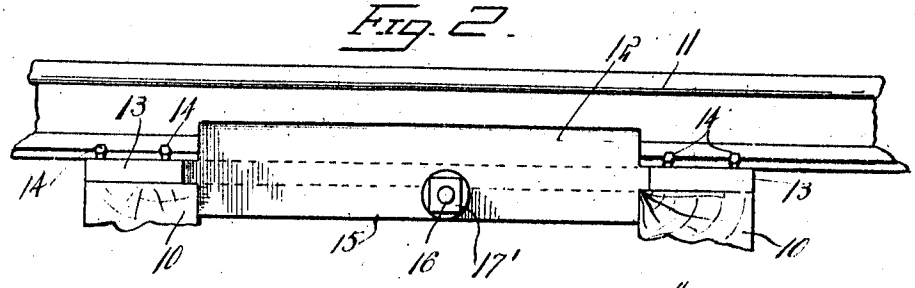
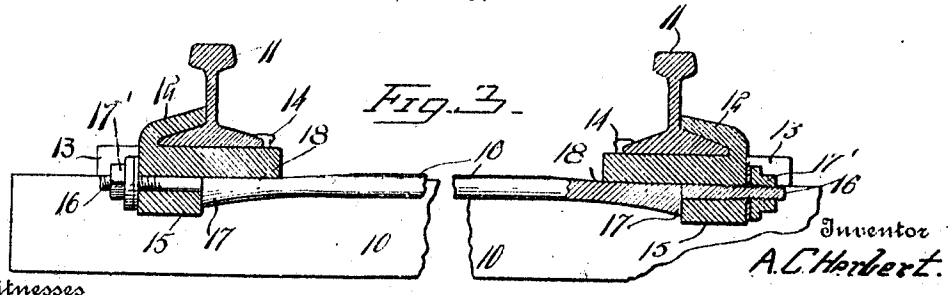


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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RAIL-BRACE.

1,004,255. Specification of Letters Patent. Patented Sept. 26, 1911.

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To all whom it may concern:

Be it known that I, ALBERT C. HERBERT, a citizen of the United States, residing at Glenlyn, in the county of Giles, State of Virginia, have invented certain new and useful Improvements in Rail-Braces; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to track braces and has for an object to simplify and generally improve devices of this character.

A second object of the present invention is to provide a track brace in the form of a rail chair, which is equipped on its underneath face with a longitudinal rib which abuts with its ends the opposing faces of adjacent ties and holds the ties against movement toward each other, novel end plates being formed integral with each rail chair for receiving securing spikes, these end plates being fastened to said adjacent ties and positively preventing the ties from movement away from each other.

A further object of the invention is to provide a novel form of tie rod for connecting the two rail chairs comprising the track brace, this tie rod holding the rail chairs snugly up against the rails and further being so constructed as to be positively held against rotation during vibration of the rails when under load so that backing off of the retaining nuts carried upon the opposite ends of this tie rod will be reduced to a minimum.

With the above objects in view the invention consists in certain novel details of construction and combination of parts hereinafter fully described and claimed, it being understood that various modifications may be made in the minor details of construction within the scope of the appended claims.

In the accompanying drawing forming part of this specification:—Figure 1 is a plan view of a portion of a railway track equipped with a track brace embodying my improvements. Fig. 2 is a side elevation of the track and brace shown in Fig. 1. Fig. 3 is a cross sectional view taken on the line 3—3 Fig. 1.

Referring now to the drawing in which like characters of reference designate similar parts, 10 designates two juxtaposed ties upon which are spiked in the usual manner traffic rails 11. The track brace for positively preventing relative movement of these ties and traffic rails consists of a pair of rail chairs 12 of sufficient length to bridge the space between two juxtaposed ties, the opposite ends of each chair being equipped with integral approximately square plates 13 which are designed to bear upon the top faces of the ties and extend laterally beyond the edges of the rail base flange clamped by the chair. Suitable orifices are formed in these plates for the reception of spikes 14, these spikes being driven into the ties and engaging opposite sides of the rail base flange. In this manner each chair is rigidly secured to the pair of juxtaposed ties and positively prevents the ties from spreading apart.

For preventing the ties from movement toward each other a longitudinal rib 15 is formed on the underneath face of each chair, the opposite ends of this rib abutting the opposing faces of the pair of ties as clearly shown in Fig. 2. These ribs perform the function of spacing blocks which positively prevent movement of the ties toward each other.

For holding the rail chairs clamped securely to the traffic rails, a tie rod 16 is provided, this tie rod being preferably circular in cross section and having approximately conical enlargements 17 adjacent to its opposite ends, the end portions of the rod being uniformly reduced beyond these enlargements and threaded to receive retaining nuts 17′. The reduced end portions of the rod are passed through suitable openings in the ribs of the rail chairs, the outer faces of the approximately conical enlargements forming stop shoulders which bear against the inner or opposing faces of the ribs and space the rail chairs a sufficient distance apart to tightly clamp the outer sides of the traffic rails. The uppermost portions of the enlargements are cut away to provide flat bearing faces 18 which intimately contact with the underneath faces of the rail chairs and positively prevent rotation of the rod. In this manner backing off of the retaining nuts which are carried upon the threaded outer ends of the bolt and bear against the rail chairs as shown in Fig. 1, is reduced to a minimum.

From the above description it will be seen that a track brace of this kind positively prevents the ties from movement either to-

ward or away from each other, further positively prevents the traffic rails turning over outwardly or spreading apart from each other.

What is claimed, is:—

1. A track brace including a pair of spaced rail chairs, each of said rail chairs having a depending rib on its underneath face engageable with the opposing faces of a pair of juxtaposed ties, a tie rod having end portions formed with approximately conical enlargements, the extreme ends of said tie rod being uniformly reduced beyond said enlargements, said reduced ends projecting through orifices formed in said ribs, and retaining nuts threaded on said reduced ends and bearing against the outer faces of said ribs, said enlargements having their uppermost faces cut away whereby flat bearing faces are formed, said bearing faces engaging with the underneath faces of said rail chairs and preventing rotation of said tie rod.

2. A track brace including a pair of spaced rail chairs, each of said rail chairs having a depending rib on its underneath face engageable with the opposing faces of a pair of juxtaposed ties, a tie rod having end portions formed with approximately conical enlargements, the outer faces of the enlargements bearing against the inner faces of the ribs and forming stop shoulders which space the chairs a sufficient distance apart to tightly clamp the outer sides of the traffic rails, said enlargements having their uppermost faces cut away and forming flat bearing faces for engagement with the underneath faces of said chairs, the extreme ends of said tie rod being uniformly reduced beyond said enlargements, said reduced ends projecting through orifices formed in said ribs, and retaining nuts threaded on said reduced ends and bearing against the outer faces of said ribs.

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

ALBERT C. HERBERT.

Witnesses:

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