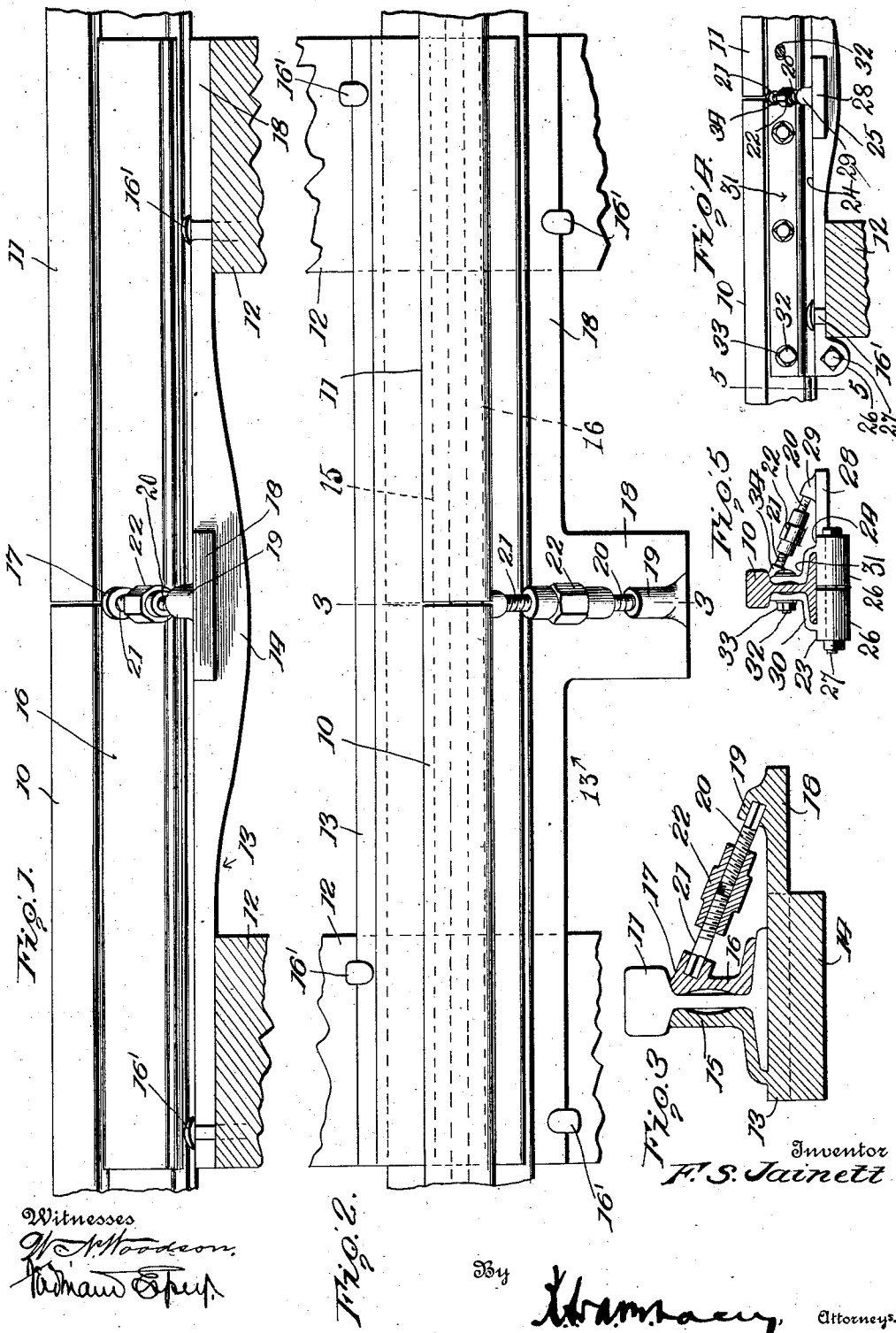


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RAILWAY RAIL JOINT AND BRACE.
APPLICATION FILED APR. 15, 1912.

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UNITED STATES PATENT OFFICE.

FREDRICK S. JAINETT, OF PRESIDIO, CALIFORNIA.

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Specification of Letters Patent.

Patented May 13, 1913.

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To all whom it may concern:

Be it known that I, FREDRICK S. JAINETT, citizen of the United States, residing at Presidio, county of San Francisco, California, have invented certain new and useful Improvements in Railway-Rail Joints and Braces, of which the following is a specification.

This invention relates to improvements in railway joints and braces for the same, and has for one of its objects to improve the construction and increase the efficiency and utility of devices of this character.

Another object of the invention is to provide a device of this character which may be applied without material structural changes to rails of various sizes and without mutilating or otherwise weakening the rail.

Another object of the invention is to provide a device of this character including an adjustable brace whereby the rails are supported and means provided for taking up slack in the brace.

Another object of the invention is to provide a device of this character which firmly supports the rail at the joint and renders the same as solid as any point between the joints and thereby produces a continuous jointless rail.

With these and other objects in view, the invention consists in certain novel features of construction as hereafter shown and described, and then specifically pointed out in the claims, and shown in the drawings illustrative of the preferred embodiment of the invention.

Figure 1 is a side view of the improved device applied; Fig. 2 is a plan view of the same; Fig. 3 is a transverse section on the line 3—3 of Fig. 2; Fig. 4 is a view similar to Fig. 1, illustrating a modification in the construction; Fig. 5 is a transverse section on the line 5—5 of Fig. 4.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The improved device is applied to the rails represented respectively at 10—11 which are supported upon ties of the usual construction represented at 12, and comprises a chair or support formed of a main body member 13 extending beneath the tie flange of the rail and increased in thickness between the ties as shown at 14. The body 13 is provided with a brace web 15 extend-

ing longitudinally of the body and bearing against the vertical webs of the rails at one side. Bearing against the vertical webs of the rails at the opposite side from the brace member 15 is another plate or brace member 16 having a socket 17 at the center.

The side edges of the body 13 are extended and provided with recesses for spikes 16' by means of which the body member is secured to the ties 12.

Extending laterally from the body 13, is a relatively long web 18 having a socket 19. The socket 19 is designed to receive the outer end of a rod 20, while the socket 17 is designed to receive the outer end of a rod 21, the inner or contiguous ends of the rods being threaded right and left-handed to receive right and left-handed sleeve 22. The two rods and the sleeve thus constitute a brace between the outer end of the web 18 and the rail-engaging brace member 16, and by rotating the sleeve 22, it will be obvious that strain may be applied against the brace 16 to support and brace the rail. These brace devices will be employed upon curves, switches, frogs and guard rails and wherever required.

It will be noted that no bolts are required in the construction shown in Figs. 1, 2 and 3, as the bracing devices are sufficient to rigidly hold the rails in all directions.

In Figs. 4 and 5 a slight modification in the construction is shown consisting in forming the base portion of the device of two coacting members 23—24, preferably increased in thickness between the ties, one of the increased portions being represented at 25. At their ends the members 23—24 are formed with downwardly depending ribs 26 through which clamp bolts 27 are extended and provided with clamp nuts to provide efficient connecting means between the body members, and to clamp them firmly upon the rail. The base member 24 is provided with a laterally extending web 28 similar to the web 18 and provided with a socket 29 corresponding to the socket 19. Directed upwardly from the body member 23, is a brace web 30, and bearing against the rail at one side, while a similar brace web 31 extends upwardly from the member 24 and bears against the rail at the opposite side. The webs 30—31 are connected by clamp bolts 32 having clamp nuts 33 of the usual construction. The brace member 31 is provided with a socket 34 corresponding

to the socket 17. The two sockets 29 and 34 are designed to receive the right and left threaded clamp bolts 20 and 21, and the sleeve 22, and operating in the same manner as in the structure shown in Figs. 1, 2 and 3.

The improved device is simple in construction, can be applied without structural change to the rails, and forms an effectual joint between the confronting ends of the rails and firmly supports and braces the same so that the lines of the rails are as rigid and firm at the joints as at other parts, thereby providing an effectual continuous rail which will not be deflected by the pressure of the rolling stock.

The supports may be formed of any required strength to correspond to the weight of the rails.

Having thus described the invention, what is claimed as new is:

1. A railway rail joint comprising a base for extending beneath the rails and having a rail brace at one side and a lateral web at the other side, said lateral web having a socket, another rail brace bearing against the rail and provided with a socket, a brace rod having a right-handed thread and engaging in one of said sockets, a rod having a left-handed thread and engaging in the other socket, and a sleeve engaging over the threaded portions of said rods, whereby strain may be applied against said rail.

2. A railway rail joint comprising coacting base members adapted to extend beneath railway rails and each having a clamp plate for extending over the tie flanges and

against the rail webs, an extension upon one of said base members, means for clamping said base members and their webs together, and rods bearing respectively against said extension and against the adjacent clamp plate and threaded right and left-handed at their adjacent ends, and a sleeve right and left-threaded and engaging the threads of said rods.

3. A railway rail joint comprising coacting base members adapted to bear beneath railway rails and each having a clamp plate for extending over the tie flanges and against the vertical rail webs, a socket upon one of said clamp plates, an extension upon one of said base members, a socket upon said extension, rods bearing respectively in said sockets, and means for moving said rods away from each other.

4. A railway rail joint comprising coacting base members adapted to extend beneath railway rails and each having a clamp plate for extending over the tie flanges and against the vertical rail webs and enlarged at the ends, clamp devices operating through said enlargements, an extension upon one of said base members, a socket upon said extension, rods bearing respectively in said sockets, and means for moving said rods away from each other.

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

FRED. S. JAINETT. [L. s.]

Witnesses:

A. J. CORNELL,

E. E. BUNNELL.