

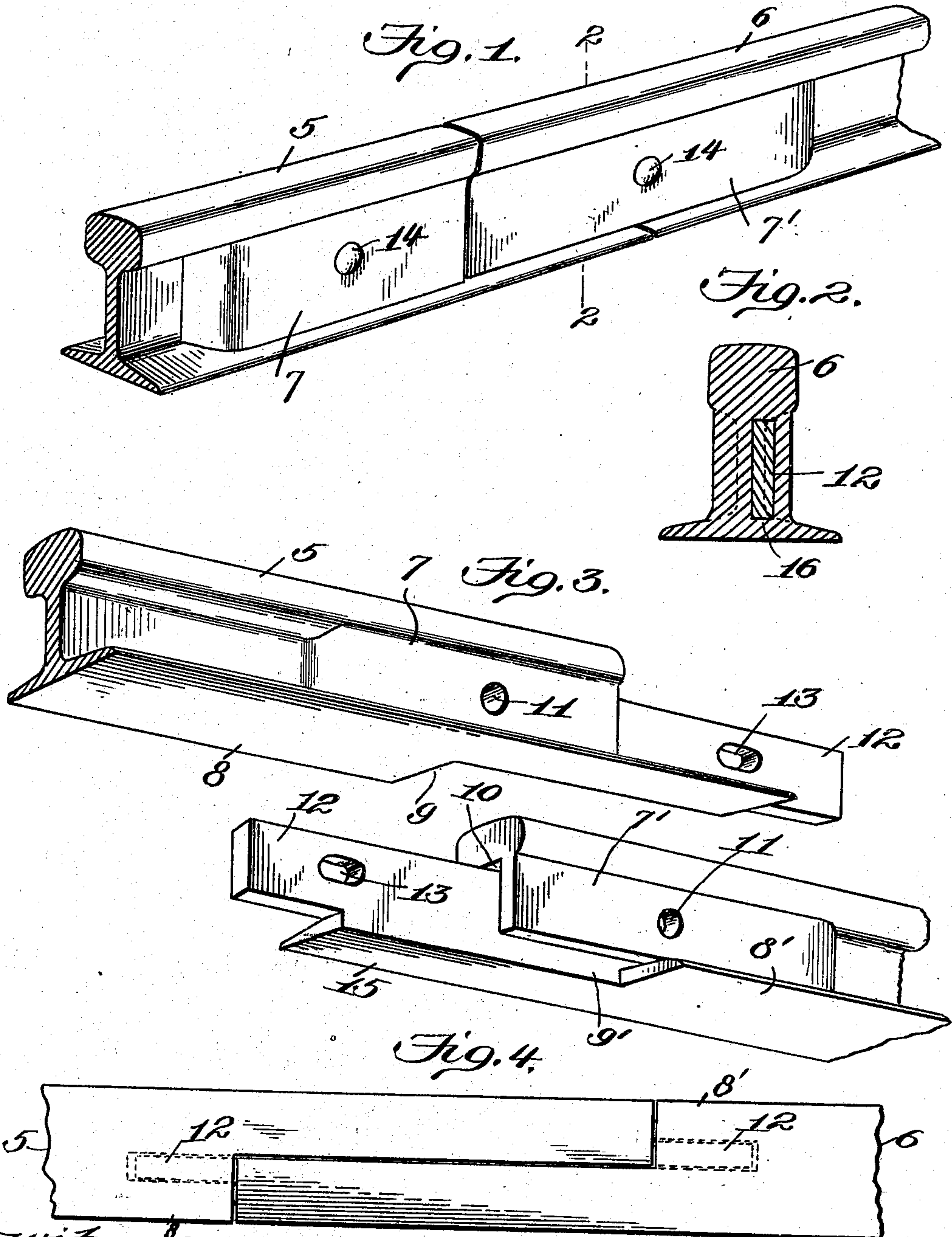
No. 885,656.

PATENTED APR. 21, 1908

W. B. TALIAFERRO.

RAIL JOINT.

APPLICATION FILED JUNE 12, 1907.



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# UNITED STATES PATENT OFFICE.

WILBUR BLAIR TALIAFERRO, OF CAPE GIRARDEAU, MISSOURI.

## RAIL-JOINT.

No. 885,656.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed June 12, 1907. Serial No. 378,566.

*To all whom it may concern:*

Be it known that I, WILBUR BLAIR TALIAFERRO, a citizen of the United States, residing at Cape Girardeau, in the county of Cape Girardeau and State of Missouri, have invented new and useful Improvements in Rail-Joints, of which the following is a specification.

This invention relates to "rail joints"; and the object thereof is to provide a joint for railway rails in which the use of fish plates is dispensed with, and further to provide a rail joint in a manner as hereinafter set forth whereby the adjoining ends of the rails are interlocked to prevent a separation thereof, and further to prevent lateral displacement, as well as the rising and falling of either of the rails below the level of the end of the adjoining rail whereby a smooth and even joint is insured.

Further objects of the invention are to provide a rail joint which shall be simple in its construction and arrangement, strong, durable, uniting and supporting the rails, bridging the gaps between the ends of the rails, allowing for the expansion and contraction of the rail sections and readily set up.

With the foregoing and other objects in view the invention consists in the novel combination, construction and arrangement of parts hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown the preferred embodiment of the invention, but it is to be understood that changes, variations and modifications can be resorted to which come within the scope of the claims hereunto appended.

In describing the invention in detail reference is had to the accompanying drawings wherein like characters denote corresponding parts throughout the several views, and in which—

Figure 1 is a perspective view of a pair of rail sections connected together in accordance with this invention; Fig. 2 is a section on line 2—2 of Fig. 1; Fig. 3 is a perspective view showing the rail sections disconnected, and, Fig. 4 is an inverted plan of two of the rail sections connected together.

Referring to the drawings by reference characters, 5 and 6 denote the rail sections the abutting ends thereof being constructed in the same manner. The section 5 is formed at one end with an enlarged web as at 7, and the said rail section 5 has the base 8 cut away as at 9. That end of the rail section 5 hav-

ing the web thereof enlarged as at 7 also has the web enlarged as at 7'. The base 8' of the section 6 is cut away as at 9'. Each of the enlarged portions 7, 7' of the tread of each of the rail sections 5, 6, is formed with a socket 10 and is further provided with an opening 11.

Projecting from each of the enlarged portions 7, 7' is a tongue 12, the said extensions projecting in opposite directions with respect to each other and alternately disposed so that one will extend in parallelism with respect to the other when the joint is made. The tongues 12 when the joint is made are adapted to engage in the sockets 10. Each of the tongues 12 is formed with an oval-shaped opening 13 and the said openings 13 are adapted to register with the openings 11 when the joint is made and through the said openings 11 and 13 holdfast devices 14 extend so as to connect the rail sections 5 and 6 together. The oval-shaped openings 13 allow for the contraction and expansion of the rail sections. Each of the extensions 12 is formed at its lower end with a laterally-extending flange 15 forming a continuation of the base of its respective rail section. The flange 15 terminates at a point removed from the outer end of the tongue 12 so as to allow the base of the rail, as at 16, to act as a support for that part of the tongue 12 which is not provided with a flange 15.

The cut-away portion 9 is provided to receive the flange 15 and a portion of the base 8', and the cut-away portion 9' is provided to receive the flange 15 on the other tongue 12 and base 8.

The portion of each of the tongues 12 which is not provided with a flange 15 and which extends in the socket 10 so as to be supported by the base of the rail section, acts, in connection with the lower face of the tread of the rail and upper face of the base, to prevent any rising or lowering of either of the rails below the level of the end of the adjoining rail whereby a smooth and even joint is insured. Furthermore this tends also to prevent lateral displacement. The cutting away of the base of the rail sections in a manner as shown so that a cut-away portion of one rail section will receive the base of the other section and vice-versa also tends to prevent lateral displacement.

The providing of the socket 10 in one rail section to receive the tongue of the other section in connection with the flange 15, it is



evident, will also prevent lateral displacement and at the same time assist in maintaining a smooth and even joint, and as before stated, allowance is made for the contraction and expansion of the rail sections owing to the providing of each of the tongues with oval-shaped openings through which extend the holdfast devices.

What I claim is—

10 1. In a rail joint in combination, a pair of rail sections, each of which has one end formed with the web portion thereof enlarged, said enlarged web portion formed with a socket having an end, top, a bottom, 15 and a pair of side walls, said web further provided with a longitudinally-extending tongue having an integral flange forming a continuation of the rail base, said flange of less length than said tongue, the tongue projecting from 20 one of the enlarged web portions adapted to engage in the socket formed in the other of the enlarged web portions, each of said rail sections further having the base thereof cut away, the cut away portion upon one section 25 alternately disposed with respect to the cut-away portion upon the other section.

2. In a rail joint in combination, a pair of rail sections each of which has the web portion provided with a socket, said socket 30 having a top, an end, a bottom and a pair of side walls and with a portion of the bottom thereof cut away, each of said rail sections further provided with a tongue projecting from the web portion thereof, said 35 tongues alternately disposed with respect to each other and of a length substantially equal to the length of a socket and adapted to enter the said sockets, each of said tongues

formed at its bottom with a laterally-extending flange of less length than the length of the tongue said flanges alternately disposed with respect to each other and each of said rail sections further having the base thereof cut away, the cut-away portion of one rail section alternately disposed with respect to the cut-away portion of the other rail section. 40 45

3. In a rail joint in combination, a pair of rail sections each of which has the web portion provided with a socket, said socket having a top, an end, a bottom and a pair of side walls and with a portion of the bottom thereof cut away, each of said rail sections further provided with a tongue projecting from the web portion thereof, said tongues alternately disposed with respect to each other and of a length substantially equal to the length of a socket and adapted to enter the said sockets, each of said tongues formed at its bottom with a laterally-extending flange of less length than the length of the tongue, said flanges alternately disposed with respect to each other and each of said rail sections further having the base thereof cut away, the cut-away portion of one rail section alternately disposed with respect to the cut-away portion of the other rail section, and holdfast devices extending through the webs of the rail sections and the tongues for connecting the rail sections together. 50 55 60 65

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 70

WILBUR BLAIR TALIAFERRO.

Witnesses:

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BENJ. R. HEMPSTEAD.