M. L. BYERS.

RAILWAY RAIL FASTENER.

APPLICATION FILED APR. 16, 1909.

928,496.

Patented July 20, 1909.

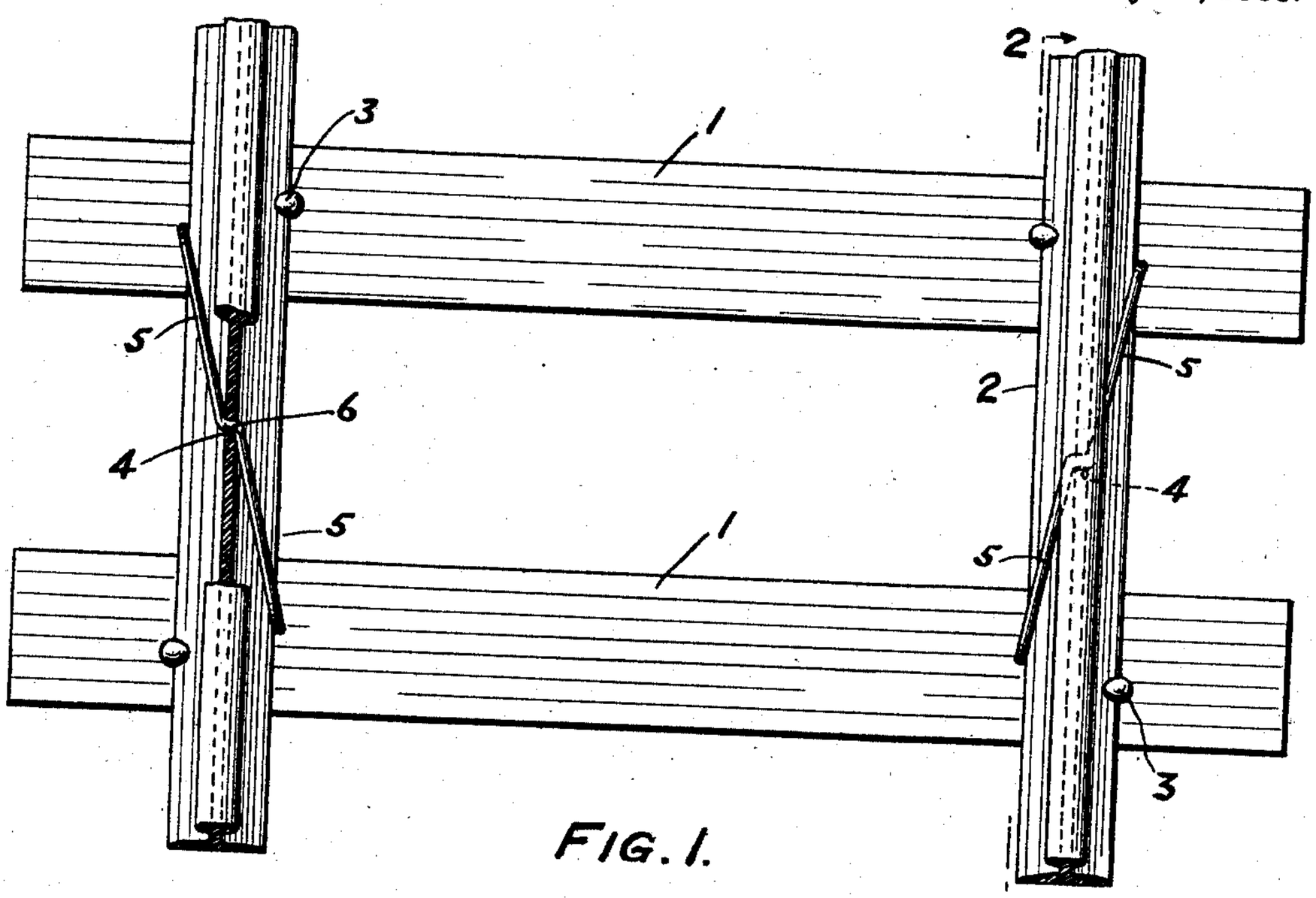

FIG. 1.

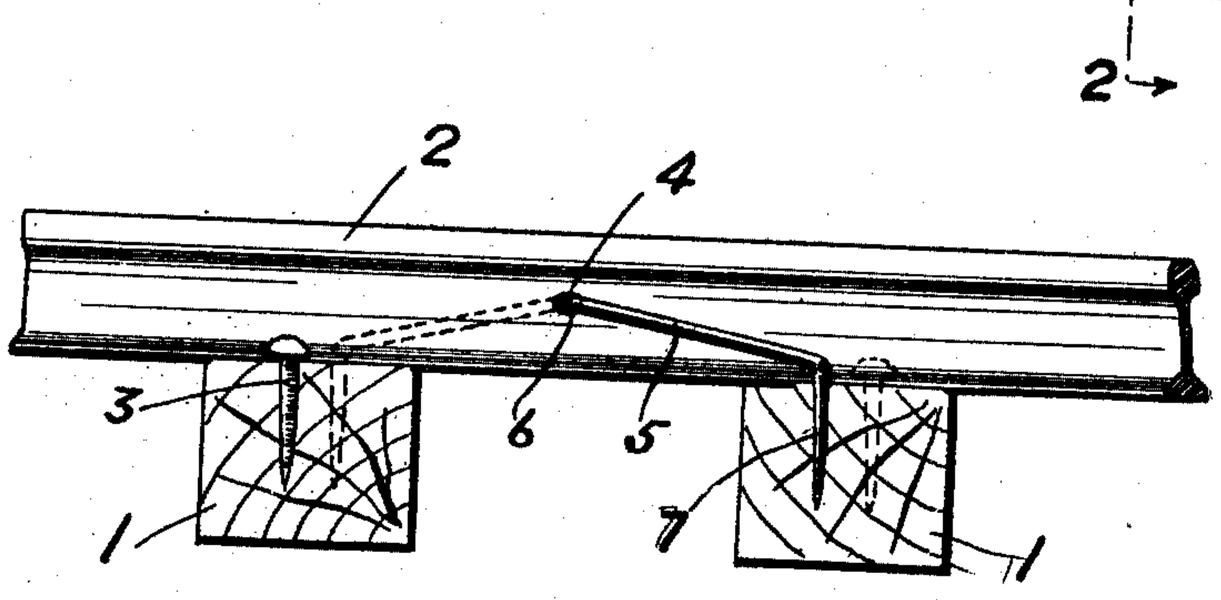

FIG. 2

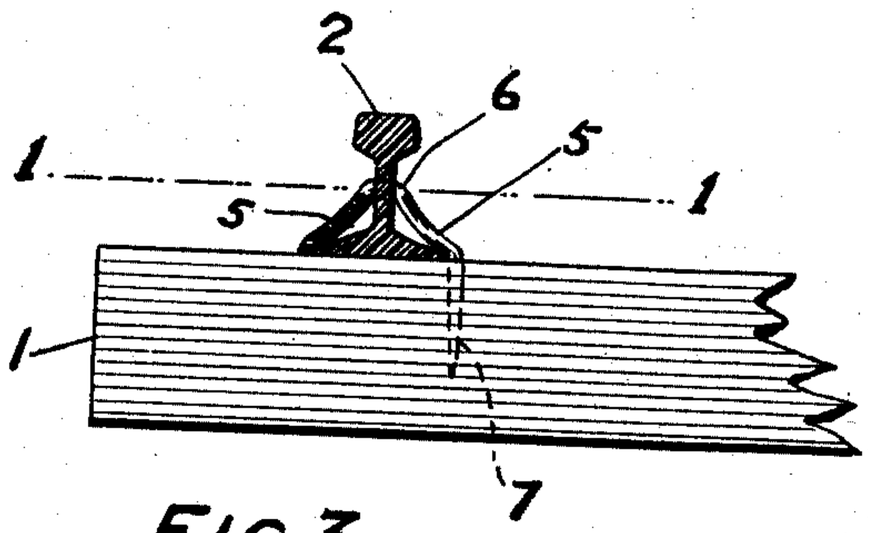

FIG. 3.

WITNESSES:

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UNITED STATES PATENT OFFICE.

MORTON L. BYERS, OF ST. LOUIS, MISSOURI.

RAILWAY-RAIL FASTENER.

No. 928,496. Specification of Letters Patent. Patented July 20, 1909.

Application filed April 16, 1909. Serial No. 490,343.

To all whom it may concern:

Be it known that I, MORTON L. BYERS, a citizen of the United States, residing in the city of St. Louis and State of Missouri, have invented certain Improvements in Railway-Rail Fasteners, of which the following is a specification.

This invention is a railway rail fastener designed to prevent rail creeping, which results from various causes, as the wave motion induced by moving trains, the movement of trains on grades, and the expansion and contraction due to changes in temperature.

In usual forms of track construction, the rail ends are secured together and to a joint tie by angle bars bolted to the rails and spiked to the tie. When the track is laid in the usual manner with the joints of the opposite rails alternating, the rail section spiked to the tie opposite the joint will move relatively to the spike and tie while the opposite section will act through the angle bar to move the tie to an angular position and reduce the gage of the track. To overcome this difficulty and to prevent creeping in other parts of the track, devices are commonly fixed to the base of the rail so as to bear against the side of a tie, or bars are bolted to the rails and spiked to the ties, but such devices are objectionable on account of their expense, the difficulty of attaching them, and their failure to accomplish satisfactorily the end desired.

My improvements provide a simple one piece device having a body adapted to engage in a hole drilled in the web of the rail and prongs adapted to be driven into adjacent ties in close proximity to the base of the rail on opposite sides of the web, acting in a symmetrical manner to prevent creeping in the movement of trains in both directions. As they are of such character that they can be arranged in pairs, one disposed opposite another, they act in a uniform manner upon the ties to which they are connected and avoid skewing, while maintaining correct gage and alinement.

In the drawing, Figure 1 is a top view of a section of track having my improved fastener applied thereto, a portion of one rail being broken away on the line 1—1 of Fig. 3; Fig. 2 is a sectional side elevation taken on the line 2—2 of Fig. 1; and Fig. 3 is a view showing a section of a tie and rail connected by the fastener.

The drawing shows the ties 1, the rails 2 supported thereby and the spikes 3 driven into the ties with their heads engaging the rail flanges, the rails having formed in the webs thereof the oppositely disposed holes 4. The fastener comprises the rod sections 5 having the intermediate section or shoulder 6 and the prongs 7, all formed in a single piece. The fasteners are applied by inserting prongs 7 and sections 5 thereof through oppositely disposed holes 4 of the parallel rails, so as to engage the shoulders 6 in the holes, the respective prongs being brought into juxtaposition with the opposite flanges of the respective rails and driven into adjacent ties, the fasteners being bent in applying them. The parallel rails are thus similarly engaged to the same ties, the fasteners act and are acted upon in a similar manner to prevent creeping regardless of the direction of movement of trains, and the rails are held in proper position, by the instrumentality of devices which are simple and inexpensive, in both construction and application.

Having described my invention, I claim:

1. A rail fastener comprising oppositely extending rod sections, a connecting section disposed transversely to said sections first named, and prongs on the respective sections first named.

2. A rail fastener comprising oppositely extending rod sections having a connecting shoulder and prongs on the respective sections, in combination with a rail having a hole therein adapted to be engaged by said shoulder and, supporting said rail, ties adapted to be engaged by said prongs.

3. The combination of a pair of ties, supported on said ties a pair of rails having holes in the respective webs thereof, and engaged in the respective holes fasteners having oppositely extending members with prongs thereon engaging the said ties.

4. A rail fastener adapted to pass through and engage the web of a rail, said fastener having prongs adapted to be driven into ties spaced along said rail on opposite sides of the connection with said web and in engagement with opposite flanges of said rail.

In witness whereof I have hereunto set my name this 12th day of April 1909, in the presence of the subscribing witnesses.

MORTON L. BYERS.

Witnesses:
M. K. SALMON,
GUY R. ALEXANDER.