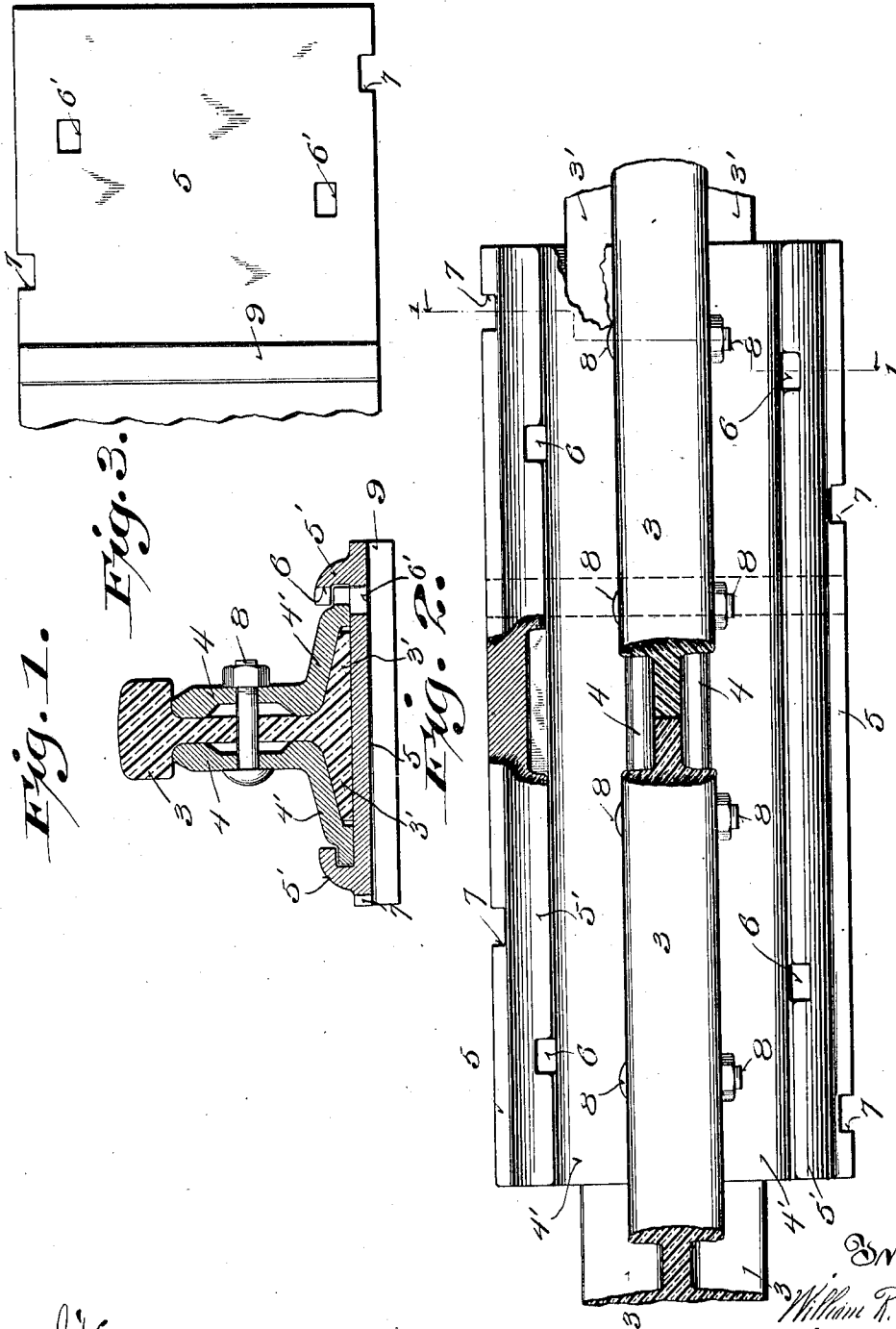


W. R. THOMAS.  
RAILWAY RAIL JOINT.  
APPLICATION FILED APR. 4, 1911.

1,019,860.

Patented Mar. 12, 1912.



Witnessed  
Carroll J. Young  
May 20, 1912.

Inventor:  
William R. Thomas.  
By *Clifford Young*  
Attorneys.

# UNITED STATES PATENT OFFICE.

WILLIAM R. THOMAS, OF WATERTOWN, WISCONSIN.

## RAILWAY-RAIL JOINT.

1,019,860.

Specification of Letters Patent.

Patented Mar. 12, 1912.

Application filed April 4, 1911. Serial No. 618,922.

### *To all whom it may concern:*

Be it known that I, WILLIAM R. THOMAS, a citizen of the United States, and resident of Watertown, in the county of Jefferson and State of Wisconsin, have invented certain new and useful Improvements in Railway-Rail Joints; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention consists in what is herein particularly set forth with reference to the accompanying drawings and pointed out in the claim of this specification, its main object being to provide simple, economical and efficient anti-spreading and anti-creeping railway rail-joints having other features of advantage to which attention is directed in the subjoined description.

Figure 1 of the drawings represents a transverse section view of a rail-joint in accordance with my invention, the section being indicated by line 1—1 in Fig. 2, which Fig. 2 is a plan view of the joint partly broken away, and Fig. 3, a plan view of a fragment of the joint inverted.

Referring by letter to the drawings, 3 indicates each of a pair of railway meeting rails and 4 each of a pair of fish-plates that are bolted to the webs of the rails. The fish-plates are provided with foot flanges 4', whereby they are stiffened. These flanges are fashioned to inclose the flanges 3' of the rails and rest upon the chair 5, which chair is provided longitudinally thereof with a pair of continuous parallel upwardly extending angular lips that lap over the extremities of said fish-plate flanges. Registering edge notches are provided in the lips of the chair and the flanges of the fish-plates to form passages 6 that register with spike-holes 6' in the chair, and notches 7 in the edges of said chair are preferably in staggered relation to said spike-holes, these chair-edge notches being for the engagement of spikes.

The chair distributes the strain upon the

spikes, not shown, and the chair-lips prevent lifting or spreading of the rails in case the fish-plate bolts 8 are loosened, while at the same time the double spiking obviates creep of the joint that also has greater than ordinary bearing surface upon opposing railway-ties because of the width of said chair necessary to the accommodation of the fish-plate flanges. It is also to be noted that the spiking down of the chair, independent of the fish-plates and rails, provides for a resistance to strain that comes upon the innermost spikes by which said fish-plates and rails are held to the ties aforesaid.

The underside of the chair is shown provided with a transverse rib 9 designed to abut one side of a railway tie longitudinally of the same and which offers resistance to creeping tendency of the joint, but this rib may not be always necessary or desirable. Hence I do not limit myself to a chair having such a rib.

### I claim:

In a railway rail-joint, the combination of a chair provided with edge-notches and spike-holes, as well as with an underside tie-opposing transverse rib and a pair of parallel upwardly extending angular lips continuous longitudinally thereof, these lips being edge-notched in register with said spike-holes; rails in the chair, and fish-plates that are fastened to the rails and have foot-flanges fashioned to inclose the rail-flanges and rest on said chair under the lips thereof, said fish-plate flanges being provided with edge-notches that register with those of said lips and the spike-holes of the aforesaid chair.

In testimony that I claim the foregoing I have hereunto set my hand at Milwaukee in the county of Milwaukee and State of Wisconsin in the presence of two witnesses.

WILLIAM R. THOMAS.

### Witnesses:

N. E. OLIPHANT,  
MAY DOWNEY.