

No. 712,160.

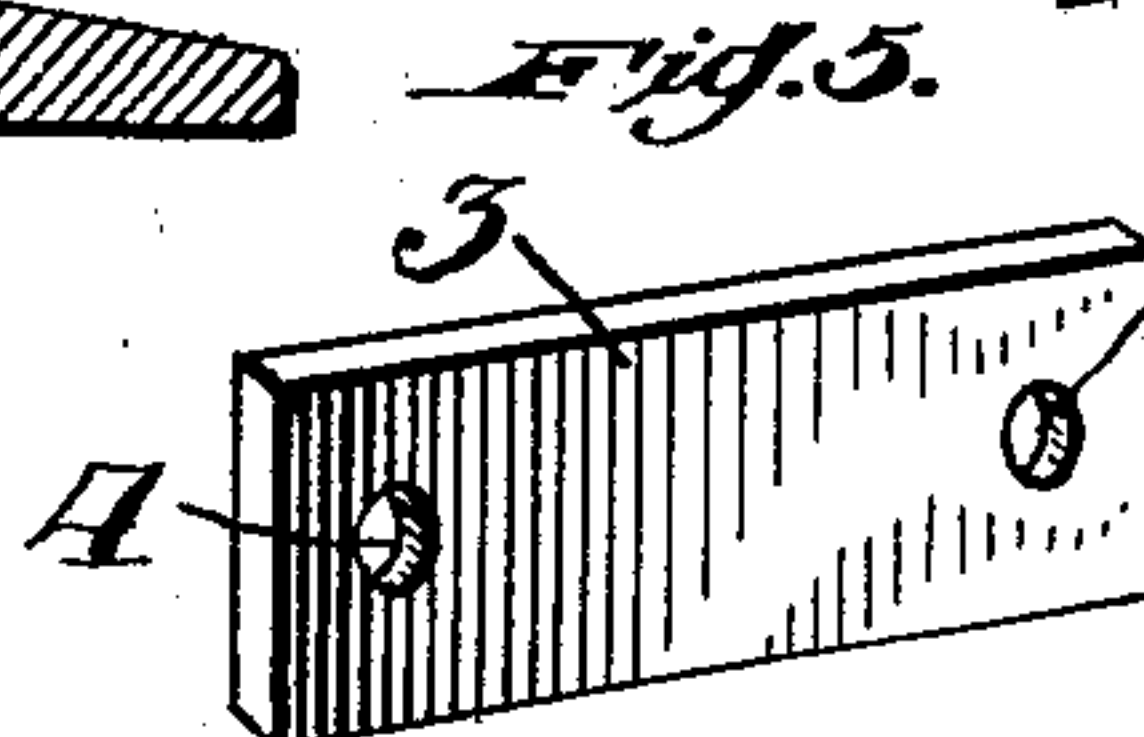
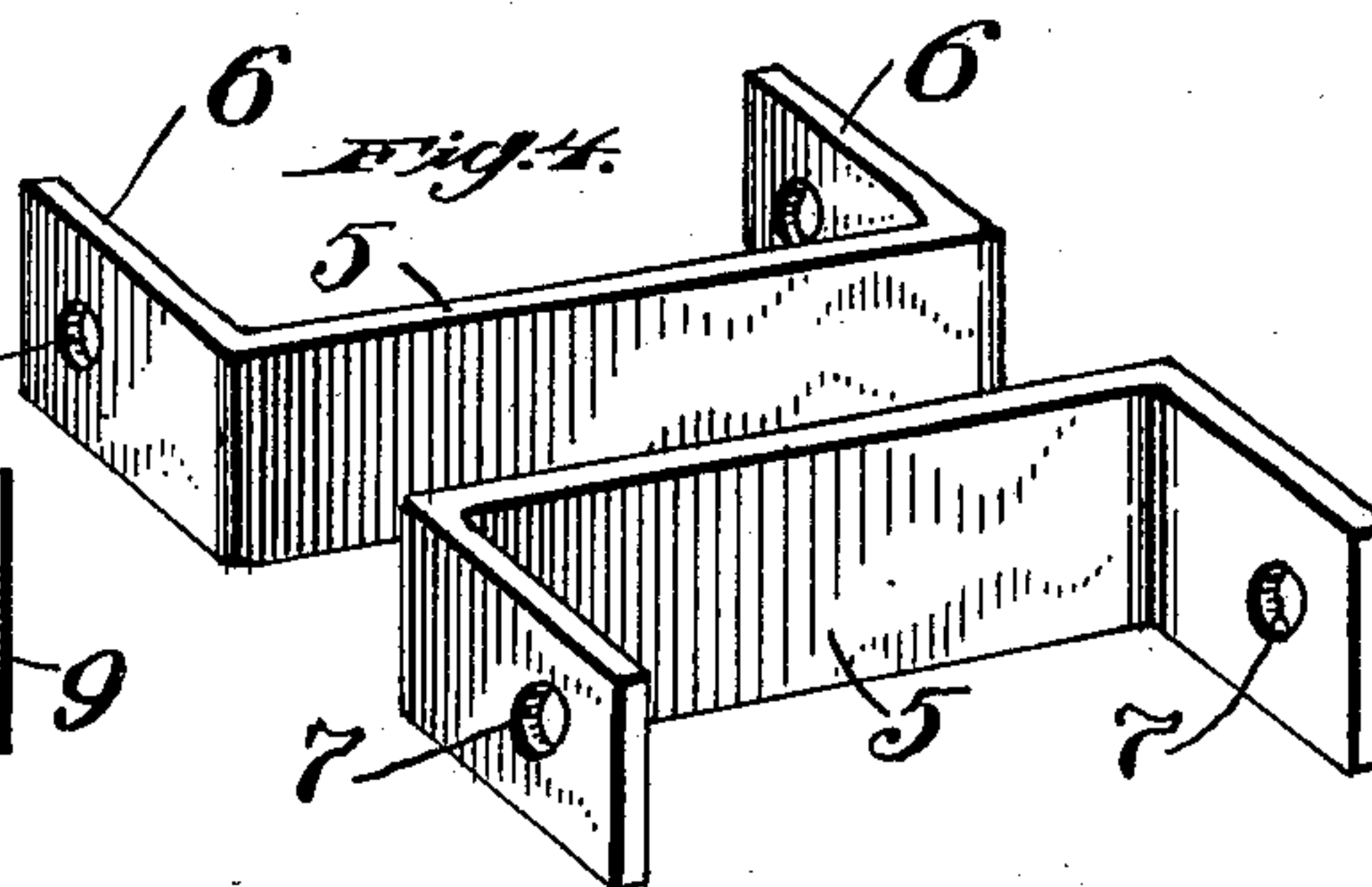
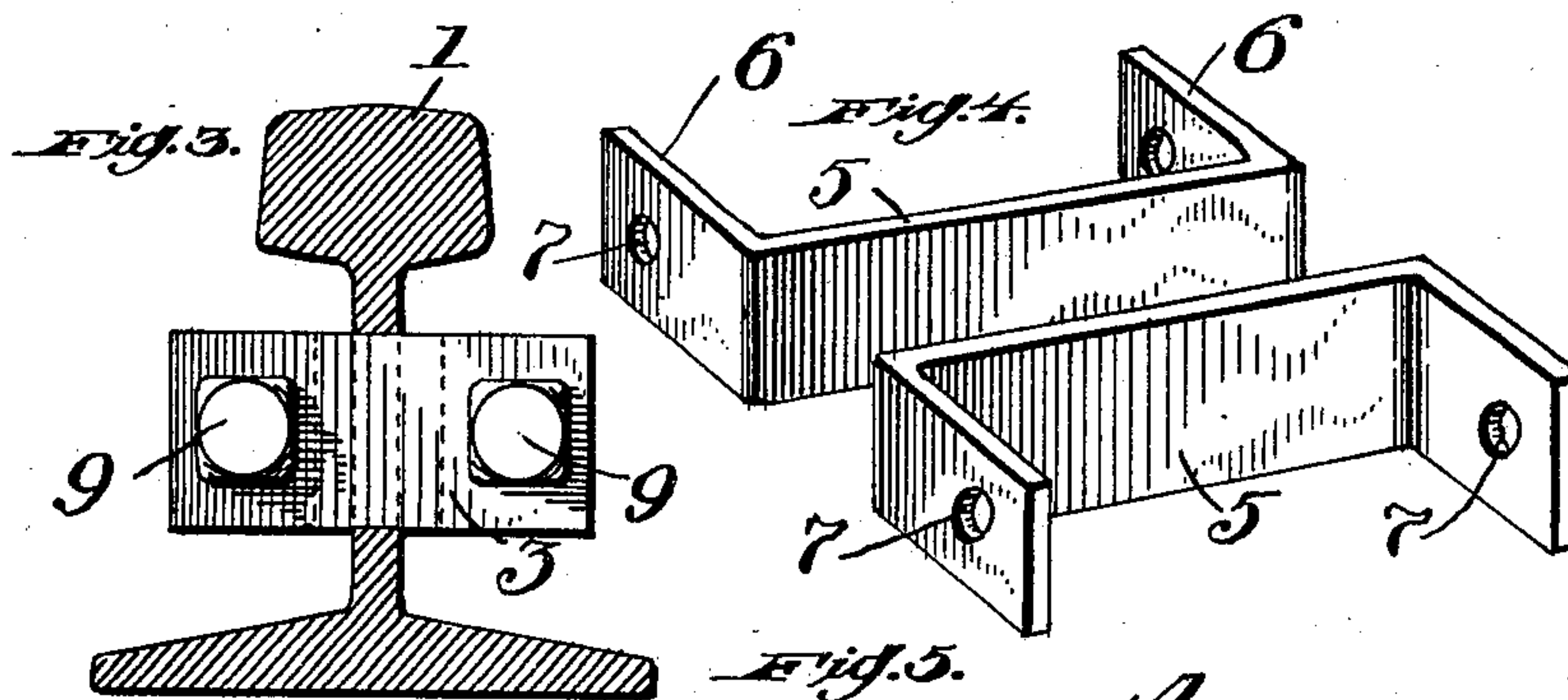
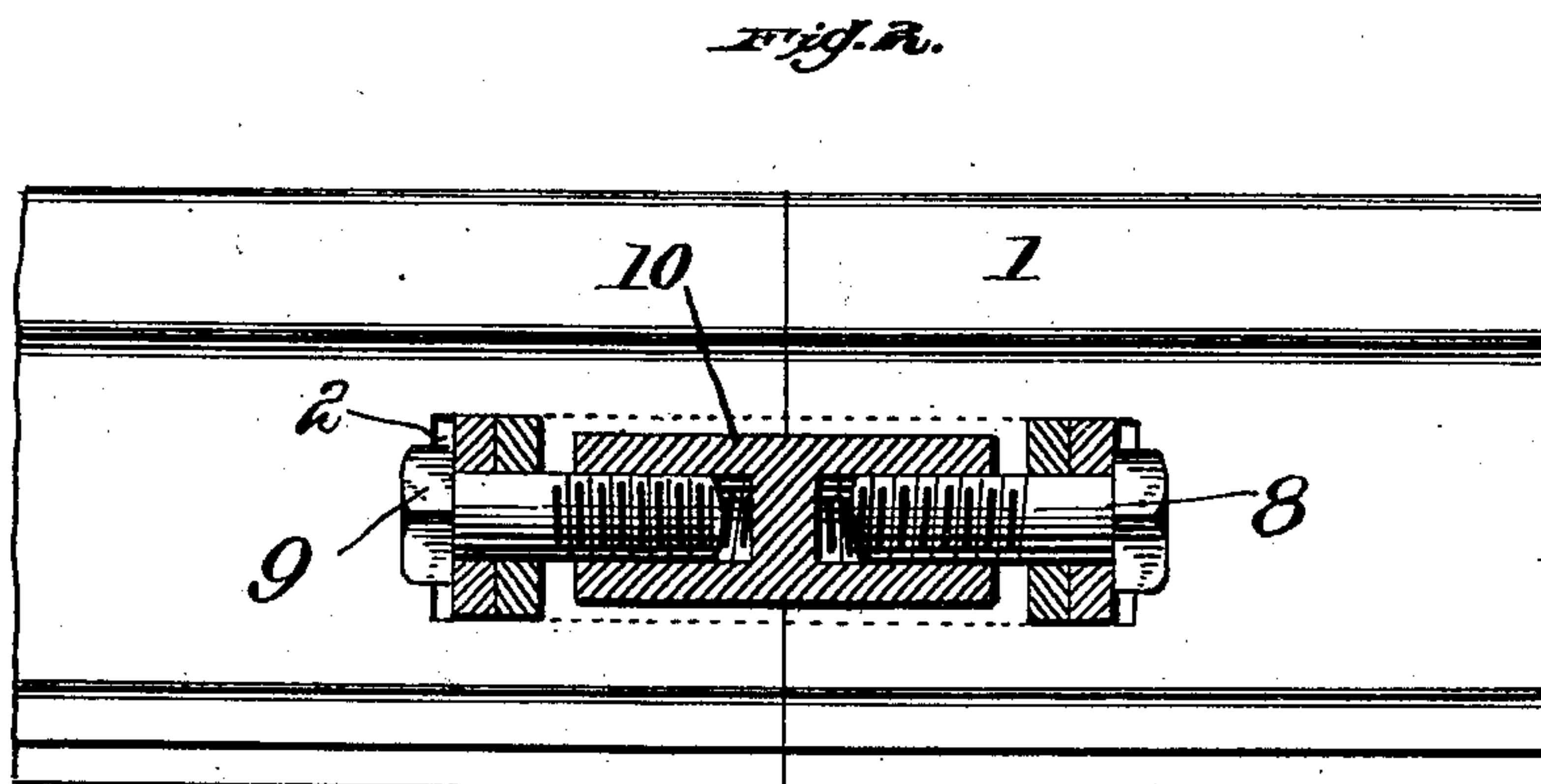
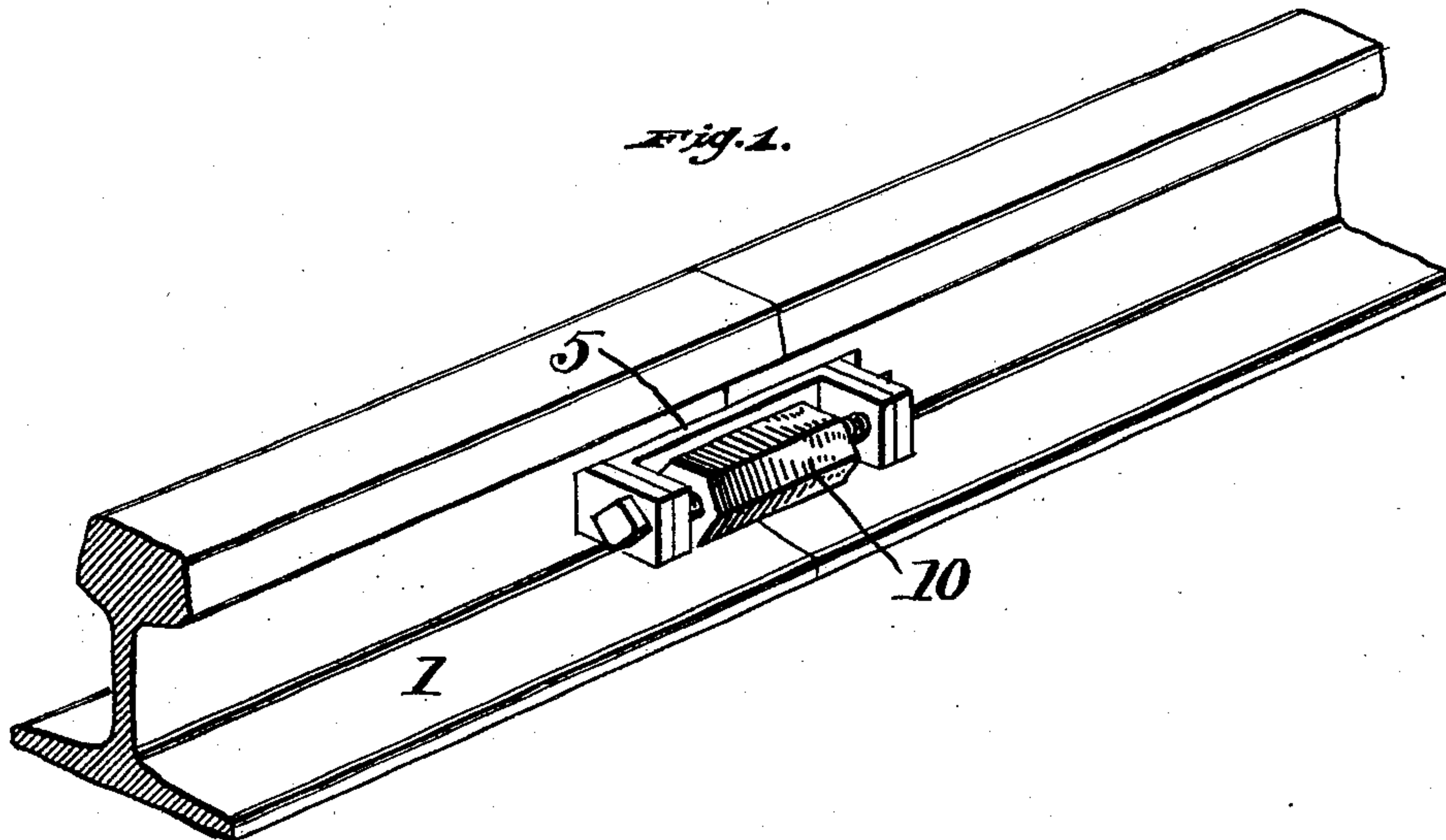
Patented Oct. 28, 1902.

J. VOLZER, JR.

RAIL JOINT.

(Application filed Apr. 11, 1902.)

(No Model.)



Witnesses:  
*J. B. Hepleman,*  
*M. Hunter*

Inventor  
*Joseph Volzer Jr.*  
By  
*O. D. Lewis*  
*Att'y.*

# UNITED STATES PATENT OFFICE.

JOSEPH VOLZER, JR., OF PITTSBURG, PENNSYLVANIA.

## RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 712,160, dated October 28, 1902.

Application filed April 11, 1902. Serial No. 102,383. (No model.)

*To all whom it may concern:*

Be it known that I, JOSEPH VOLZER, Jr., a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Rail-Joints, of which improvement the following is a specification.

This invention relates to certain new and useful improvements in rail-joints, and has for its object the provision of novel means whereby the ends of the rails are securely clamped together.

Another object of the present invention is to provide a device that may be easily applied to the rails and readily removed therefrom when desired.

A still further object of the invention is to provide a device of the above-described character that will be extremely simple in construction, strong, durable, comparatively inexpensive to manufacture, and highly efficient in its use.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts to be hereinafter more fully described, and specifically pointed out in the claims.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like numerals of reference indicate like parts throughout the several views, in which—

Figure 1 is a perspective view of my improved rail-joint. Fig. 2 is a vertical longitudinal sectional view of the fastening means. Fig. 3 is an enlarged transverse vertical sectional view showing the fastening-bars passing through the web of the rail. Fig. 4 shows perspective views of the fish-plates. Fig. 5 is a similar view of the fastening-bar.

In the drawings the reference-numeral 1 represents the rail, and 2 the openings formed through the web of the rails. Through these openings 2 extend fastening-bars 3, having openings 4 formed therein. The fish-plates 5 carry rectangular extensions 6, in which open-

ings 7 are formed. Bolts 8 and 9 extend through the openings 4 of the fastening-bars and also through the openings 7 of the rectangular extensions of the fish-plate. These bolts carry, respectively, right and left screw-threads and are coupled together by means of a turnbuckle 10.

The manner of applying my improved rail-joints will be readily apparent from the foregoing description, taken in connection with the accompanying drawings.

It will be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a rail-joint, the combination with the rails having openings formed in their webs, fastening-bars having openings formed therein extending through said webs, fish-plates arranged on each side of the rail carrying apertured extensions, bolts passing through said fastening-bars and extensions of said fish-plates, and a turnbuckle securing said bolts together, substantially as described.

2. In a rail-joint, the combination of rails having openings formed therein, fastening-bars extending through said openings having openings formed in each end thereof, fish-plates carrying extensions seated between said fastening-bars on each side of the web of the rails, bolts carrying right and left screw-threads extending through said fastening-bars and extensions, and a turnbuckle securing said bolts together, all parts being arranged and operating substantially as described.

In testimony whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JOSEPH VOLZER, JR.

In presence of—  
S. B. LEVIS,  
M. HUNTER.