

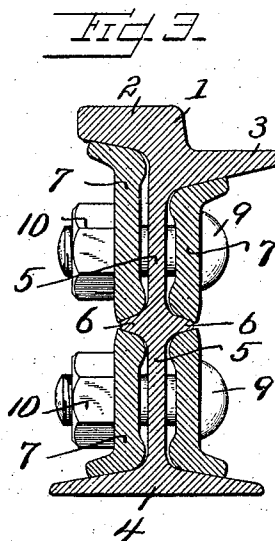
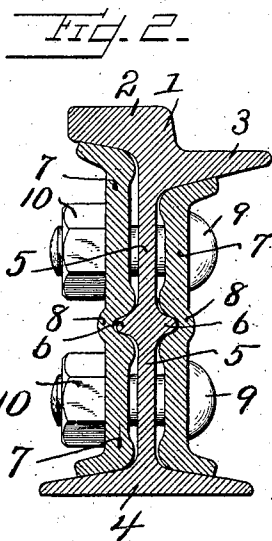
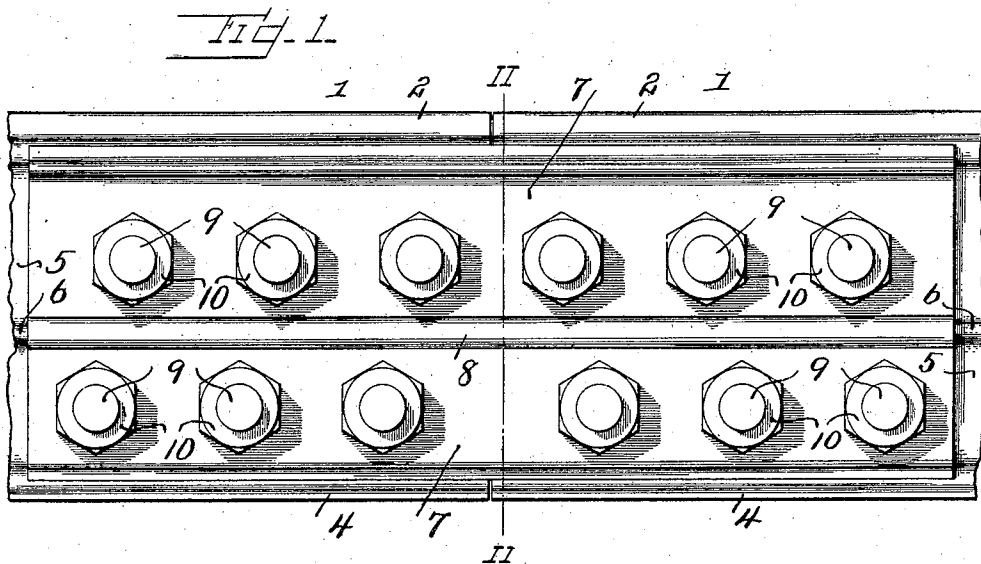
No. 853,221.

PATENTED MAY 14, 1907.

W. M. BROWN.

RAIL JOINT.

APPLICATION FILED AUG. 6, 1906.



WITNESSES:

L. O'Connell
A. Connoy.

INVENTOR

W. M. Brown.

BY

Jesse B. Heller,
ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM MILTON BROWN, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR TO
THE LORAIN STEEL COMPANY, A CORPORATION OF PENNSYLVANIA.

RAIL-JOINT.

No. 853,221.

Specification of Letters Patent.

Patented May 14, 1907.

Application filed August 6, 1906. Serial No. 329,307.

To all whom it may concern:

Be it known that I, WILLIAM MILTON BROWN, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Rail-Joints, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention has relation to certain new and useful improvements in rail joints, and is designed to provide a simple and efficient means whereby the ends of the rails of a high section are held in alinement with relation to each other.

With these objects in view, my invention consists in providing the rails with longitudinal ribs, and fish plates bearing against the top of the foot, or bottom flange of the rail and the bottom of the longitudinal rib, and the bottom of the head of the rail, and the top of the longitudinal rib, whereby a more rigid joint is obtained than if the fish plates extend from the head to the foot of the rails.

My invention also consists in the novel construction and combination of parts, as hereinafter described and pointed out in the appended claims, reference being had to the accompanying drawings, in which

Figure 1 is a side elevation of my improved rail joint; Fig. 2 is a sectional view on the line II, II of Fig. 1; Fig. 3 is a view similar to Fig. 2, showing a modified form.

In the drawings, I, I are the rails, the head being composed of the usual tread 2 and tram 3.

4 is the foot or bottom flange, and 5 the web. Integral with the web and on each side thereof is the longitudinal tapered rib 6.

7, 7, 7, 7, are the fish plates. The two fish plates on each side of the rails are held together by means of the flexible U-shaped connection 8, (see Figs. 2 and 3.)

9, 9 &c. are the usual tie bolts which pass through the fish plates and the web of the rail. These bolts are provided with the usual nuts 10, 10.

In the construction shown in Fig. 3, I have eliminated the U-shaped flexible connection between the fish plates 7, 7 on each side of the rails.

As can be seen by reference to the drawings, the upper fish plates 7, 7 bear on the top of the longitudinal ribs 6, 6, and the bot-

tom of the tread, and tram of the rails, while the lower fish-plates 7, 7 bear on the bottom of the longitudinal ribs 6, 6, and the top of the bottom flange or foot of the rails.

I do not intend to limit myself to the shape of the rail section, nor the shape of the longitudinal rib and the fish plates abutting thereon, as their form might be changed without departing from the spirit of my invention.

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

1. In a rail joint, the rails provided with a longitudinal tapered rib, and fishplates interposed between said rib and the head and foot of the rails.

2. In a rail joint, the rail provided with longitudinal tapered ribs, a set of fish-plates interposed between said ribs and the head of the rails, and a set of fish plates between said ribs, and the foot of the rails.

3. In a rail joint, the rails provided with a longitudinal rib, and fish-plates interposed between said rib and the head and foot of the rails, and a flexible connection between said fish-plates.

4. In a rail joint, the rails provided with longitudinal ribs, and a set of fish-plates interposed between said ribs and the head of the rails, a set of fish-plates between said ribs, and the foot of the rails, and a flexible connection between the fish-plates on each side.

5. In a rail joint, the rails provided with longitudinal tapered ribs, said ribs forming one seat for the fish-plates, the other seat for the fish-plates being formed by the head and foot of the rails.

6. In a rail joint, the rails provided with longitudinal tapered ribs, two series of fish-plates, one series of fish-plates bearing on said ribs and the head of the rails, while the other series of fish-plates bears on the longitudinal ribs and the foot of the rails.

7. In a rail-joint, the rails provided with longitudinal tapered ribs, and a set of fish-plates interposed between said ribs and the head of the rails, and a set of fish-plates interposed between said ribs and the foot of the rails, the fish-plates of each set being secured by means of bolts.

8. In a rail joint, the rails provided with longitudinal tapered ribs, two series of fish-plates, one series of fish-plates bearing on said ribs and the head of the rails, while the

other series of fish-plates bears on the longitudinal ribs and the foot of the rails, and bolts securing the fish-plates of each series.

5 9. A rail joint having its fish-plates provided with a supporting bearing on longitudinal tapered ribs on the webs of the rails.

10. A rail joint having the rail members provided with tapered projections on its web forming bearings for the fish-plates.

11. A rail joint having its fish plates supported in part by longitudinal tapered ribs on the webs of the rails.

In testimony whereof, I have affixed my signature in presence of two witnesses:

WILLIAM MILTON BROWN.

Witnesses:

L. O'CONNELL,
H. W. SMITH.