

No. 865,946.

PATENTED SEPT. 10, 1907.

J. P. RODGERS.
RAIL JOINT.

APPLICATION FILED NOV. 28, 1906.

FIG. 1

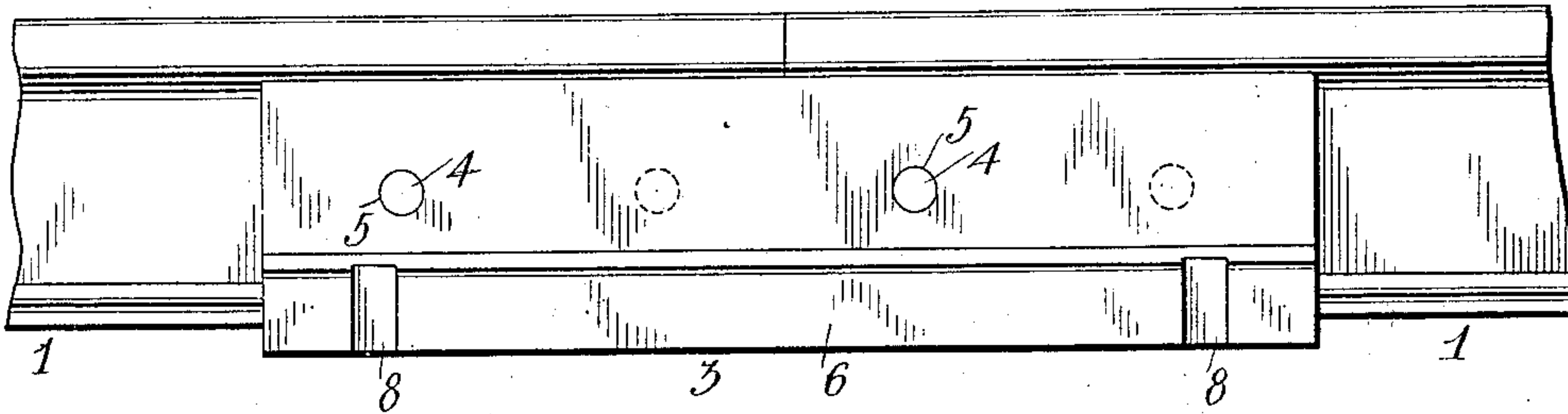


FIG. 2

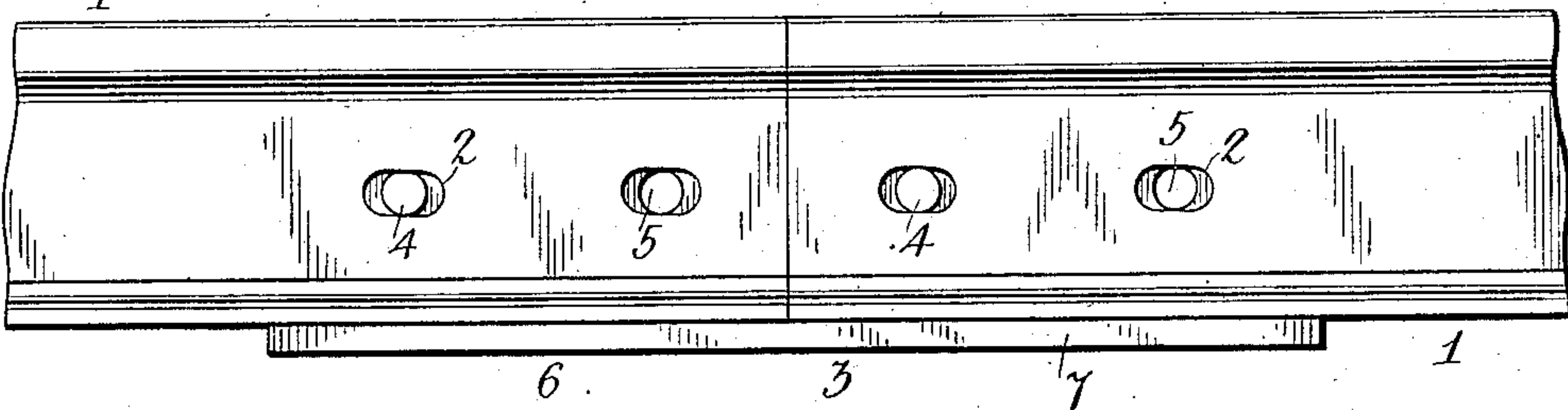


FIG. 3

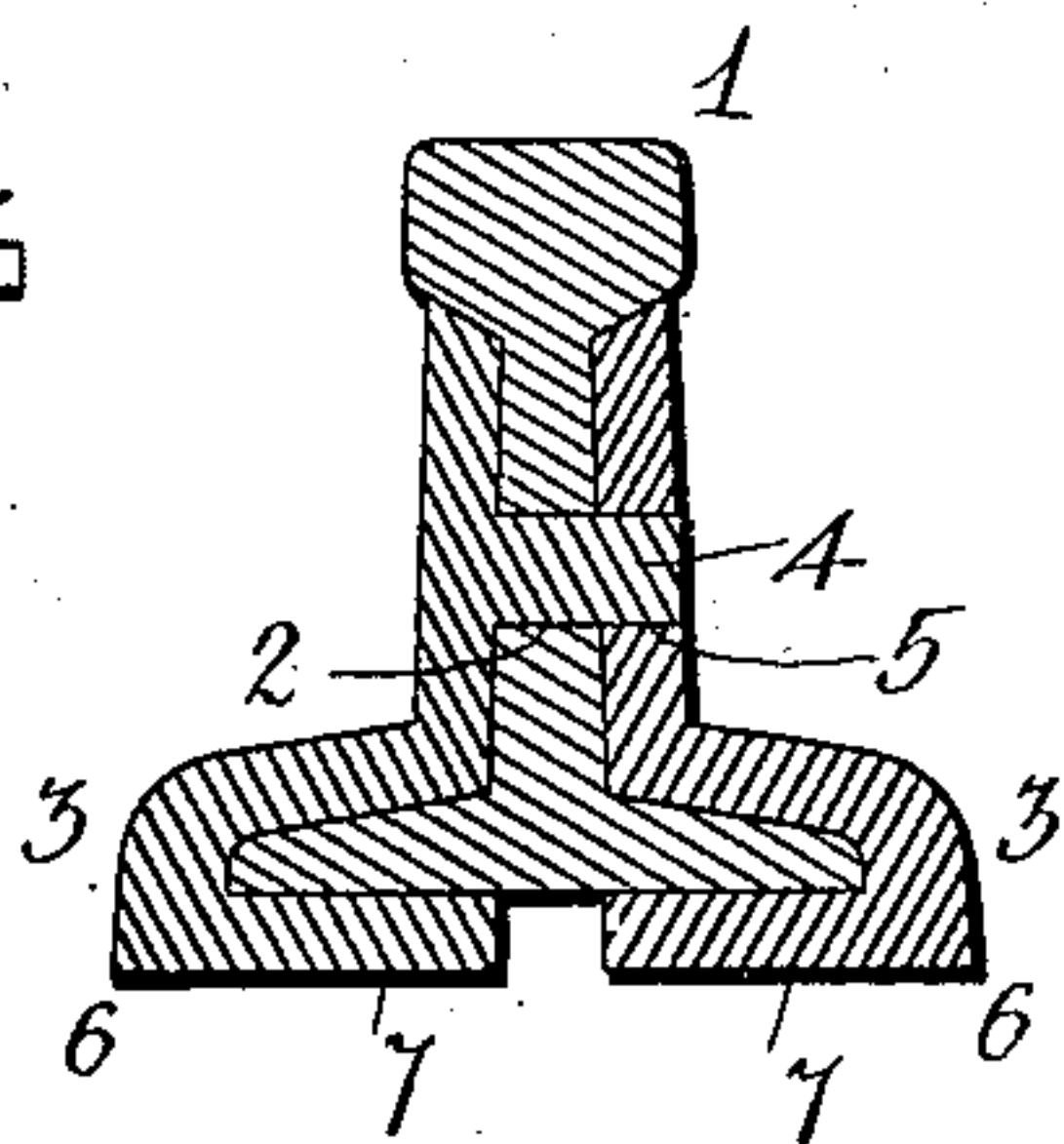
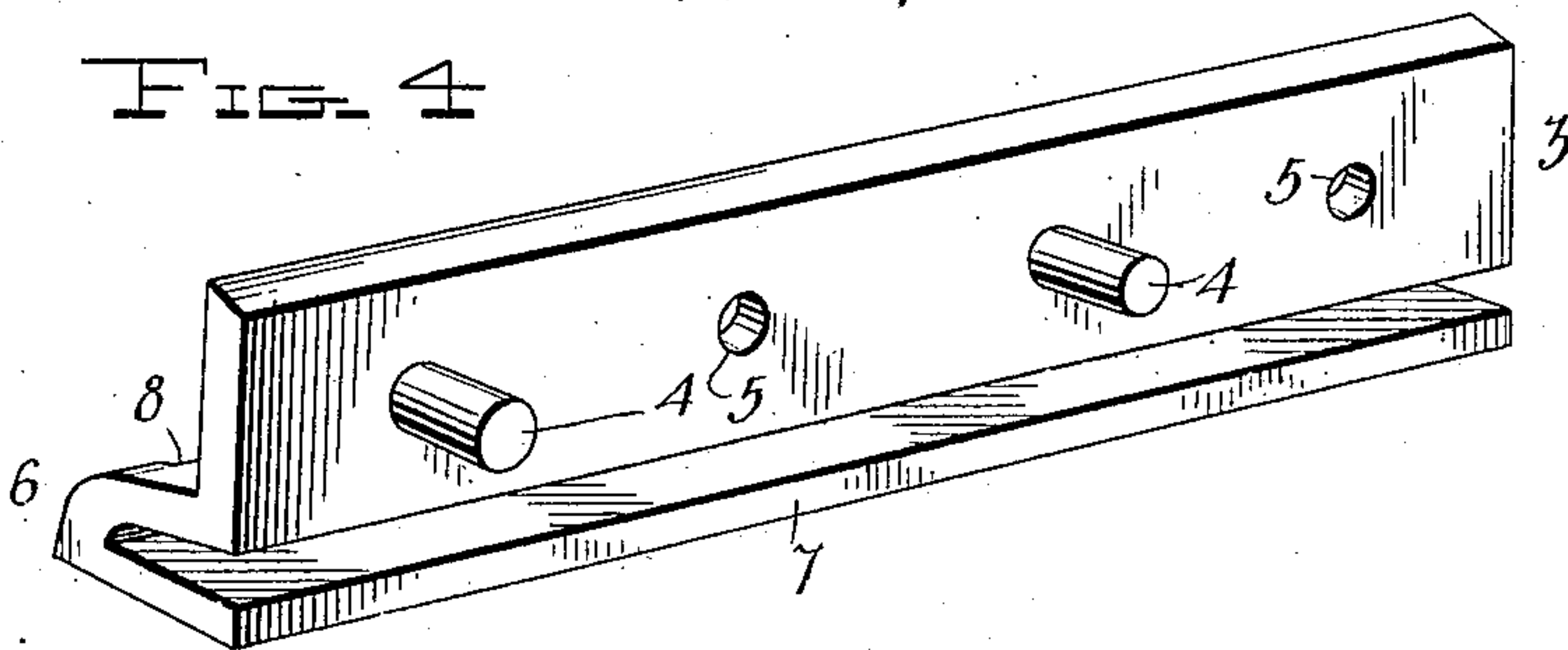


FIG. 4



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UNITED STATES PATENT OFFICE.

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RAIL-JOINT.

No. 865,946.

Specification of Letters Patent.

Patented Sept. 10, 1907.

Application filed November 28, 1906. Serial No. 345,459.

To all whom it may concern:

Be it known that I, JOHN P. RODGERS, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented
5 certain new and useful Improvements in Rail-Joints; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

10 This invention relates to improvements in railway rail-joints.

One object of the invention is to provide a joint by means of which the ends of the rails may be securely fastened together without the use of bolts and nuts.

15 A further object is to provide a rail joint which will be simple, strong, durable and inexpensive in construction, efficient and reliable in use and which may be quickly applied to and removed from the rails.

20 Another object is to provide a rail joint having arranged thereon a chair to receive the flanges of the rail and to support the latter upon the ties.

With the above and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts, as will be
25 hereinafter described and claimed.

In the accompanying drawings:—Figure 1 is a side view of the meeting ends of two rail sections, showing the application of the improved joint thereto; Fig. 2 is a similar view with one of the fish plates or sides of the
30 joint removed; Fig. 3 is a vertical cross sectional view through the joint and rail, taken on a line with one of the fastening lugs; and Fig. 4 is a perspective view of the inner side of one of the fish plates or side pieces of the joint.

35 Referring more particularly to the drawings, 1—1 denote the meeting ends of two rails. In the web or body portion of said ends of the rails are formed a series of elongated apertures 2. The joint comprises two fish plates 3 adapted to be engaged with the opposite sides
40 of the webs of the rail, said fish plates having beveled or inclined upper edges to engage and fit the under side of the rail head, thereby forming a support or brace for the same.

45 On the inner side of the fish plates are formed a series of laterally-projecting fastening lugs 4. Said lugs may be of any suitable shape but are here shown as and are preferably cylindrical in form. Alternating with the lugs 4 of the fish plates 3 are formed apertures 5, which correspond in shape and size to the lugs 4. The
50 lugs 4 are adapted to engage and project through the elongated apertures 2 in the webs of the rail when the fish plates are applied thereto, the lugs of the fish plates being arranged so that when applied to the rails and projected through the apertures 2 therein, the

lugs of one plate will engage and project through the 55 apertures 5 in the fish plate on the opposite side of the rail.

On the lower edge of the fish plates 5 are formed chair sections 6 adapted to engage or fit over the flanges on the opposite side of the rail. The lower or bottom 60 plates 7 of the chair sections 6 are of such width as to project inwardly a suitable distance beneath the flanges of the rail to form a seat or support for the same on the ties. In the outer edges of the chair sections 6 are formed notches or recesses 8 adapted to receive spikes, 65 by means of which the joint is firmly held in place on the ties and the rails securely fastened or held in place without the use of bolts and nuts.

By dispensing with the necessity of nuts and bolts for securing the joints to the rails, the danger of the 70 parts becoming loose from the cutting off of the bolt heads or nuts by the wheels of the cars in leaving the tracks will be prevented. The construction of the joint and fastening devices as herein shown will afford a perfectly smooth and unobstructed surface on the 75 outer sides of the fish plates. By providing the elongated apertures 2 in the webs of the rail the latter will be allowed to expand and contract without undue strain upon the lugs 4 of the fish plates.

From the foregoing description, taken in connection 80 with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to with- 85 out departing from the principle or sacrificing any of the advantages of this invention, as defined by the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:— 90

A rail joint comprising a pair of fish plates adapted to be engaged with the opposite sides of the web of the rail ends, said fish plates having beveled upper edges to engage the under sides of the rail head, and a series of apertures, a series of inwardly-projecting lugs formed on 95 the inner sides of said fish plates between the apertures therein, the lugs of one plate being adapted to be engaged with the apertures of the opposite plate and with apertures formed in the webs of the rail ends, and chair sections formed on the lower ends of the fish plates to engage the flanges of the rail ends, said chairs comprising 100 upper and lower flange engaging plates integrally-connected at their outer edges and having formed therein notches or recesses to receive spikes for holding the same on the ties, substantially as described. 105

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

JOHN P. RODGERS.

Witnesses:

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J. W. GARNER.