

No. 753,395.

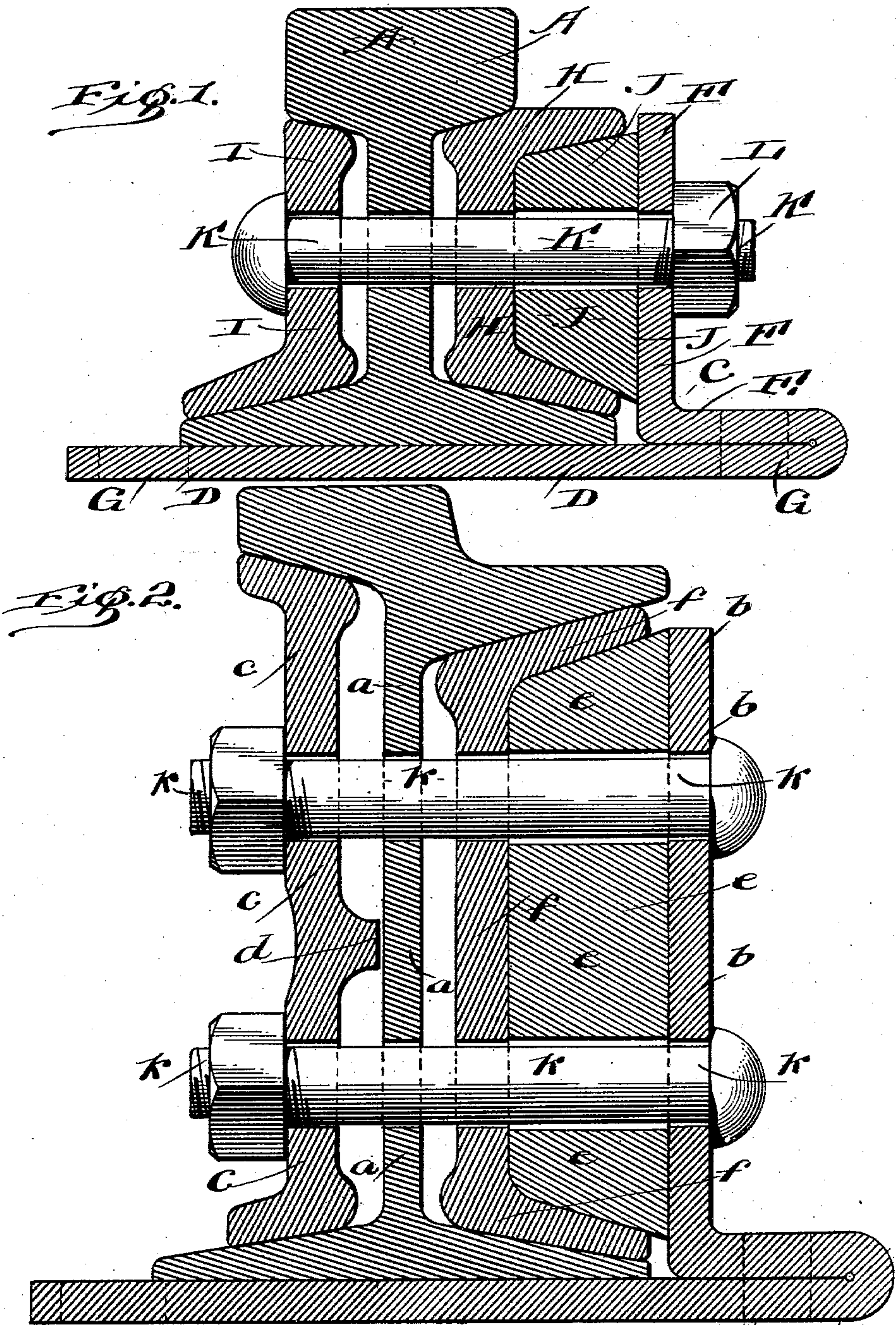
PATENTED MAR. 1, 1904.

P. HOLBROOK.
RAIL JOINT.

APPLICATION FILED DEC. 28, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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A. L. O'Brien

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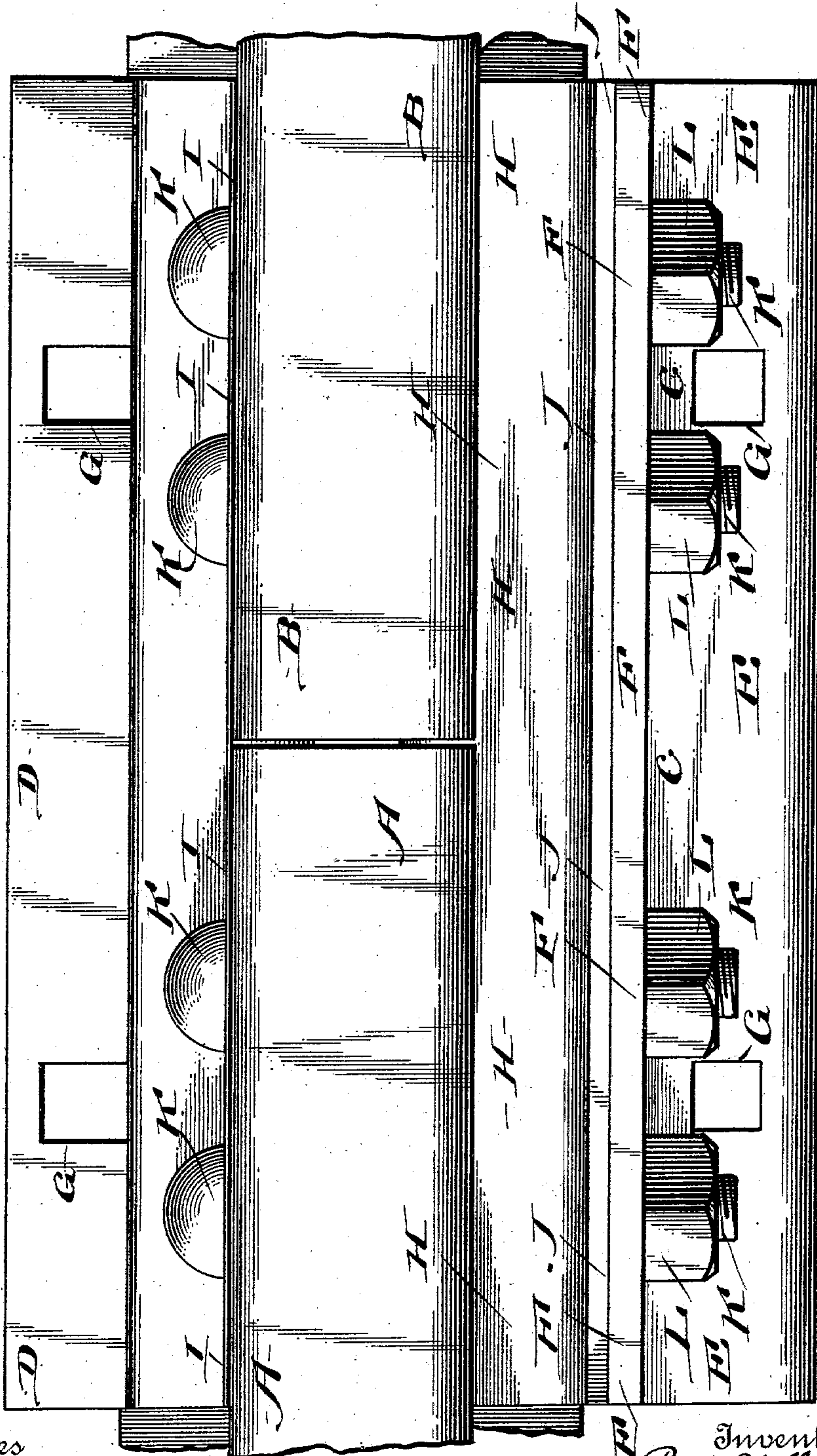
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2 SHEETS—SHEET 2.

Fig. 5.



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UNITED STATES PATENT OFFICE.

PERCY HOLBROOK, OF NEW YORK, N. Y., ASSIGNOR TO WEBER RAILWAY JOINT MANUFACTURING COMPANY, OF NEW YORK, N. Y., A CORPORATION OF WEST VIRGINIA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 753,395, dated March 1, 1904.

Application filed December 28, 1903. Serial No. 186 790. (No model.)

To all whom it may concern:

Be it known that I, PERCY HOLBROOK, a citizen of the United States, and a resident of the borough of Manhattan, city, county, and State of New York, have invented certain new and useful Improvements in Rail-Joints, of which the following is a specification, accompanied by drawings.

This invention relates to rail-joints; and its objects are to improve upon the construction of such joints and increase their strength and efficiency with simplicity of parts. Another object is to enable the parts of the joint to be more firmly secured to the ties.

Further objects of the invention will hereinafter appear, and to these ends the invention consists of a rail-joint embodying the features of construction, combinations of elements, and arrangement of parts, substantially as hereinafter fully described and claimed in this specification, and shown in the accompanying drawings, in which—

Figure 1 is a transverse sectional view of the joint embodying the invention. Fig. 2 is a transverse sectional view of a girder-joint embodying the invention. Fig. 3 is a plan view of the joint shown in Fig. 1.

Referring to the drawings, A and B represent the meeting ends of rails supported upon a rail-chair C, having a base D and a portion E bent inwardly substantially parallel with the base and then upwardly at F, forming an upright or bolt plate, the base D and the inwardly-bent portion E forming a spiking rib or flange of double thickness provided with the spiking-hole G. The base of the shoe is also provided with spiking-holes G along the inner edge. The holes G may of course be in the form of slots, if desired. It will be seen that the shoe comprises substantially the upright F, the base D extending in one direction therefrom beneath the bases of the rails and upon which the rails rest, while there is another portion forming the spiking rib or flange extending in the opposite direction from the upright F. The shoe-angle is therefore of substantially T-shape construction in cross-section.

Suitable means are provided for maintaining the rails in alinement, as the channel-bar H and angle-plate I, while between the channel-bar and the upright F of the chair is arranged packing material J, preferably in the form of a bar of wood. Suitable bolts K, provided with the nuts L, secure the parts of the joint together.

In Fig. 2 a girder-joint is shown. In this instance the rail has a high web *a*, and there are two rows of bolts K for securing the parts of the joint together. In this form of joint the rail-chair is constructed like the rail-chair in Fig. 1, except that the upright *b* is of sufficient height to afford provision for securing two rows of bolts K therethrough.

In Fig. 2 the fish-plate *c* is provided with a strengthening-rib *d*, extending longitudinally thereof, while elastic packing *e*, as before, is arranged between the angle-bar *f* and the upright of the chair.

In the rail-joint of the height illustrated in Fig. 2 the increased strength secured by the reinforced rail-chair adds materially to the efficiency of the joint.

Obviously some features of this invention may be used without others, and the invention may be embodied in widely-varying forms.

Therefore, without limiting the invention to the construction shown and described nor enumerating equivalents, I claim, and desire to secure by Letters Patent, the following:

1. In a rail-joint, comprising the meeting ends of rails, a rail-chair having a base and an inwardly-turned portion forming a spiking-plate of double thickness, with an upright extending from said spiking-plate, plates extending adjacent the webs of the rails, packing material arranged between one of said plates and the upright of the chair, and bolts for securing the parts of the joint together, for substantially the purposes set forth.

2. A rail-joint, comprising a rail-chair having a base adapted to extend beneath the rails, and an upright, said base and upright being formed integrally one with the other and joined together by a reversely-bent portion of the chair extending outwardly from the up-

right in the opposite direction to the base, and fish-plates, packing material, and bolts for securing the rails in alinement, for substantially the purposes set forth.

- 5 3. A rail-joint, comprising a rail-chair having a base and an inwardly-turned portion forming a spiking-plate of double thickness, with an upright extending therefrom, rail ends having high web portions, the upright of the
10 chair being adapted to the height of the rails, plates and packing material for securing the

rails in alinement, and a plurality of rows of bolts for securing the parts of the joint together, for substantially the purposes set forth.

In testimony whereof I have signed this 15 specification in the presence of two subscribing witnesses.

PERCY HOLBROOK.

Witnesses:

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OLIN A. FOSTER.