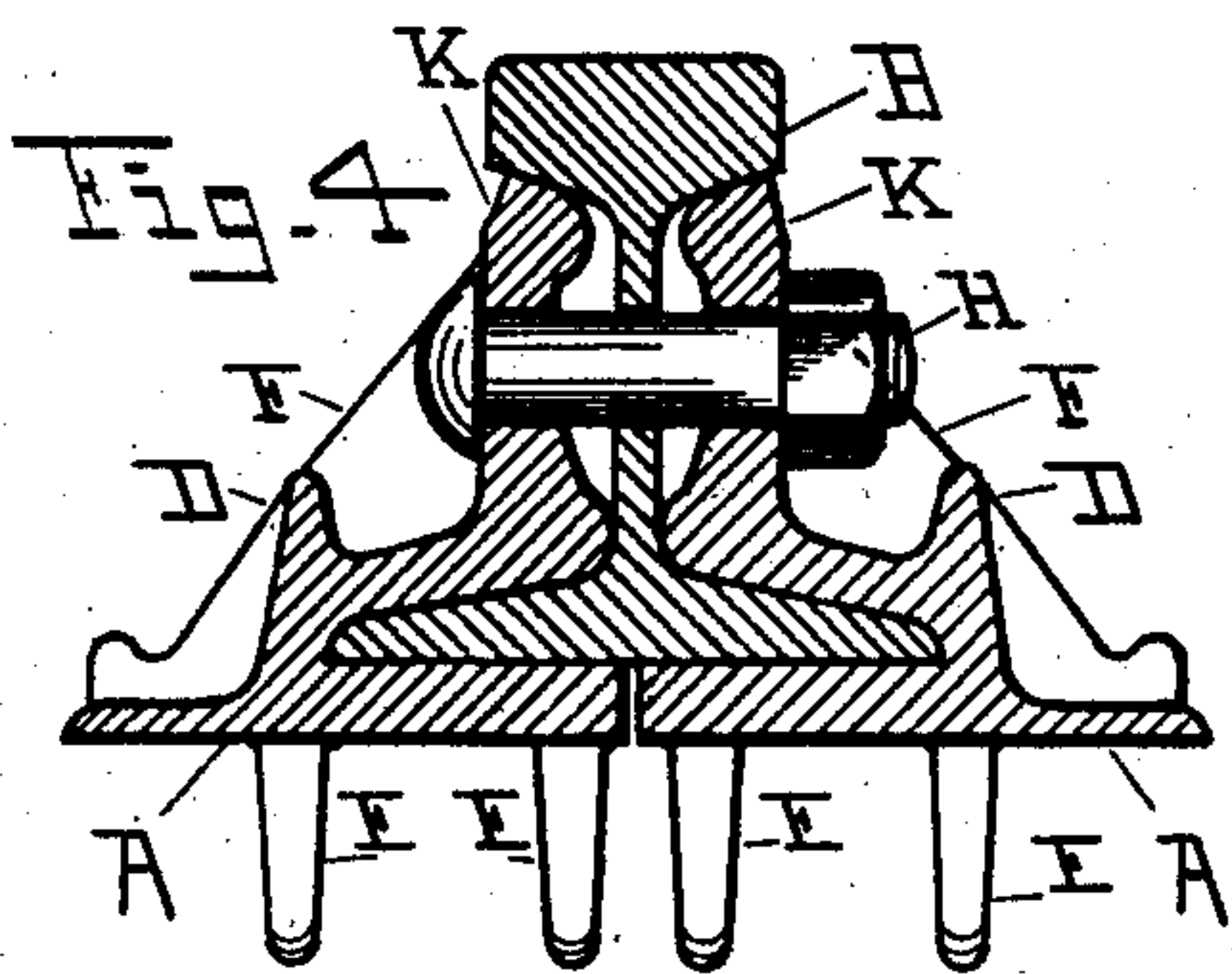
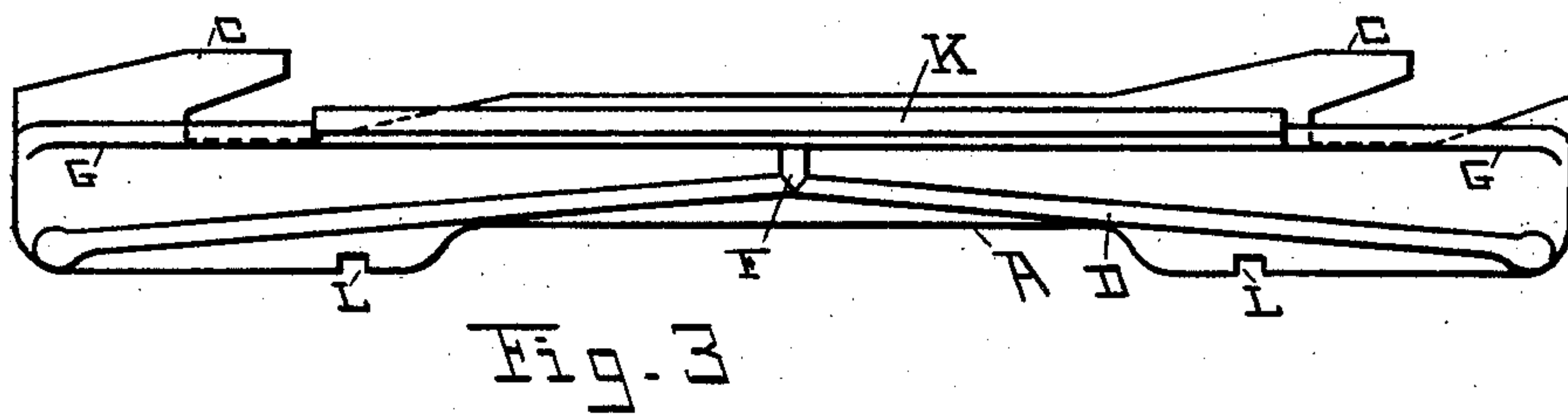
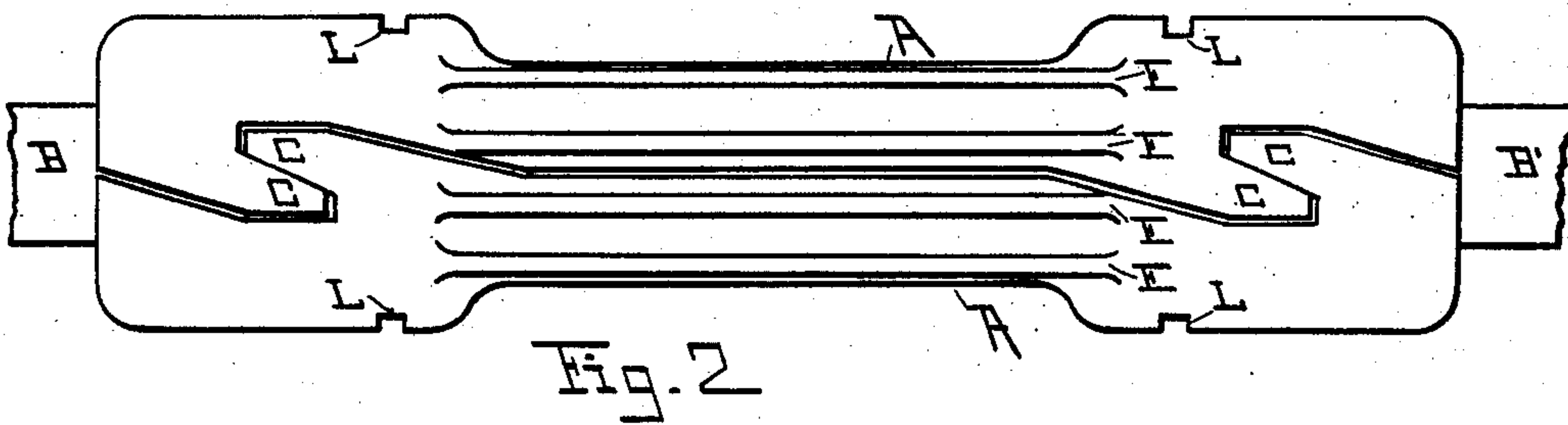
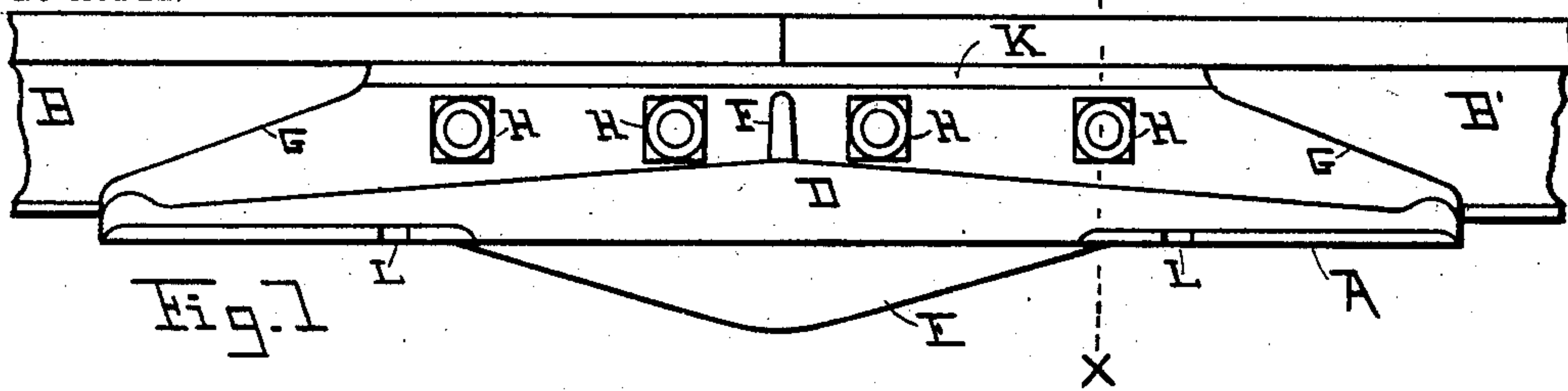


No. 745,330.

PATENTED DEC. 1, 1903.

C. W. DAKE.
RAILROAD JOINT.
APPLICATION FILED JAN. 30, 1903.

NO MODEL.



WITNESSES:
Mary S. Tooker
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Charles W. Dake INVENTOR.

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His - ATTORNEY.

UNITED STATES PATENT OFFICE.

CHARLES W. DAKE, OF GRAND RAPIDS, MICHIGAN.

RAILROAD-JOINT.

SPECIFICATION forming part of Letters Patent No. 745,330, dated December 1, 1903.

Application filed January 30, 1903. Serial No. 141,200. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. DAKE, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented new and useful Improvements in Railroad-Joints, of which the following is a specification.

This invention relates to certain new and useful improvements in railroad-joints; and the invention consists in the construction and combination of parts hereinafter described and claimed.

The objects of this invention are, first, to construct a rail-joint for railroad-rails which will firmly and securely retain the abutting rails in position; second, to furnish a joint that can be quickly and securely attached; third, to furnish a joint made in two parts, with suitable means for interlocking said parts securely together; fourth, other objects hereinafter pointed out and described. These objects I accomplish by means of the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows a side elevation of the joint uniting the abutting ends of the two rails. Fig. 2 is an inverted plan view showing the means for interlocking the two parts of the joint. Fig. 3 is a top plan view of one of the sections, showing the general construction of the section and especially showing the truss-brace. Fig. 4 is a sectional view on the line X X of Fig. 1.

Similar letters refer to similar parts throughout the several views.

A A show the two sections of the interlocking joint.

B and B' show the rails, which meet at or near the center of the joint.

C C C C are the interlocking members or fingers, which draw the sides A A together underneath the rails, thereby clamping the two side pieces A A securely to the rails, giving great stability and rigidity to the joint and the rails clamped therein.

D is the main truss-brace, extending upward from the base, and also extending inward, said brace D having either end at opposite ends of the joint and inclining inward to the center of the joint where the same is attached to the fish-plate of the joint by means of the short brace F, the general inclination

of this brace D being shown in Fig. 3. The brace D also rises from its ends toward the center, as shown in Fig. 1, making the same a truss-brace.

E E E E are truss-braces on the under side of the base part and extending below the rails. Each section of the joint has two of these lower truss-braces, as shown in Fig. 4, the outer of said truss-braces being substantially beneath the center portion of the upper truss-brace.

G and G are the longitudinal braces.

K and K are the fish-plates which fit into the grooves between the upper and lower flanges of the rail and are brought into contact with the web of the rail by means of the bolts hereinafter described. The end of each of the fish-plates K is inclined, as shown by G G in Fig. 1, thus making the fish-plate itself act as a brace.

H H H are bolts for clamping the section A A to the rails B B, said bolts passing through the fish-plates K and through the web of the rail and tightened up by means of nuts in the ordinary manner.

L L L L are notches in the bases of sections A A for the reception of the spikes used in attaching the joint to the railroad-ties.

It will be noted that the projections or fingers C C C C are wedge-shaped, so that the two sections of the joint are drawn together securely by means of these projections, giving great strength and stability to the connection between the joints, also assisting in clamping the same upon the rails.

The center portions of the fish-plates K are curved or cut out, as shown in Fig. 4, so as to cause the two sections of the joint to support the rail and to securely clamp the same together. By this construction the two parts of the joints are held securely together, and by means of the peculiar arrangement of the braces great strength is given to the joint.

While I have referred to the parts individually, it will be understood that each section of the joint is made of a single piece of metal, the interlocking fingers, the fish-plates, and the braces all being integral in each half of the joint.

Having thus described my invention, what I claim to have invented, and desire to secure by Letters Patent, is—

1. In combination with the base the angle truss-brace D extending inwardly toward the center and rising gradually to the center, a short brace F connecting the central portion of said brace D with the fish-plate K, substantially as described.
2. A rail-joint comprising two interlocking sections, each of said sections provided with a longitudinally and upwardly extending brace D and a pair of downwardly-extending truss-braces on the underneath face thereof, and each of said sections further provided with a fish-plate connected with its respective brace D.
3. In combination with the base, the angle-truss D extending inwardly toward the center and gradually rising to the center, a short brace F connecting the center portion of the truss D with the fish-plate K, said joint being constructed of two parts and having interlocking members beneath the rails, each part

being provided with a flange or plate, and suitable means for clamping the said flanges or plate into the channels of the rails.

4. A rail-joint comprising two interlocking sections, each of said sections provided with a longitudinally and upwardly extending brace D and a pair of downwardly-extending truss-braces on the underneath face thereof, and each of said sections further provided with a fish-plate connected with its respective brace D, bolts extending through the fish-plates and adapted to connect them to the rail-sections, and nuts mounted upon the bolts for securing them in position.

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

CHARLES W. DAKE.

Witnesses:

CHAS. M. WILSON,
MARY S. TOOKER.