

(No Model.)

P. W. ARNOLD & J. KEIL.
RAIL JOINT.

No. 604,285.

Patented May 17, 1898.

Fig. 1.

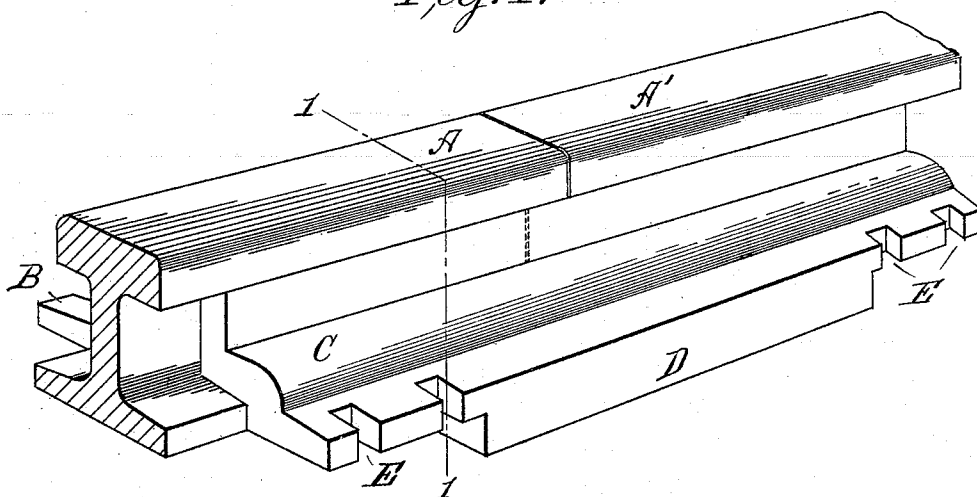
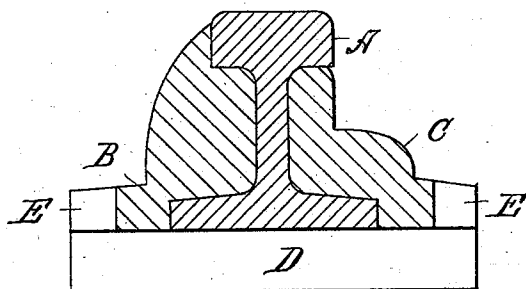


Fig. 2.



WITNESSES:

Henry Lehman
Harry E. Lehman

INVENTORS,

Philip W. Arnold & John Keil,

BY

Mark M. Decker
their ATTORNEY.

UNITED STATES PATENT OFFICE.

PHILIP W. ARNOLD AND JOHN KEIL, OF EAST LIVERPOOL, OHIO; SAID
ARNOLD ASSIGNOR TO WILLIAM JACK CURRY, OF SAME PLACE.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 604,285, dated May 17, 1898.

Application filed January 15, 1898. Serial No. 666,777. (No model.)

To all whom it may concern:

Be it known that we, PHILIP W. ARNOLD and JOHN KEIL, citizens of the United States, residing at East Liverpool, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Rail-Joints; and we do hereby 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.

Our invention relates to rail-joints, and particularly to that class of joints in which the rails rest in what is known as a "chair" and are held in a rigid position therein without the use of track-bolts.

The object of our invention is to provide a joint which will prevent the rails from sinking or becoming loose from vibration and also obviate the necessity of using track-bolts. This object we attain by the construction shown in the accompanying drawings, in which similar letters of reference indicate corresponding parts in both figures, and in which—

Figure 1 is a perspective view showing two sections of rails connected by our improved joint. Fig. 2 is a transverse sectional view of the same, taken on line 1 1 of Fig. 1.

A and A' represent the rails, which are secured in the joint proper by simply inserting the ends therein.

The joint is formed of one piece of metal B, C, and D. The part C is somewhat flattened on the side, near the top thereof, to prevent it from interfering with the flanges of the car-wheels, while the part B runs to a point near the top of the head of the rails, forming an abutting surface therefor.

The rails A and A' rest on the base D of the joint, and the base, being cast integral with the plates proper, forms a very strong and rigid means of connecting the rails and prevents absolutely any danger of the rails sinking or spreading at the joint.

The base extends below the base of the rails, forming abutting shoulders which are adapted to bear against the sides of the ties.

Recesses E are formed in the edges of the joint, through which spikes are driven for the purpose of preventing the joint proper from slipping out of place.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

In a rail-joint, the combination with the meeting ends of two rails, of a connecting-plate, consisting of a base portion extending below the base of the rails, and running to a point near the ends of the plate proper, forming abutting shoulders which are adapted to bear against the sides of the ties for holding the plate in a rigid position, side arms cast integral with the plate, one of which extends upward to a point underneath the head of the rails, and the other extending upward and embracing the side of the head of the rails, forming a reinforced bearing therefor, together with recesses formed in the edges of the base of the plate for receiving spikes for securing the plate in a rigid position, substantially as shown and for the purposes described.

PHILIP W. ARNOLD.
JOHN KEIL.

Witnesses:

G. Y. TRAVIS,
H. LYON.