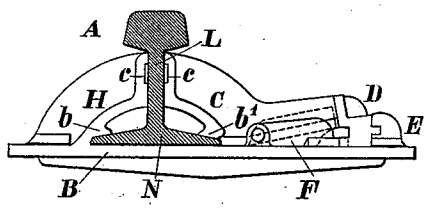
(No Model.)

C. RIETZINGER.

RAIL JOINT AND CHAIR FOR RAILWAYS.

No. 544,521. Patented Aug. 13, 1895.

Fig. 1



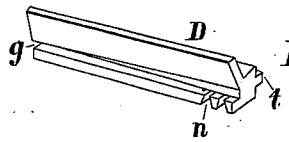


Fig. 5

Fig. 4

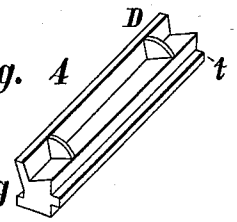


Fig. 2

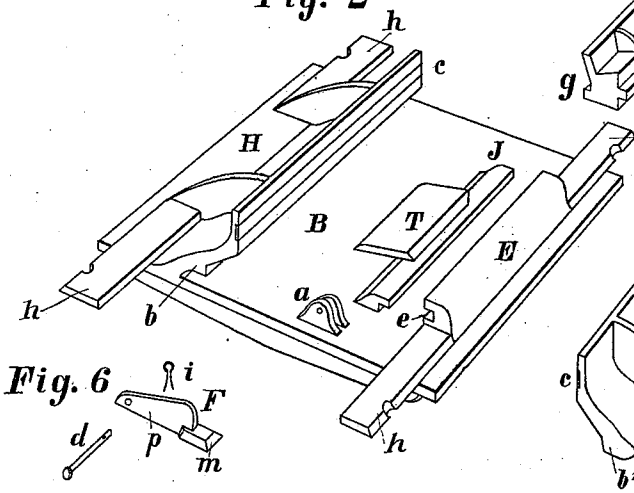


Fig. 3

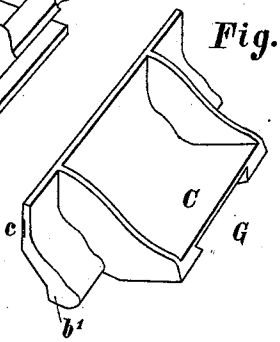


Fig. 6

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RAIL JOINT OR CHAIR FOR RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 544,521, dated August 13, 1895.

Application filed February 28, 1895. Serial No. 539,974. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN RIETZINGER, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Rail Joints or Chairs for Railways, of which the following is a specification.

My invention relates to improvements in rail joints and chairs, principally for steam and electric roads; and it has for its object simplicity and cheapness of construction, security in use, and ease and quickness of application and removal by dispensing with all fish-plates and bolts, wooden wedges, hinges, &c., and giving to the movable jaw of the rail-chair a positive parallel motion against the web of the rail by sliding on an inclined dovetail tongue.

Referring to the drawings, Figure 1 is a side view of my improved rail joint or chair, showing the rail in section. Fig. 2 is a perspective view of the base, fixed jaw, and other parts cast integral therewith. Fig. 3 is a similar view of the movable jaw. Fig. 4 is a similar view of the wedge which is used to force the jaws together. Fig. 5 is also a perspective view of the wedge, but seen from a different direction; and Fig. 6 is a perspective view of the key, pivot, and split pin for securing the parts in position.

A is the rail.

B is the base of the chair upon which the rail rests.

H is the fixed jaw against which the rail abuts, as shown in Fig. 1. The foot of the rail extends under and is held by the ridge *b* forming part of the jaw H.

C is the movable jaw, provided on its under side with a wide dovetail groove G, and it slides down on the dovetail tongue T forming part of the base B and to the plane of which it is inclined. As the movable jaw C slides down on the tongue T the faces *c* of the jaws remain always parallel until the web of the rail is held between them. The wedge D is then driven in from the side between the lug E and the back of the jaw C, the tongue *t* sliding in the groove *e* and the groove *g* sliding on the tongue of the lug J. Both of the lugs E and J and the tongue T are cast in one piece with the base B. The wedge D is provided with dovetail notches *n*, and it is driven in tight, and then the dovetail nose *m* of the key F is inserted in one of the notches *n* and the other end *p* dropped between the supports *a*, the pivot *d* passed through the holes in the supports *a* and key F and fastened by inserting the split pin *i* in the hole in the pivot *d*. The base B is provided with proper strengthening-ribs on its under side, and arms *h* are cast upon it which are intended to rest upon the ties to support the whole.

The faces *c* of the jaws may be cast with a longitudinal groove, as in Fig. 1, or the groove may be filled with a strip of copper for electric roads, as shown in Fig. 2, or, preferably, a wide strip of copper may cover the whole face *c* and be tightly squeezed between the said face and the web of the rail.

It is obvious that to prevent the creeping of the rails pins on the base B may engage notches in the ends of the rails in the well-known manner, or pins may project from the face *c* of the fixed jaw and engage holes in the ends of the rails, which is also well known.

Having as above fully described my invention and the best manner known to me of using the same, what I claim, and desire to secure by Letters Patent, is—

1. In a rail-joint or chair, the combination of a base, a fixed jaw secured to the base, a movable jaw to slide parallel with the fixed jaw against the rail, a dovetail tongue upon which the movable jaw may slide secured to the base and inclined to the plane thereof, a lug secured to said base, and a wedge adapted to slide between said lug and said movable jaw to force the latter against the rail, substantially as shown and described.

2. In a rail-joint or chair, the combination of a base, a fixed jaw secured to the base, a dovetail tongue secured to the base, a lug secured to the base, a movable jaw to slide on said dovetail tongue parallel with the fixed jaw and a wedge to slide between the back of the movable jaw and the lug to force the former against the rail, substantially as shown and described.

3. In a rail-joint or chair the combination

of the base B, the fixed jaw H, lugs E and J and dovetail tongue T secured to said base, the latter inclined to the plane of the base, the movable jaw C, adapted to slide on the tongue T, the wedge D to slide between the lugs E and J and force the jaw C against the rail and provided with notches *n*, the supports *a*, the key F, split pin *i* and pivot *d*, all arranged and adjusted substantially as shown and described.

CHRISTIAN RIETZINGER.

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