

(No Model.)

A. KIMBER.
RAIL JOINT.

No. 420,943.

Patented Feb. 11, 1890.

Fig. 2.

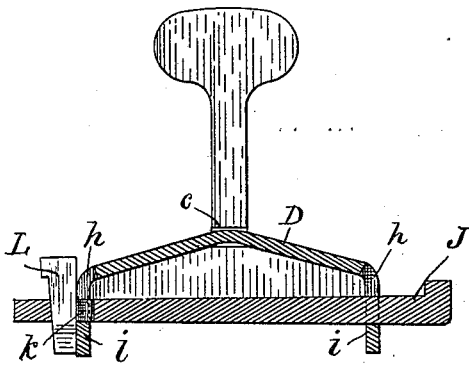


Fig. 3.

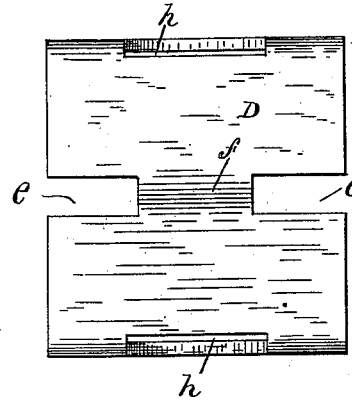
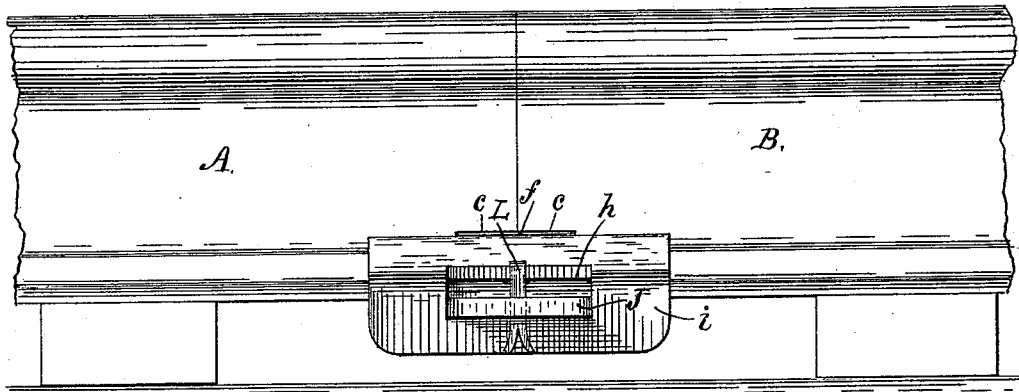


Fig. 1.



Witnesses

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RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 420,943, dated February 11, 1890.

Application filed December 5, 1889. Serial No. 332,692. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM KIMBER, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Rail-Joints, of which the following is a specification.

My invention relates to an improved device for securely holding in line the abutting ends of two railway-rails.

The object of my improvement is to provide a clamp consisting of but few pieces and adapted to embrace and support the joints in railway-rails, so as to hold the meeting ends of the rails firmly in line without the use of screw-bolts or nuts and at the same time permitting the longitudinal movement of the rails, due to expansion and contraction, all as hereinafter fully described.

The accompanying drawings illustrate my invention.

Figure 1 represents a side elevation showing the joint-clamp in position. Fig. 2 represents an end view of the rail and the joint-clamp in section. Fig. 3 is a plan of the clamp.

The rails A and B are each provided at their meeting ends with a longitudinal slot *c*, passing through the web of the rail just above the flange.

D is a plate, preferably of wrought-iron, of suitable width to extend along the rails on each side of the joint between them beyond the slots *c*, and of sufficient length to cover the top of the flange on both sides of the web and to embrace the edges and extend a short distance below the bottom of the rail.

Plate D is provided on opposite edges with a pair of narrow slots *e e*, adapted to receive the webs of the rails and arranged in line with each other, there being a narrow bar *f* left between the inner ends of the slots.

A pair of mortises *h h* are cut in plate D, near each end of the plate and opposite the bar *f*. The plate is now bent at bar *f*, so as to fit closely over the inclined tops of the rail-flanges, the bar passing through the op-

posed slots *c* of the rails, and is then bent downward at each end, so as to form vertical flanges *i i*, which closely embrace the edges of the rail-flanges and extend below them, the arrangement being such that the mortises *h* extend below the rails, one a little more than the other. An iron wedge J is now fitted into the mortises *h h*, passing from one to the other beneath the rails, with the top surface of the wedge in contact with the bottom of the rail-flanges, and the joint between the rails coming substantially over the center of the wedge.

Wedge J being driven in, plate D is drawn closely down and the rail-flanges are closely embraced on all sides. The sides of the rail-webs are also embraced between the edges of the slots *e*, thus preventing both vertical and lateral movement of either rail relatively to the other. A key L, passing vertically through a mortise *k* in the wedge, prevents accidental displacement of the wedge.

I claim as my invention—

1. In a rail-joint, two abutting rails having corresponding open slots in the webs of their opposed ends, a plate having slots in opposite edges adapted to receive the webs of the rails, an intermediate bar adapted to enter the slots in the rail-webs, and a pair of mortises near its ends, said plate being bent so as to embrace the upper side and the edges of the rail-flanges, and a wedge passing through said mortises beneath the rail, all combined and arranged to co-operate substantially as specified, whereby the adjoining ends of the rails are clamped and held in a fixed relation to each other, as set forth.

2. In a rail-joint, the joint-clamp consisting of the bent plate A, having slots *e e*, bar *f*, vertical flanges *i i*, and mortises *h h*, and the wedge J and the rails, all combined and arranged to co-operate substantially as and for the purpose set forth.

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Witnesses:

H. P. Hood,

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