

(No Model.)

A. KIMBER.
RAIL JOINT.

No. 420,944.

Patented Feb. 11, 1890.

Fig. 2.

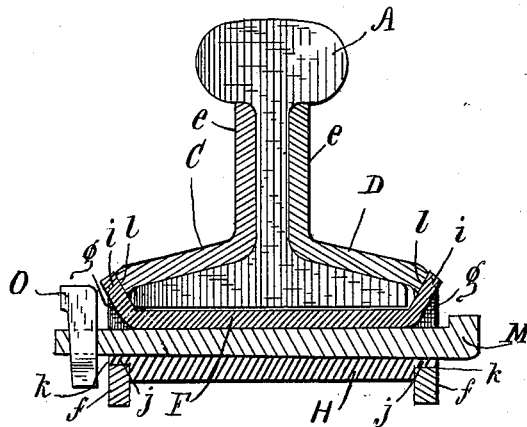
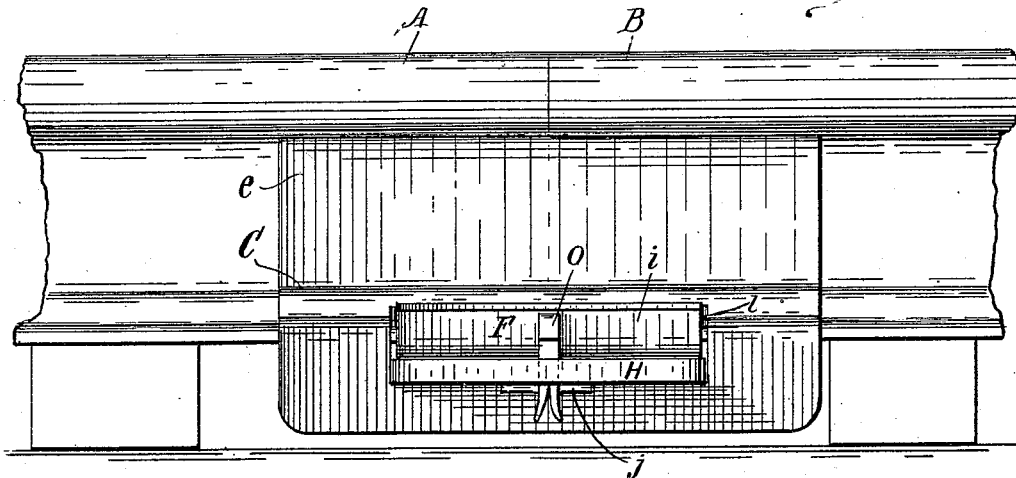


Fig. 1.



Witnesses
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UNITED STATES PATENT OFFICE.

ABRAHAM KIMBER, OF INDIANAPOLIS, INDIANA.

RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 420,944, dated February 11, 1890.

Application filed December 5, 1889. Serial No. 332,694. (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 combine, with a pair of plates adapted to embrace the sides of the web of the rail and bent to cover the tops of the rail-flanges and to project below the bottoms of the rails and a wedge arranged to pass through the downwardly-projecting portions of the plates, so as to clamp the rails vertically, means whereby the wedge may operate to clamp the plates laterally against the web of the rail as well as vertically against the top of the flange, all as hereinafter fully described.

The accompanying drawings illustrate my invention.

Figure 1 represents a side elevation, showing the "joint" in position on the rails. Fig. 2 represents an end view of the rail and one of the joints in section.

A and B are the rails.

C and D are a pair of metallic plates, each having a portion *e*, which is adapted to fit against the web of the rail and fill the space thereon between the head and the flange of the rail in a manner similar to the ordinary fish-plate. Plates C and D are each extended below the portion *e* and bent so as to conform to and rest upon the upper surface of the rail-flange and to extend over the edge and below the bottom of the flange, thus forming the depending portion *f*, in which is formed a mortise *g*. The upper edges of the mortises *g* are tapered from the outside inward, as at *l*, Fig. 2, and project, when in position on the rail, slightly beyond the outer edges of the flange of the rail.

F is a gib, having its ends *i i* turned upward at angles corresponding to the inclined upper edges *l* of the mortises *g g*, and the arrangement is such that when the plates C and D and the gib F are in position on the rail the edges *l* are embraced within the upturned

inclined ends of the gib, the gib passing beneath and just clear of the bottom of the rail.

H is a bar, which is fitted between the inner sides of the lower ends of plates C and D in such a manner as to hold the lower ends of the plates at a fixed distance apart. The bar is supported in position with its upper surface flush with the lower edges of the mortises *g g* by tenons *j j*, formed on the ends of the bar and resting in corresponding recesses *k k* in the plates.

M is an iron wedge, adapted to pass through the mortises *g* of the opposed plates, beneath the rails, and between the bar H and gib F.

O is a key or keeper.

In operation, plates C and D having been arranged on opposite sides of the rails and overlapping their opposed ends, bar H is placed in position between the lower ends of the plates. Gib F is then placed in position beneath the rails, with its upturned inclined ends embracing the inclined edges *l* of the two plates. Wedge M is now driven through the mortise *g* in both plates below the gib F. Gib F is thereby forced upward, and its inclined ends *i*, impinging against the inclined surfaces *l* of the plates, tend to force the plates toward each other. The lower ends of the plates being held apart by the bar H, their upper ends are strongly clamped by the action of the wedge and the gib against the sides of the rail-webs, and at the same time the plates are drawn downward by the wedge against the tops of the rail-flanges, thus clamping the rail vertically between the plates and gib F. I thus avoid the use of screw-bolts and nuts and clamp the meeting ends of the rails securely in line.

I claim as my invention—

In a rail-joint, the combination of two abutting rails, the plates C and D, adapted to embrace the rails between them and each having the mortise *g* and inclined edge *l*, gib F, having inclined ends *i i*, bar H, and wedge M, all arranged to co-operate substantially as specified.

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Witnesses:

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