

(No Model.)

M. O. PERKINS.
RAIL JOINT.

No. 521,667.

Patented June 19, 1894.

Fig. 1.

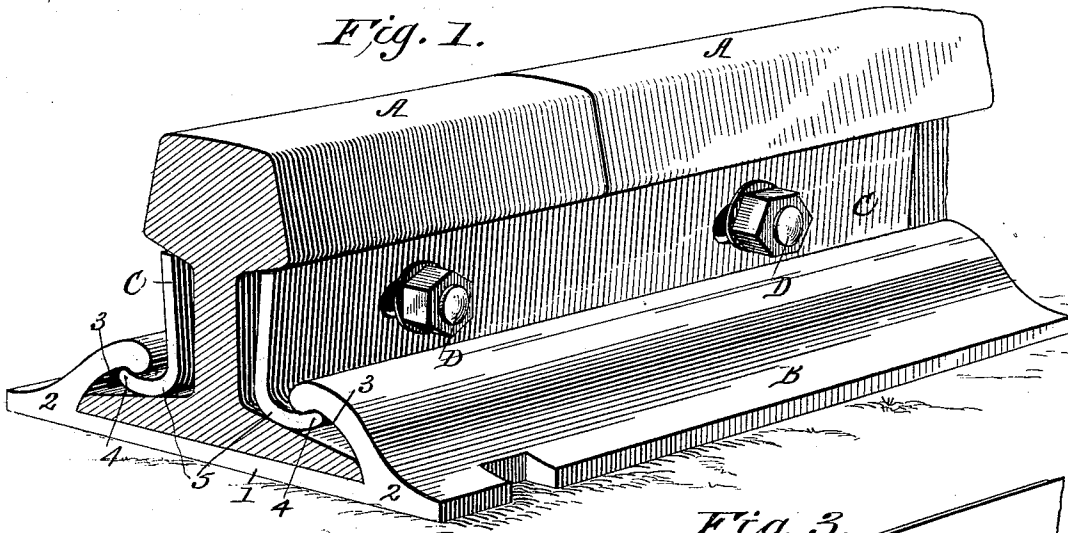


Fig. 2.

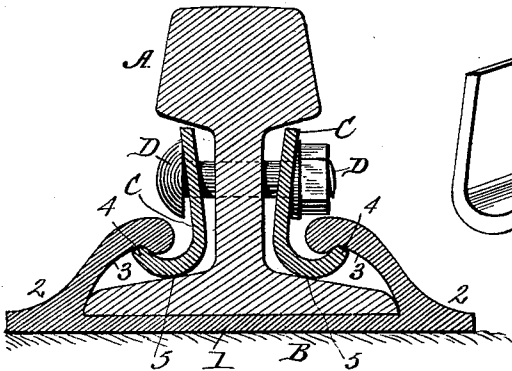


Fig. 3.

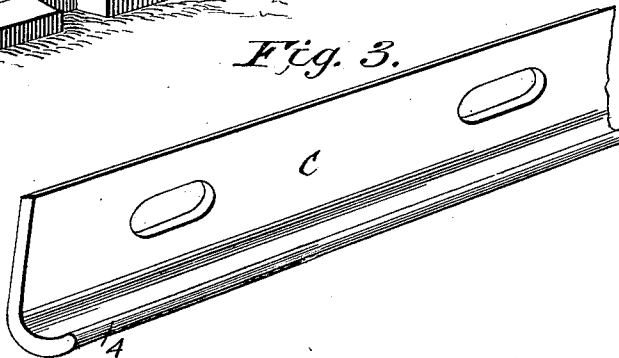
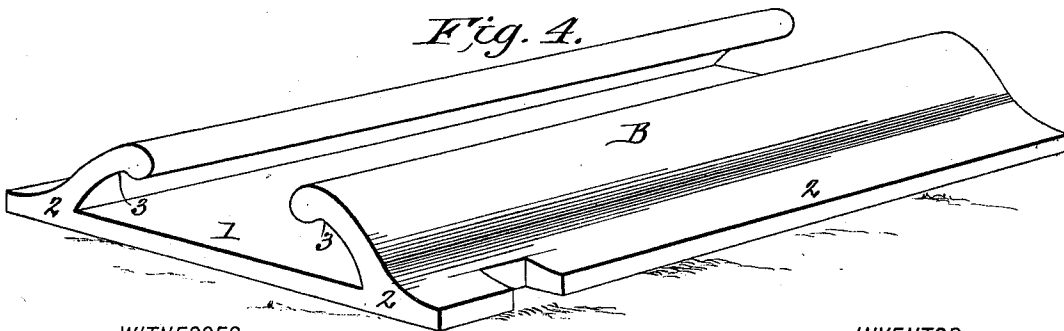


Fig. 4.



WITNESSES:

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RAIL-JOINT.

SPECIFICATION forming part of Letters Patent No. 521,667, dated June 19, 1894.

Application filed August 8, 1893. Serial No. 482,705. (No model.)

To all whom it may concern:

Be it known that I, MILES O. PERKINS, of Galveston, in the county of Galveston and State of Texas, have invented a new and useful Improvement in a Combined Rail-Joint and Nut-Lock, of which the following is a specification.

My invention is an improvement in rail joints and consists in the special constructions and combinations of parts as will be hereinafter described and pointed out in the claims.

In the drawings—Figure 1 is a perspective view of my improvement. Fig. 2 is a cross section and Figs. 3 and 4 are detail perspective views.

The rails A A to be joined are embraced by the chair B and the side plates C which latter are fastened together and to the web of the rails by the bolts D. The chair B is formed with the base plate 1, and the flanges 2 extending upward along the edges of the rail base to a point above said base and then projecting inwardly above the rail base and terminating near to the web of the rail. In the under sides of the flanges 2 near their inner edges are formed longitudinal grooves 3 providing seats for the points of the short arms of the side plate levers. It will be noticed that the bases of the rails rest upon and fit snugly between the sides of the chair and that the flanges of the chair extend inwardly above the bases of the rails so that the seats for engagement by the lever side plates are vertically over the rail base plates. The side plates C are in the nature of levers having their lower ends upturned forming the short arms 4 which bear in the seats 3 of the chair, and the said plates are also formed with eccentric lever portions at 5 which bear upon and against the base of the rails while the edge of the short arm 4 of the lever bears in the grooves or seats in the under sides of the top flanges of the chair. Now it will be seen that by drawing up the bolts that secure the side plates together and to the rail the side plates will act as levers in clamping the rails tightly in their chairs. In use the elasticity of the main arms of the levers or side plates will operate to clamp the rails by a spring action, which action will be aided by the elasticity of the inwardly projecting chair flanges.

As important advantages resulting from the projection of the chair flanges inward above the base of the rail may be mentioned, the fact that a very short arm may be employed on the lever side plates and that when such arm is adjusted to locked position it projects almost at right angles to the base of the rail so that the pressure or strain thereon is borne in a large measure endwise enabling it to effectually resist great strains.

Another and great advantage results from the fact that the outer edges of the rail base fit in the chair and the side levers clamp the rail base near the rail web, the rail base being thus held at its edges and near to and on opposite sides of its middle.

Another great advantage results, from the fact that the spring levers act as nut-locks, thus locking their own nuts. While yet another, and probably a very great advantage, is in the fact that the spring in the steel levers will constantly recover all wear as fast as it takes place, by its automatic action.

It will be noticed that in practice the construction of joint operates efficiently as a nut lock, the elasticity of the side plates tending to prevent the nuts from jarring or otherwise becoming accidentally loose.

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

1. The combination in a rail joint of the rail, the chair having the base plate and the flanges projecting therefrom inwardly to points between the edges of said base plate and the rail web the lever side plates having their lower arms engaging said chair flanges at points between the edges of the rail base and the web of the rail and fastenings for said lever plates substantially as and for the purposes set forth.

2. The improved rail joint herein described consisting of the rail the chair having its base plate fitted under said rail and provided with the flanges which project up over said rail base and extend to points between the edge of the rail base and the rail web said chair base and flange being formed to grip the edges of the rail base and the lever side plates having their short arms arranged to engage the chair flanges at points vertically over the rail base that is to say at points be-

tween the edges of said base and the web of the rail all substantially as and for the purposes set forth.

3. The combination substantially as set
5 forth of the rail, the chair having a base plate fitting under said rail and flanges which project inwardly over the base of the rail to points between the edge of the rail base and
the rail web, the lever side plates fulcrumed
10 upon the rail base and having their short arms engaging the under sides of the chair

flanges at points directly over the rail base and between the edges of said base and the rail web, the upper edges of the upright arms of said lever plates being free to spring in- 15 ward and outward under the crown of the rail and the bolts connecting said upright arms substantially as set forth.

MILES O. PERKINS.

Witnesses:

CHAS. V. SCHOTT,
V. PIX.