

USEFUL, RELIABLE | A NEW INVENTION | AND VALUABLE.

The Steel Seat Railway Rail Chair & Rail Tie.

Patented May 14th, 1887, No. 26,716.

The Object of this Invention is to secure a level, smooth surface at Rail Joints; to overcome and avoid the unpleasant expensive rattle at the time train wheels are passing over the joints; unpleasant to sensitive travellers, and expensive to Railway Companies. This Chair loses no bolts ("Fish Plates" do). It has a reliable seat and safe back. It is quickly laid, saves labor and expense.

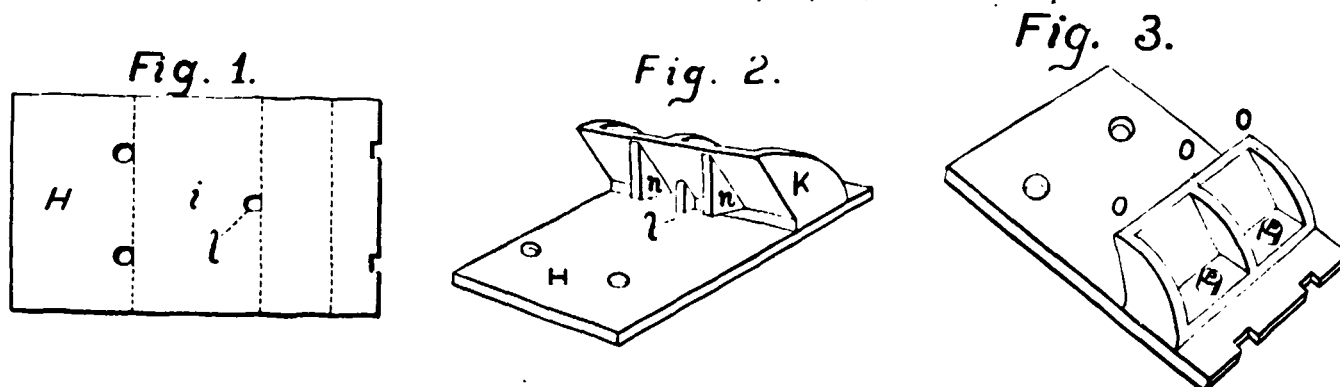


Figure 1 is a side view of the Chair, showing the place of the rail, the place of the chair back, and places for the spikes.
Figure 2 is the seat and back of the Chair, showing the front side of the back, with ribs for keeping the rails from displacement.
Figure 3 is the Chair (position changed), showing the heads of the rivets uniting the seat and back, and the ribs that strengthen the back and protect the Chair.

Similar letters refer to the parts described in the views:

H is the chair seat of "Bessemer Steel," half inch thick, 7½ inches wide, and 12 inches long.

I is the rail place; at the right is the chair back place.

L is the place of a part of the chair back to stand between a part of the rail ends to keep them each to the proper place.

K figure 2 is the back on the seat with the front in view.

L in this view is a part of the back to stand between the rail ends, as seen at L figure 1. It secures the rails from displacement endways. Its purpose is the same as the post D figure 1 in the "Rail Grip," No. 23,040, patented to the undersigned Dec. 22nd, 1885.

N N are ribs on the inner front side of the back two inches apart, each being one inch from the end of the rail. They extend from the back inward to the neck of the rail just over the bottom part, to secure the end of each rail to the seat at the time of frost leaving, when a possible depression of the seat may occur, thus keeping a smooth surface at the joint. Being supported underneath by a seat that will not break or wear out, the rails being kept thereon secures that most desirable effect, a smooth surface.

O O O figure 3 are the ribs which protect and strengthen the back; they admit of a hollow space between them to receive the rivets, P P securing the back to the seat. The important advantage is thus obtained of having steel of the greatest cohesion for the seat, and cast iron of great crushing resistance for the back.

RAIL CHAIRS ON A WOODEN TIE.



THIS RAIL CHAIR, as shown and described previously, is the most simple, effective and durable rail Chair yet produced. It is readily laid and kept in position by ordinary men, requiring only to be spiked to a wooden tie, as shown in the illustration above. The seat is reliable, having been proved by actual experiment; the back is a safe support under all emergencies, being riveted to the seat with steel rivets. The combined strength of four spikes, two being through the seat, secures the chair and rail ends therein to the wooden tie, and thus gives double strength against outward pressure, the effective way to avoid disasters by rail spreading. There is no heavy pressure on the rails inward, therefore no special provision is necessary for that purpose. A reliable, enduring seat covering a larger part of the tie than the rail covers (the chair seat covers more than double the surface), saving ordinary ties from being cut, hammered and destroyed, is the invention that is required, being a valuable improvement in crossing rail joints.

RAIL CHAIRS AND STEEL TIE COMBINED.



THIS COMBINATION of Rail Chairs into a steel rail tie that will not ignite, is a simple, durable invention for Culverts, Bridges, or Solid Ground. The back of the chairs is the same as those on the wooden tie. On the front, or inside of the rail, a section piece is riveted to the seat far enough from the rail to admit of it being removed, or taken out when required; between the section piece and the rail a key is placed to keep the rail secure in the seat, it joins the section piece in a half dove-tail, by which it is prevented from rising out, the key extends inward to the neck of the rail and upward to the rail head. This key is put in endways, and secured from jarring out by a bolt screwed into the seat, the bolt is kept from turning by a guard hinged to a rib on the key, and this rib protects the guard. The key and appendages are patented to the undersigned in the "Safe Rail Grip" before mentioned, and used here as the most perfect invention for opening the chair to remove rails, and closing up to secure the rail to the chair seat.

The Patent Right of this inexpensive, reliable rail chair and tie, with the other Patents named, for a limited time only, are obtainable, for certain defined limits of Railway, or sections of the Dominion of Canada.

Models may be seen at the office of "Railway Life," 64 Bay St., or at the Patentee's residence, 6 Baldwin St., Toronto.

P. De GUERRE, Inventor and Patentee.