T. C. HARGRAVES.

RAILWAY CHAIR.

No. 66,328. Patented July 2, 1867.

Fig. 1.

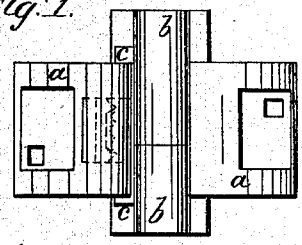


Fig. 3

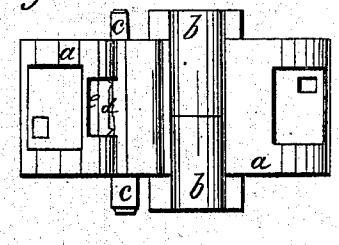


Fig. 4.

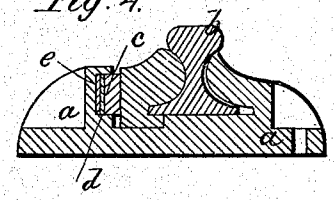
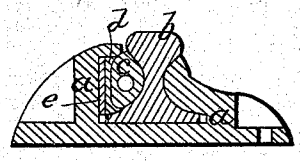


Fig. 2.



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Letters Patent No. 66,328, *dated July* 2, 1867.

IMPROVED RAILWAY CHAIR.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, T. C. HARGRAVE, of Boston, in the county of Suffolk, and State of Massachusetts, have invented an Improvement in Railway Track-Joints; and I do hereby declare that the following, taken in connection with the drawings which accompany and form part of this specification, is a description of my invention sufficient to enable those skilled in the art to practise it.

This invention relates to means for securing track-rails in their chairs, especially when a joint of the track made at two adjacent ends of rails occurs at a chair, in which case the chair and the means for securing the rails therein "fish" the joint. The invention consists in combining with a track-chair and the track-rails, a long wedge and a yielding detainer, arranged to operate together so as to prevent displacement of the wedge by ordinary wear and jar of the track, and yet allow the wedge to be driven in either direction so as to tighten or loosen the track-rail in its chair according as the wedge is driven in one or the other direction.

The drawings represent two forms or modifications of embodiments of my invention, Figure 1 showing in plan a chair, its rail, and my additions thereto, which are also shown in section in Figure 2, and Figure 3 being likewise a similar plan, the section through which is shown at Figure 4.

In figs. 1 and 2 the chair body is marked *a*, the rail *b*, the wedge *c*, the detainer *d*, the spring at the back of the detainer *e*, said spring being preferably of rubber. In figs. 1 and 2 the wedge is shown as a flattened taper tube, with indentations on the side adjacent to the detainer, which has corresponding projections thereon, which act on the wedge somewhat in the manner of pawls on the teeth of a rack or ratchet. The other side of the wedge comes directly into contact with one side of the rails, the said side thereof being forced by the wedge into contact with the chair, so that when a joint of the rails occurs in a chair, it and the wedge "fish" the joint. This wedge I prefer to make as a cast tube of iron, the necessary indentations being made in the mould. The detainer may be either of wrought or cast iron, and a recess of suitable size for the reception of it and the spring *e* is made in the chair, which prevents them from moving longitudinally with the wedge. The spring always keeps the projections on the detainer in mesh or gear with the indentations in the wedge, except when the wedge is purposely and powerfully driven by blows applied to one of its ends, when the inclined form of the said projections and indentations causes the spring to yield enough to permit slight longitudinal movements of the wedge. The construction shown in figs. 3 and 4 is similar to that shown in figs. 1 and 2, except that the wedge, instead of acting directly against the side of the rail, acts against a block or "fish" piece, which abuts against the side of the rail, said piece being marked *f* in the drawing.

Amongst the advantages of this construction, it may be mentioned that in laying or repairing tracks, no screws or screw-bolts or wrenches are needed, the whole operation of confining the rails in their chairs being effected by blows from a laborer's hammer, and the fastening is cheap and efficient.

I claim, in combination with the chairs and rails of a railway track, an indented wedge and spring detainer, arranged to operate together substantially as described.

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