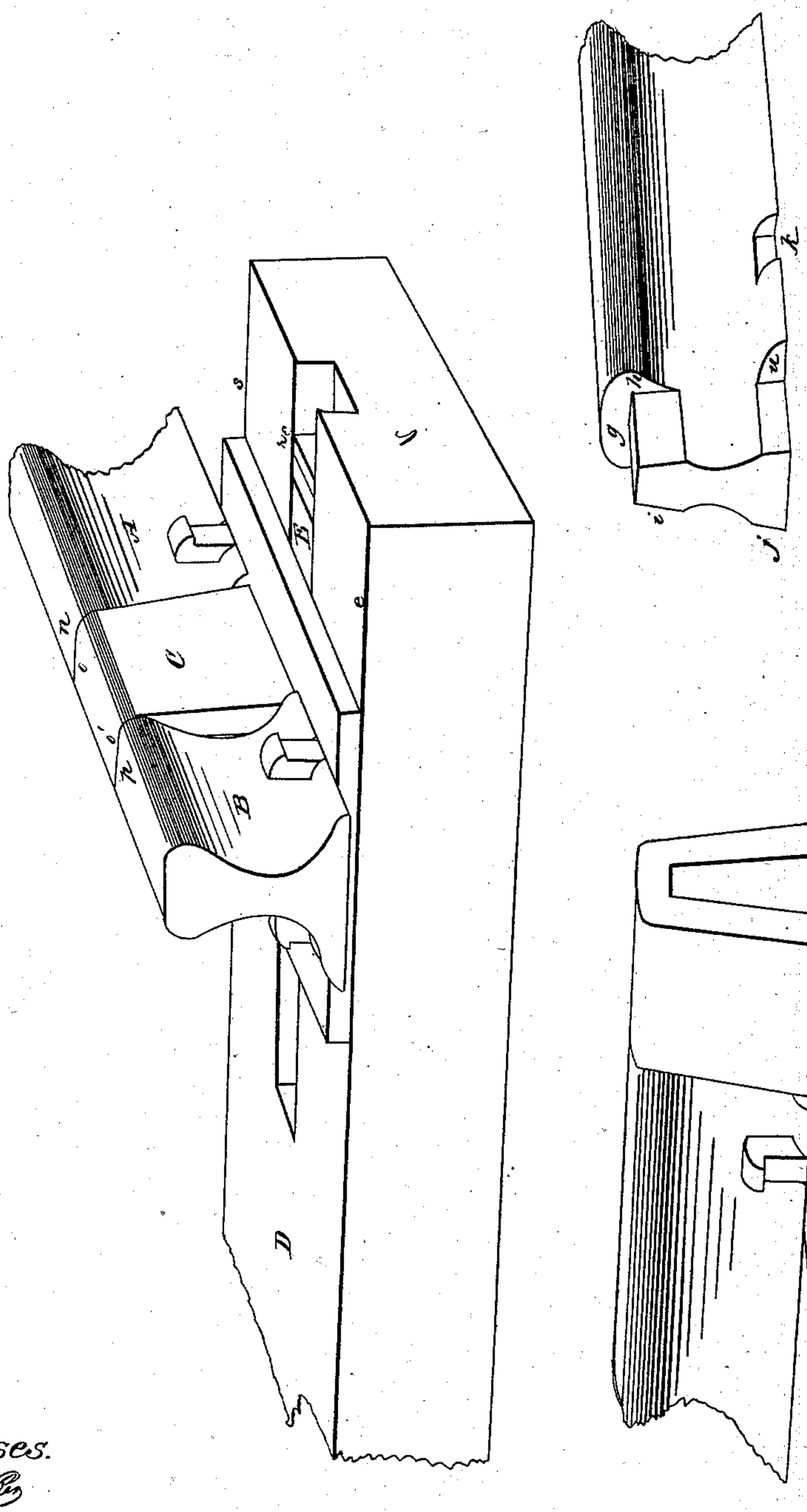
J. W. Wetmore,

Railroad Chair,

No. 26,634. Patented Dec. 27, 1859.



Witnesses.
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UNITED STATES PATENT OFFICE.

J. W. WETMORE, OF ERIE, PENNSYLVANIA.

RAILROAD-CHAIR.

Specification of Letters Patent No. 26,634, dated December 27, 1859.

To all whom it may concern:

Be it known that I, J. W. WETMORE, of Erie, in the county of Erie, in the State of Pennsylvania, have invented a new and Improved Railroad-Chair, which I name the "Band" railroad-chair; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention is as follows: I propose to prevent the irregularities in the vertical and lateral variations of the adjacent ends of the rails by means of an iron adjustable yoke forming the bearing surface and sides of the joint and a plate and wedge key under the ends to complete the band surrounding the joint.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A and B are adjacent ends of rails, notched at *g*, *h*, *u*, &c., about $\frac{5}{8}$ of an inch deep and an inch and a half (or more) from the end of each rail.

C is made of a bar of iron 3 inches wide and $\frac{5}{8}$ thick, bent on a former to fit the rails thus notched. The web must be notched deep enough toward the center for the band C to pass sufficiently near to a perpendicular to clear the flanges of the wheels. *l*, *m*, the ends of this bar, run from the web down through F, perpendicularly; F, an iron plate about 8 inches square and $\frac{3}{8}$ thick punched for the bar or band and also for fan spike; E, wedge key passing through *l* and *m* directly under plate F. This key is driven up until C is firm on the surface *g*, &c., and then a small spike is driven in the tie at *r* the head of the wedge, to prevent the wedge from working back. The tie is grooved for the wedge and mortised to receive the ends *l*, *m*. Holes are bored through the tie from the bottoms of the mortises to drain off the water. The heads of the spike turn only outward so that the rails can be removed without drawing them or moving the plate F. C is taken off simply by removing the key E.

u is a notch in the end of the wedge to facilitate its removal.

To prevent the surfaces of the rails at *o* and *o'* (the joints) from being nicked or broken by the irregularities of the motion when A, B, and C are pressed close together, the cutting of the head of the soil slopes backward or the edges of the band are beveled.

This chain might be placed between the ties by having a plank 3 or 4 feet long, under the joint resting on two ties and the ends *l*, *m* long enough to pass through holes in the plank. The key E would then press up against a washer plate nailed under the plank. A small plate like "F" would be set into the plank under the ends of the rails. The rails would then be notched for spike about a foot from each end and long spike driven in these through the plank into the ties. These two ties would be about 4 inches apart. The key would be fastened by bending its end sidewise. If greater economy is desired, every other chair may be similar to that for which Letters Patent were granted to me on the 19th of Feby., 1859. The tie would be grooved out $\frac{3}{8}$ inches deep for this chair. A flat key could be driven under the rails to tighten this joint. This form of chair may be welded on the under side.

When now the weight is on A, at *n*, it presses down on the plate F and through the wedge draws C down onto the notch of B. When the edge of the tie S is depressed and throws up edge *t*, this will only rock *o* (the edge of C) close down into the corner of the notch at *n*. The wheel will then pass by an even surface onto "*o*." When the wheel is on C, of course the weight will carry surface *p* down even with surface *o'* and the wheel will pass off of the chair as well as onto it in the same plane. This chair thus grasps the main central body of the ends of the rails and holds them together, preventing either from rising above the other and when one is pressed downward or horizontally by any amount of weight, carrying the other end with it. The joint is covered and bridged and the partial breaks in the surface that are substituted, do not operate to produce an uneven surface. The joint is as firm as a continuous rail, except the wave depression is greater than at an intermediate tie. The

spaces between *n o* and *o' p*, for expansion, are only half of that at the single joint.

What I claim as my invention and desire to secure by Letters Patent, is—

The use of the yoke band (as "C") passing through notches in the heads, and webs, of the T or H rail, at the joint, and keyed by a wedge under the plate F, all combined, constructed and arranged substantially as described.

J. W. WETMORE.

Witnesses:
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