J. W. Wetmore.

Railroad Chair.

No. 54,236. Patented Apr. 24, 1866.

Fig. 5.

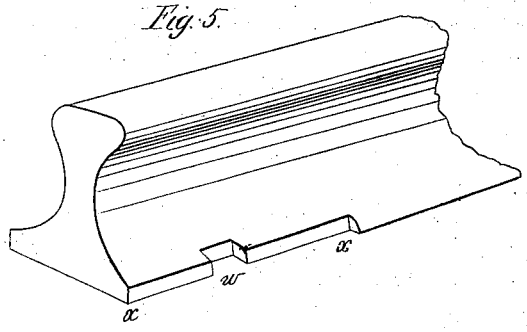


Fig. 1.

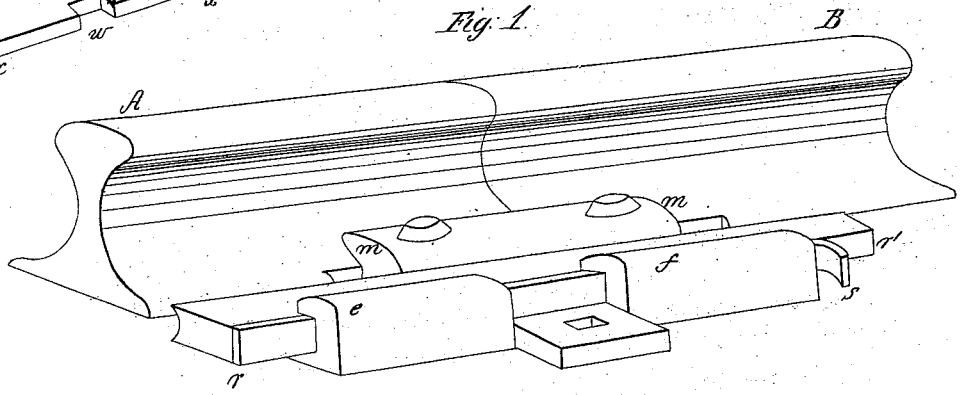


Fig. 2.

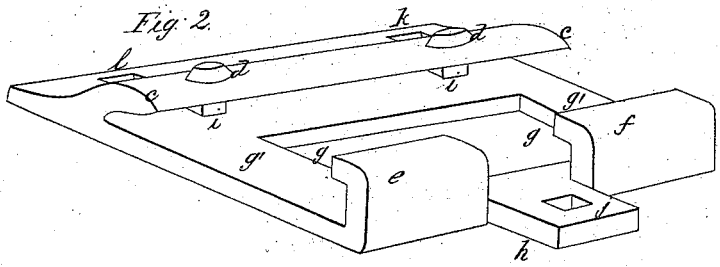


Fig. 3.

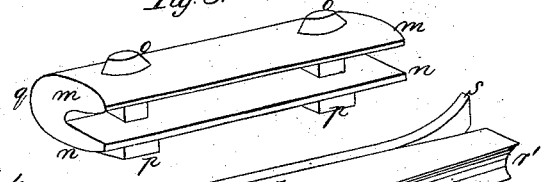
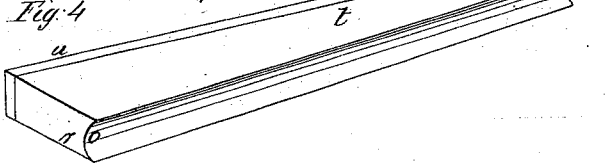


Fig. 4



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UNITED STATES PATENT OFFICE.

J. W. WETMORE, OF ERIE, PENNSYLVANIA.

IMPROVED RAILROAD-CHAIR.

Specification forming part of Letters Patent No. **54,236**, dated April 24, 1866.

To all whom it may concern:

Be it known that I, J. W. WETMORE, of Erie, in the county of Erie and State of Pennsylvania, have invented a new and useful Railroad-Chair; and I do hereby declare that the following is a clear, full, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the chair in its place on the rails; Fig. 2, the bed-plate and main body of the chair, with one fixed lip or jaw to hold the rails and one to hold the wedge and movable jaw; Fig. 3, movable and adjustable jaws or lips of the chair; Fig. 4, wedge to hold and tighten the movable jaw in its place; Fig. 5, an end of the rail, showing one of the notches which catch on the fixed bolts of the jaws.

A B represent adjacent ends of the rails.

c c represent the fixed jaw of the main body of the chair for holding the rail, made of iron from three-eighths to one-half inch thick.

d d represent heavy rivets, which perform the double office of holding the jaw to the bed-plate and the rails in the chair.

e f represent outer jaws or lips of the bed-plate. These support the wedge and movable jaw. About two-thirds of the plate of which this part of the chair is formed are thus turned up. They extend sufficiently over the wedge *r r'*, Fig. 1, to prevent it from being lifted up.

h represents one-third of the bed-plate, left to give breadth of bearing to the plate on the tie and to furnish a spike-holding at *j*; *g g*, recess in this plate of such length and breadth as to receive a movable jaw, *m m*, Fig. 1. The recess will extend about one and three-fourths inch under the edge of the rail. The borders of this open space *g' g'* are about two inches wide. They must be of sufficient strength and stiffness to bear the strain of the wedge and the pressure of the tie under *h*, *e*, and *f*. *i i*, the middle section of the rivets. These are oblong, so as to bear the wear of the notches of the rail. *j*, *k*, and *l*, spike-holes by which to nail the chair to the tie. This plate, Fig. 2, is constructed as follows: A bar is rolled with a single lip, as *c c*, and cut into pieces of suitable lengths. These are heated, recess *g g* and the rivet and spike holes punched out, and jaws *e f* turned up on a former.

The jaws, Fig. 3, are constructed by rolling a bar of iron of this form and cutting off these pieces; or sections of a flat bar are cut off and shaped on a former, the grain of the iron in this case running round the edge of the rail. The length and breadth of these jaws are such as to be admitted into the recess *g g*, Fig. 2. *n*, the under jaw, is made flat to fit the under side of the rail. *m*, the upper jaw, is curved to fit the thick part of the neck of the rail, as is also *c c*, Fig. 2. *q*, the back side of these jaws or lips, is a round corner to fit into *r r'*, the round-cornered groove of the wedge, Fig. 4. *m m*, as well as *c c*, reach the thick part of the web above the notches *w*, Fig. 5. *r r'*, round-corned groove of the wedge, Fig. 4. *s u*, a piece of sheet-iron, about one-eighth of an inch thick, of the length and breadth of the flat out edge of the wedge *u*. At this end this piece of iron is riveted onto the wedge. *s*, the end of the sheet-iron attachment, which is bent out after the wedge is driven to its place, to serve as a key in keeping the wedge in place.

w, Fig. 5, shows the notches by which the bolts or rivets *d d*, Figs. 2 and 3, catch and hold the rails in the chair.

The application of the chair is as follows: Part Fig. 2 is placed on a rail between the ties and slid to its place on the tie, usually the jaw *c c* being outside. The movable jaws, Fig. 3, are placed in the recess *g g*, the wedge driven to its place, and the end *s* bent out to serve as a key. If the chair becomes loose the wedge is driven up and the end *s* bent out again.

Some of the different applications of my improvement are as follows: The jaw *c c*, Fig. 2, may be rolled on the bar, as Fig. 2 shows, or a plain flat bar may be rolled of a width equal to the length of the chair. The pieces would then be cut off and formed by bending at *k l*—not welded, as *c c* is shown to be, but depending for their strength on the rivets *d d*. The jaw, Fig. 3, may also be constructed by making the rivets part of it, and not put in subsequently. The wedge may be constructed solid, and the keying-slip *s* produced by slitting the wedge up to *t*, Fig. 4; or the piece *s u*, Fig. 4, may be shorter and set in a shoulder about

at the point *t* and riveted. The edges of the web of the rail may be pared off, as shown at *x x*, Fig. 5, or be left untrimmed. The trimming is not material to the success of the principle of my device when the rivets *d i* and *o p*, Figs. 2 and 3, are used.

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

A railroad-chair constructed of a bed-piece, Fig. 2, which has one jaw to hold the rail and one in two parts to hold a wedge, and which has also a recess, *g g*, in which the jaws, Fig. 3, are applied to the rail and held in place by the wedge, with its key *s* and groove *r r'*, both the fixed and adjustable jaws being held by rivets passing through the notches of the rails, all substantially as described.

J. W. WETMORE.

Witnesses:
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