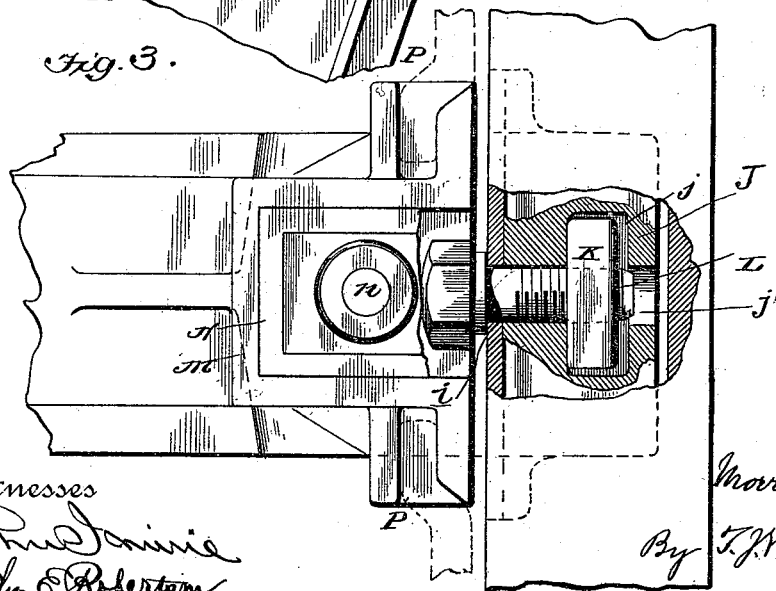
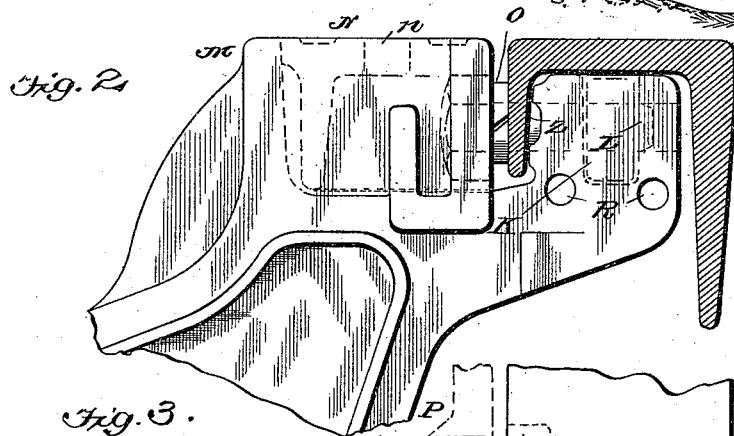
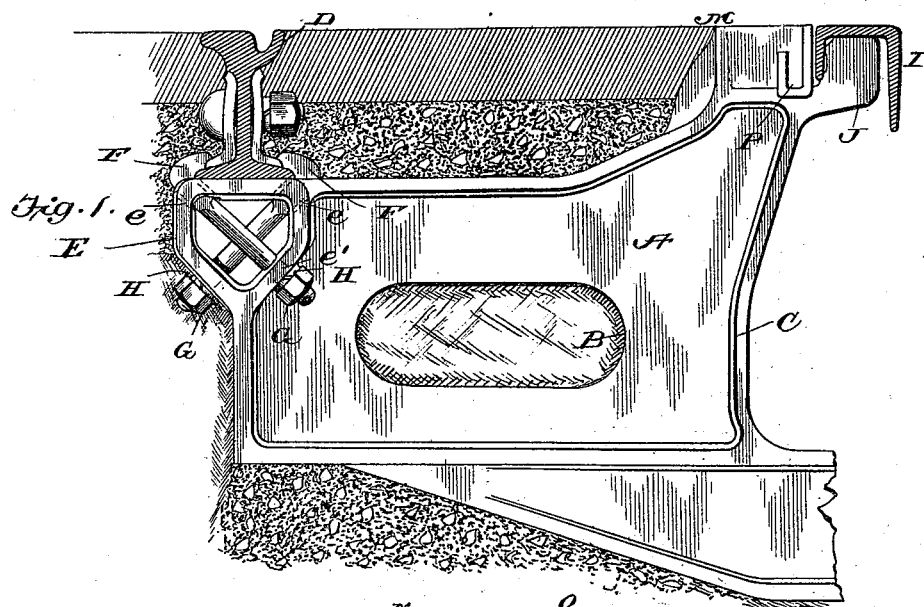


(No Model.)

M. S. TOWSON.
RAILWAY YOKE.

No. 490,690.

Patented Jan. 31, 1893.



Witnesses

John J. Conner
Thos. E. Robertson

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UNITED STATES PATENT OFFICE.

MORRIS S. TOWSON, OF CLEVELAND, OHIO, ASSIGNOR TO THE LOVE
ELECTRIC TRACTION COMPANY, OF CHICAGO, ILLINOIS.

RAILWAY-YOKE.

SPECIFICATION forming part of Letters Patent No. 490,690, dated January 31, 1893.

Application filed October 10, 1892. Serial No. 448,385. (No model.)

To all whom it may concern:

Be it known that I, MORRIS S. TOWSON, a citizen of the United States of America, residing at Cleveland, Cuyahoga county, Ohio, have invented certain new and useful Improvements in Railway-Yokes, of which the following is a specification, reference being had therein to the accompanying drawings.

This improvement relates to yokes designed more particularly for electric railways, but may also be used in other forms of traction.

The invention will be hereinafter more fully described and then definitely claimed.

In the accompanying drawings—Figure 1 is an elevation of one side of a yoke with the track and slot rails in position—the rails being in section. Fig. 2 is a detail of the fastening of the slot rail on a larger scale, partly broken away. Fig. 3 is a plan of the same on the same scale also with part broken away.

Referring now to the details of the drawings by letter—A indicates the yoke (only one-half being shown) having a web B and stiffening flanges C at its edges. At each outer extremity of the yoke is a seat for a tram rail D, consisting of a hollow five-sided tube or box E having its upper surface (which forms the seat for the rail) horizontal and two of its sides inclined. The upper corners of this box are slotted as shown at *e*. Upon the top side is seated the tram rail D, which is secured by two hook-headed bolts F passing through the slots *e* and holes *e'* formed in the box. These bolts set substantially at right angles to each other and are secured by nuts G and nut-locks H in a manner well understood. It will be obvious that this means of securing the rail is a very secure and convenient one—secure, because the bolts act against each other and are not likely to become loose, and convenient because by slackening up one bolt and screwing up the other, a very accurate lateral adjustment may be had.

To secure the slot rail I in its place, a projection J is made on the yoke having therein a (preferably) oblong recess *j* which receives a nut K substantially corresponding in shape to the recess *j*. At right angles to this recess is a hole *j'* to receive a bolt L which screws into the nut K. At the side of this projec-

tion J, a box M is formed having a cover or cap N fitting therein. Three of the sides of this cap extend downward so as to rest upon the bottom of the box. The fourth side, that nearest the slot rail, does not extend downward, as it would be in the way of the head of the bolt. At the center of this cap is a hole *n* adapted to receive a tool to remove said cap when necessary.

To fasten the slot rail in its place, the cap N is removed and the bolt L put through a hole *i* in the rail and screwed into the nut K, which can easily be done as, owing to the corresponding shape of the recess and nut, the latter can not turn in the former. To prevent the bolt turning, a spring washer or nut-lock O may be employed. The holes *i* and *j'* should be a fair fit for the bolt L, as when this is the case, owing to the inclined face of the projection and the corresponding incline of the inside edge of the rail as shown at *z*, the screwing of the bolt "home" will force the rail tightly against its seat. If found necessary in adjusting the width of the slot, as may sometimes be required owing to imperfections in casting the yokes, a "liner" may be inserted at *z* by which means the slot may be widened. By the above arrangement, the slot rails may be readily taken up at any time and as easily returned and secured to their place. This is a necessity in electric roads and my arrangement will therefore be found very convenient for this purpose.

In some cases, instead of using the recess *j* and nut K, the hole *j'* may be tapped and the bolt L screwed directly into said hole, but I regard the use of the nut as the preferable plan.

At P are shown recesses to receive the ends of the paving plates Q and at R holes are made for insulator rods, but as these form no part of the invention here claimed, no further reference to them is necessary.

What I claim as new is:

1. The combination with a rail having a depending flange, of a yoke provided with a projection J to receive said rail, and a bolt passing horizontally through said rail and into the projection J, substantially as described.

2. The combination with a rail I having a

depending flange and with a yoke provided with a projection J, having a recess *j* and hole *j'*, of a nut set in said recess and a bolt passing through said flange and into the nut, substantially as described.

3. A railway yoke provided with a projection forming a seat for a slot rail, a hole to receive the threaded end of the securing bolt, a box for receiving and protecting the head, and a cap closing the top of the box, substantially as described.

4. A yoke for an electric railway, provided with a projection to receive a slot rail, a substantially horizontal surface forming a seat for the tram rail, perforations constructed to receive securing bolts substantially at right angles to each other, and inclined surfaces

beneath the seat to receive the pressure of the bolt nuts, substantially as described.

5. An electric railway yoke provided with projections to receive the slot rail, and seats for the tram rails, each seat comprising a hollow box E having a substantially horizontal surface forming a seat for the rail, and two inclined surfaces beneath said seat, said box being perforated to receive bolts substantially at right angles to each other, substantially as described and shown.

In testimony whereof I affix my signature in presence of two witnesses.

MORRIS S. TOWSON.

Witnesses:

THOS. E. ROBERTSON,
ALEX. S. STEUART.