

(No Model.)

A. J. MOXHAM.

COMBINED RAILROAD RAIL AND CHAIR AND METHOD OF MAKING
THE SAME.

No. 482,805.

Patented Sept. 20, 1892.

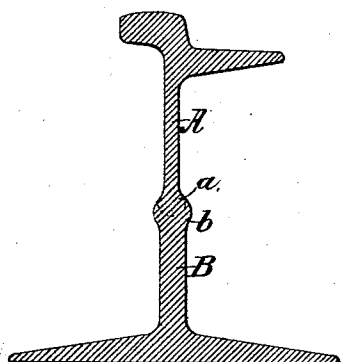


Fig. 1.

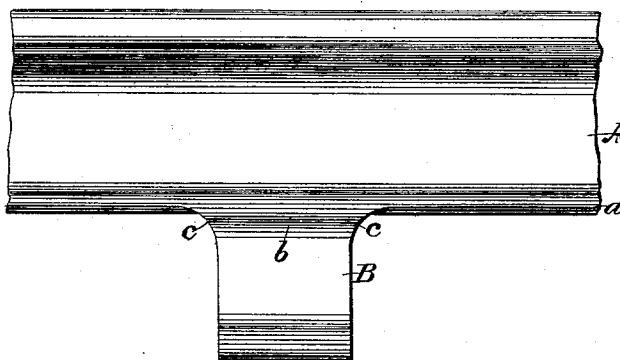


Fig. 2.

WITNESSES:

Francis P. Kelly
W. A. Brickell

INVENTOR

A. J. Moxham
BY *R. M. Doonick*

ATTORNEY.

UNITED STATES PATENT OFFICE.

ARTHUR J. MOXHAM, OF JOHNSTOWN, PENNSYLVANIA.

COMBINED RAILROAD-RAIL AND CHAIR AND METHOD OF MAKING THE SAME.

SPECIFICATION forming part of Letters Patent No. 482,805, dated September 20, 1892.

Application filed February 2, 1892. Serial No. 420,092. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR J. MOXHAM, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Combined Railroad-Rail and Chair and Method of Making the Same, which invention is fully set forth and illustrated in the following specification and accompanying drawings.

The object of this invention is to weld a rail and chair together in such a manner that weakness and tendency to fracture at the junction of the parts will be avoided.

The invention will first be described in detail, and then particularly set forth in the claims.

In the accompanying drawings, Figure 1 shows in cross-section a rail and chair embodying my invention. Fig. 2 is a side elevation of Fig. 1.

In the figures the several parts are respectively indicated by reference-letters, as follows:

The letter A indicates the web of the rail, provided with a bead or bulb *a*, and B the web of the chair or support, which is also provided with a bead or bulb *b*. The two beads *a* and *b* are usually of about the same diameter and shape, approximately cylindrical, and the union between rail and chair is effected by welding said beads together. This welding may be accomplished by any suitable process or means.

In the welding of chairs to rails if a sharp angle be left at the junction of rail and chair, as has heretofore been the practice, such angle is a source of weakness in the union of the parts and causes fracture at this point. To avoid these undesirable results, I supply an excess of material in the upper part of the chair, which is heated during the welding process, so that when the parts are subjected to the pressure needed to properly bring the rail and chair together to effect their welding such excess of metal is pressed out endwise, and thus produces a fillet in the two angles at the

junction of the rail and chair, such junction at the ends of the chair being on curved or concave lines, as shown at *c c*, Fig. 2. The desired excess of material can be regulated, if desired, by the insertion of a filling piece or pieces of any suitable thickness between the rail and chair. Such piece or pieces becoming welded into and part of the rail and chair, the excess of metal will produce the fillet-shaped substantially as shown at the points *c c*, Fig. 2.

I do not limit myself to any particular manner of constructing or producing the fillets *c c*, for whether they are separately welded on or produced in any other manner it is evident that they serve the same purpose and they are within the purpose and principle of my invention.

Having thus fully described my said invention, I claim—

1. As a new article of manufacture, a railway-rail and chair or support welded together, the junction of the rail and chair at the ends of the latter being made on curved lines.

2. As a new article of manufacture, a railway-rail and chair or support welded together, the ends of the chair at its junction with the rail having imparted thereto a concave form.

3. As a new article of manufacture, a railway-rail and chair or support welded together, said chair being enlarged in dimension at the points *c c* of its junction with the rail.

4. The method herein described of welding railroad-rails and chairs together, consisting in first forming a rail and chair each with a bead or bulb on a vertical web and then pressing out the metal of the chair at its ends into fillets or curves, thereby lengthening the chair at the weld, substantially as and for the purposes set forth.

ARTHUR J. MOXHAM.

Witnesses:

A. J. BRYAN,
GEO. W. KING.