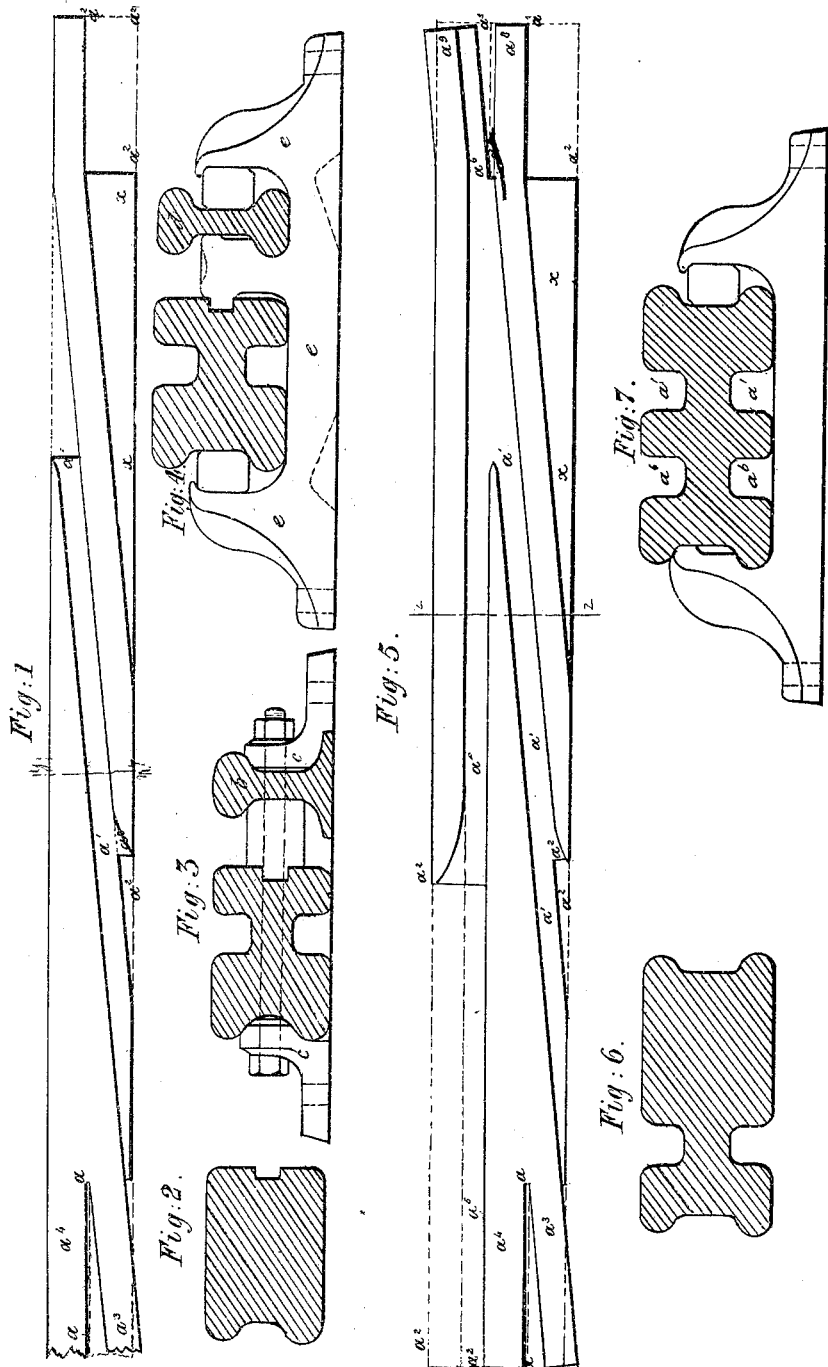


J. Armstrong,

Manf. Track Irons

No. 108429,

Patented Oct. 18, 1870.



*Witness
 Fred. Harris
 B. P. Mills*

John Armstrong

United States Patent Office.

JOSEPH ARMSTRONG, OF BRINSWORTH, ENGLAND.

Letters Patent No. 108,429, dated October 18, 1870.

IMPROVEMENT IN THE METHOD OF FORMING BIFURCATED ENDS OF RAILWAY-CROSSINGS.

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, JOSEPH ARMSTRONG, of Brinsworth, in the county of York, England, a subject of the Queen of Great Britain, have invented a new and useful Improvement in the Method of Forming Bifurcated Ends of Railway-Crossings, the crossings to be used with the permanent way of railways; and I do hereby declare the following to be a full, clear, and exact description thereof, in which—

Figure 1 is a plan of my finished crossing, in which both the wing-rails and the V or point are all formed from one rectangular casting.

Figure 2 is a cross-section of the casting.

Figures 3 and 4 are cross-sections of fig. 1.

Figure 5 is an illustration of my method when applied to a crossing, consisting of a V or point and two wing-rails; and

Figure 6 is a cross-section with one of the wing-rails and one side of the V or point.

Railway-crossings have heretofore been made by forming the castings in outline to the shape, or nearly so, of the required crossing, the top and bottom being left plain or without the grooves for the wheel-flanges.

The casting, after having been heated, was either rolled or hammered to the proper thickness, and the ends were then split in two by sawing, or otherwise.

The grooves for the wheel-flanges were then formed by planing, or otherwise.

The object of my invention is to render the method of forming the crossing more economical and expeditious; and

It consists in casting the rectangular bar with a very narrow slot or opening in the ends, as seen in dotted lines in figs. 1 and 5, and while the bar is still hot, spreading the ends or branches by means of a wedge.

The grooves and flanges are formed in the usual manner.

In the accompanying drawing—

The dotted lines show a rectangular casting, see figs. 1 and 5, the latter being cast with the splits or openings *a a'*, as seen in dotted lines in figs. 1 and 5.

While the metal is still hot, a wedge is driven in the opening to spread the two ends of the crossing.

This method of forming the opening is cheaper and more expeditious than the old method, in which the ends are sawed.

The grooves *a' a''* are formed in the usual manner.

I am aware that railway-crossings have heretofore been made with splits or openings in their ends, which have been formed by sawing the rail; but I am not aware that such splits or openings have been produced by casting the rails with the openings formed therein and afterward spreading them apart, as described.

Having thus fully described my invention,

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

The improvement in the method of constructing railway-crossings herein described, which consists in casting the rectangular bar with the ends split, and, while the metal is still in a heated state, inserting a wedge in the split or slot in the ends of the bar, and spreading them to the extent desired, substantially as described.

JOSH. ARMSTRONG.

Witnesses:

FREDK. HARRIS,
B. J. B. MILLS.