

W. S. & E. H. Shoemaker

Rail Joints

No. 91,877.

Patented Jun. 29, 1869.

Fig. 1.

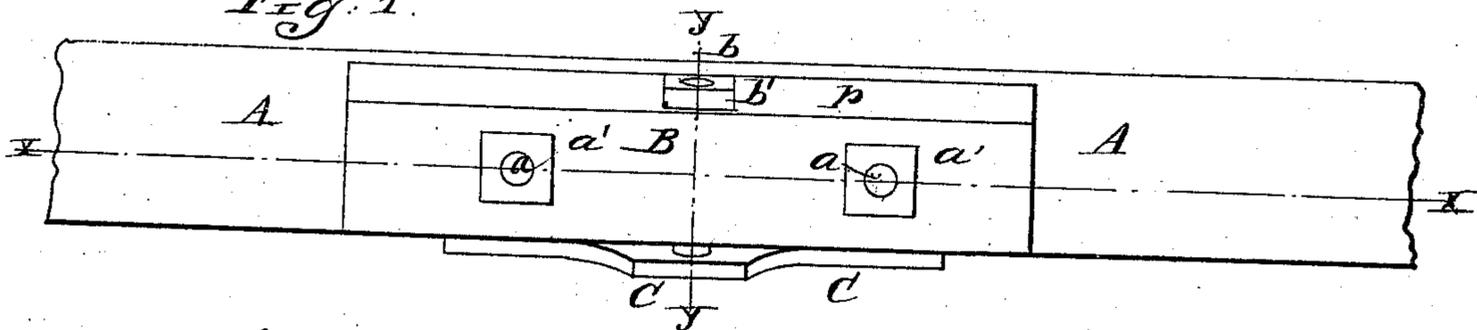


Fig. 2.

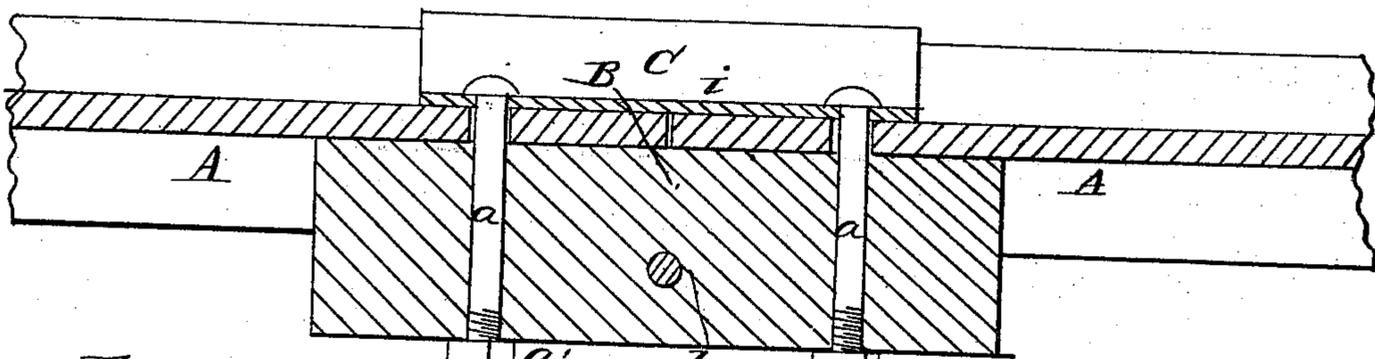


Fig. 3.

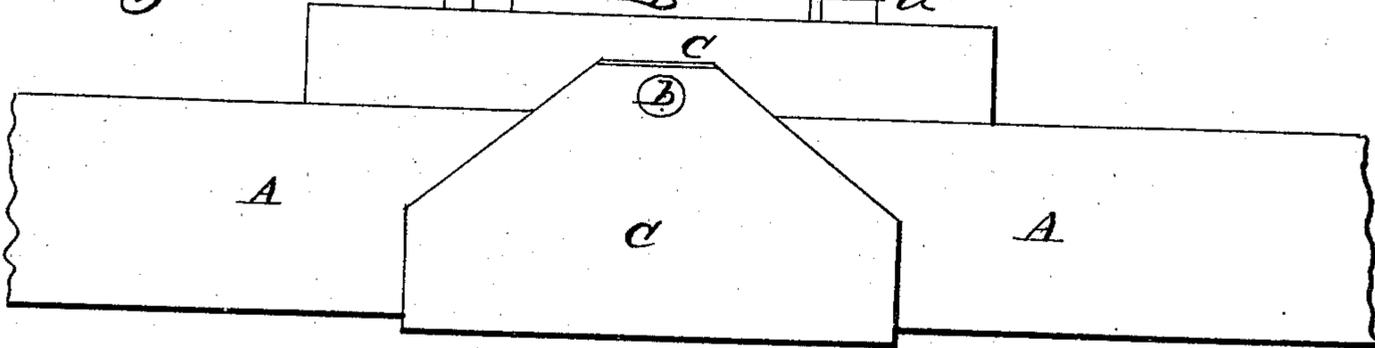
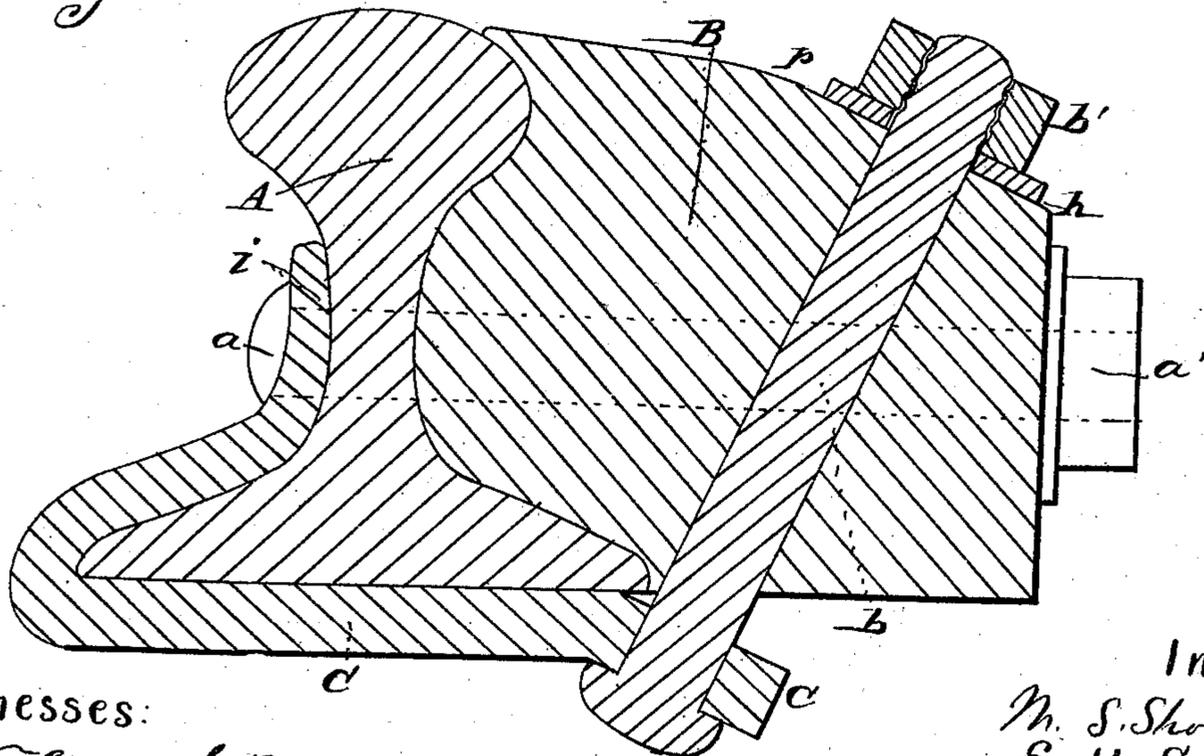


Fig. 4.



Witnesses:

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Letters Patent No. 91,877, dated June-29, 1869.

IMPROVED RAILWAY-RAIL SPLICE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, W. S. SHOEMAKER, of Towsontown, in the county of Baltimore, and State of Maryland, and E. H. SHOEMAKER, of Lancaster, in the county of Fairfield, and State of Ohio, have invented a new and improved Mode of Securing Railroad-Rails at their Joints; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a side view of the ends of two sections of rails, united by our improved fastening.

Figure 2 is a section through fig. 1, taken in the horizontal plane indicated by line *xx*.

Figure 3 is a bottom view of fig. 1.

Figure 4 is an enlarged transverse section taken through the centre of the fastening in a vertical plane.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and improved mode of securing railroad-rail sections together at their joints, between cross-ties, whereby the abutting ends of the sections of rails are held firmly in place against vertical as well as lateral play. Our object is not so much to prevent flexure of the rail-sections at their joints, as it is to prevent the end of one section rising above or being depressed below the plane of the section lying next to it.

The nature of our invention consists in a cheek-piece and support, which will lie snugly against one side and the bottom of the rail-sections at their joint, in combination with a splice, which will lie snugly against the opposite side of the rail-sections at their joint, and also with bolts, which are so disposed as to allow said parts to be drawn firmly in a vertical and lateral direction in contact with the sides and bottom of the sections, and afford a rigid splicing thereof, as will be hereinafter explained.

To enable others skilled in the art to understand our invention, we will describe its construction and operation.

In the accompanying drawings—

A A represent portions of two rail-sections united by our improved fastening.

B represents a splicing-bar, which is preferably made of hard, well-seasoned wood, of such size as to afford the required stiffness, and of such shape transversely as to fit snugly against the webs, the under side of the lips of the rails, and the upper sides of the rail-bases, as shown clearly in fig. 4.

The flat base of this bar B, when in place, is in the plane of the bottom surfaces of the rail-sections, so as to rest upon cross-ties which support the rails on both sides of the joint.

The cheek-piece C is made of sufficient length to extend well over each side of the joint, and it is bent or shaped so as to afford a side-bearing, *i*, a flat base-support, and an inclined lip, *c*, which latter is parallel to the inclined plane or bevelled surface *h*, of the splice-bar B, when the parts are in place, as shown in figs. 1 and 4.

The cheek-plate C is made thinner where it abuts against the web of the rail, than it is where it supports the base of the rail.

Two bolts *a a* pass horizontally through the cheek-piece C, through the webs of the rail-sections, and through the wooden splice-bar B, and receive nuts *a'*, upon those ends protruding from the side of this bar, B. By setting up these nuts *a'*, the bar B and their portion *i*, of the cheek-piece C, will be drawn firmly against the webs of the rail-sections.

Another bolt, *b*, is then passed up through holes made obliquely through the lip *c* and bar B, and provided with a nut, *b'*, on its upper end. By setting up this nut, the base portion of the cheek-piece C will be drawn up tightly against the bottom of the rail-sections, and at the same time the bar B will be drawn down firmly upon the flanged base of these sections, so that a portion of the weight of the load passing over the rails will be sustained by the bar B, through the medium of the base of the cheek-piece and the inclined bolt *b*.

It will be seen, by reference to fig. 4, that bolt *b* not only serves to sustain the base of the cheek-piece C, when nut *b'* is tightly set up, but that in the act of screwing up the nut *b'*, bolt *b* will draw the parts together vertically as well as laterally.

In the drawings we have represented but one supporting-bolt *b*, but, if desired, the lip *c* may be elongated, and more than one bolt may be used.

Having described our invention,

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

1. The construction of the cheek-piece C, in the manner substantially as described.
2. The manner of securing the splice-bar B and cheek-piece C to the rail-sections, by means of transverse bolts, and one or more oblique bolts, substantially as described.

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