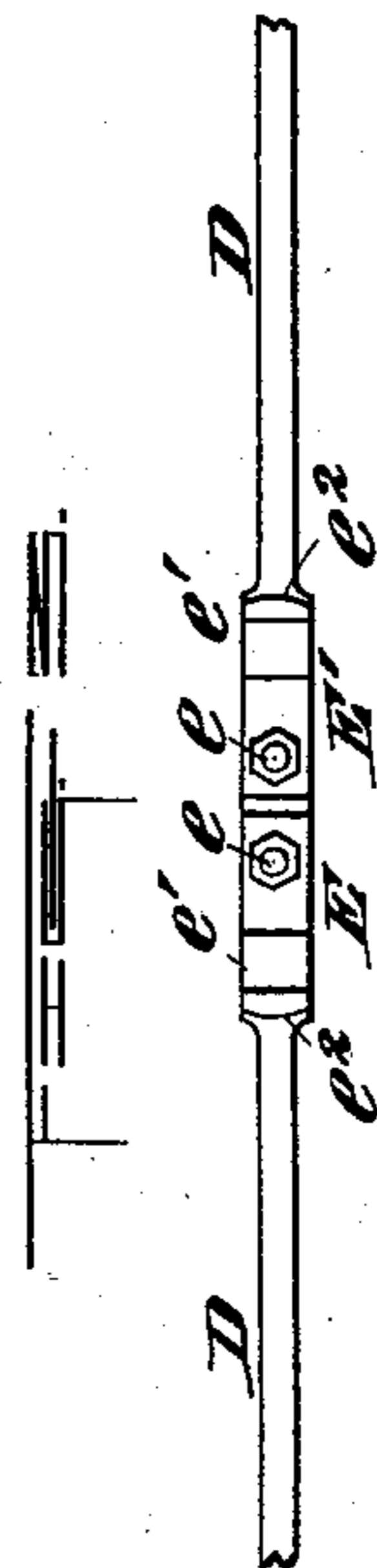
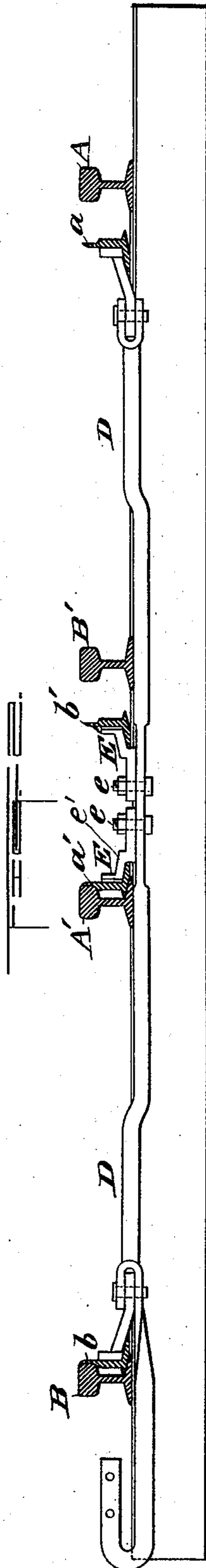
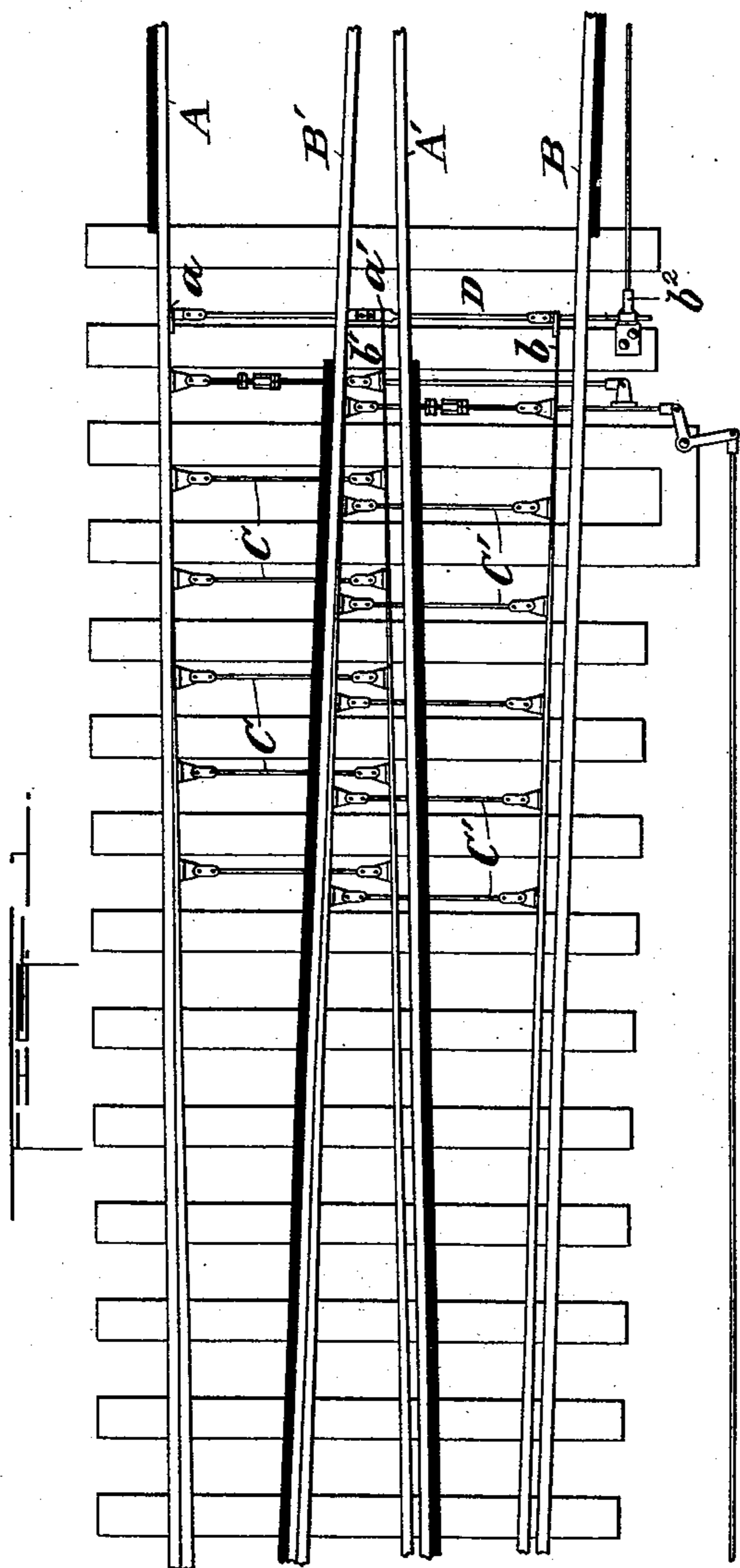


(No Model.)

A. H. JOHNSON.  
FRONT ROD FOR DOUBLE SLIPS.

No. 509,128.

Patented Nov. 21, 1893.



Witnesses.

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Inventor.

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# UNITED STATES PATENT OFFICE.

ARTHUR H. JOHNSON, OF RAHWAY, NEW JERSEY.

## FRONT ROD FOR DOUBLE SLIPS.

SPECIFICATION forming part of Letters Patent No. 509,128, dated November 21, 1893.

Application filed March 27, 1893. Serial No. 467,682. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR H. JOHNSON, of Rahway, in the county of Union and State of New Jersey, have invented a new and useful Improvement in Front Rods for Double Slips, of which the following is a specification.

My invention relates to an improvement in front rods for double slips in which provision is made for holding the tongues of the movable switch rails which are located intermediate of the inner rails of the crossing tracks, positively in adjustment snugly against one or the other of said inner rails of the crossing tracks to prevent any liability of the flange of the car wheel entering between the end of the tongue and the rail and thereby throwing the train from the track.

Another object is to provide one continuous front rod which will lock all four tongues of a double slip switch two at a time securely against their respective stock rails.

A practical embodiment of my invention is represented in the accompanying drawings in which—

Figure 1 is a top plan view of a part of a railway track crossing, showing the position of the front rod as in practical use. Fig. 2 is a view of the front rod in side elevation on an enlarged scale, showing the rails in cross section. Fig. 3 is a top plan view of a portion of the front rod, showing the holding lugs or abutments in position thereon, and Fig. 4 is a view of a modified form.

The stationary rails of the two tracks are denoted by A, A' and B, B', the outer rails of the two tracks being respectively A and B and the inner rails A' and B'. The tongues of the movable switch rails are denoted by a and a', and b and b', corresponding to the rails A, A' and B, B' which the tongues are intended respectively to engage. The tongues a and a' are connected as usual by a series of braces C extending at intervals between them, and the tongues b, b' are in like manner connected by a series of braces C'. The front rod is denoted as a whole by D and extends transversely across the tracks at the points of the several tongues and is intended to lock the tongues, for the time being, in

contact with the rails toward which they are pressed. To this end, the front rod is provided with suitable abutments thereon arranged to press against the tongues on the sides opposite the rails against which the tongues are to be forced, and the rod is locked in position by the ordinary bolt or plunger b<sup>2</sup>.

My present invention relates more particularly to the abutments E and E' adapted to engage the inner tongues a' and b' to hold them securely against their respective rails A' and B'. The particular form of abutment which I find it desirable to employ consists in a flat bearing piece which may be secured to the front rod by a bolt e and which is provided with an overlapping lip e' adapted to reach over the flange of the tongue and rest with its free end against the face of the tongue. The end of the overlapping lip e' which bears against the side of the tongue is made slightly curved, as denoted at e<sup>2</sup>, for the purpose of permitting the slight relative change in position of the tongue relative to the lip as it is swung toward and away from one of the rails, and at the same time causes the lip to bear at all times against the tongue to prevent any springing of the tongue apart from the side of the rail to admit of the entrance of the flange of a wheel between it and the rail.

In the form shown in Fig. 4, the bearing pieces E, E' are secured to the tongues a', b' and bear at their inner ends upon a lug d on the front rod D. It is obvious that the two pieces E, E', might be formed integral and secured to the front rod D and also that the abutments might be made as a part of the front rod.

What I claim is—

1. The combination with the tongues of a double slip switch, of a single continuous front rod, and abutments, whereby as the rod is operated all the tongues are locked, two at a time, against their respective rails, substantially as set forth.

2. The combination with the inner swinging tongues, of a double slip, of a front rod having abutments thereon intermediate of the said inner tongues for holding the tongues

firmly against their respective rails as the front rod is thrown in one or the other direction, substantially as set forth.

3. The combination with the inner tongues  
5 of a double slip, of a front rod provided with abutments thereon projecting over the base flanges of the tongues and having rounded

ends bearing against the sides of the tongues, substantially as set forth.

ARTHUR H. JOHNSON.

Witnesses:

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