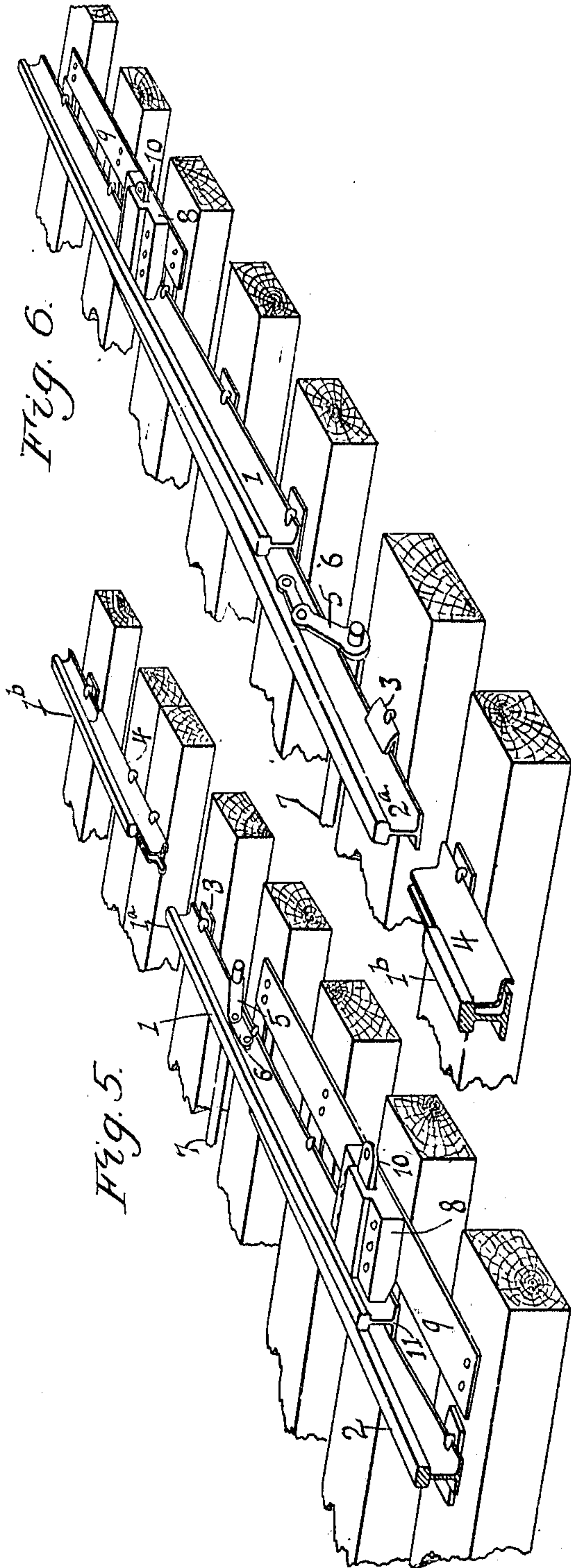
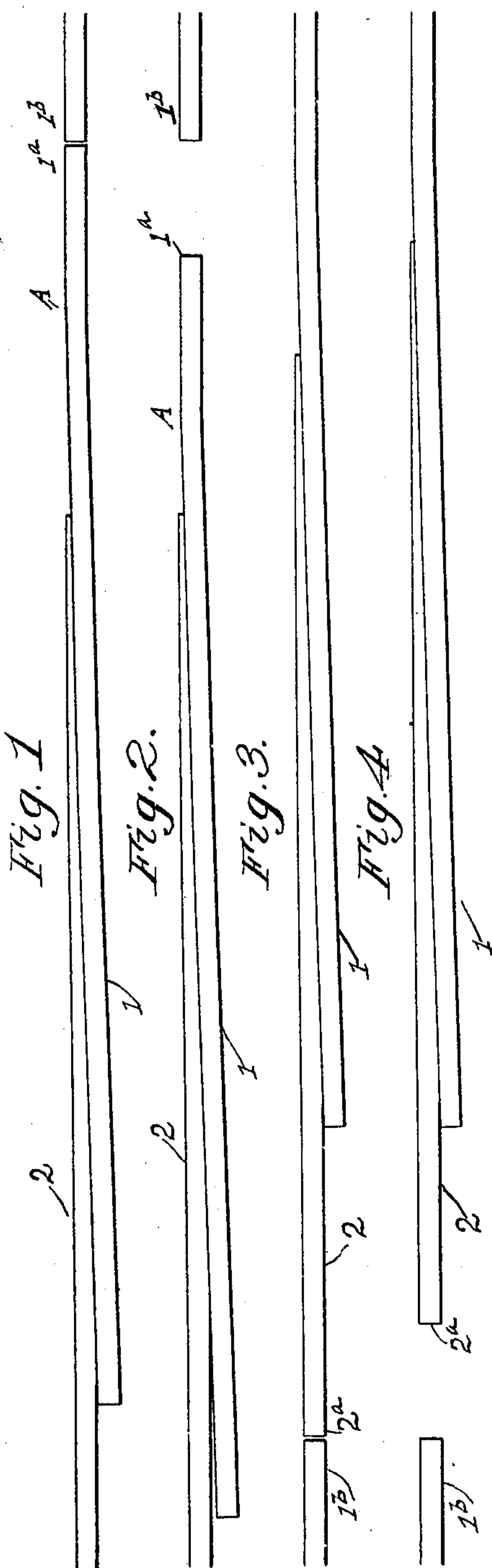


W. A. KING.  
RAIL CONNECTION FOR MOVABLE RAILWAY STRUCTURES.  
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955,809.

Patented Apr. 19, 1910.



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# UNITED STATES PATENT OFFICE.

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## RAIL CONNECTION FOR MOVABLE RAILWAY STRUCTURES.

955,809.

Specification of Letters Patent.

Patented Apr. 19, 1910.

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*To all whom it may concern:*

Be it known that I, WILLIAM A. KING, a citizen of the United States, residing at Tullahoma, county of Coffee, and State of Tennessee, have invented certain Improvements in Rail Connections for Movable Railway Structures, of which the following is a specification.

My invention relates to rail connections for railway tracks at draw-bridges, turntables, transfers, or other like movable structures whereon it is necessary, at intervals, to break the continuity of the track rails to permit movement of said structures.

My object is to provide a rail connection for this purpose which will be simple in construction, effective in operation, and which will, at the same time, when in locked position, preserve a continuous rail connection in the tracks for the passage of trains thereover.

With the object stated in view, my invention consists in the novel construction of sliding rail connection and the details thereof, as hereinafter described with reference to the accompanying drawings, and more particularly pointed out in the claims.

In the drawings: Figures 1 and 2 are top plan, diagrammatic views showing the relation between the movable and fixed rails forming my improved rail connection; Figs. 3 and 4 are similar views of a modified arrangement; and Figs. 5 and 6 are perspective views of a single rail structure embodying the invention, Fig. 6 being a modified form of the arrangement shown in Fig. 5.

I have shown in the drawings a single rail structure, since the other rail structure forming a railway track is simply a duplicate in form and construction to that shown.

Referring to the drawings, wherein the same reference characters relate to the same or corresponding parts in all the views, in order to conform the construction, for example, to the draw-bridge, where it is necessary frequently to make and break the continuity of the track rails, I provide for each side of the track two rails, one of which is fastened to the railway ties on the draw-bridge or other movable structure in the usual manner; one of these rails is a stock

rail of the ordinary form whose tread is of uniform cross section, and the other a beveled rail, in sliding relation to each other, said rails being indicated by the numerals 1 and 2, respectively. As shown in Figs. 1 and 5, the stock rail, slightly bent at A to cooperate with the beveled rail in preserving the gage, is arranged to move or slide with respect to the beveled rail, and, in order to effect this movement, I mount the stock rail upon suitable guide plates 3 on the cross-ties, the butt end 1<sup>a</sup> of said stock rail being adapted to slide into and out of a sleeve or chair 4 fitted and secured to the flange and web at the end of the fixed rail 1<sup>b</sup> in the track adjoining the end of the draw-bridge, transfer, or turn-table.

Extending transversely of the track is an operating rod or shaft 7 carrying a crank arm 5 connected by a link 6 with the web of the movable stock rail, on each side of the track, thus operatively connecting the two rails of the track together. The rod or shaft 7 may be operated by any of the ordinary operating mechanisms from a switch or signal tower, not deemed necessary to show herein, as it forms no part of the present invention, and, as the shaft rotates, the stock rail 1 will be slid into and out of the sleeve 4 to form or break the continuity of the rail, as it is desired to make or break such connection.

In order to prevent the possibility of the opening of gaps in the rail by the passage of trains thereover, and, to safely and rigidly lock the movable rail in connection, I provide, on one side of the track, a heel block 8 mounted upon a suitable plate 9 attached to the cross-ties, in which heel block is slidably mounted a locking key or bar 10, the inner end of which is adapted to be moved against the web of the fixed rail and overlap the end 11 of the movable rail when the butt end of the latter is in its proper position in the sleeve 4 in contact with the butt end of the rail 1<sup>b</sup>.

Instead of moving the stock rail, as shown in Figs. 1 and 5, under some conditions it is preferable to move the beveled rail 2, in which event the parts will be arranged as shown in Figs. 3 and 6, and operate in the



same manner as above described with reference to the movable stock rail structure. This modified form is used on those double track roads where there is an objection to pointed rails facing the traffic, and hence are laid with the points or beveled ends in the direction of travel. In such cases the beveled rail will be movable at one end of the movable structure and the stock rail at the other end thereof. In this latter case the heel block 8 is mounted in proximity to the pointed end of the beveled rail, so that the locking bar or key 10 may be passed through a slot in the web of the stock rail and engage the pointed end of the beveled rail, thereby locking the same in position when its butt end 2<sup>a</sup> is in the proper position in the sleeve 4.

While I have described the movable rails as located on the movable structure, which is preferable, it is to be understood that my invention is not limited to this location, as the movable rails may be located, if desired, upon the fixed roadway; nor is my invention confined to the detail of heel block shown, as a means of keeping the movable rail in position, since it is obvious that the heel block may be omitted and a simple bar or bolt passed through the end of the movable rail and the jaws of the sleeve.

I claim as my invention:

1. In a rail connection for draw-bridges, transfers, turn-tables, or other movable railway structures, the herein described connection comprising as elements a fixed rail, in combination with a fixed rail and a movable rail in sliding contact therewith the tread of one of which rails is of uniform cross section, one of said elements being located upon the movable structure and the other upon the roadway adjoining said structure, and means for moving the movable rail in order to make and break connection between the said fixed rail and the other element, substantially as described.

2. In a rail connection for draw-bridges, transfers, turn-tables, or other movable railway structures, the combination with the fixed rail in the track next to the movable structure, of a rail fixed to the movable structure, and a movable rail in sliding contact therewith the tread of one of which rails is of uniform cross section, one of said rails being beveled, and means for moving the movable rail in order to make and break connection between the said fixed rail in the track next to the movable structure and the movable rail, substantially as described.

3. In a rail connection for draw-bridges, transfers, turn-tables, or other movable railway structures, the combination with a rail fixed in the track next to the movable structure, a beveled rail having the inner edge of its tread in alinement therewith and fixed to the movable structure, a stock rail whose

tread is of uniform cross section in sliding contact with the outside of the beveled rail, and mechanism for moving the stock rail into and out of connection with the fixed rail in the track next to the movable structure, substantially as described.

4. In a rail connection for draw-bridges, turn-tables, transfers, or other movable rail structures, the combination with a fixed rail in the track next to the movable structure, a fixed sleeve or chair in which the end of said rail is seated and projecting some distance beyond the latter, of a movable rail on the movable structure having its butt end in alinement with the said sleeve, a beveled rail with which said movable rail is in sliding contact, and means for moving said rail into and out of the sleeve, substantially as described.

5. In a rail connection for draw-bridges, turn-tables, transfers, or other movable railway structures, the combination with a fixed rail in the track next to the movable structure, a sleeve or chair in which the end of said rail is seated and projecting some distance beyond the latter, of a movable rail on the movable structure having its butt end in alinement with the said sleeve, a beveled rail with which said movable rail is in sliding contact, means for moving said rail into and out of the sleeve, and a locking device adapted to lock the movable rail in approximately rigid position when in continuous connection with the rail in the track next to the movable structure, substantially as described.

6. In a rail connection for draw-bridges, turn-tables, transfers, or other movable railway structures, the combination with a fixed rail in the track next to the movable structure, a sleeve or chair in which the end of said rail is seated and projecting some distance beyond the latter, of a movable stock rail having its butt end in alinement with the said sleeve, a beveled rail with which said movable rail is in sliding contact, means for moving said rail into and out of the sleeve, and a heel block having a locking key or bar slidably mounted therein and adapted to be brought into engagement with the end of the movable rail to lock the same in approximately rigid position when connected with the fixed rail in the track next to the movable structure, substantially as described.

7. In a rail connection for draw-bridges, transfers, turn-tables, or other movable railway structures, the combination with the fixed rail in the track next to the movable structure, of a rail fixed to the movable structure, and a movable rail in sliding contact therewith, one of said rails being beveled, means for moving the movable rail in order to make and break connection between the fixed rail in the track next to the mov-



able structure and the movable rail, and a  
locking device arranged to lock the movable  
rail in approximately rigid position when  
the movable rail is connected with the fixed  
5 rail on the movable structure, substantially  
as described.

In testimony whereof, I have signed my

name to this specification, in the presence of  
two subscribing witnesses.

WILLIAM A. KING.

Witnesses:

R. B. GOWEN,  
J. S. PLOWMAN.