

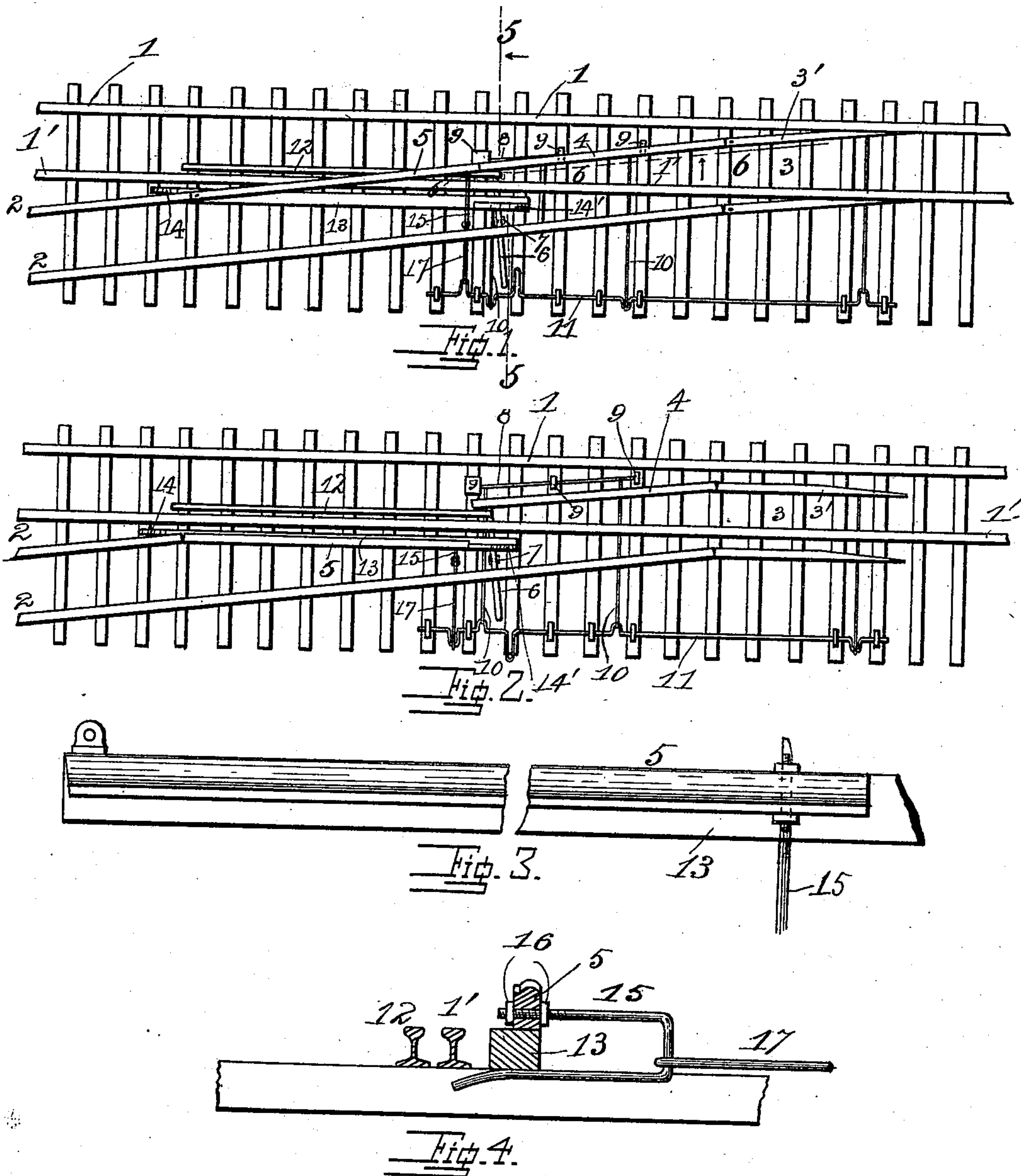
(No Model.)

2 Sheets—Sheet 1.

I. B. WEST.  
RAILWAY FROG.

No. 501,033.

Patented July 4, 1893.



Witnesses

L. F. Hayden.  
Edward A. Webb

Inventor

IRA B. WEST.  
By his Attorneys.

A. Woodson

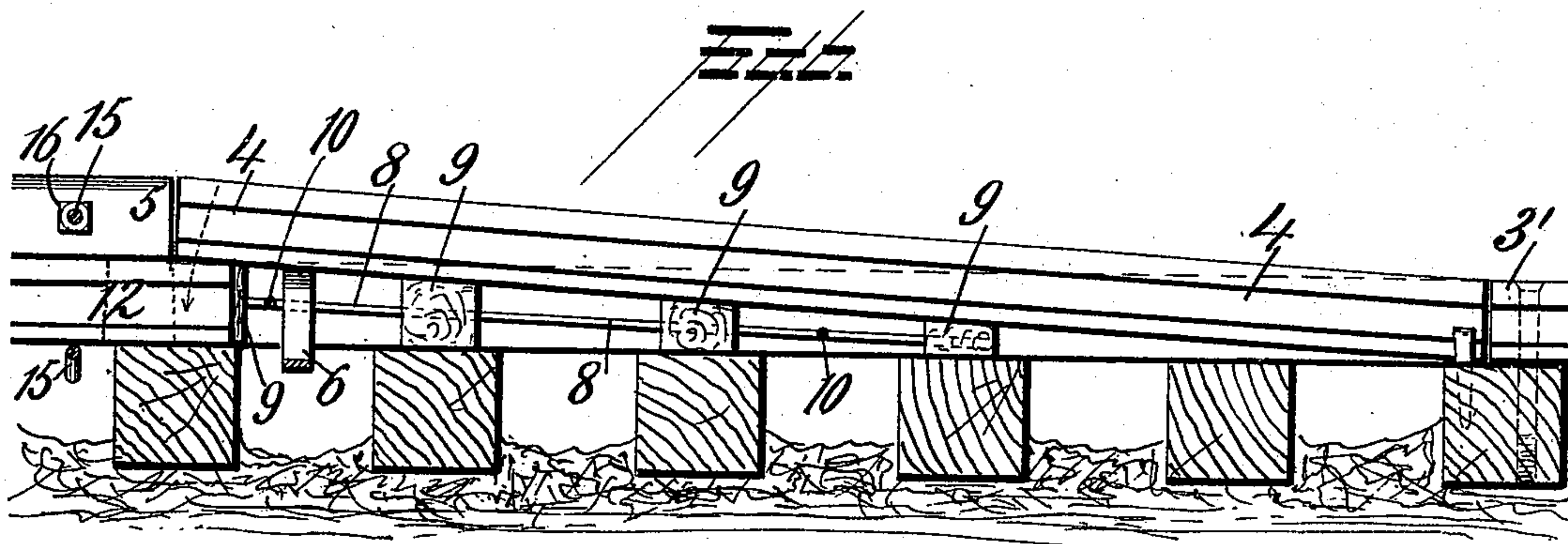
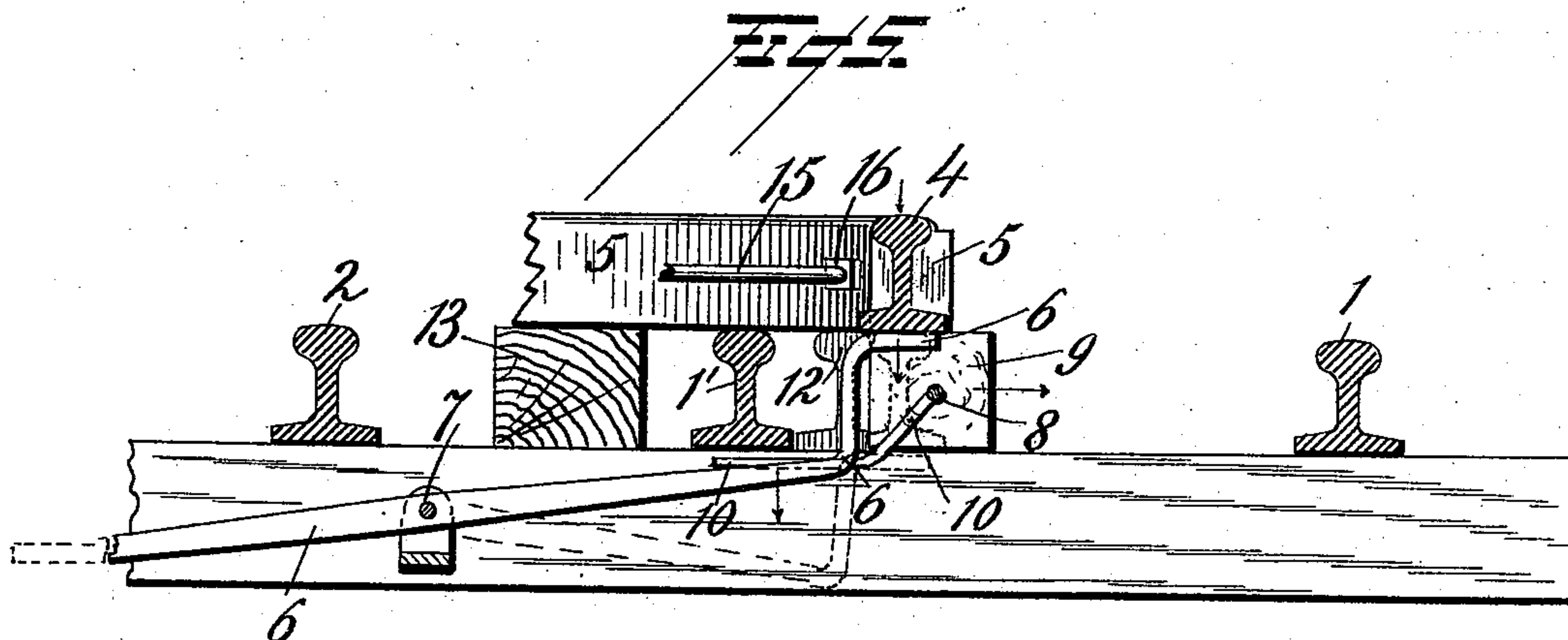
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RAILWAY FROG.

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Attest:

*H. H. Schott*  
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Inventor

*I. B. West*  
*by A. W. H. H.*



# UNITED STATES PATENT OFFICE.

IRA B. WEST, OF GAINESVILLE, GEORGIA.

## RAILWAY-FROG.

SPECIFICATION forming part of Letters Patent No. 501,033, dated July 4, 1893.

Application filed April 11, 1892. Serial No. 428,706. (No model.)

*To all whom it may concern:*

Be it known that I, IRA B. WEST, of Gainesville, in the county of Hall and State of Georgia, have invented certain new and useful Improvements in Railway-Frogs; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates as above stated to frogs for railway-track crossings having particular reference to the integrality of the main line at sidings, the invention consisting of the novel elements set forth hereinafter.

In the accompanying drawings, Figure 1 is a plan of a track at the gate of a siding showing the elements in such a position as would guide a train to the said siding. Fig. 2 is a plan the same as Fig. 1, the parts however being in the reversed position from that shown in said figure. Fig. 3 is an enlarged plan view of the horizontally movable rail of the frog, and the longitudinally extending sleeper therefor. Fig. 4 is a cross-section of said rail at the bolt shown in Fig. 3, and also of the adjacent main track and guard rails and the supporting cross-tie, the complete bolt being shown here also. Fig. 5 is a cross-section of Fig. 1, on the line 5-5 in said figure. Fig. 6 is a longitudinal section thereof, on the line 6-6.

In the figures the elements shown more than once are each marked by the same reference character throughout the drawings.

1 and 1' are the main track rails and 2 are the rails of the siding other than the rails immediately operative in the frog. A switch 3 is shown in somewhat rudimentary form, the one shown being a split switch as this does not necessitate cutting the rails of the main line. The rail 4 meets the gate rail 3' of this switch being spiked to the ties loosely or otherwise so secured thereto as to allow its other or free end to be elevated to such a height as will bring its tread into proper position to meet the horizontally movable rail 5 of the frog which will be presently described. The elevation of this rail 4 is accomplished by means of the lever 6 pivoted

thereto and fulcrumed upon a suitable table point 7, its free or pedal end being brought into such a position as will be readily accessible to the foot of the operator.

Connected together preferably by a metallic rod 8 are blocks 9 graded in height according to the elevation of the rail 4 at the place at which they are moved under said rail and rods 10 connecting them to cranks in the rock-shaft 11 secured as customary to long ties. It will now be understood that the rail 4 is elevated by the use of the foot lever and the blocks 9 are then moved under it at the requisite intervals by means of which solid support is given the rail, and that as soon as said supporting blocks are removed the rail will fall by gravity to its normal position clear of running gear of cars, &c.

12 is a guard rail placed on the inner side of the inner rail 1' of the main track and 13 is a sleeper parallel with said main track but on the outer side of said inner rail. The top sides of said guard and inner rail of the main track and the sleeper 12 are in line, and resting upon the top of said sleeper normally and pivoted thereto by a bolt passing through lugs thereon is the gate rail 5 of the frog.

Upon reference to Figs. 1 and 2 it will readily be seen that the rail 5 turns on its pivotal point over and rests upon the tops of the inner rail 1' of the main track the guard rail 12 and in the construction shown on one of the blocks 9 which for this purpose may extend beyond the free end of the vertically movable rail 4. This construction obviously renders the rail 5 practically immovable as regards resistance to superincumbent weight. One of the siding rails 2 obviously connects with this rail 5, the other extending to the switch. The blocks 14 and 14' at each end of the sleeper 12 are inclined planes on their top sides sloping from the general level of the track up to the level of the rail 5 whereby anything depending, as a broken brake-beam for instance, from the car will be prevented from being caught by the gate-rail 5 or adjacent elements.

Rigidly secured to the rail 5 is a U-shaped rod 15 one leg being screw-threaded and thrust through the said rail preferably; oppositely working nuts 16 operating to secure same therein. The other leg passes under



and practically in contact with the sleeper 13, which said sleeper may be here shod with metal for sake of durability. This insures against vertical movement of the gate-rail 5 and provides means for the attachment of the bar 17 connecting with a crank on the rock shaft whereby said gate rail is actuated.

As shown in Fig. 4 a portion of the rail 5 necessary or desired to strengthen same may be arched on top.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a railway frog, the combination of a rail movable vertically and blocks adapted to be drawn under and support same in an elevated position and means for actuating said elements in said movements for the purpose specified.

2. In a railway frog, the combination of the

main-track and a siding and means for crossing the inner main-track rail consisting of a gate-rail 5 adapted to be turned across the said main track rail and form part of the frog at that point, a vertically movable rail 4 adapted to be raised at its free end and come into coincidence with the said rail 5, a pedal lever bearing on the under side of the said rail 4 and extending to near the tumbler-shaft, and supports adapted to be drawn under and sustain the said rail 4 in its elevated position, substantially as and for the purpose specified.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

IRA B. WEST.

Witnesses:

A. P. WOOD,  
EDWARD P. WOOD.