

(No Model.)

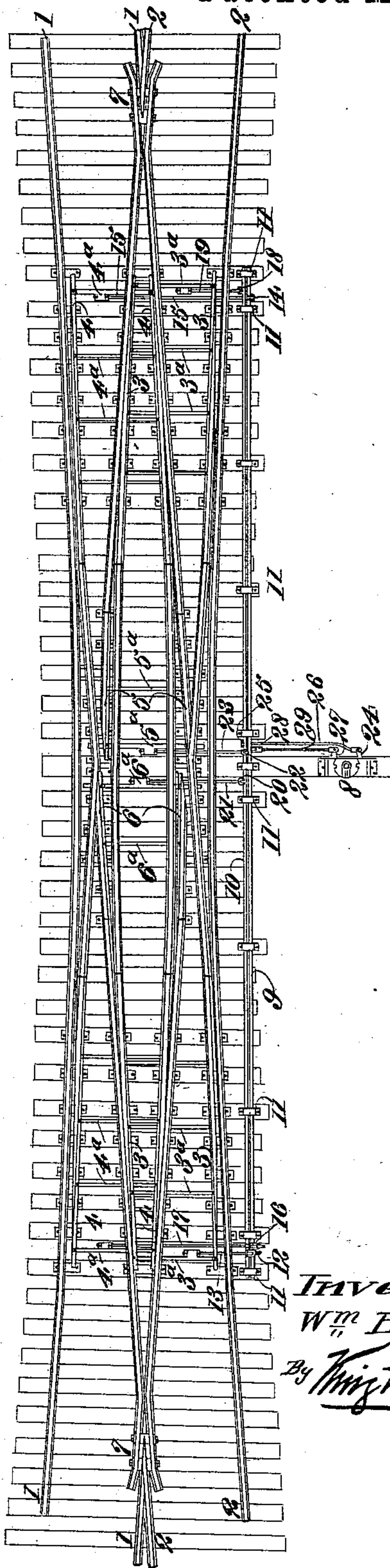
2 Sheets—Sheet 1.

W. H. ELLIOT.  
RAILWAY SWITCH.

No. 560,981.

Patented May 26, 1896.

FIG. 1.



Attest:  
E. Knight  
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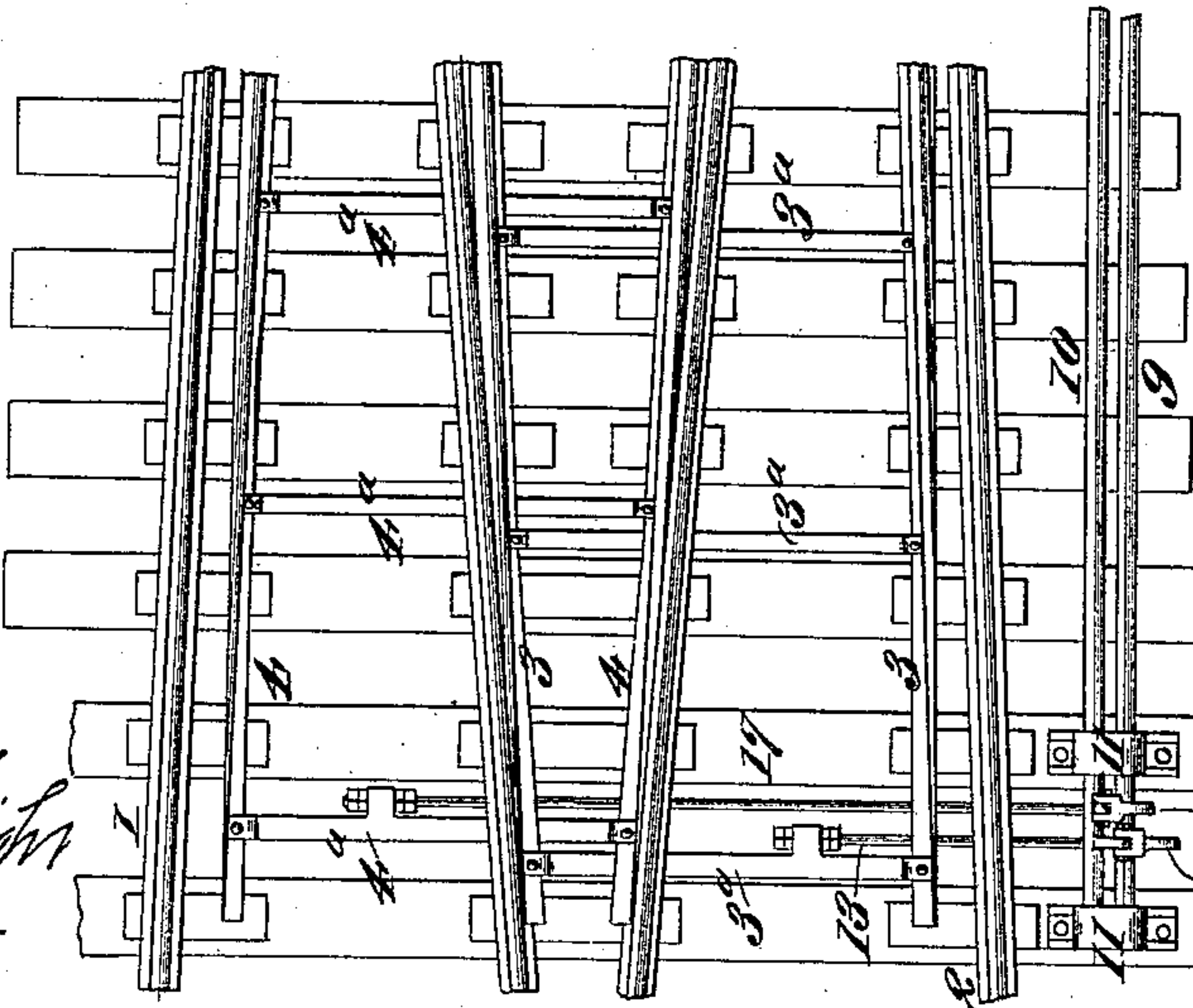
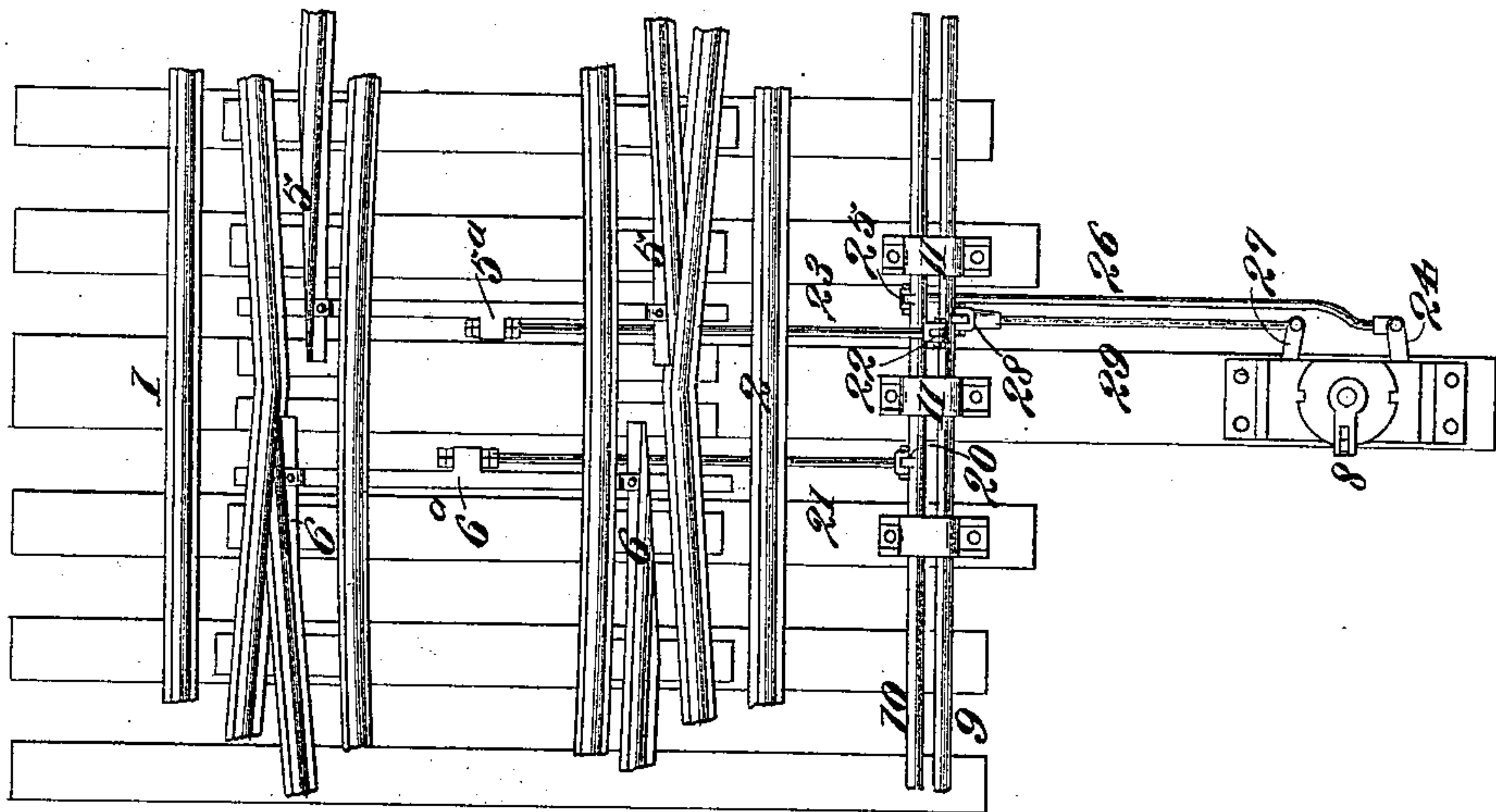
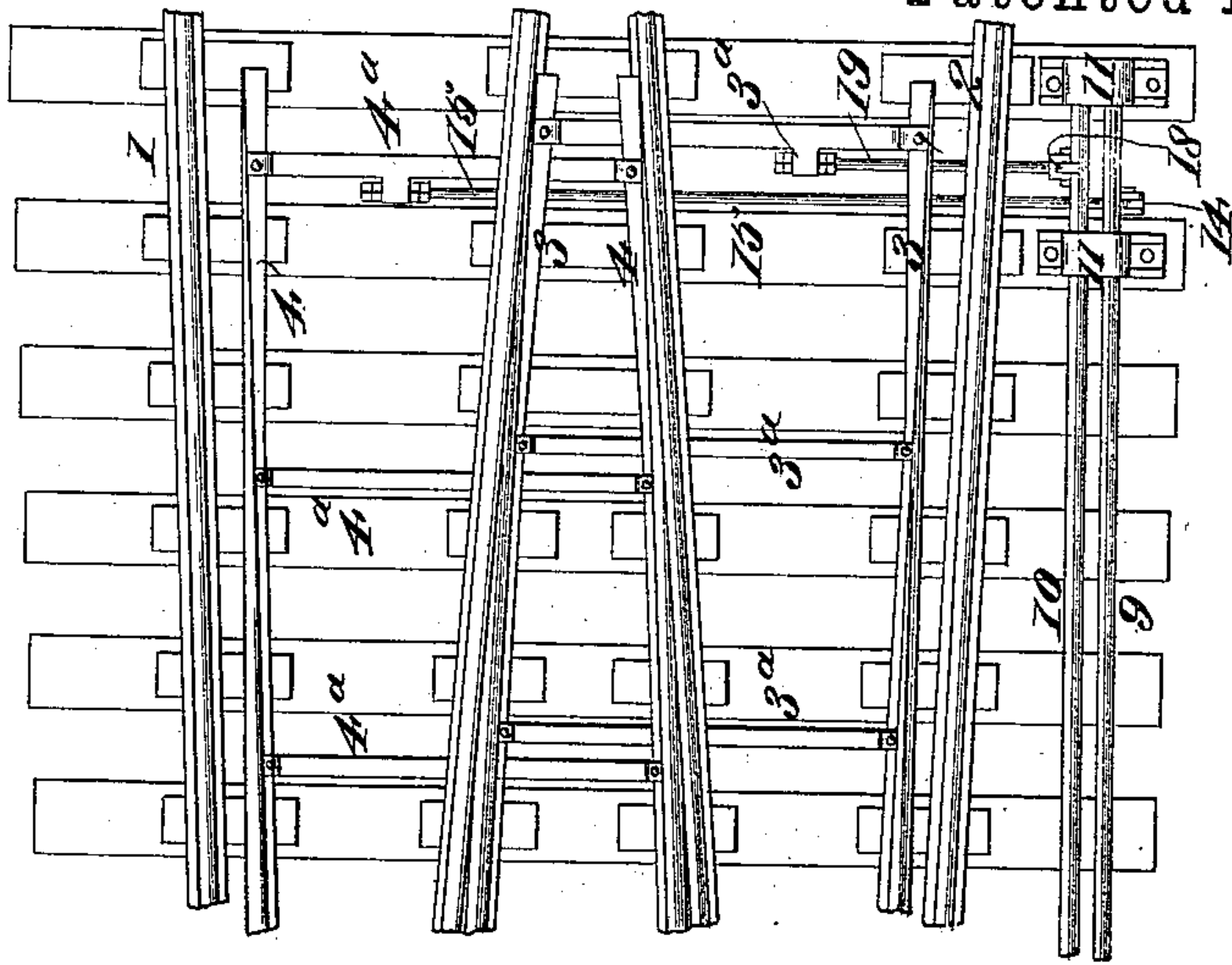
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2 Sheets—Sheet 2.

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RAILWAY SWITCH.

No. 560,981.

Patented May 26, 1896.



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# UNITED STATES PATENT OFFICE.

WILLIAM H. ELLIOT, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE ELLIOT  
FROG AND SWITCH COMPANY, OF EAST ST. LOUIS, ILLINOIS.

## RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 560,981, dated May 26, 1896.

Application filed February 3, 1896. Serial No. 577,894. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. ELLIOT, of the city of St. Louis, State of Missouri, have invented a certain new and useful Improvement in Railway-Switches, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to an improved switch arrangement wherein a plurality of switch-points and movable frog-points are operated from a single switch-stand.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claim.

Figure I is a plan view illustrating my invention. Fig. II is an enlarged plan view with parts broken away.

Referring to the drawings, 1 1 and 2 2 represent the respective main track-rails.

3 3 represent the outer switch-points of the track 2, and 4 4 the outer switch-points of the track 1.

5 5 represent the movable frog-points of track 2, and 6 6 the movable frog-points of track 1. The points 3 3 are connected together by bars 3<sup>a</sup>, the points 4 by bars 4<sup>a</sup>, the points 5 by bars 5<sup>a</sup>, and the points 6 by bars 6<sup>a</sup>.

7 represents frogs.

8 represents the switch-stand, which I have not shown in detail, but which may be and preferably is of the construction set forth in United States Letters Patent No. 537,807, issued April 16, 1895, to Joseph P. Hasty.

9 and 10 represent two parallel shafts or rods supported in boxes 11. One end of the shaft 9 is connected to the switch-points 3 by means of a crank 12 on the shaft, which is connected to one of the bars 3<sup>a</sup> by means of a rod 13. The other end of the shaft 9 is connected to the switch-points 4 by means of a crank 14 on the shaft, connected to one of the bars 4<sup>a</sup> by a rod 15.

One end of the shaft 10 is connected to the switch-points 4 by means of a crank 16 on the shaft, connected to one of the bars 4<sup>a</sup> by means of a rod 17. The other end of the shaft 10 is connected to the switch-points 3 by means of a crank 18 on the shaft, connected to one of the bars 3<sup>a</sup> by means of a rod 19. The cen-

tral part of the shaft 10 is connected to the frog-points 6 by means of a crank 20 thereon, connected to one of the bars 6<sup>a</sup> by means of a rod 21. The central part of the shaft 10 is also connected to the frog-points 5 by means of a crank 22 on the shaft, connected to one of the bars 5<sup>a</sup> by means of a rod 23.

The shaft 10 is connected to one of the cranks 24 of the switch-stand by a crank 25 thereon, connected to the crank 24 by means of a rod 26. The shaft 9 is connected to the other crank 27 of the switch-stand by means of a crank 28 on the shaft, connected to the crank 27 by means of a rod 29. With the points in the position shown in the drawings the track 2 on one side of the switch-stand is open to the track 2 on the other side of the switch-stand, and the track 1 on one side of the switch-stand is open to the track 1 on the other side of the switch-stand.

Supposing now that it is desired to pass a train from the track 2 on the left-hand side of the switch-stand to the track 1 on the right-hand side of the switch-stand, the switch-stand will be moved in a direction to rock the shaft 9 and throw the switch-points 3 on the left-hand side of the drawings and the switch-points 4 on the right-hand side of the drawings to the opposite position from that in which they are shown in the drawings. This movement of the switch-stand does not rock the shaft 10 and has no effect on the switch-points 4 on the left-hand side of the drawings, nor does it have any effect on the switch-points 3 on the right-hand side of the drawings.

If it is desired to pass a train from track 1 on the left-hand side of the switch-stand to track 2 on the right-hand side of the switch-stand, the stand is turned to rock the shaft 10 in a direction that will move the switch-points 4 on the left-hand side of the drawings and the switch-points 3 on the right-hand side of the drawings from the position shown in the drawings to the opposite position. This rocking of the shaft 10 will also move the points 6 and the points 5 from the position shown in the drawings to their other position, thus permitting the train to pass.

It will thus be understood how the differ-

ent sets of points are operated from a single switch-stand to pass the train from one of the tracks to the other, as may be desired.

I do not desire to be limited to the use of the shafts 9 and 10 for forming a connection between the crank-rods of the switch-stand and the point-rods 13, 15, 17, 19, 21, and 23, as other forms of connections might be used— as, for instance, a system of bell-cranks and rods such as are well known in the art.

I claim as my invention—

The combination of tracks 1 and 2, switch-points 3 and 4 connected together in pairs at each end of the crossing, two movable frog-

points connected together in pairs, a single switch-stand, and shafts 9 and 10 connected to said switch-stand; said shaft 9 being connected to said switch-points 3 and 4 at opposite ends of the crossing, and said shaft 10 being connected to said switch-points 4 and 3 at opposite ends of the crossing and being further connected to said points 5 and 6 at the middle of the crossing, substantially as set forth.

W. H. ELLIOT.

In presence of—

E. S. KNIGHT,  
N. FINLEY.