(No Model.)

W. A. WOOD.

RAILROAD SWITCH.

No. 280,988. Patented July 10, 1883.

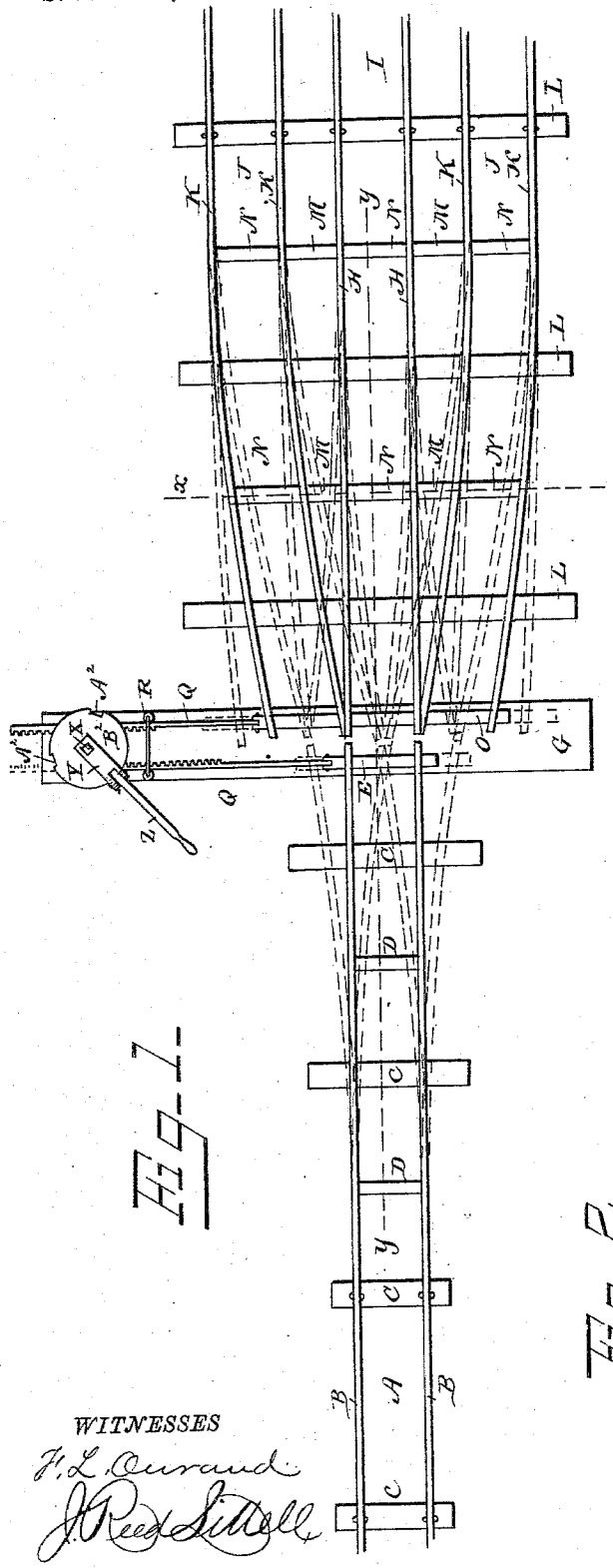


Fig. 1.

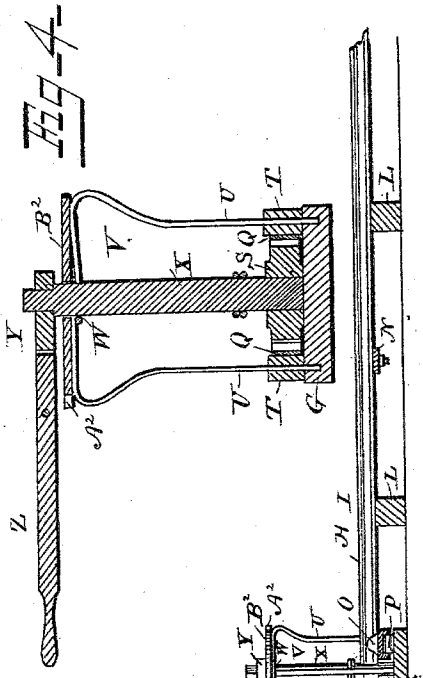


Fig. 4.

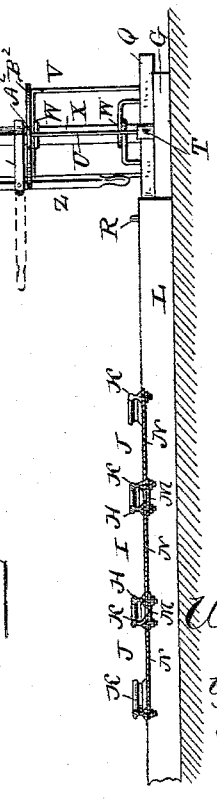


Fig. 2.

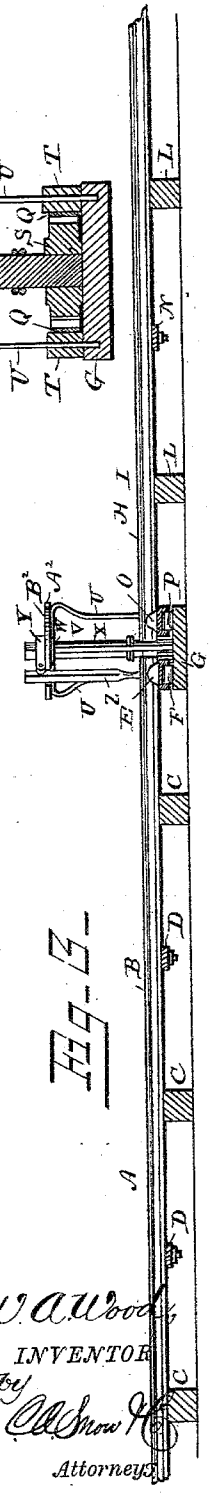


Fig. 3.

WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM A. WOOD, OF MEADVILLE, MISSOURI.

RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 280,988, dated July 10, 1883.

Application filed February 14, 1883. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. WOOD, a citizen of the United States, residing at Meadville, in the county of Linn and State of Missouri, have invented a new and useful Railroad-Switch, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to railroad-switches, and has for its object to provide a simple and efficient switch that will obviate the use of frogs, and thereby present a continuous, unbroken rail.

In the drawings, Figure 1 is a plan view of a switch constructed according to my invention. Fig. 2 is a transverse sectional view on the line *x x*, Fig. 1. Fig. 3 is a like view on the line *y y*, Fig. 1. Fig. 4 is a transverse sectional view taken through the operating mechanism.

Referring to the drawings, A designates the main track, which is composed of the rails B B, mounted on cross-ties C. The rails B B of main track A are not connected to the ties C for some distance from the switch, but are braced at this unconnected portion by cross-pieces D, pivoted to and under the rails. The ends of the rails B B at the switch rest in a chair, E, having rollers F, by which it slides transversely in relation to the track on a cross-block, G, and carries the rails which slide on the cross-ties C near the switch.

H H designate the rails that comprise the continuation I of the main track, at one or both sides of which track I are arranged side tracks, J J, having rails K K. These rails H and K of tracks I and J are, like rails B B, not connected to their cross-ties L for some distance from the switch; but these tracks are all connected and move together by means of connecting-links M, that are pivoted to the pins by which the cross-braces N of the tracks I and J are pivoted to and under the rails of their respective tracks. The ends of the rails H and K at the switch rest, like the ends of the rails B B, in a sliding chair, O, that is provided with rollers P, which run on the cross-block G when the chair O, which is arranged parallel with the chair E, is moved. These sliding chairs E and O are moved in opposite directions, and carry the rails, to cause the ends of the rails B B which rest in the chair E, to register with any of the rails H and K, as desired.

To one end of each chair E O is connected a rack-bar, Q, which extends along the cross-block G, and passes through a guide, R, arranged on the latter. These rack bars Q Q are engaged by a horizontal pinion, S, on diametrically-opposite sides, and are held into engagement with the pinion by friction-rollers T, journaled on uprights U of a frame, V, that provides bearings W W for the vertical shaft X, that carries the pinion S. On top of the shaft X is secured a sweep, Y, preferably separable from the shaft, and having an operating-lever, Z, pivoted to its end. This lever-arm Z is adapted to engage peripheral notches A^2 on a plate or disk, B^2, that is supported on the frame V, by which engagement the tracks are locked in the position to which they have been adjusted.

The operation and advantages of my invention are obvious. The arrangement of tracks at the switch is very simple and a continuous rail is presented, the use of frogs and like dangerous contrivances being entirely dispensed with. The expense of construction is therefore materially lessened, a more effective and infallible adjustment secured, and a greater degree of safety is obtained.

I claim as my invention—

1. The combination of the single main track having the ends of its rails resting on the sliding chair E, the series of independent tracks having the ends of their rails secured to the sliding chair O, so that the said tracks are in convergent position, the pivoted cross-pieces D, M, and N for retaining the rails of the different tracks at gage, the cross-block G, on which the said chairs slide, and means for simultaneously drawing these chairs in opposite directions, as set forth.

2. The combination of the main track having the ends of its rails resting in the transverse chair E, the series of independent tracks having the ends of their rails secured to the transverse chair O, so that the tracks are in convergent position, the independent transverse parallel rack-bars Q Q, pivoted to the corresponding ends of the chairs E and O, the horizontal pinion S, engaging the rack-bars on diametrically-opposite sides, and the guide R,

inclosing both racks, and means for operating the pinion S, as set forth.

3. The combination of the cross-block G, transversely arranged, the sliding chairs E and O, carrying the ends of the rails of the different tracks, the parallel rack-bars pivoted to corresponding ends of the said chairs, the frame V, arranged on the cross-block G, and comprising the uprights U U, having the friction-rollers T T, and bearings for the shaft X, which carries the horizontal pinion S, that engages the rack-bars on diametrically-opposite sides, the top disk, B^2, having the notches A^2 in its periphery, the sweep Y, carrying the pivoted lever-arm Z, all arranged and operating substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM A. WOOD.

Witnesses:
S. A. FIELD,
T. CRAIGHEAD.