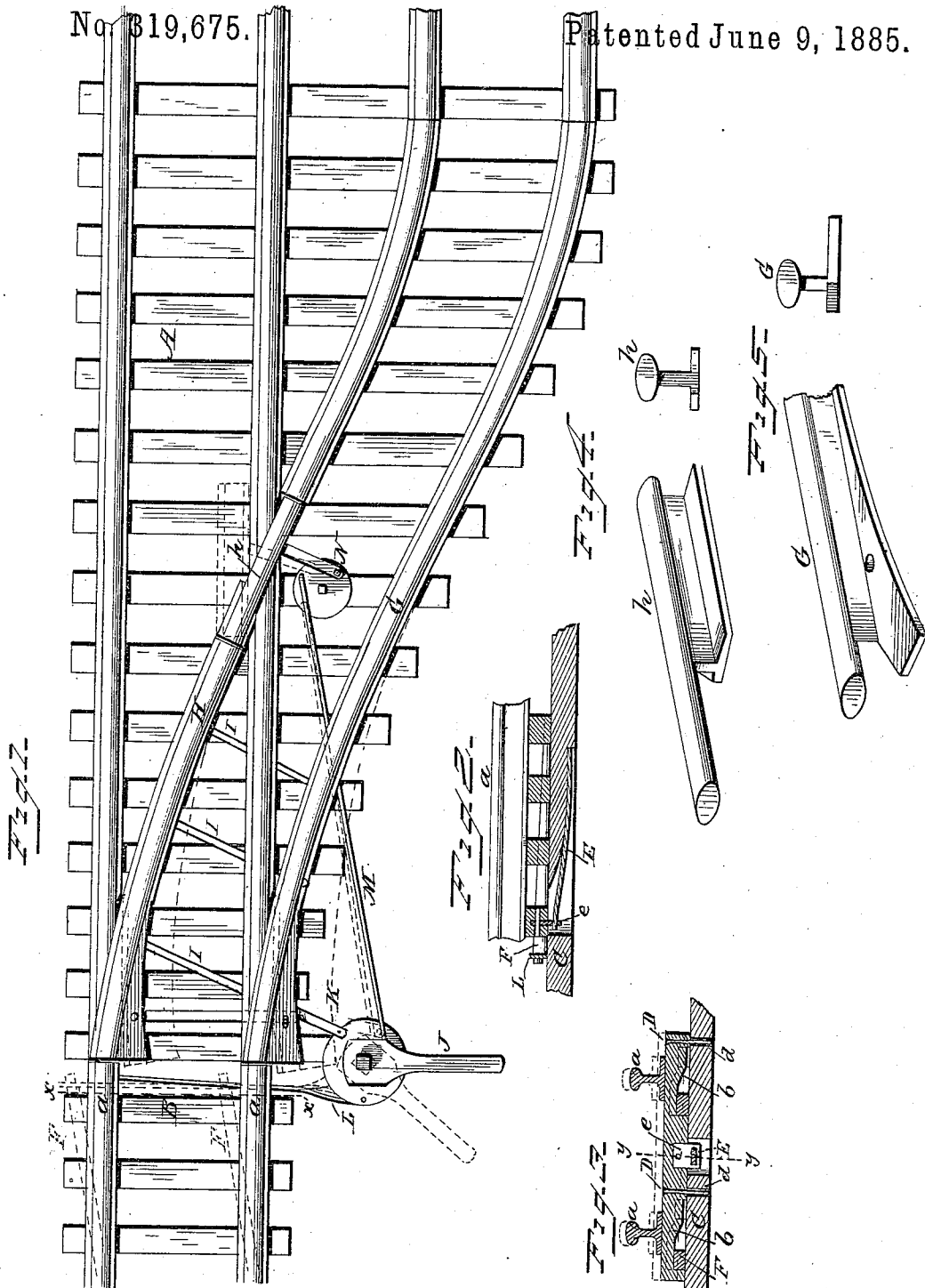


(No Model.)

C. CLINTON.
RAILROAD SWITCH.

No. 319,675.

Patented June 9, 1885.



WITNESSES

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RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 319,675, dated June 9, 1885.

Application filed April 2, 1885. (No model.)

To all whom it may concern:

Be it known that I, CHARLES CLINTON, a citizen of the United States, residing at Spring City, in the county of Rhea and State of Tennessee, have invented certain new and useful Improvements in Railroad-Switches; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

This invention is an improvement in railroad-switches, and has for its object to provide switch mechanism by which the trains may be directed from the main track to the switch or siding, and vice versa, without involving the necessity of frogs or breaks or other irregularities in the main track.

To this end the invention consists in certain novel constructions and combinations of parts, which will be hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of my switch. Fig. 2 is a detached section on line *y y*, Fig. 3. Fig. 3 is a detached section on line *x x*, Fig. 1. Fig. 4 is a detail view of the straddle-rail, and Fig. 5 a detail view of the end of one of the switch-rails.

The main track A has the ends of the rails *a a* of one section supported on a tie or cross-beam, B, which rests on a support or sill, C. The cross-beam B is formed or provided on its under side with longitudinal inclines *b*. This beam B is movable vertically in the manner presently described, and is guided in said movement by spikes or pins D, which depend from it into suitable sockets or openings, *d*, in the sill C.

To give the cross-beam a downward tension it is preferred to employ a spring, E, fixed at one end to the sill C, and connected at its other end to the cross-beam, usually through the medium of the plate *e*.

On the track I pivot at one end the bars F, the other ends of which are capable of a lateral swinging movement and engage the inclines *b* of beam B. As the bars F are moved from the full-line position shown in Fig. 3 to the dotted position shown in the same figure and in Fig. 1, they, by engaging inclines *b*, elevate the ends of the rails *a*, as indicated in dotted lines, Fig. 3. This vertical movement

of the rails is for the purpose of bringing the ends so moved into the plane of the switch-rails when the switch is opened.

The outer rail, G, of the switch has its end cut away on its lower edge or base in the side adjacent the main track, so the tread of such rail may be adjusted up on the tread of such main track, as shown in Fig. 1. The end of the rail H of the switch is similarly formed. The rail H is the inner rail of the switch, and is provided with a pivoted section, *h*, which straddles the rail of the main track when the switch is opened. This section *h* has the lower portion or T cut away at one end, so it can extend entirely across the rail of the main track, as shown in Figs. 1 and 4.

When the switch-rails are adjusted onto the rails of the main track, their treads are above the treads of the main-track rails. For this reason I provide the means for adjusting the ends *a* of the rails of the main track vertically, so as to bring them into the plane of the adjoining ends of the switch-rails, and thus avoid any jarring or jolting of the cars in passing onto or off the switch.

The rails G H are preferably made of steel, so they will bend sufficiently to permit adjustment from the full to the dotted position shown in Fig. 1. It is also preferred to connect such rails G H by tie-rods I, so as to preserve their desired relative arrangement.

While the switch-rails and the pivoted bars F might be operated by hand, it is preferred to employ the lever mechanism shown.

Opposite the movable end of the switch I arrange a bell-crank lever, J, connected on one side of its pivot with the switch by a link, K, and with the bars F by a rod, L, which also extends between and connects such bars. This lever J is connected by a rod, M, with a second lever, N, which connects by a link, *n*, with the straddle section or rail *h*, forming a part of rail H. Thus by operating the single lever J the bars F will be actuated and elevate the rails *a*, the switch-rails will be properly adjusted to open the switch, and the straddle-rail will be adjusted across the rail of the main track. By a reverse movement of the lever J the switch will be closed and the main track be unobstructed.

By my invention it will be seen I dispense with all frogs and the like, and the main track,

when the switch is closed, is as unobstructed as though no switch existed. It will also be noticed that the invention is simple and involves no complicated mechanism, and will not, therefore, be difficult to keep in proper working order.

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

10 1. The combination of the main track having the end of one section supported on a cross tie or beam having longitudinal inclines, pivoted bars arranged to engage said inclines, the switch-rails, an operating-lever, and connections between the pivoted bars and the switch-rails and said lever, substantially as set forth.

20 2. The combination of the main track, having the end of one section movable vertically, and the switch-rails having their movable ends cut away on one side and arranged to lap on the main track adjacent the vertically-movable portions thereof, substantially as set forth.

25 3. The combination of the main track having the end of one section supported on a

cross tie or beam provided with longitudinal inclines, the pivoted bars engaged at one end with said inclines, a spring whereby to depress the said cross-beam, and the switch-rails, substantially as set forth.

30 4. The combination of the main track having the end of one section supported on a cross-beam provided with longitudinal inclines, pivoted bars arranged to engage said inclines, the main lever connected with the pivoted bars, the switch having its inner rail provided with a straddle-section, a second lever, a link connecting such lever with the straddle-section, a link connecting the switch and the main lever, and connections between the main and second levers, substantially as set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES CLINTON.

Witnesses:

B. FASTERLING,
A. DURIE.