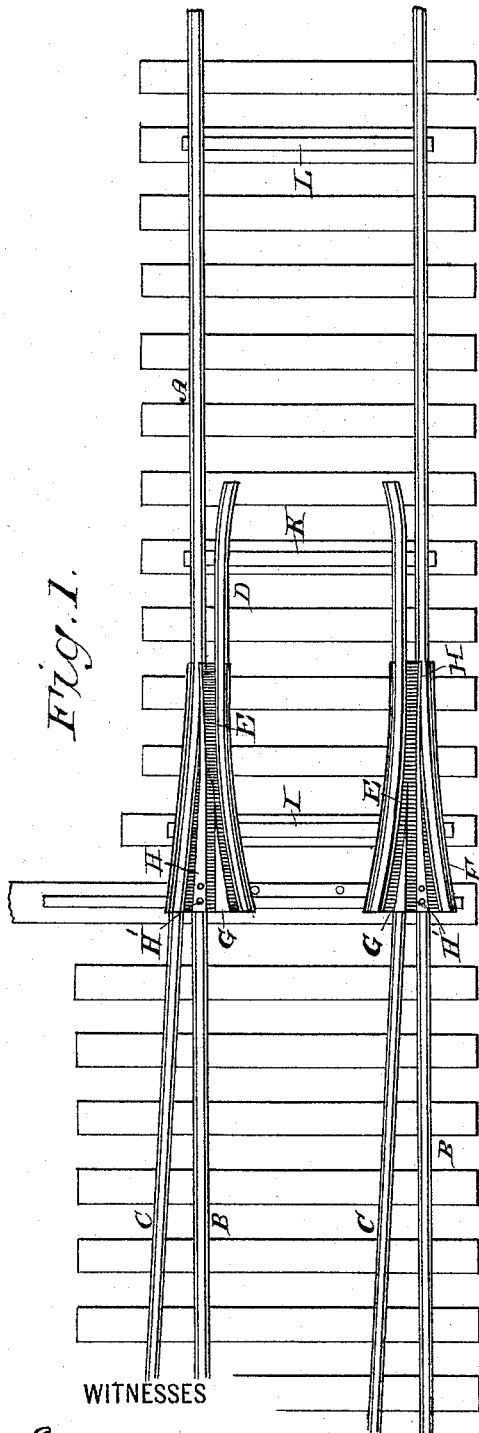


(No Model.)

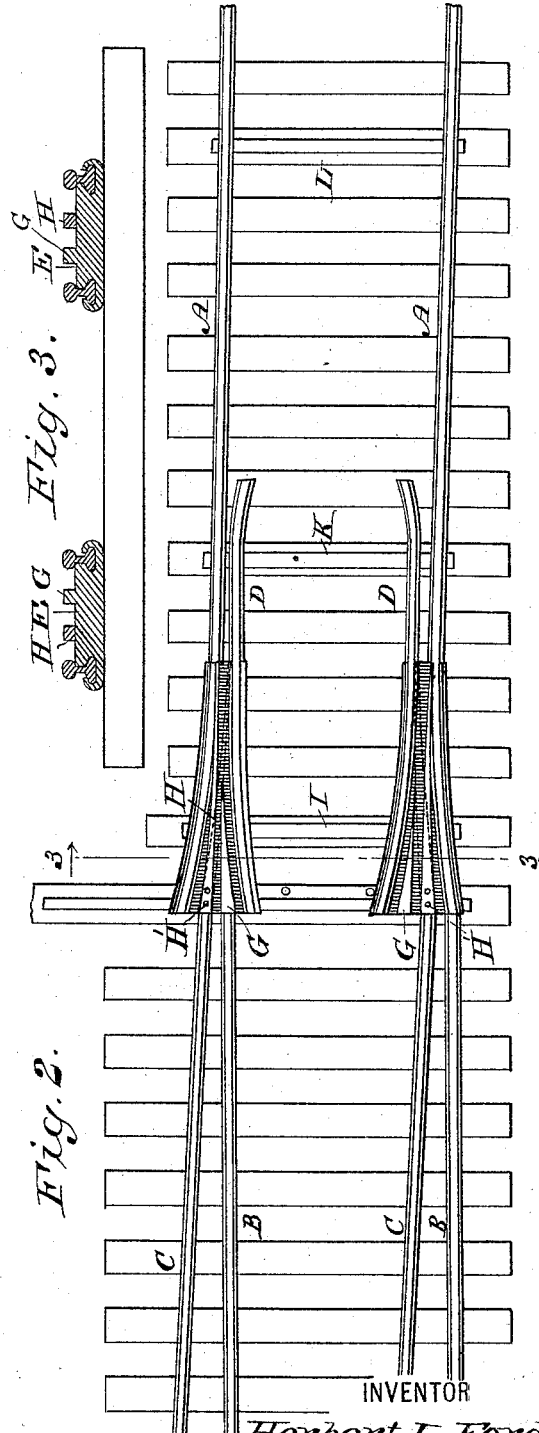
H. L. FORD.  
RAILWAY SWITCH.

No. 328,842.

Patented Oct. 20, 1885.



*Ed. A. Newman.*  
*Al. C. Newman.*



*Herbert L. Ford,*  
By his Attorneys  
*Baldwin, Hopkins & Peyton.*

# UNITED STATES PATENT OFFICE.

HERBERT L. FORD, OF AIKEN, SOUTH CAROLINA, ASSIGNOR OF ONE-HALF  
TO WILLIAM TURNBULL, OF SAME PLACE.

## RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 328,842, dated October 20, 1885.

Application filed June 22, 1885. Serial No. 169,425. (No model.)

*To all whom it may concern:*

Be it known that I, HERBERT L. FORD, of Aiken, in the county of Aiken and State of South Carolina, have invented a certain new and useful Improvement in Railway-Switches, of which the following is a specification, reference being had to the accompanying drawings.

My present invention is an improvement upon that patented to me by Letters Patent of the United States No. 319,398, granted June 2, 1885. I employ the same arrangement of main tracks, side tracks, and pivoted switch-section set forth in that patent, and therefore will not now describe these features more particularly.

My present improvement consists in combining, with a shoe and a fixed portion of the main track, a pointed spring-rail attached at one end to the elevated part of the body of the shoe and free to move laterally at the other or pointed end. In my said patent, instead of having such a spring-rail, I used what I called "fixed switch-points G and H," cast in one with the body or elevated middle part of the shoe. In the present instance I still employ one short fixed switch-point integral with the shoe; but the other or longer one, which I call the "spring-rail," is movable on the upper surface of the shoe, as above stated.

In the drawings, Figure 1 represents a plan view showing the switch set for the main track; Fig. 2, the switch set for the side track; and Fig. 3 a cross-section on the line 3 3, Fig. 2.

In describing the drawings it will be assumed, as in my said patent, that the top of the sheet is north and the bottom, where the side track is shown, south.

Referring to the letters upon the drawings, A indicates the main track north, and B the main track south. C indicates the side track; D, inside guard-rails slightly curved, and E indicates the shoe or bed-plate, which is well shown in cross-section in Fig. 3. In each shoe is seated at one side the slightly outwardly-curved end F of one of the main tracks north which constitute the switch-section. The middle portion of the shoe is elevated, as shown in Fig. 3, so that the

flanges of the car-wheels will aid to bear the weight of the car, and is provided with switch-points G and H, the latter constituting a movable spring-rail, as above stated, and the former preferably cast in one with the shoe.

H' indicates screws or bolts for fastening one end of the pointed spring-rail to the elevated middle portion of the shoe. I, K, and L indicate ordinary connecting-bars, secured in the usual manner, in connection with the switch-sections of the main track. The pointed spring-rails H normally bear, as illustrated in the drawings, against the rails A, near the point of curvature, and constitute portions of the main track. It is advisable that there be a slight offset in the sides of the main track, as illustrated, so that the pointed ends of the spring-rails may be covered and not be liable to be struck by the wheels.

The spring-rails may be made of a good quality of spring-steel, or springs may be applied to them in any ordinary way, (not illustrated,) tending to keep them in place, as illustrated; but I prefer to make the spring-rails themselves of steel, so that they of themselves keep in place, as shown.

As a train approaches from the side track going northward when the switch is in position, as shown in Fig. 1, the flange of the wheel will throw the pointed end of the left-hand spring-rail to one side, as illustrated in the dotted lines, Fig. 2, and the train will pass onto the main track A.

When a train is going north from the main track B, as shown in Fig. 1, the flanges of the wheels will pass in front of both the spring-rails H, which in their normal position, as shown in this figure, form a continuation of the main track A. The wheels pass thence to the main track A. When the switch is set, as shown in Fig. 2, a train going north from the main track will move the right-hand spring-rail laterally, as shown in dotted lines, Fig. 2, and pass onto the main track A. When a train is going north from the side track, as shown in Fig. 2, the flanges of the wheels will pass in front of the spring-rails H, and thence to the rails A. A train approaching from the north will not move either one of the spring-rails, but will always keep on the main track

when the switch is set, as shown in Fig. 1, but will pass to the side track, as shown in Fig. 2. In fact, the spring-rails are never moved by a train approaching from the north, 5 no matter in what position the switch-section may be set.

Making reference to my said patent, including its limitations and disclaimers for proper limitation of my present invention, what I 10 now claim, and seek to secure by Letters Patent of the United States, is—

The combination, with a pivoted or switch section of a main track, of a shoe having

an integral cast raised middle portion and two switch-points, one of which is cast in one 15 piece with the middle portion of the shoe and the other attached thereto, supported thereby, and movable thereon, the shoe carrying a curved section of the main track and a curved switch-guard, substantially as set forth. 20

In testimony whereof I have hereunto subscribed my name.

HERBERT L. FORD.

Witnesses:

MARCUS S. HOPKINS,  
LLOYD B. WIGHT.