## LA FAYETTE T. WEVER. RAILWAY SWITCH. APPLICATION FILED JAN. 25, 1906.

## UNITED STATES PATENT OFFICE.

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## BAILWAY-SWITCH

No. 821,772.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, La Fayette T. Wever, a citizen of the United States, residing at Crawfordville, in the county of Wakulla and State of Florida, have invented a new and useful Railway-Switch, of which the following is a specification.

This invention relates to railway-switches, and has for its object to simplify and improve the construction and increase the efficiency, durabilty, and utility of devices of this character.

With these and other objects in view, which will appear as the nature of the invention is better understood, the invention consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation, it being understood that various changes in the form, proportion, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention within the scope of the appended claims.

In the drawings, Figure 1 is a plan view, and Fig. 2 is a side elevation, of the improved switch installed. Fig. 3 is a transverse section, enlarged, on the line 3 3 of Fig. 1. Fig. 4 is a transverse section, enlarged, on the line 3 4 4 of Fig. 2.

The improved device comprises duplicate bed-plates 10 11, bearing at the ends beneath the main-line rails 12 13 and also bearing at one end beneath the side-track rails 14 15, the one end beneath the side-track rails 14 15, the intermediate portions of the bed-plates being thicker than the ends, whereby shoulders 16 17 are formed, against which the ends of the rails abut, as shown. The rails are further secured by clamp-plates 18 19 to prevent lateral movement of the same, the clamp-plates being preferably integral with the bed-plates.

Bearing upon the bed-plates 10 11 are switch-rails 20 21, formed of bars with the width in excess of the height and pivoted at one end at 22 23 to their respective bed-plates and swinging laterally at the other ends for

engagement alternately with the main-line rails and side-track rails.

The pivots 22 23 are countersunk in the switch-rails, so that no part projects above 55 the surface of the same. The swinging ends of the switch-rails are limited in their movement laterally by stop-blocks 25 26 and are slightly less in length than the elevated intermediate portion of the bed-plates, so that no 60 danger exists of the binding of the switchrails caused by the expansion and contraction of the parts. The switch-rails are wider than the tread portions of the railway-rails to increase their base area, and thus obviate all 65 danger of their overturning, as well as to increase the area of the wearing-surfaces. The switch-rails are alike on both sides and are interchangeable and reversible, so that when worn on the inner edges they can be trans- 70 posed and the unworn outer edges presented to the action of the wheels, and when the second set of edges are worn the rails can be reversed in position and the other side utilized in the same manner, the switch-rails thus be- 75 ing utilized four times or lasting four times as long as ordinary switch-rails.

Formed transversely in the upper faces of the bed-plates 10 11 are dovetailed grooves 27 28, in which a switch rod or bar 29 oper- 80 ates loosely and connected to the switch-rails by pins 30 31.

The ordinary switch-stands may be employed and operatively connected to the rod 29; but as the construction of these devices 85 are so well known they are not illustrated. By this simple arrangement it is obvious that when the rod 29 is actuated in one direction the switch-rails will be set to guide the trains along the main line, as shown by full lines in 90 Fig. 1, and then when the rod is moved in the opposite direction the trains will be guided to the side-track rails 14 15, as shown by dotted lines in Fig. 1. The dovetailed form of the grooves 27 28 and rod 29 effectually prevents .95 the lifting of the rod, while leaving it free to be moved transversely of the bed-plates, and the pins 30 31 being securely connected to the switch-rails effectually prevent the lifting of the switch-rails, the pins having sufficient-100 lateral play to prevent binding.
The device is simple, strong, and durable in construction, can be inexpensively manufactured and applied in all localities where switches are required, and is applicable to three-way or similar switches without material changes in the construction.

Having thus described the invention, what is claimed is—

1. In a railway-switch, spaced bed-plates having the ends of + .e main-line rails and the side-track rails abutting against the same and less in thickness than the height of the rails, spaced switch-rails bearing upon said bed-plates and swinging laterally for alternate alinement with the main-line rails and side-track rails, and means for coupling said switch-rails for simultaneous operation,

2. In a railway-switch spaced bed-plates having at the ends means for supporting the ends of the main-line rails and side-track rails and with the intermediate portion of less thickness than the height of the rails, whereby shoulders are formed against which the ends of the rails abut and means for coupling said switch-rails for simultaneous operation.

3. In a railway-switch, spaced bed-plates having transverse dovetailed grooves and with the ends of the main-line and side-track.

rails abutting against the same, said plates being less in thickness than the height of the rails, spaced switch-rails bearing upon said 30 bed-plates and swinging laterally thereon for alternate engagement with the main-line rails and side-track rails, a rod having dovetailed sides and slidable through said dovetailed grooves and pins connecting said rod movably 35 to said switch-rails.

4. In a railway-switch, spaced bed-plates having the ends of the main-line rails and the side-track rails abutting against the same and less in thickness than the height of the 40 rails, spaced switch-rails having uniform side faces and interchangeably and reversibly disposed upon said plates and swinging laterally thereon for alternate alinement with said main-line and side-track rails, and means for 45 coupling said switch-rails for simultaneous operation.

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

LA FAYETTE T. WEVER.

Witnesses:

H. F. DAMON, J. L. FARRIER