

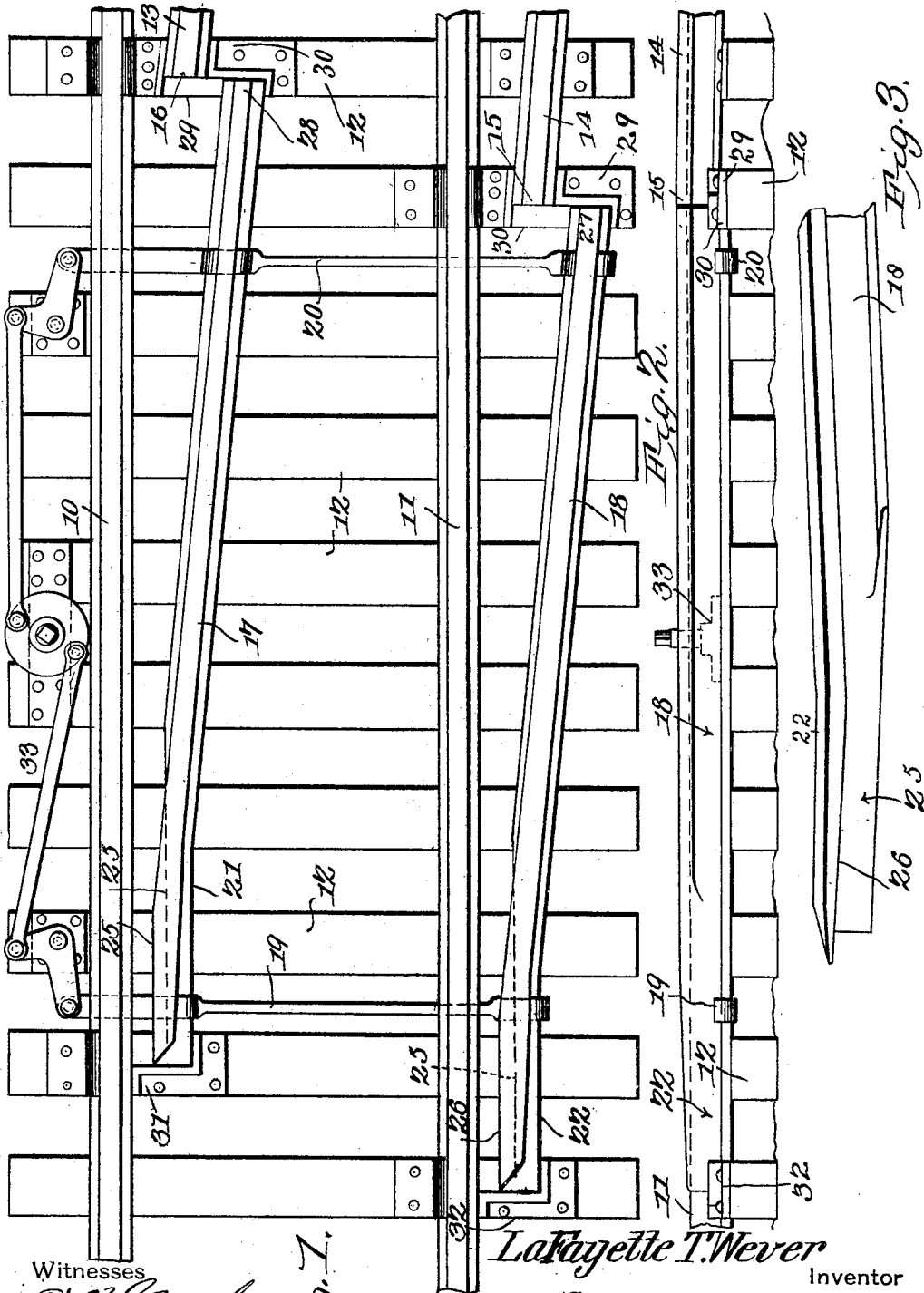
No. 823,453.

PATENTED JUNE 12, 1906.

LA FAYETTE T. WEVER.

RAILWAY SWITCH.

APPLICATION FILED OCT. 31, 1905.



Witnesses

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Fig. 1.

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LA FAYETTE T. WEVER, OF CRAWFORDVILLE, FLORIDA.

RAILWAY-SWITCH.

No. 823,453.

Specification of Letters Patent.

Patented June 12, 1906.

Application filed October 31, 1905. Serial No. 285,299.

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 improve the construction and increase the efficiency and safety of devices of this character; and it consists in a simply-constructed device whereby a train of cars may be transferred to a side track without producing breaks or open spaces in the main line.

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, proportions, 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 a portion of the main line and a portion of a siding with the improved switch device applied. Fig. 3 is a perspective view of a portion of one of the switch-rails, enlarged.

In the operation of railway-trains, especially passenger-trains running at high speed, it is very important that the track shall be as free as possible from breaks or movable joints, such as are necessarily found where switches and frogs of the ordinary construction are employed, and to produce a simply-constructed switch mechanism which does not require the formation of breaks or joints in the main-line rails, but which may be applied to the main-line rails at any point regardless of the joints at the ends of the same, is the principal object of the present invention.

In the drawings employed for illustration the main-line rails are represented at 10 11 and bearing in the usual manner upon cross-ties 12, while the siding-rails are represented at 13 14, also of the usual construction. The

side-track rails extend at angles to the longitudinal plane of the main-line rails, and the rail 13 crosses the main-line rail 11 by means of a frog of the usual construction, which is not shown, as it forms no part of the present invention. The ends 15 of the side-track rail 14 extends in advance of the end 16 of the side-track rail 13.

Extending between the ends 15 16 of the side-track rails and points in advance of the same adjacent to the main-line rails are the switch-rails 17 18, and the construction and operation of these switch-rails is the principal feature of the present invention. The switch-rails are coupled together by tie-rods 19 20 and are disposed in inclined position relative to the main-line rails and arranged for simultaneous movement toward and away from the main-line rails.

The switch-rail 17 extends for a portion of its length, as at 21, parallel to the main-line rail 10, and the switch-rail 18 extends for a portion of its length, as at 22, parallel to the main-line rail 11, and the switch-rail 17 is cut away at the lower side of the parallel portion, as indicated at 23, leaving the upper portion of the head of the rail projecting, as at 24, for overlapping the main-line rail 10 when the switch is closed, while the switch-rail 18 is similarly cut away, as indicated at 25, to form an overhanging portion at 26 to overlap the main-line rail 11 when the switch is closed.

The switch-rails are of greater height than the main-line rails, the excess of height being slightly in excess of the projection of the flanges of the car-wheels to carry the same over the rail 11, as hereinafter explained. The upper faces of the parallel and cut-away portions of the switch-rails are inclined, as shown in Figs. 2 and 3, to gradually carry the wheels of the cars from the main-line to the switch rails or from the switch-rails to the main-line rails, as the case may be.

By this arrangement when the switch-rails are in open position, as in Fig. 1, the main-line rails are free and unobstructed, and when the switch-rails are moved over into closed position the rear ends 27 28 of the switch-rails will coincide with the ends 15 16 of the side-track rails and the parallel ends 21 22 overlap the main-line rails and provide means for the passage of the wheels of the cars from the main line to the side track, as will be obvious. The inclined parallel portions of the switch-rails first carry the wheels

upwardly until elevated sufficiently to cause the flanges to clear the rail 11 and are then conducted upon the inclined portion of the switch-rails and without danger of the flanges of the wheels striking the rails 11. The switch-rails being of the same length and the side-track rail 14 being disposed in advance of the rail 13, the parallel end of the switch-rail 18 is correspondingly in advance of the like end of the rail 17, so that the opposite wheels of the moving car do not strike the inclined ends of the switch-rails at the same time, and thus minimize the effect of the jar or concussion caused by the wheels mounting the switch-rails or leaving the same, as the case may be.

The switch-rails, if long enough, may be gradually decreased in height toward the rear ends and with the siding-rails bearing directly upon the ties, so that the car-wheels may be gradually transferred to the normal level of the tracks, or the switch-rails may be constructed of the same height throughout, except the inclines at the parallel ends, as shown in Fig. 2, and the ends 15 16 of the siding-rails elevated to meet the increased size of the switch-rails where shorter switch-rails are required.

Tie-plates will be employed, as at 29 30, to support the ends 15 16 of the side-track rails and provided with suitable stop-ribs to prevent lateral movement of the side-track rails and also to provide bearings upon which the ends 27 28 of the switch-rails move, while similar tie-plates 31 32 are arranged for the

parallel and cut-away ends of the switch-rails.

Any suitable means may be employed for operating the switch-rails, and for the purpose of illustration a system of levers is shown at 33 arranged for accomplishing the desired movements.

Having thus described the invention, what is claimed is—

1. In a railway-switch mechanism, spaced switch-rails coupled for simultaneous movement toward and away from the main-line rails of the side-track rails with the switch-rails cut away at one end for overlapping the main-line rails and with the other ends coinciding with the side-track rails when in closed position.

2. In a railway-switch mechanism, the combination with the main-line rails and the side-track rails, of switch-rails coupled for simultaneous movement toward and away from the main-line rails and toward and away from the side-track rails, and with the switch-rails formed to overlap the main-line rails at one end and coincide with the side-track rails at the other ends when in closed position.

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:

J. M. TOWLES,
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