No. 831,867. PATENTED SEPT. 25, 1906.

J. HERRINGTON.

RAILWAY SWITCH.

APPLICATION FILED MAR. 14, 1906.

Fig. 1

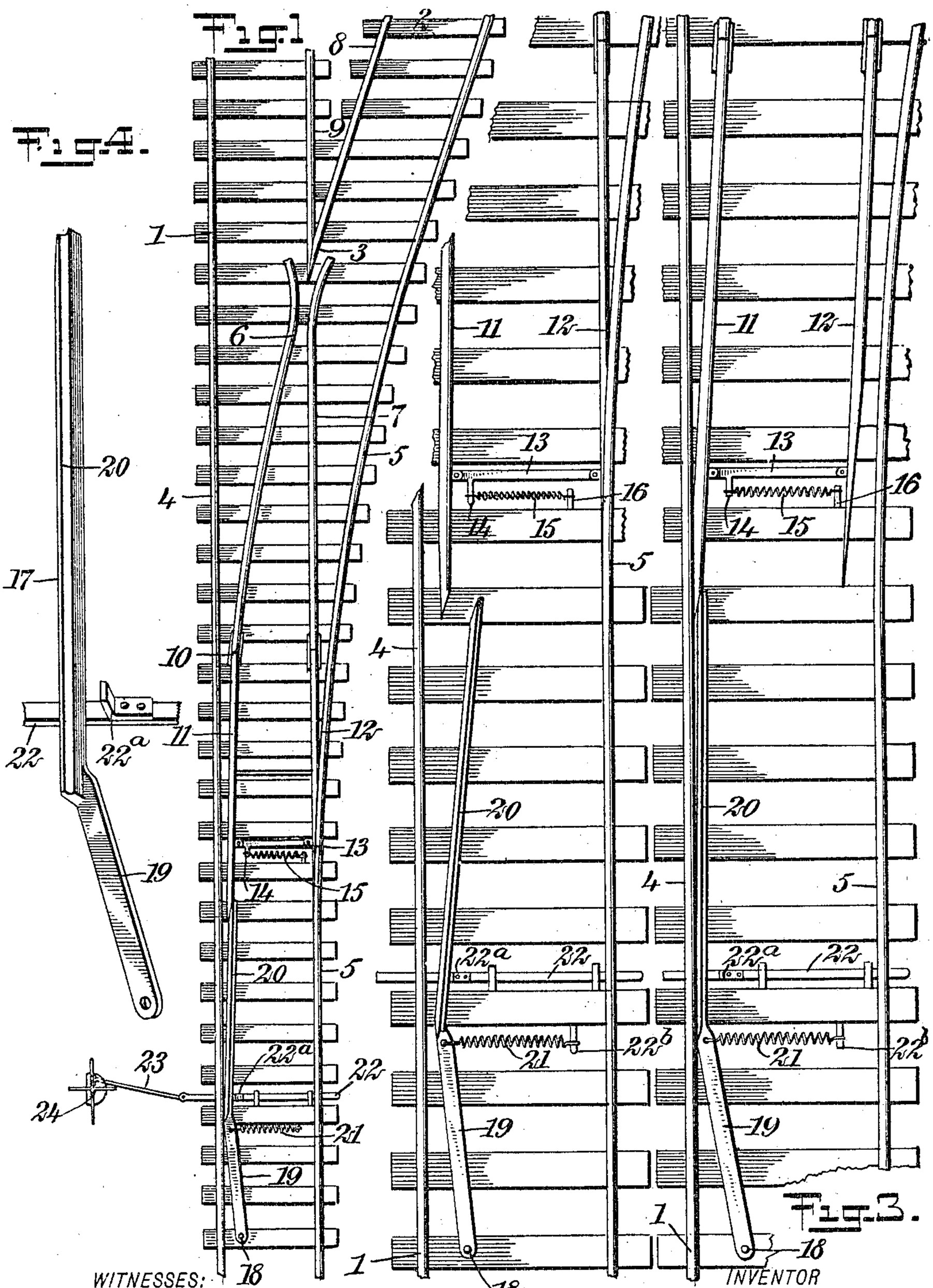

Fig. 4.

Fig. 2.

Fig. 3.

WITNESSES:

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RAILWAY-SWITCH.

No. 831,867. Specification of Letters Patent. Patented Sept. 25, 1906.

Application filed March 14, 1906. Serial No. 305,975.

To all whom it may concern:

Be it known that I, JACOB HERRINGTON, a citizen of the United States, and a resident of Houston, in the county of Harris and State of Texas, have invented a new and Improved Railway-Switch, of which the following is a full, clear, and exact description.

This invention is an improvement in switches, and has for its object, among others, to provide a switch capable of being automatically operated by the wheels of the cars or engines, thereby dispensing to a considerable extent with the work of a switchman and at the same time lessening the likelihood of accident caused by negligence in leaving the switch open.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the switch complete, showing the position assumed by the parts when the switch is set for the entrance of a train into a siding. Fig. 2 is a fragmentary view, on an enlarged scale, showing the normal position taken by the switch-points and operating mechanism. Fig. 3 is a view similar to Fig. 2, but showing the switch-points as pressed over by the car-wheels in passing into the siding; and Fig. 4 is a detail view of the bar or rail for throwing the switch.

1 indicates the main line, from which the siding 2 leads, having the usual frog 3 at the junction of the adjacent rails 8 and 9. The rails 4 and 5 are, as shown, continuous in their length and form, respectively, the outer rails of the main line and side track. The rails 6 and 7 form a continuation of the rails 8 and 9 and are curved about and spaced a small distance from the frog 3, which permits the flange of the car or engine wheel to pass between the frog and rail end. The rails 6 and 7 are rigidly spiked to the cross-ties, as are also the rails 4, 5, 8, and 9. At the end 10 of the rail 6 is fastened a rail-section 11 by means of fish-plates or other equivalent means. This rail 11 is transversely slidable on the cross-ties by reason of the flexible connection at 10, as is also the rail 12, having a similar connection with the rail 7. Both rails 11 and 12 are rigidly connected together by a bar 13, having a projecting lug 14, with which a spring 15, held at one end by a projection 16, is attached. By this construction the spring 15 will tend to keep the points of the switch formed by the rails 11 and 12 in a closed relation, and consequently the main line in a safe condition.

Pivotally mounted some distance ahead of the switch-points to one of the cross-ties, as at 18, is a bar 17, (best shown in Fig. 4,) having a flat arm 19 extending at an angle to a rail portion 20, the end of said rail portion being so constructed and adapted as to engage with the switch-point carried by the rail 11. This will enable me to taper, bevel, or otherwise construct the ends of the bar 17 and the switch-point as experience and practice may indicate. Near a point where the rail 20 and arm 19 join is attached a spring 21 at one end and at its opposite end to a projection 22^b, carried on the cross-tie or otherwise fastened. Transversely and slidably mounted on one of the cross-ties, between the switch-points and spring 21, is a bar 22, having an angular stop or projection 22^a rigidly attached thereto and adapted when drawn outward by the switch 24 through link 23 to contact with the rail 20, which in turn engages the switch-point carried by the rail 11 and assumes the position shown in Fig. 1. With this position of the rail 20 a train can now pass from the main line 1 to the siding 2. The flanges of the wheels of the cars or engines as they pass on the rails 20 and 5 push the rail 20 against the rail 4 and open the points of the switch from the main line, as shown in Fig. 3, leading the train onto the siding. After the train passes the rail 20 is automatically returned, as also the switch-points, by the springs 21 and 15 to the position shown in Fig. 2, leaving the main line disconnected from the siding. When the train moves out from the siding, the wheels automatically move the switch-points over to the main line in following manner, the flanges of the wheels on the rail 11 passing between the rails 4 and 12, after which by reason of the spring 15 the switch-points return to their normal position, as shown in Fig. 2.

It is apparent that many minor changes and modifications may suggest themselves, and I claim all such as fall within the scope of the appended claims.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

1. The combination of a main track, a side track leading therefrom, switching means for connecting the two tracks comprising switch-points, and a thin straight rail normally disconnected from the switch-points and adapted to aline with one of them and throw the switching-points for the side track.

2. The combination of a main track, a side track leading therefrom, switching means for connecting the two tracks comprising switch-points, a spring automatically setting the switch-points for disconnecting the tracks, and a rail normally disconnected from, but adapted to connect and set, the switch-points for the side track.

3. The combination of a main track, a side track leading therefrom, switching means for connecting the two tracks comprising switch-points, a pivotally-mounted and normally disconnected arm adapted to shift the switching-points for either track, and means moving transversely of the main track for operating the arm.

4. The combination of two tracks, a switch for connecting and disconnecting said tracks, comprising switching-points and a rail, said rail being pivotally mounted between the tracks and operable in one direction for connecting the tracks, and independent resilient means for disconnecting the tracks.

5. The combination of two tracks, switching-points for connecting and disconnecting said tracks, an angular arm normally separated from the switching-points, means for moving the arm in one direction for shifting the switching-points, and an independent spring for moving the arm in the opposite direction.

6. The combination of a main track and a side track, switching-points adapted to connect and disconnect said tracks, a pivotally-mounted rail for contacting with one of said switching-points to connect said tracks, whereby a train passing in one direction will pass over said rail onto said side track, and when passing in the opposite direction the flanges of the car or engine wheels will automatically throw the switching-points to connect the tracks, and said wheels will not pass upon said pivotally-mounted rail.

7. The combination of two tracks, switching-points adapted to connect and disconnect said tracks, and a rail pivoted between the rails of one of said tracks for contacting with one of the switching-points and alining therewith, for the purpose described.

8. The combination of two tracks, switching-points adapted to connect and disconnect said tracks, a rail pivoted between the rails of one of said tracks for contacting with one of the switching-points and alining therewith, means transversely movable of the tracks for operating the pivotally-mounted rail in one direction, and independent means for operating it in the opposite direction.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JACOB HERRINGTON.

Witnesses:
J. M. MATHIS,
JOHN C. BOX.