
Railroad Track Switch.

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2 Sheets-Sheet 2.

INVENTORS
Royal A. McClure
Carl H. Reeves
William W. Boulton

By
Book & Matheny

ATTORNEYS
To all whom it may concern:

Be it known that we, ROYAL A. McCURLE, CARL H. REEVES, and WILLIAM W. BOULTON, citizens of the United States, residing at Seattle, in the county of King and State of Washington, have invented a new and useful Improvement in Railroad-Track Switches, of which the following is a specification.

This invention relates to improvements in switches for railroad tracks of the single rail type and the object of this improvement is to provide a simple, reliable and easily operated switch apparatus of this class for making connection between a single rail track and a siding or turn out that is connected with such track.

This switch is designed for use in connection with the elevated railway track disclosed in our co-pending application of ROYAL A. McCURLE, CARL H. REEVES, and WILLIAM W. BOULTON, filed February 20, 1917, for elevated railway tracks, and in connection with the car truck described in the co-pending application of ROYAL A. McCURLE, HENRY R. STEVENS, and WILLIAM W. BOULTON, for trucks for elevated railways, filed February 20, 1917.

The invention consists in the novel construction, adaptation and combination of switch mechanism and track sections as will be more clearly hereinafter described and claimed.

In the accompanying drawings Figure 1 is a plan view of a switch constructed in accordance with this invention as it appears in one position; Fig. 2 is a similar view of the switch in another position; Fig. 3 is an enlarged view partly in section and partly in elevation substantially on broken line 2, 3 of Fig. 1; and Fig. 4 is an enlarged view partly in section and partly in elevation substantially on broken line 4, 5 of Fig. 1.

Referring to the drawings throughout which the reference numerals indicate like parts the reference numerals 5 and 6 indicate rails in the main line of a one rail track and 7 indicates the rail of a siding or turn out associated with the main track.

Fig. 8 is a straight rail section that is normally adapted to connect the ends of the rails 5 and 6 as shown in Fig. 1, and 9 is a curved rail section that may be turned into a suitable position to connect the rail 5 with the siding rail 7 as shown in Fig. 2.

The rail sections 8 and 9 are rigidly connected with each other by transverse tie rods 10 that are secured by nuts 10' to suitable brackets on the bottoms of the track sections 8 and 9 as shown in Figs. 3 and 4 so that the distance between the rail sections 8 and 9 may be adjusted.

The section 8 is pivoted as at 11 in alignment with and adjacent to the end of the rail 6 and the ends of all of the track sections 5, 6, 7, 8, and 9 are cut on circumferential lines having the pivot 11 as a center so that when the switch comprising the sections 8 and 9 is moved about the pivot 11 the section 8 may be moved into alignment with the rails 5 and 6 to form a straight track and when the section 9 is moved so that its end registers with the end of the rail 5 a track connection between the rail 5 and the siding rail 7 will be established and the section 8 will be thrown out of line.

The switch mechanism is mounted on any suitable base or support 12.

The central portion and outer end portions of the rail sections 8 and 9 are supported upon rollers 13 that are pivotally secured to the bottom sides of such sections and adapted to roll upon curved tracks 14 and 15.

The end of the section 9 adjacent the siding rail 7 is supported on conical rollers 16 that roll between the bottom surface of a bearing plate 17 on the rail and the inclined top surface of a bearing plate 18 on the base 19, the rollers 16 thus having a travel equal to one half the distance of travel of the end of the rail 9.

The bearing plate 18 is secured to the base 19 by bolts 19 that pass through slotted holes 20 in such manner that the bearing plate may be shifted sidewise to raise or lower the end of the rail 9 so that it will be flush with the top surface of the siding rail 7.

Any desired means for moving the switch from the position shown in Fig. 1 to the position shown in Fig. 2 may be used, the mechanism shown in the drawings for accomplishing this movement being a rack 21 that is secured to the bottom side of the
switch rails and adapted to be engaged by a pinion 22 on a shaft 23 that may be connected with a motor (not shown). The switch moving mechanism will be so constructed that it will be impossible for the switch to be stopped in an open position and means for closing an electric circuit and throwing the switch will be provided in each of the track members 6 and 7 at a distance from the switch so that a car approaching on the track 6 will automatically cause the switch to be thrown into the position shown in Fig. 1 and a car approaching on the track 7 will automatically cause the switch to be thrown into the position shown in Fig. 2 thus making it impossible for a car to run into an open switch.

The tracks 14 and 15 are preferably ordinary light weight railroad rails and the rollers 13 are flanged so that they will stay on such tracks and not be de-railed by stones, dirt and the like that may be deposited on such track by accident.

The tracks 14 and 15 and the rack 21 are all curved on circumferential lines described from pivot point 11.

While the main line formed by the tracks 5, 6 and 8 is shown as a straight or tangent section it is obvious that the same may be curved, if it is desired to provide a siding in connection with a curved section of track.

It is obvious that this invention is not limited in its scope to the exact form shown and that changes in the form of construction and arrangement of parts may be resorted to within the scope of the following claims.

What we claim and desire to protect by Letters Patent is:

1. The combination with divergent single rail tracks, of a switch section comprising two track members secured together in spaced relation and movable on a common pivot at the end of one of said track members to selectively establish continuous rail connection in either of said divergent tracks.

2. The combination with the main line and turn out of a single rail track, of a switch section comprising two track members rigidly secured together in spaced relation and movable about a common pivot on the axis of said main line to selectively establish continuous rail connection with said main line or said turn out, rollers supporting said switch section and trackways for said rollers, said trackways being arranged circumferentially of said pivot.

3. The combination with the main line and turn out of a single rail track, of a switch section comprising two track members rigidly secured together in spaced relation and movable about a common pivot located near the end of the main line switch member whereby said switch section may be moved to establish a continuous rail connection in said main line or said turn out, rollers supporting the outer ends of said switch section, circumferential trackways for said rollers, roller bearings supporting the inner end of said turn out switch section and means comprising a bearing plate having an inclined surface for adjusting the elevation of the inner end of said turn out switch.

4. The combination with the main line and turn out of a single rail track, of a switch section comprising two track members rigidly secured together in spaced relation and movable about a common pivot located near the end of the main line switch member whereby said switch section may be moved to establish a continuous rail connection in said main line or said turn out, rollers supporting the outer ends of said switch section, circumferential trackways for said rollers, roller bearings supporting the inner end of said turn out switch section and means comprising a bearing plate having an inclined surface for adjusting the elevation of the inner end of said turn out switch.

5. The combination with the main line and turn out of a single rail track, of a switch section comprising a turn out rail section and a main rail section rigidly secured together in spaced relation, a pivot at one end of said main rail section about which said switch may be turned said pivot forming a center upon whose circumferential lines the ends of all of said rails are cut so that when said switch section is turned about said pivot the ends of said switch rail sections will register with the ends of said main line and turn out rails.

6. The combination with divergent single rail tracks, of a switch section comprising two track members secured together in spaced relation, a pivot about which said switch member may turn to selectively establish continuous rail connections in either of said divergent tracks, roller bearings supporting said switch member, circumferential trackways for said roller bearings, and power actuated means for moving said switch section.

Signed by us at Seattle, Washington, this 10th day of February, 1917.

ROYAL A. McCULLE.
CARL H. REEVES.
WILLIAM W. BOULTON.

Witnesses:
R. E. HIEBER.
SHELD GEGRERSEN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D.C."