

W. K. ANDERSON.
RAILWAY SWITCH.
APPLICATION FILED SEPT. 14, 1914.

1,131,025.

Patented Mar. 9, 1915.

2 SHEETS-SHEET 1.

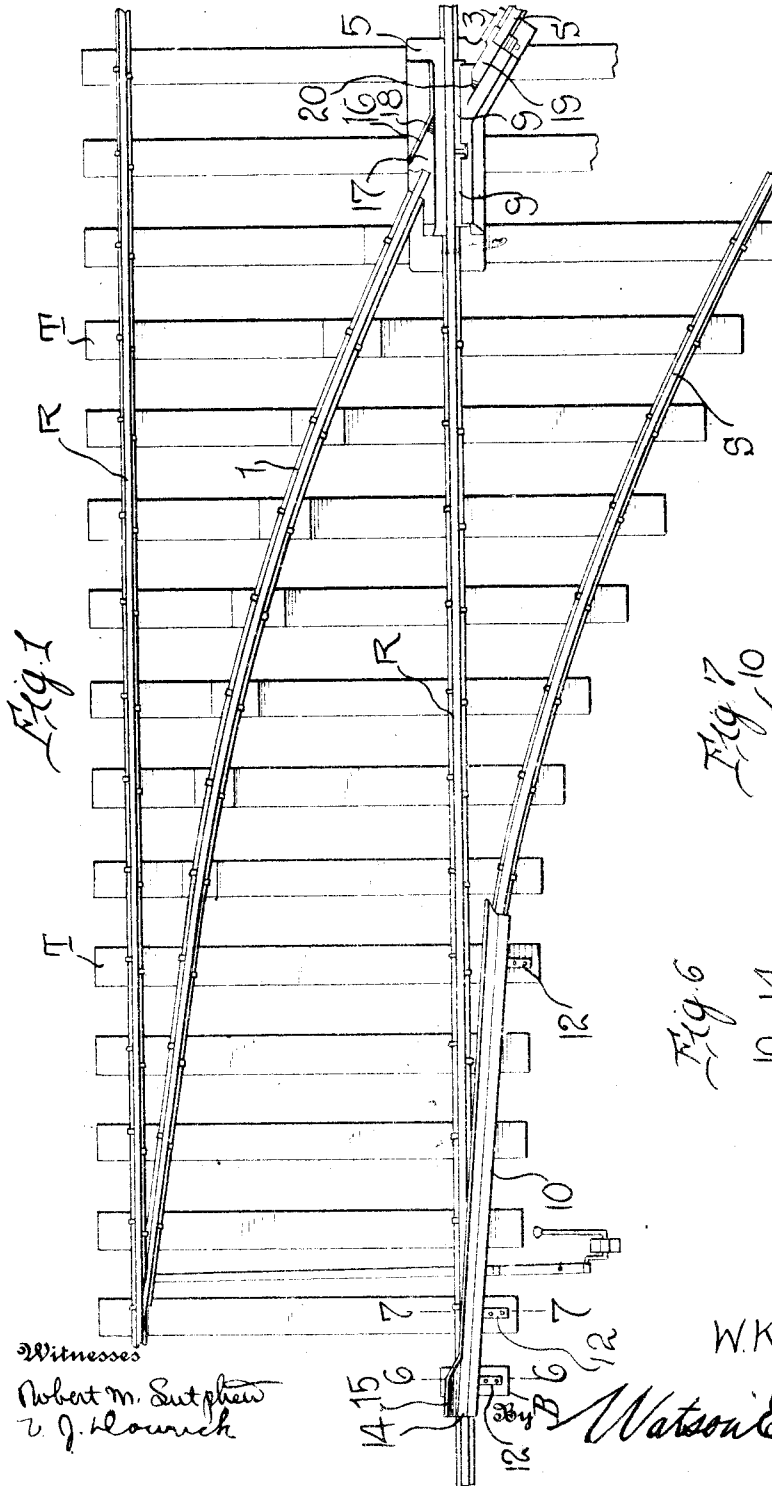


Fig. 1

Fig. 10

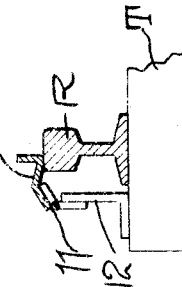
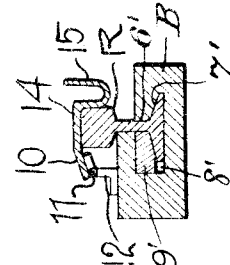


Fig. 6



Witnesses

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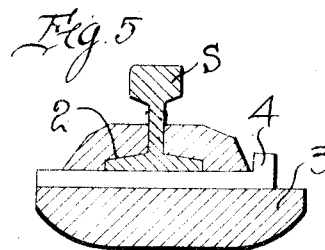
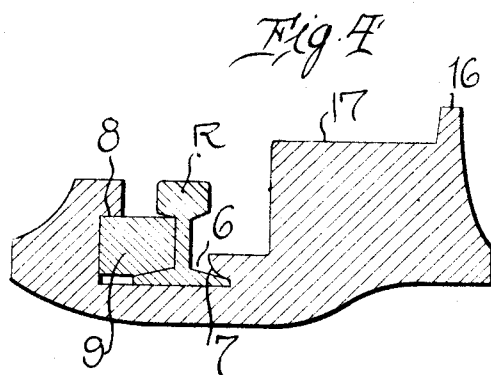
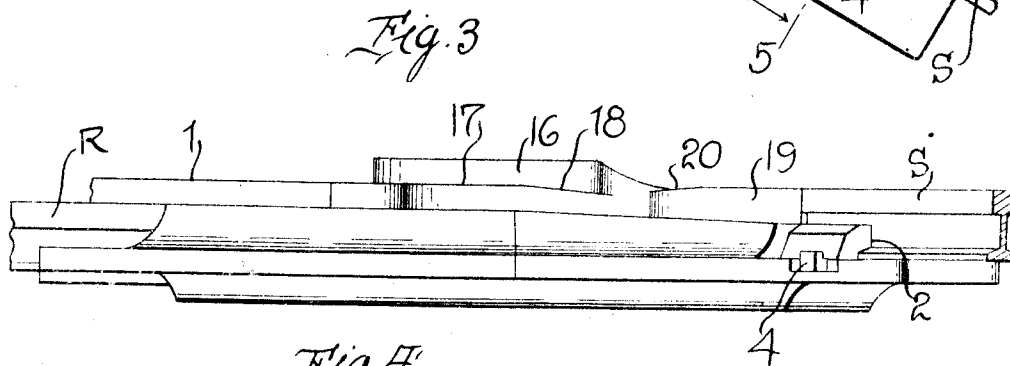
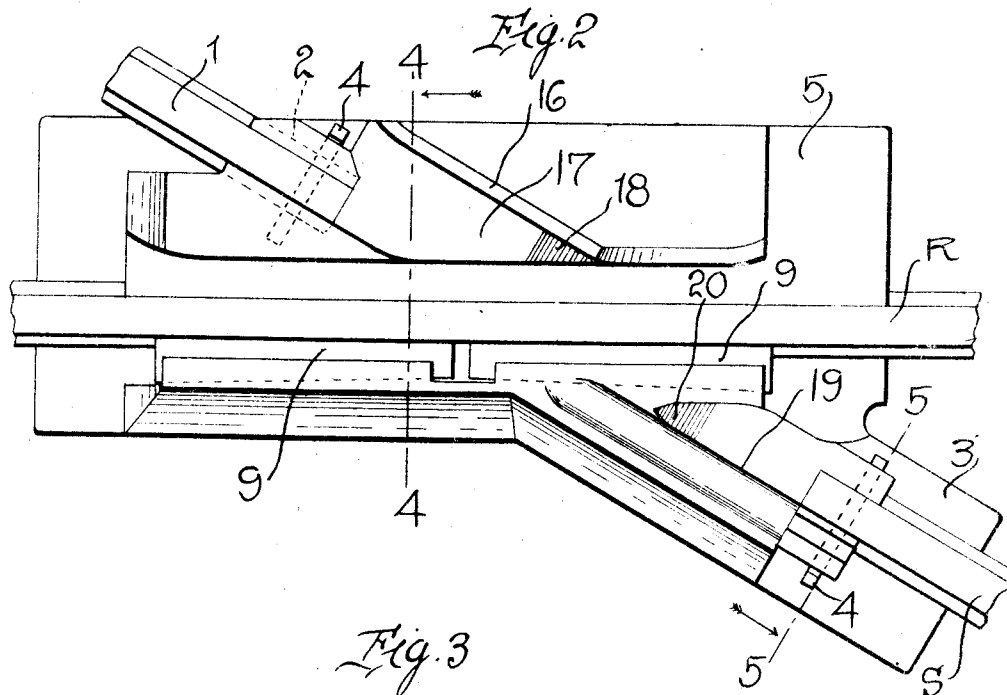
Attorney

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2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

WILLIAM K. ANDERSON, OF COLORADO SPRINGS, COLORADO.

RAILWAY-SWITCH.

1,131,025.

Specification of Letters Patent.

Patented Mar. 9, 1915.

Application filed September 14, 1914. Serial No. 861,655.

To all whom it may concern:

Be it known that I, WILLIAM K. ANDERSON, a citizen of the United States, residing at Colorado Springs, in the county of El Paso and State of Colorado, have invented certain new and useful Improvements in Railway-Switches, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to certain improvements in switches and has relation more particularly to a device of this general character of a portable type, and an object of the invention is to provide a device of this general character having novel and improved means whereby the same may be employed in connection with a fixed track-way without the necessity of interfering in any way with the rails of the fixed track-way.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved switch whereby certain important advantages are attained and the device is rendered simpler, less expensive and otherwise more convenient and advantageous for use, all as will be hereinafter fully set forth.

The novel features of the invention will be carefully defined in the appended claims.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein—

Figure 1 is a view in plan of a section of a fixed trackway illustrating a switch constructed in accordance with an embodiment of my invention applied thereto; Fig. 2 is an enlarged view in plan of a frog comprised in the present embodiment of my invention, said frog being also shown in applied position; Fig. 3 is a view in side elevation of the frog as disclosed in Fig. 2; Fig. 4 is a sectional view taken substantially on the line 4—4 of Fig. 2; Fig. 5 is a sectional view taken substantially on the line 5—5 of Fig. 2; Fig. 6 is a sectional view taken substantially on the line 6—6 of Fig. 1, and Fig. 7 is a sectional view taken substantially on the line 7—7 of Fig. 1.

As disclosed in the accompanying drawings, R denotes the rails comprised in a fixed track-way of conventional construction having coacting in connection therewith a turn-out or siding in which is comprised a switch constructed in accordance with my invention.

As herein embodied, my improved switch is shown as employed in connection with the siding, said siding comprising the rail 1 disposed on the proper curvature and positioned intermediate the rails R and being immovably secured to the ties T and having one extremity terminating in close proximity to one of the rails R while the opposite extremity is projected within one of the terminal recesses or slots 2 produced in the angular portion 3 of the frog comprised in the present embodiment of my invention, while a rail S comprised in the siding has an extremity disposed in the second terminal recess or slot 2 and the extremities of the rails 1 and S are locked or clamped within the respective slots or recesses 2 through the medium of the wedges 4 disposed through the portion 3 of the frog below the rail, as is believed to be clearly illustrated in Fig. 5 of the drawings. The intermediate or straight portion 5 of the frog is provided with a longitudinally disposed groove 6 adapted to receive one of the rails R, the inner side wall 7 of said groove 6 being formed so as to overlie the adjacent flange of the rail while the opposite wall of the groove is recessed as at 8 to receive the wedges 9 whereby said frog is effectively clamped to the rail R. As is believed to be self-evident, the frog hereinbefore set forth may be applied with convenience and facility and without the necessity of cutting or otherwise injuring the rail R.

The second rail S comprised in the siding terminates at one extremity in close proximity to the rail R with which the frog coacts and has its inner extremity provided with the wing or tread 10 movable in a vertical plane around a horizontal axis 11 projecting in continuity with the ball of the rail S and further supported in its outer extremity by the brackets 12 or the like suitably anchored to certain of the ties T. As is particularly shown in Fig. 6, the block B is provided in its upper surface with the transverse groove 6' adapted to receive the base of a rail R, one side 7' of the groove being formed so as to overlie the adjacent flange of the rail while the opposite wall of the groove is recessed, as at 8', to receive a wedge 9' whereby an effective connection is created between the block B and the rail R, as is thought to be clearly apparent to those skilled in the art to which my present invention appertains. It is to be understood

that the block B is adapted to be slipped over the end of the rail with which it coacts.

The wing or tread 10 has its forward extremity enlarged transversely as indicated at 14 in Figs. 1 and 6, to overlie the adjacent portion of the immediate rail R, and such laterally increased portion is provided with a depending channel member 15 to receive the flanges of the wheels of the stock passing over the rails R so as to cause the same to jump the rails R and be received upon the rails S. The wing or tread member 10, can be applied in an operative or inoperative position relative to the coacting rail R in a convenient manner.

The inner extremity of the inclined portion 3 of the frog is provided along its inner edge with an upstanding flange 16 for the guidance of the wheels of the rolling stock across the rail and it is to be observed that the upper face 17 of the inner end of the inclined portion 3 of the frog is positioned in a plane above a tread of the rail R to be bridged, except the inner portion 18 thereof, which is inclined downwardly so that the contact of the wheels of the rolling stock with the opposite portion of the frog will be assured in such instances when the tread of the wheels shall ride upon the upper surface 17. The opposite end of the portion 3 is also provided with a guide flange 19, the inner extremity 20 thereof being inclined downwardly to assure the proper engagement of the wheels with the flange or shoulder 19 so that the wheels will properly ride upon the coacting rails S.

From the foregoing description it is thought to be obvious that a switch constructed in accordance with my invention is of an extremely simple and comparatively inexpensive nature, and is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and by reason of the effectiveness with which it performs its functions, and it will also be obvious that my invention is susceptible of some change and modification without material departure from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown of my invention in practice.

I claim:

1. A railway switch including a tread arranged for swinging movement in a vertical

plane from one of the rails of a siding to overlie the rail of a main track to provide for the passage of the car wheels above the plane of the main rail, the forward extremity of the tread being enlarged transversely to overlie the rail, the free longitudinal margin of the transversely enlarged portion being provided with a depending channel member.

2. A railway switch including a tread arranged for swinging movement in a vertical plane from one of the rails of a siding to overlie the rail of a main track to provide for the passage of the car wheels above the plane of the main rail, said tread being provided with a depending channel member adapted to overlie the inner side of the rail.

3. The combination with a main trackway, of a siding removably secured to one of the rails thereof, a rail secured to one extremity of the frog and interposed between the rails of the main track on the proper curvature and terminating in close proximity to the opposite rails of the main trackway, a siding rail secured to the frog, a second siding rail terminating in close proximity to the rail of the main track with which the frog is engaged, and a tread pivotally supported by the last mentioned rail of the siding and adapted for movement in a vertical plane to overlie the adjacent rail of the main track, the forward extremity of the tread being enlarged transversely to overlie the rail, the free longitudinal margin of the transversely enlarged portion being provided with a depending channel member.

4. A switch of the type described including a frog arranged to form a seat for a main track rail, having arranged laterally of the seat, receiving the said rail, elevated portions to provide for the passage of the wheels of the car in a plane above said main track rail, said shoe having a flange contiguous to one end of the rails of said siding, the opposite portion of said shoe being provided with a shoulder to guard the car wheel in its passage across the main rail onto a rail section extension, and arranged about in alinement with the inner end of one of the said siding rails.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

WILLIAM K. ANDERSON.

Witnesses:

J. R. YOUNG,

GEO. L. CRAWFORD.