

F. CHAMNESS.
RAILWAY SWITCH.

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1,025,369.

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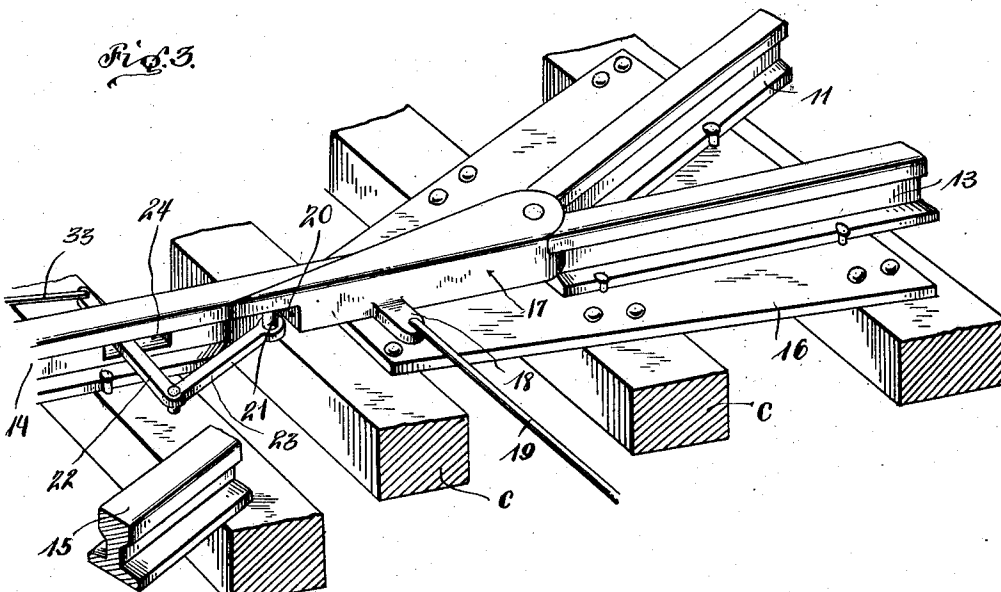
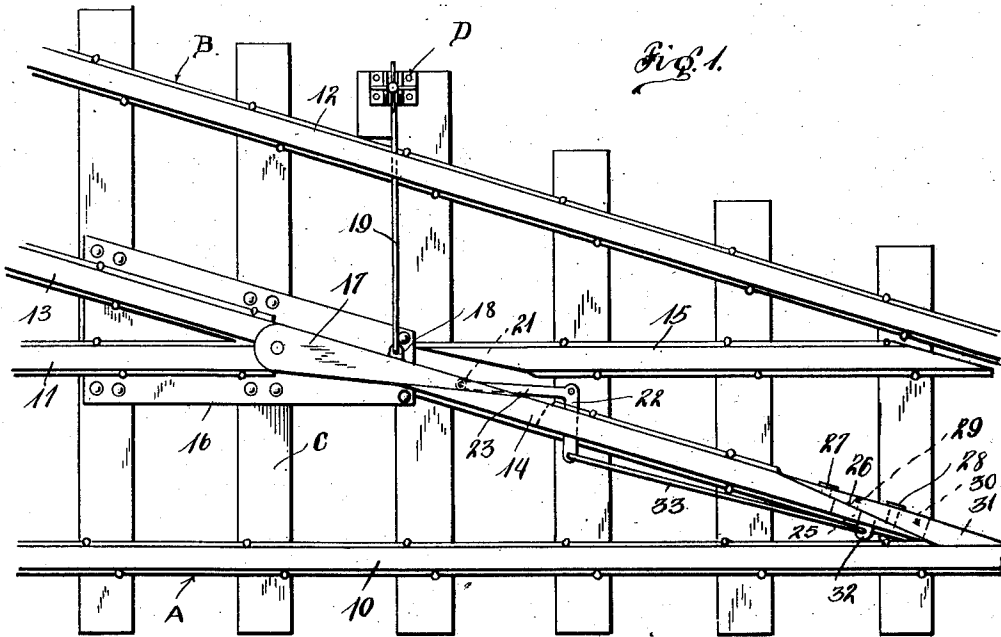


Fig. 2.
 Witnessed by *Conrad Crocker*
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UNITED STATES PATENT OFFICE.

FRANK CHAMNESS, OF HUNTINGTON, INDIANA.

RAILWAY-SWITCH.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, FRANK CHAMNESS, a citizen of the United States, residing at Huntington, in the county of Huntington, State of Indiana, have invented certain new and useful Improvements in Railway-Switches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to railway switches.

The object of the invention resides in the provision of an improved construction of railway switch which will increase the efficiency and safety of devices of this character.

With these and other objects in view, the invention consists in the details of construction and arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claim.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters of reference denote corresponding parts in the several views; and in which,

Figure 1 is a plan view of a railway switch constructed in accordance with the invention; Fig. 2, a detail perspective view of the sliding switch point employed in the switch; and Fig. 3, a detail perspective view showing part of the connections between the pivoted frog and the sliding switch point.

Referring to the drawings, A indicates the main track and B a siding, the entrance to the latter from the main track being controlled by a switch to be hereinafter described. The main track A includes rails 10 and 11, while the siding B includes rails 12 and 13.

The switch construction proper comprises a pair of switch rails 14 and 15 directed respectively toward the siding and the main track, the switch rail 14 being positioned to constitute a continuation of the rail 13 of the siding, while the switch rail 15 is positioned to constitute a continuation of the rail 11 of the main track. The adjacent ends of the rails 11 and 13 of the main track and siding and the switch rails 14 and 15 are connected together by means of a plate 16 which rests upon and is secured to ties C. Pivotally mounted upon the plate 16 is a frog 17 which is positioned so that its free end

may be moved selectively into engagement with the switch rails 14 and 15. When the frog 17 is in engagement with the switch rail 14, it will be apparent that said switch rail, frog and rail 13 will form a continuous rail line and serve to properly direct a train which has been previously switched, in a manner to be hereinafter described, into the siding B. It will likewise be apparent that when the free end of the frog 17 is disposed in engagement with the switch 15, said switch rail, frog and rail 11 will constitute a continuous rail line. The frog 17 is provided with a laterally projecting ear 18 to which is connected one end of a link 19. The other end of this link 19 is operatively connected to an actuating mechanism D disposed at one side of the track 12. This actuating mechanism is so constructed that same may be actuated to effect the selective movement of the frog 17 into engagement with either the switch rail 14 or switch rail 15. The free end of the frog 17 has its lower side cut away as at 20 and depending from the upper wall of this cut away portion 20 is a stud 21. Pivotally mounted upon the plate 16 adjacent the free end of the frog 17 is an angle lever comprising arms 22 and 23, the latter of which is connected at its free end to the stud 21 so that the movement of the frog 17 on its pivot will also effect a movement of said angle lever. The arm 22 of the angle lever extends through a slot 24 in the web of the end of the switch rail 14 adjacent the frog 17. This switch rail 14 is also provided in the web of its opposite end with a slot 25, said last named end of the switch rail 14 being scarfed as at 26 to form an inclined end face directed toward the rail 10 of the main track, the recess 25 extending through this scarfed portion of said switch rail.

Projecting from the inclined face 26 of the switch rail 14 on opposite sides of the recess 25 respectively are pins 27 and 28 which extend through openings 29 and 30 respectively in a switch point 31. This switch point 31 is provided with a laterally extending ear 32 disposed between the openings 29 and 30 and projecting through the recess 25 in the switch rail 14. The pins 27 and 28 are provided with enlarged heads at their outer ends so as to secure the switch point 31 from disengagement with the switch rail 14. From this construction, it will be apparent that the switch point 31 is capable

of a sliding movement longitudinally of the switch rail 14 and this movement of said switch point in one direction will position the latter so as to open the switch, while the
 5 movement thereof in the opposite direction will serve to close the switch. In order to effect the sliding movement of the switch point 21 simultaneously with the pivotal
 10 movement of the frog 17 the ear 32 is connected to the arm 22 of the angle lever by means of a link 33 so that when the pivoted frog is moved into engagement with the switch rail 14, the switch point 31 will be
 15 slid longitudinally of said switch rail to a position for closing the switch, while the opposite movement of said frog will shift the switch point to a position that will effect the opening of the switch.

What is claimed is:—

20 In a railway switch, a main track, a siding, switch rails directed respectively to one of the rails of the siding and one of the rails of the main track, a frog pivotally mounted between the ends of the switch rail and ends
 25 of the siding and main track to which said

switch rails are directed and adapted to be moved into engagement selectively at its free end with said switch rails to form continuous rail lines, means for moving said frog on its pivot, a switch point slidably
 30 mounted on the switch rail directed to the siding for movement longitudinally of said switch rail and controlling entrance to the siding from the main track, connections between said switch point and frog whereby
 35 the movement of the free end of the latter into engagement with the switch rail directed to the siding will move said switch point to open the switch and the movement
 40 of the free end of said frog into engagement with the switch rail directed to the main track will move said switch point to close the switch.

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

FRANK CHAMNESS.

Witnesses:

Z. T. DUNGAN,
 BLANCHE CAIN.

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