

A. & C. HEIM.
RAILWAY SWITCH.
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949,120.

Patented Feb. 15, 1910.

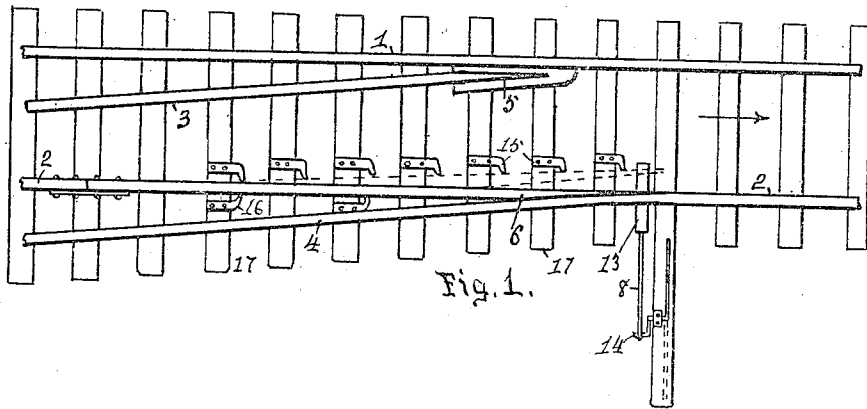


Fig. 1.

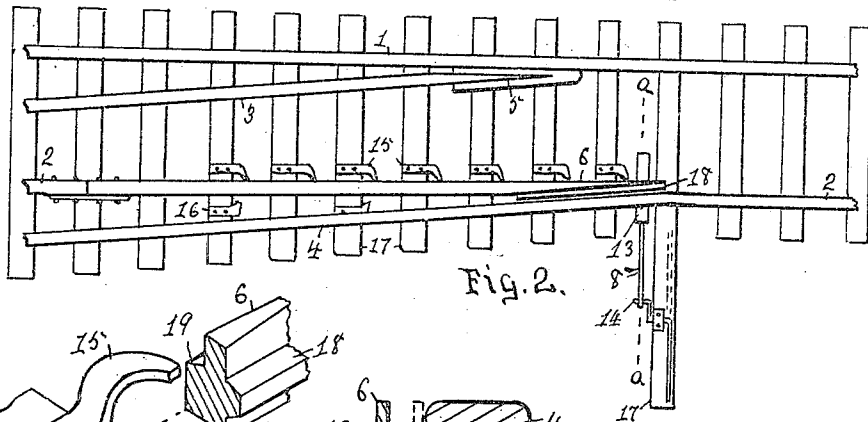


Fig. 2.

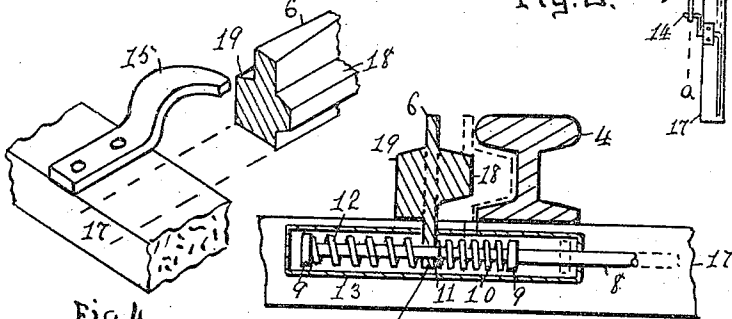


Fig. 3.

Fig. 4.

Witnesses.

Geo. Allendorf.
Samuel S. Carr.

Inventors.

Adam Heim and
Court Heim.
By Robert S. Carr, Atty.

UNITED STATES PATENT OFFICE.

ADAM HEIM, OF CONNERSVILLE, AND COURT HEIM, OF BROWNSVILLE, INDIANA.

RAILWAY-SWITCH.

949,120.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, ADAM HEIM and COURT HEIM, citizens of the United States, residing, respectively, at Connerville and Browns-
ville, Indiana, have invented a new and useful Improvement in Railway-Switches, of which the following is a specification.

Our invention relates to railway switches and the objects of our improvements are to provide a stationary tongue and a movable tongue arranged to be automatically actuated by a train moving in a direction from its heel toward its point; to maintain the movable tongue in the closed position and in contact with the contiguous rail when the main track is open for preventing accumulated dirt or ice from interfering with its action; to arrange the tongue stops in such manner that they may be self cleaning; to utilize the movable tongue for a guard rail for the stationary tongue, and to provide simple and durable construction and assemblage of parts especially adapted for facility of operation and efficiency of action. These objects are attained in the following described manner as illustrated in the accompanying drawings, in which:—

Figure 1 represents a plan of a railway switch embodying our improvements, and showing the main track open; Fig. 2, a plan showing the side track open; Fig. 3, a transverse section on the line *a—*a** of Fig. 2; and Fig. 4, a stop for the movable tongue.

In the drawings, 1 and 2 represent the rails of the main track having its eastern direction indicated by the arrow, and 3 and 4 the rails of the side track. One end of rail 3 terminates in a tapered tongue 5 which is fixedly secured a short distance from and parallel with rail 1, as shown in Fig. 1. Rail 2 terminates in a tapered tongue 6 a short distance east beyond the end of tongue 5 and is movable laterally into and out of contact with the inside of rail 4 at its junction with the main track. A lug 7 depends below the tongue 6 near its point and a rod 8 provided with collars 9 is loosely inserted through a hole 11 therein. Similar compression springs 10 and 12 are mounted on said rod on opposite sides of said lug and each in contact at one end with the respective collars. A tube 13 serves to inclose and protect the springs from dirt or ice. A crank lever 14 mounted at a fixed point serves to move and maintain the rod longi-

tudinally in opposite predetermined positions. Stops 15 for limiting the opening movement of tongue 6 and stops 16 for limiting its movement in a direction from the rail 1 are secured in fixed positions on the ties 17 and extended some distance from one side thereof that their points of contact with the said tongue may not be interfered with by any accumulation of ice or dirt on the ties. The tapering portion of the movable tongue is provided on one side with a projecting rib 18 for the purpose of increasing its strength and for fitting within the adjacent channel of rail 2 when the tongue is closed and in contact therewith. Said tongue may also be further strengthened by a rib 19 on its opposite side if desired.

In operation, the movable tongue may be actuated by the lever mechanism to open the switch for the passage of a train from the main to the side track when the yielding of spring 10 will permit a train to go east on the main track without injuring said tongue. When the switch is closed, the yielding of spring 12 permits a train to pass from the side track to the main track when said spring instantly moves and maintains said tongue in the closed position with the main track open. After a train on the side track has been passed by a train on the main track, it may instantly run out on the main track and take its course in either direction without the loss of time for either opening or closing the switch. The extension of the movable tongue a short distance beyond the point of the stationary tongue permits its thicker intermediate portion to serve as a guard rail for the stationary tongue.

Having fully described our improvements, what we claim as our invention and desire to secure by Letters Patent of the United States is:—

1. A railway switch comprising a stationary tongue, a movable tongue arranged with its intermediate portion opposite the point of the stationary tongue for serving as a guard rail therefor, and laterally projecting stops mounted at fixed points on the ties for limiting the movement of the movable tongue in respective opposite directions and adapted to prevent the interference of ice or dirt between the contact points thereof and the movable tongue.

2. A railway switch comprising a stationary tongue, a movable tongue terminating beyond a point opposite the point there-

of, means for moving and yieldingly maintaining the movable tongue in either of opposite predetermined lateral positions, and laterally projecting stops secured on the ties
5 for contacting with the movable tongue and arranged to prevent the interference of ice or dirt between the points thereof and the movable tongue.

10 3. A railway switch comprising a movable tongue, stops therefor mounted at fixed points on the ties and projecting laterally therefrom to prevent the interference of ice or dirt between the contact points thereof and the movable tongue.

15 4. A railway switch comprising a tapered movable tongue provided with a longitudi-

nal rib on one side of its tapered portion, means for moving and yieldingly maintaining said tongue with the rib within the side channel of the adjacent rail, and a stop for
20 limiting the lateral movement of said tongue in the opposite direction, said stop being secured at a fixed point on one of the ties and projecting laterally therefrom for preventing ice or dirt from interfering with the
25 tongue properly contacting with the point thereof.

ADAM HEIM.
COURT HEIM.

Witnesses:

ALLEN WILES,
RAYMOND SPRINGER.