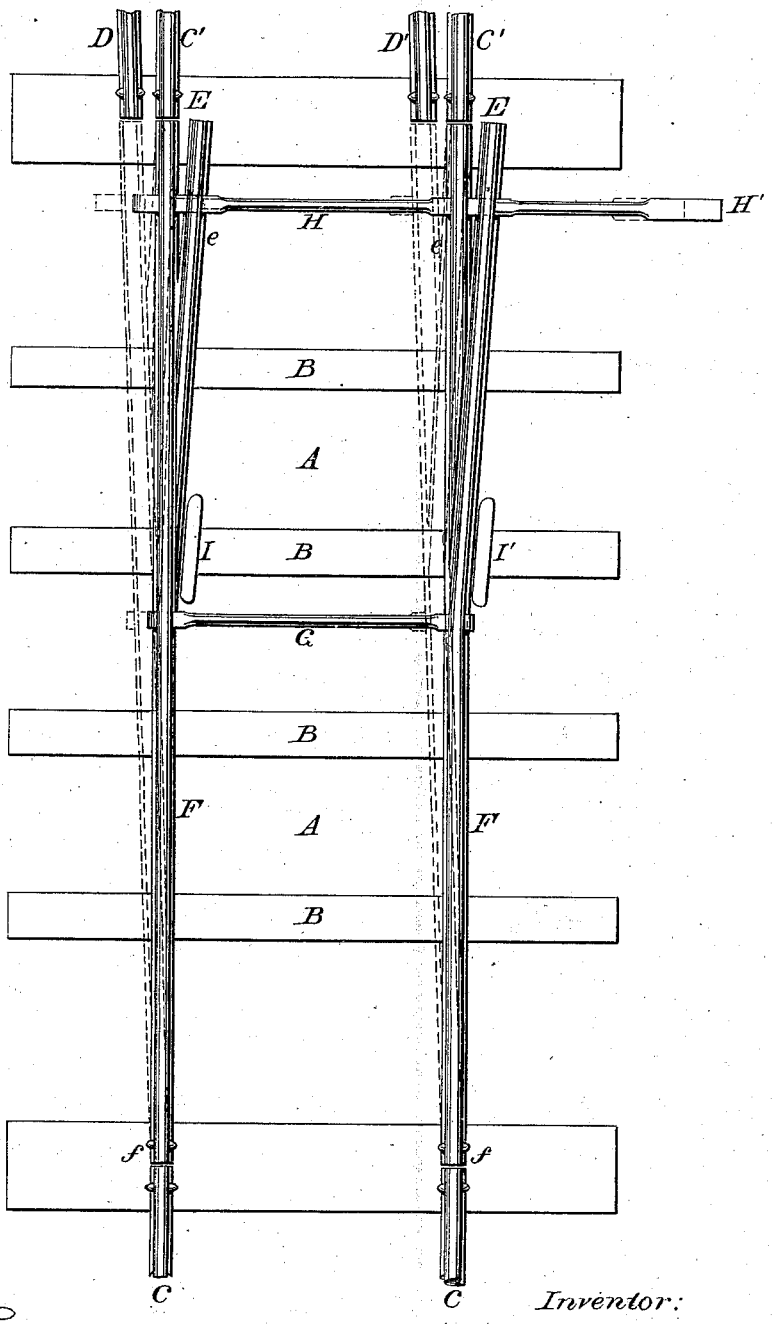
T. ALEXANDER & W. DUNN.

RAILWAY SWITCH.

No. 187,578. Patented Feb. 20, 1877.



Attest:

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UNITED STATES PATENT OFFICE.

THOMAS ALEXANDER AND WILLIAM DUNN, OF ST. MARY'S, ONTARIO, CANADA.

IMPROVEMENT IN RAILWAY-SWITCHES.

Specification forming part of Letters Patent No. 187,578, dated February 20, 1877; application filed March 25, 1876.

To all whom it may concern:

Be it known that we, THOMAS ALEXANDER and WILLIAM DUNN, both of St. Mary's, in the county of Perth, in the Province of Ontario and Dominion of Canada, have invented certain new and useful Improvements in Railway-Switches; and we do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to made and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification.

The object of this invention is to construct a switch that will permit of the main or through line of rail always remaining closed, even while a train is being switched off the main line onto a siding; and it consists in the combination of the ordinary frog-switch with a pivoted rail attachment, in the manner hereinafter more fully described, and pointed out in the claim.

In the drawing, A is the road-bed, and B are the sleepers. C′ C′ denote the rails of the through or main line, and D D′ those of the siding. The switch (denoted by E) consists of frogs *e*, which slide sidewise upon the sleepers or cross-ties B. The frogs *e* terminate at their points in short rail attachments F, which are pivoted at *f* to the cross-tie B, opposite to the termination of the rails of the main line C, as shown. G is the cross-bar uniting the rail attachments F F to the frogs *e e*, and H is a similar bar uniting the forked ends of the frogs *e e*. Bar H is operated by means of an arm, H′, by a switch-lever, in the usual manner. Affixed to the cross-ties, opposite to each point of the frogs *e e*, are safety-blocks I, so arranged that when the main line is closed the point of the frog will lie close against the block, thus preventing the train from getting off that branch of the frog which leads to the main line. When the switch is thrown so as to switch off a train onto the siding, (as shown in the dotted line in the drawing,) a space is formed between the point of each frog and the safety-block I sufficient to allow the flange of the wheel to pass.

From the foregoing description the operation and advantages of our improved switch will be readily understood.

When the switch is thrown to run a train onto the siding, as shown in the dotted line, the main line remains closed, so that there is no possibility of the train running off the track. With the old style of switch the operation of switching one of the trains onto the siding leaves the main line open, thus endangering the through trains; but with our improved switch, which forms at all times a continuous line of rail, the main line will always remain closed, so that a through train may pass on after a way train has been switched off, and before there has been time to readjust the switch.

Having thus described our invention, we claim and desire to secure by Letters Patent of the United States—

The main rails C C, frogs *e e*, having single-rail attachments F F, safety-blocks I, rails C′ C′, and siding-rails D D′, all combined and arranged to operate substantially in the manner and for the purpose shown and specified.

In testimony that we claim the foregoing as our own we have hereunto affixed our signatures in presence of two witnesses.

THOMAS ALEXANDER.
WILLIAM DUNN.

Witnesses:
GEORGE H. MACFARLANE,
JAS. COLEMAN.