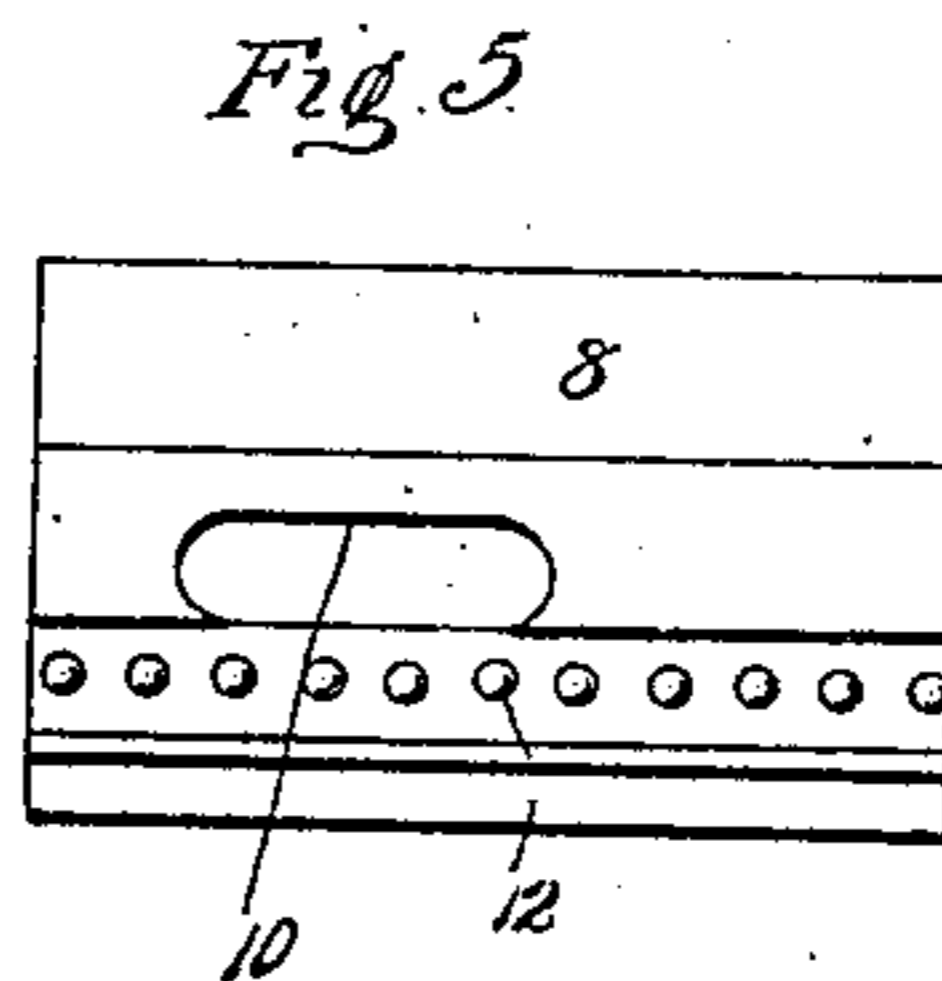


RAILWAY SWITCH.  
APPLICATION FILED FEB. 4, 1909.

Patented Apr. 27, 1909.



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# UNITED STATES PATENT OFFICE.

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## RAILWAY-SWITCH.

No. 919,692.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed February 4, 1909. Serial No. 476,122.

*To all whom it may concern:*

Be it known that we, ANDREW CASALE and WOLCOTT PARTELLO, citizens of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Railway-Switches; and we do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a broken plan view of a switch constructed in accordance with our invention. Fig. 2 a view in vertical transverse section on the line *a—b* of Fig. 1. Fig. 3 a sectional view on the line *c—d* of Fig. 1, showing how the guard-rail prevents the flanges of the engine and car wheels from coming in contact with the switch-point. Fig. 4 a detached plan view of the adjustable fillers interposed between the main rail and the guard rail. Fig. 5 a detached view in inside elevation of one of these fillers.

Our invention relates to an improvement in railway switches, the object being to provide simple, durable, convenient and reliable means for preventing the switch points from being worn by the flanges of the engine and car wheels.

With these ends in view our invention consists in a switch-point guard located alongside and higher than the main rail whose co-acting switch-point it protects, and in certain other parts as will be hereinafter described and pointed out in the claim.

In carrying out our invention as herein shown, we employ a switch-point guard in the form of a rail 2 having the cross-sectional form of the main track rails 3 and 4 but higher than the same. It is not necessary that the guard shall assume the form of a rail, but that is our preferred construction. The said guard-rail 2 which is longitudinally bowed, is mounted in brace-chairs 5 secured by spikes 6 to the ordinary cross-ties 7 and arranged along the outside of the main rail 3. In this connection we may say that the guard will be located alongside one or the other of the two main rails according to the requirements of each individual use of it, only one guard being required for each switch. As herein shown the guard rail 2 is connected with the main rail 3 by two wedge-shaped fillers 8, 9, formed with longitudinal slots 10

for the reception of a bolt 11 which binds the guard-rail 2, main rail 3 and the fillers 8 and 9 together. These fillers are prevented from moving with respect to each other by the provision of one with a series of locking points 12 entering a corresponding series of pockets 13 in the other. The slots 10 permit the fillers to be adjusted within the limits prescribed by the length of the slots so as to enable the guard-rail 2 to be properly set as to distance with respect to the main rail 3. On this point we may now say that the guard-rail 2 will be set with respect to the main rail 3 so that when the inner edge of the guard-rail is engaged at the point 14 by the outer face of the engine or car wheel 15 indicated by broken lines in Fig. 3, the flange 16 of the wheel 15 will be held out of contact with the switch-point 17 which lies along the inner edge of the main rail 3. In this way the engine and car wheels are prevented by the action of the guard-rail from wearing out the switch-point 17.

As herein shown the switch proper consists of the switch-point 17 and a corresponding switch-point 18, these two points being connected by a tie-bar 19 and a head-rod 20 which latter is provided at both ends with extensions 21 which are connected in any suitable manner with any suitable switch-stand or equivalent mechanism for the operation of the switch-points, the construction of the switch proper and the switch-moving mechanism forming no part of our present invention. It will be understood that in case of any wear of the inner edge of the guard-rail 2, its chairs 5 may be reset on the cross-ties 7 and the fillers 8 and 9 adjusted correspondingly so as to bring the rail closer to the main rail 3.

By the means of our improved construction the switch-point 17 is protected against being crushed and worn by the flanges of the engine and car wheels and its life correspondingly prolonged. It is obvious of course that any protection of the switch-point heightens the efficiency of the switch mechanism and so contributes to the safety of all trains.

We claim:—

In a switch, the combination with a main-rail, of a switch-point located adjacent to the inner edge thereof, a switch-point guard-rail higher than the main-rail and extending alongside the outer edge thereof, two wedge-shaped fillers interposed between the main-

10 rail and the switch-guard-rail and having  
their inclined inner face adapted to be inter-  
locked in any position of adjustment in which  
they may be placed, and both of the said  
5 blocks being formed with longitudinal slots,  
and a bolt passing through the slots of the  
said fillers and through the main and guard  
rails for securing the same and the fillers  
solidly together, whereby the flanges of the  
10 engine and car-wheels are held by the said  
switch-point guard-rail out of contact with

the switch-point, and whereby the guard-rail may be adjusted with respect to the main-rail to compensate for wear.

In testimony whereof, we have signed this 15  
specification in the presence of two sub-  
scribing witnesses.

ANDREW CASALE.  
WOLCOTT PARTELLO.

Witnesses:

GEORGE DUDLEY SEYMOUR,  
CLARA L. WEED.