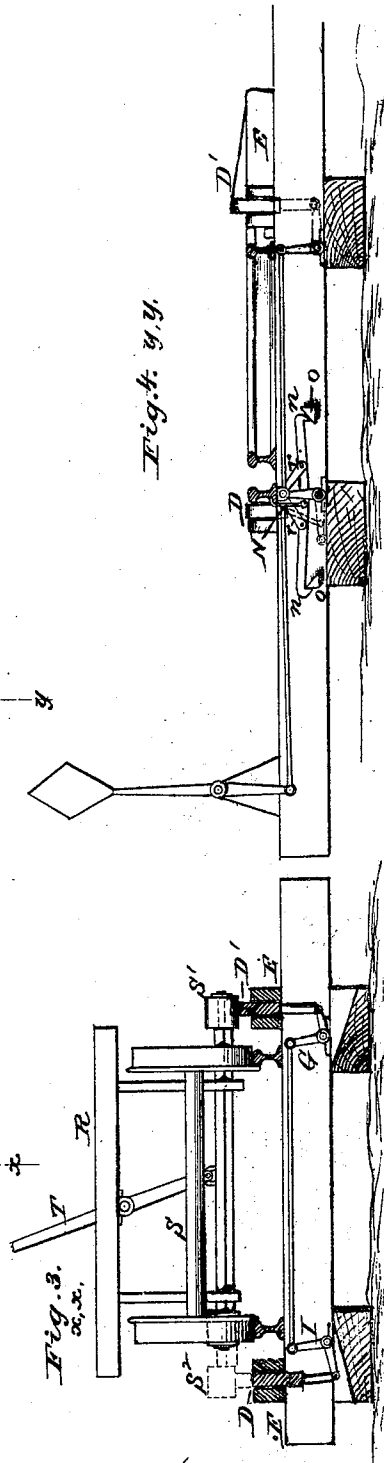
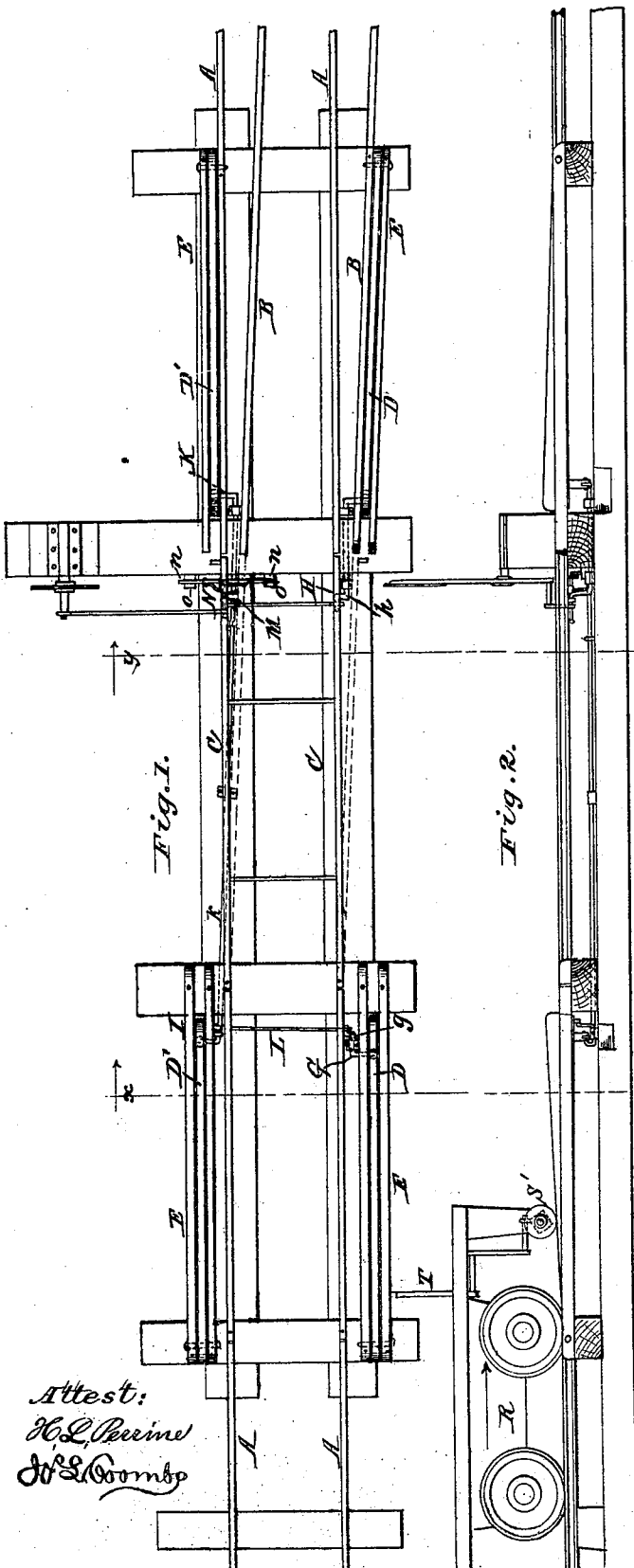


W. A. WEANT.
RAILROAD-SWITCH.

No. 171,892.

Patented Jan. 4, 1876.



Attest:
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UNITED STATES PATENT OFFICE

WILLIAM A. WEANT, OF SALISBURY, NORTH CAROLINA.

IMPROVEMENT IN RAILROAD-SWITCHES.

Specification forming part of Letters Patent No. **171,892**, dated January 4, 1876; application filed September 29, 1875.

To all whom it may concern:

Be it known that I, WILLIAM A. WEANT, of Salisbury, in the county of Rowan and State of North Carolina, have invented certain new and useful Improvements in Railroad-Switches, of which the following is a specification:

The object of this invention is to provide a simple and effective means by which the engineer, brakeman, or other employé upon a train of cars can shift the movable switch-rails of the track while the car is in motion, and thus avoid accidents in case the switch is not properly set by the switch-tender.

The invention relates to that class of switches in which movable plates are used, which are connected with mechanism for shifting the switch-rails.

In the drawings, Figure 1 represents a plan view of my improvement in railroad-switches; Fig. 2, a side elevation thereof; Fig. 3, a transverse section on the line *x x*, and Fig. 4 a transverse section on the line *y y*, of Figs. 1 and 2.

The letter A represents the main rails of the track, and B the side or turn-out rails, and C the switch-rails, which are located between the main rails in the ordinary manner. At each end of the movable switch-section, on opposite sides of the track, are located the movable plates D D', which are pivoted at one end between the short rails E E, secured to the sleepers or road-bed, and at the other connected to the levers by which the switch-rails are shifted. Four of these levers are employed, and are indicated by the letters G H I K, the levers G and H being mounted upon or formed on the ends of the separate rock-shafts *g h*, while the levers I and K are mounted on a common rock-shaft, *k*, pivoted to the road-bed or sleepers. The levers G and I are connected together by means of a link, L, and the lever H to a lever or arm, M, secured to the rock-shaft *k*, in such manner that when the plates on one side of the track are depressed the switch-rails will be thrown in connection with the main rails, and the opposite plates will be elevated, and when the last-mentioned plates are depressed the switch-rails will be thrown in connection with the side rails, and the opposite plates elevated. The arm or lever M is secured to one rail of the movable

switch-section, and the switch-rod, by which the rails are shifted by hand, is also attached to said lever. The letter N represents an automatic locking attachment, secured to one end of the movable switch-section, consisting of two hooked levers, *n n*, pivoted together at their ends, and attached to the wrist-pin of the cranks K' by links *r r*, so as to be raised in advance of the shifting of the switch-rails, and adapted to catch over or engage upon the studs or projections O, secured to the sleeper upon which the ends of the switch-rails rest. The letter R represents an engine or car of ordinary construction, provided with two wheels or friction-rollers, S¹ S², mounted upon a movable shaft, S, which is capable of being shifted laterally in such manner that the wheels may be brought over either of the plates D, as may be desired. The said movable shaft may be located at the front or rear of the car or locomotive, or in any other desired position, and may be operated by means of a lever, T, or in any other convenient manner. The movable plate D', which adjoins that portion of the main track A opposite the movable end of the switch-section of rails, sets closely against the main rail, in such manner as to fall under the tread of the wheels of the train entitled to the main track, so as to shift the switch-rails to proper position automatically, if they should accidentally be left in the wrong position. Instead of sitting closely to the main rail, however, the said plate may be set to one side in the same manner as the other plates, so that the whole may be shifted from trains approaching in either direction by the engineer or other employé.

The operation of my invention will be readily understood from the foregoing description. The switch-rails being in connection with the main rails, as indicated in Fig. 1, will leave the plates D D' elevated, ready for the action of the wheel S², which is under control of the engineer or other appointed person upon the train entitled to the side track. Upon seeing that the switch-rails are not in proper position he can readily shift them. As the plates on one side are depressed those on the opposite side are elevated, so as to be in position to be acted on when it is desired to shift the rails again.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In combination with the movable switch-rails and mechanism for operating the same, the locking device consisting of two hooks pivoted together at their ends, and attached to the wrist-pin of the crank K' on the rock-shaft K by the links *r r*, so as to be lifted in advance of the shifting of the rails, said hooks being adapted to catch over suitable lugs on

the sleeper of the track and secure the switch-rails against accidental shifting, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

W. A. WEANT.

Witnesses:

JOS. L. COOMBS,
A. H. NORRIS.