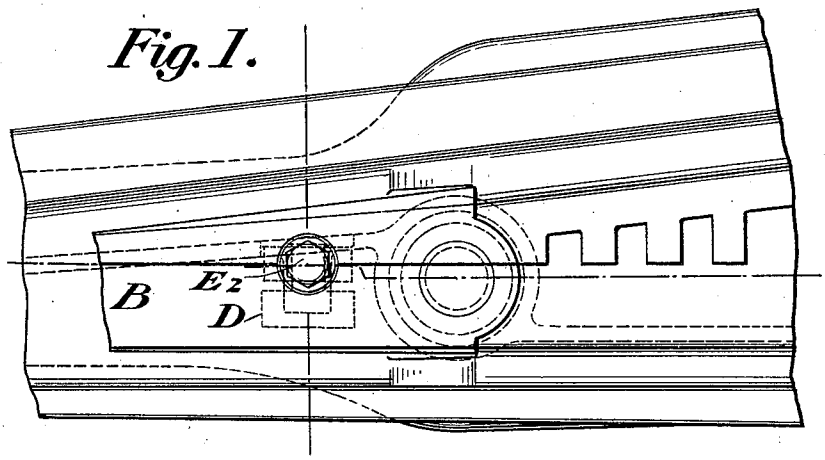
(No Model.)

G. M. ERVIN.

RAILWAY SWITCH.

No. 588,410. Patented Aug. 17, 1897.

Fig. 1.



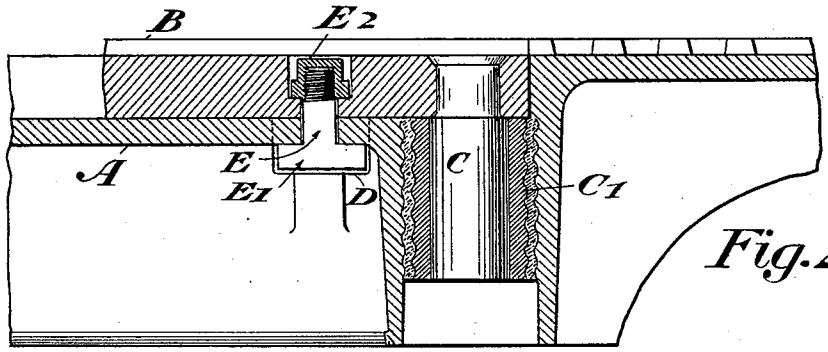


Fig. 2.

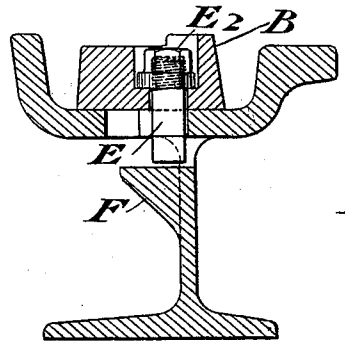


Fig. 3.

WITNESSES:
M. E. Sharpe
H. C. Stitt

INVENTOR
George M. Ervin
BY
Richard Lyon
ATTORNEY.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE M. ERVIN, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR TO THE JOHNSON COMPANY, OF LORAIN, OHIO.

RAILWAY-SWITCH.

SPECIFICATION forming part of Letters Patent No. 588,410, dated August 17, 1897.

Application filed May 6, 1897. Serial No. 635,432. (No model.)

To all whom it may concern:

Be it known that I, GEORGE M. ERVIN, of Johnstown, Cambria county, Pennsylvania, have invented certain new and useful Improvements in Railway-Switches, of which the following is a specification.

My invention relates to tongue-switches, and especially to the means employed for holding down the tongue of the switch.

Tongue-switch fastenings are of many types, but have always hitherto been placed back of the pivotal point of the tongue. This has serious objections, because a more or less complicated structure is caused, and a good splice between the switch structure and the contiguous rails is often made difficult because of the space occupied by the fastening. Another very serious objection to this means of securing the tongue, and an objection which I have had especially in mind to remove by my invention, is that when a car is passing through a switch and the front wheels of the car have passed the pivotal point their pressure upon the heel of the tongue raises the point of the tongue. When these wheels pass off the heel and the point again drops, the tongue may have changed its position so that the rear wheels of the car would then be guided to a different track from the one which the front wheels took.

My invention consists in placing the tongue-fastening between the point of the tongue and the pivot, preferably near the latter, and by this means I avoid the difficulties already set forth.

My invention further consists in the novel construction, arrangement, and combination of parts of my improved tongue-fastening.

Referring to the drawings, Figure 1 is a plan view of portions of a switch embodying my invention. Fig. 2 is a longitudinal section thereof, and Fig. 3 is a cross-section.

Upon the floor A of the switch structure rests the tongue B, which is pivoted at C in a suitable bearing C'. Through the floor A is formed the opening D, through which passes the bolt E, having an enlarged head E', which engages the under side of the floor. The upper end of the bolt is engaged by a nut E^2, the tongue B being recessed to receive this nut. The bolt is placed in position by passing the head of the bolt downward through the enlarged end of the opening and then sliding it to one side, so that the head will be under the narrow portion of the opening. The tongue can then be placed in position and the nut screwed upon the bolt.

A ledge F is formed on the switch structure just below the opening D to prevent the bolt from falling when the nut is removed.

In operation the fastening moves in the narrow end of the opening D as the tongue is moved from side to side.

As no space is occupied back of the pivotal point, it is evident that a splice-bar may be used as close to the heel of the tongue as may be desired. It is also clear that there can be no rocking of the tongue, nor can there be any "kicking" of the point thereof.

I do not desire to be limited to the exact details herein shown and described, for modifications may be made therein without departing outside the scope of my invention.

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

In a railway-switch, the combination with a base structure having a floor portion through which is an opening consisting of a narrow portion and a wide portion, a shelf beneath said opening, a bolt having a head adapted to be dropped through said wide portion of the opening, a movable switch member having a passage for the bolt and a seat for a nut, and a nut engaging said bolt.

In testimony whereof I have affixed my signature in presence of two witnesses.

GEO. M. ERVIN.

Witnesses:
H. W. SMITH,
GEO. P. SUPPES.