E. MERCIER.

Improvement in Railway-Switches.

No. 128,413. Patented June 25, 1872.

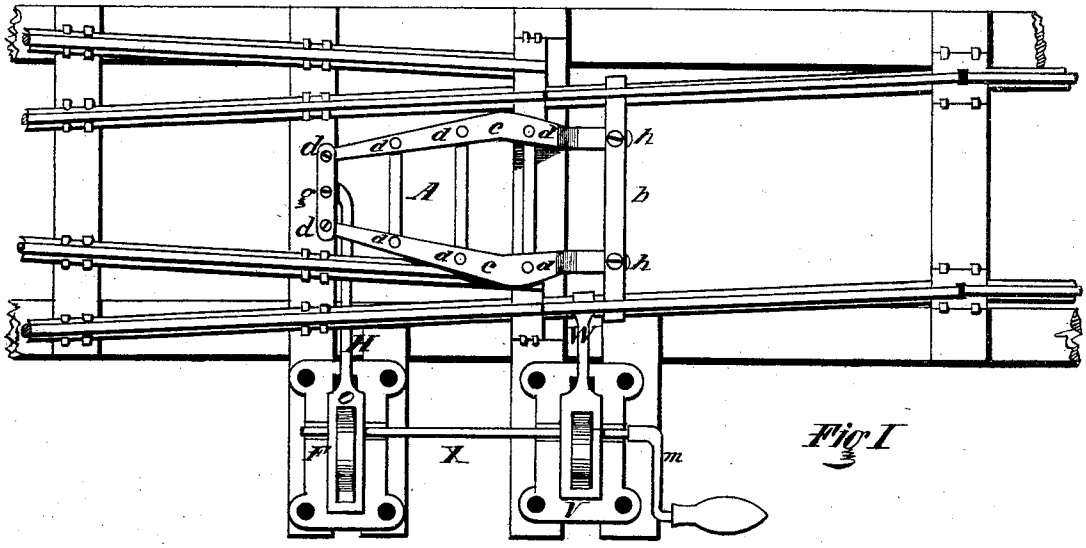

Fig. I

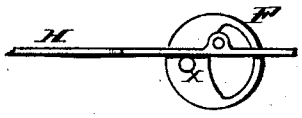

Fig. II

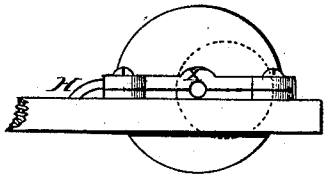

Fig. III

Witnesses.

Romulus Lee

E. Dudley Chapin

Inventor.

Edward Mercier
by his Attorneys
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UNITED STATES PATENT OFFICE.

EDWARD MERCIER, OF SPRINGFIELD, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO WILLIAM A. LITTLE AND A. J. STANTON, OF HUNTINGTON, MASS.

IMPROVEMENT IN RAILWAY SWITCHES.

Specification forming part of Letters Patent No. 128,413, dated June 25, 1872.

To all whom it may concern:

Be it known that I, EDWARD MERCIER, of Springfield, Hampden county, State of Massachusetts, have invented certain Improvements in "Self-Operating Railroad Switches," of which the following is a specification:

My invention relates more particularly to certain improvements upon the self-operating switch for which a patent was granted me November 7, 1871, No. 120,592; and consists, first, in the improved construction of the metallic frame attached to the switch; and, secondly, in an addition to the crank operated by the smaller end of the frame and its connecting-rod, by which, acting in connection, much friction is saved, and the efficiency of the switch increased.

A is the frame, which, instead of bracing rigidly by its ends and cross-pieces, I hinge to its base *b* at *h h*, and also the end *g* and the braces running parallel thereto to the sides *c c* of the frame at *d d d*, &c., as seen in Figure I, the advantage of which construction is, the flange of the car-wheel, pushing the frame from it, swings it for a certain distance upon the pivots *h h*, which distance is sufficient to permit the eccentric V to have been started by the crank F and its connections from its dead-point before any movement of the base of the frame A can, through the rod W, act as a brake on the locked eccentric V to more or less hinder its starting. The crank F I surround by the eccentric surface, as seen in Fig. II, to work in slot *o* of rod H to simultaneously throw, with the eccentric V, both ends of the frame when the switch is operated from the direction of and by the handle *m*, when the crank would be inoperative, and when, consequently, the smaller end *g* would have to be dragged into position by the base *b* at a loss of leverage, and, from the position in which the power would act, at an augmentation of friction.

What I claim is—

1. The frame A, constructed and hinged substantially as shown and described, whereby the motion imparted to its end *g* and base *b* by the car-wheel is not simultaneous.

2. In combination with the eccentric V and with the rod X with its handle *m*, the eccentric F, for the purpose of enabling both ends of the frame, by means of the connections H and W, to be together moved to position.

EDWARD MERCIER.

Witnesses:

R. F. HYDE,

STEPHEN E. SEYMOUR.