

(No Model.)

W. B. MACK.

SWITCH FOR THREE RAIL RAILWAYS.

No. 361,428.

Patented Apr. 19, 1887.

Fig: 1.

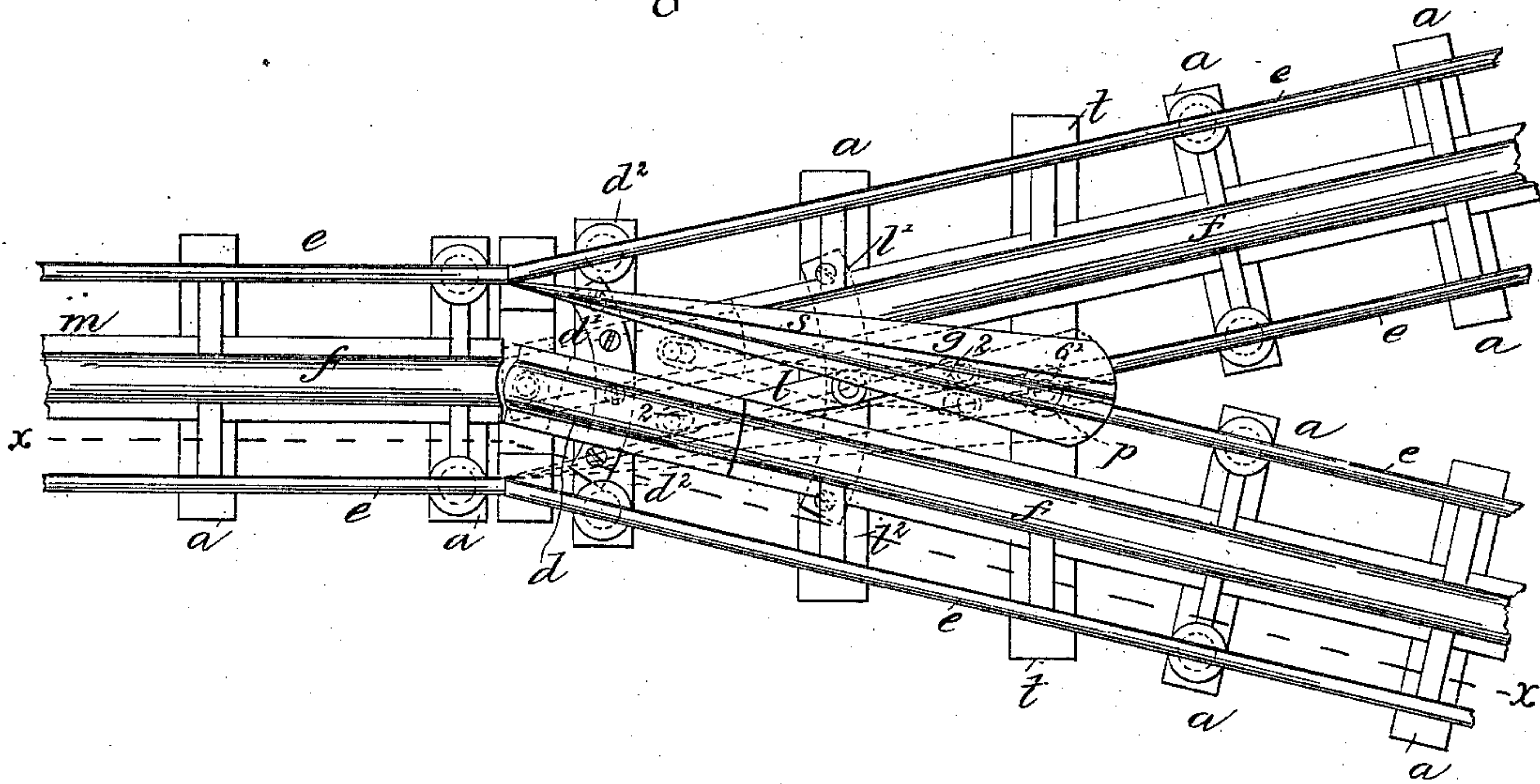
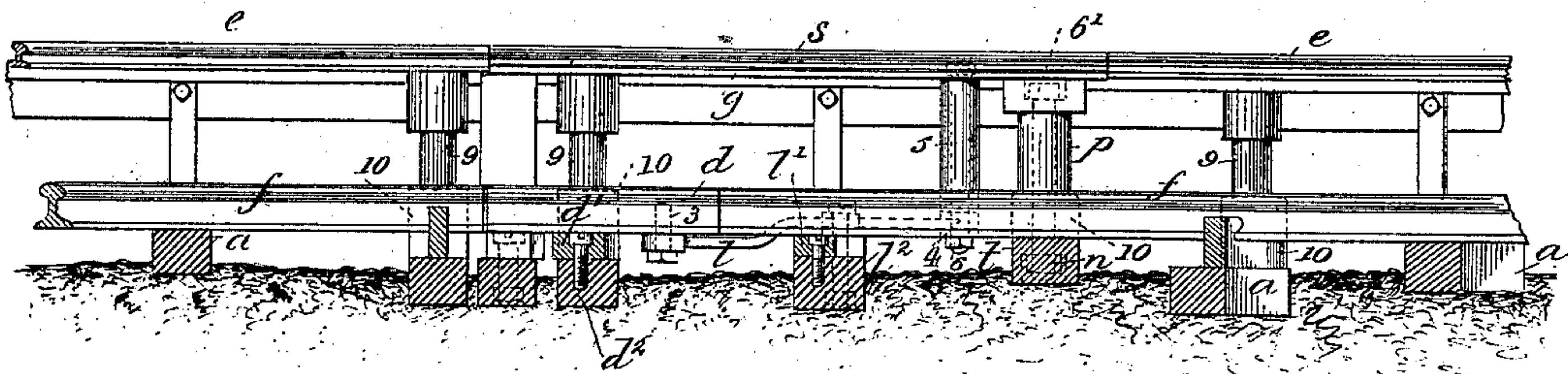


Fig: 2.



Witnesses;
John A. Rennie,
John G. Long.

Inventor,
W. B. Mack
by night Brown Crossley
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM B. MACK, OF BOSTON, MASSACHUSETTS.

SWITCH FOR THREE-RAIL RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 361,428, dated April 19, 1887.

Application filed August 7, 1886. Serial No. 210,318. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. MACK, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and
5 useful Improvements in Switches for Three-Rail Railways, of which the following is a specification.

My invention relates to railroad switches employed to direct cars from one line to another, which, although shown in the drawings as applied to a surface railroad, may be used in connection with my improved system of elevated railroads having three separate rails, a description of which will appear in my applications for patents duly filed in the Patent
15 Office on the 26th of December, 1885, Serial No. 186,739, and on the 17th of February, 1886, Serial No. 192,169, to which reference may be had.

20 The features of my invention will be fully described hereinafter, and pointed out in the claims at the end of this specification.

In the drawings hereto annexed and forming a part of this specification, Figure 1 represents a plan view of a portion of a main track and two diverging tracks with my improvements applied thereto. Fig. 2 represents a section of Fig. 1 on the dotted line *x x*.

Similar letters of reference indicate corresponding parts in both figures of the drawings.

30 *a a* represent a series of sleepers or cross-ties, which rest, as usual, upon the ground or railroad-bed, having attached to them, in any convenient or desired manner, the center lower
35 rail, *f*.

The side rails, *e e*, placed at each side of and somewhat higher than the center rail, *f*, their supports, and the manner in which the same are braced and held in place firmly with relation to each other and to the center lower rail, *f*, are substantially as shown and described in my applications above referred to. The details, therefore, of their construction I have deemed it unnecessary to enter into in this
45 present application. In the drawings, however, the center rail, *f*, and the sockets 10 10, which sustain and support the lower extremities of the pillars 9 9, instead of resting on uprights or columns, as in my application above
50 referred to, are shown as resting upon the sleepers or cross-ties *a a*, to which they may

be securely fastened in any usual or convenient manner.

At the point where the rails *e e* diverge or separate from the main track *m*, I construct a
55 swinging gate or platform, *g*, upon which the switch-rail *s* is secured, the said swinging gate or platform in practice being preferably supported upon a hollow pillar or upright, *p*, being held in place thereon by a bolt, 6'. The
60 bolt 6', having an enlarged head which rests upon or may be countersunk in the gate or platform *g*, has its shank extended down through the hollow pillar or upright *p* and sleeper or cross-tie *t*, the end of the said bolt
65 being threaded to receive upon it a nut, *n*, which, when tightly adjusted, securely holds the pillar or upright *p* in place upon the sleeper or cross-tie *t*, and forms a pivot-point, upon which the gate or platform *g* may be swung
70 from one side to the other, as shown in full and dotted lines in Fig. 1, to direct the cars from the main track onto either of the diverging tracks, or vice versa.

At the terminus of the center main rail is
75 pivoted a small section of rail, *d*, which rests upon the sleeper or cross-tie to which it is pivoted, and a metallic plate, *d'*, fastened to the sleeper or cross-tie *d'*. This rail *d* has connected to it, at its outer or free end, a lever, *l*,
80 which is fulcrumed at or near its center to a plate, *l'*, bolted to the sleeper *l'*.

Each end of the lever *l* is provided with a small slot, 2, the slot at the end nearest the rail-section *d* receiving the shank of a screw, 3,
85 which is firmly screwed into the rail-section *d*, and the other slot, at the end nearest the pivot-point of the swinging gate or platform, receiving within it the end of a bolt, 4. This bolt, having its enlarged head resting upon the upper
90 face of the platform or gate *g*, is passed down through an intervening sleeve, 5, and through the slot in the lever *l*, being firmly held there by the nut 6.

It will thus be observed from the above and
95 by reference to the drawings that by swinging the platform or gate from the full-line position, Fig. 1, to the dotted-line position, the end of the lever *l*, connected by the bolt 4 to the gate or platform, will follow with it, causing
100 the opposite end of the said lever to move in an opposite direction, thus moving the rail-

section *d* from the full-line position into the dotted position and placing the rails in position to direct the cars onto the opposite diverging rails.

5 Any of the known systems of levers employed to move switches may be used in connection with my invention, there being such variety that I have not deemed it necessary to show any in the drawings.

10 I claim—

1. The combination, with the single and diverging tracks, each composed of two side rails and a lower center rail, of the pivoted switch-rail adapted to make the side rails of the single track continuous with those of either of the diverging tracks, and a pivoted switch-rail adapted to make the center rails of the main track continuous with the center rail of either of the diverging tracks, as set forth.

2. The combination, with the single and diverging tracks, each composed of two side rails and a lower center rail, of the pivoted switch-rail adapted to make the side rails of the single track continuous with those of either of the diverging tracks, the pivoted switch-rail adapted to make the center rail of the single track continuous with either of the center rails of the diverging tracks, and connections, substantially as described, whereby the two switch-rails are moved simultaneously, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 12th day of July, 1886.

WILLIAM B. MACK.

Witnesses:

C. F. BROWN,

ARTHUR W. CROSSLEY.