

(No Model.)

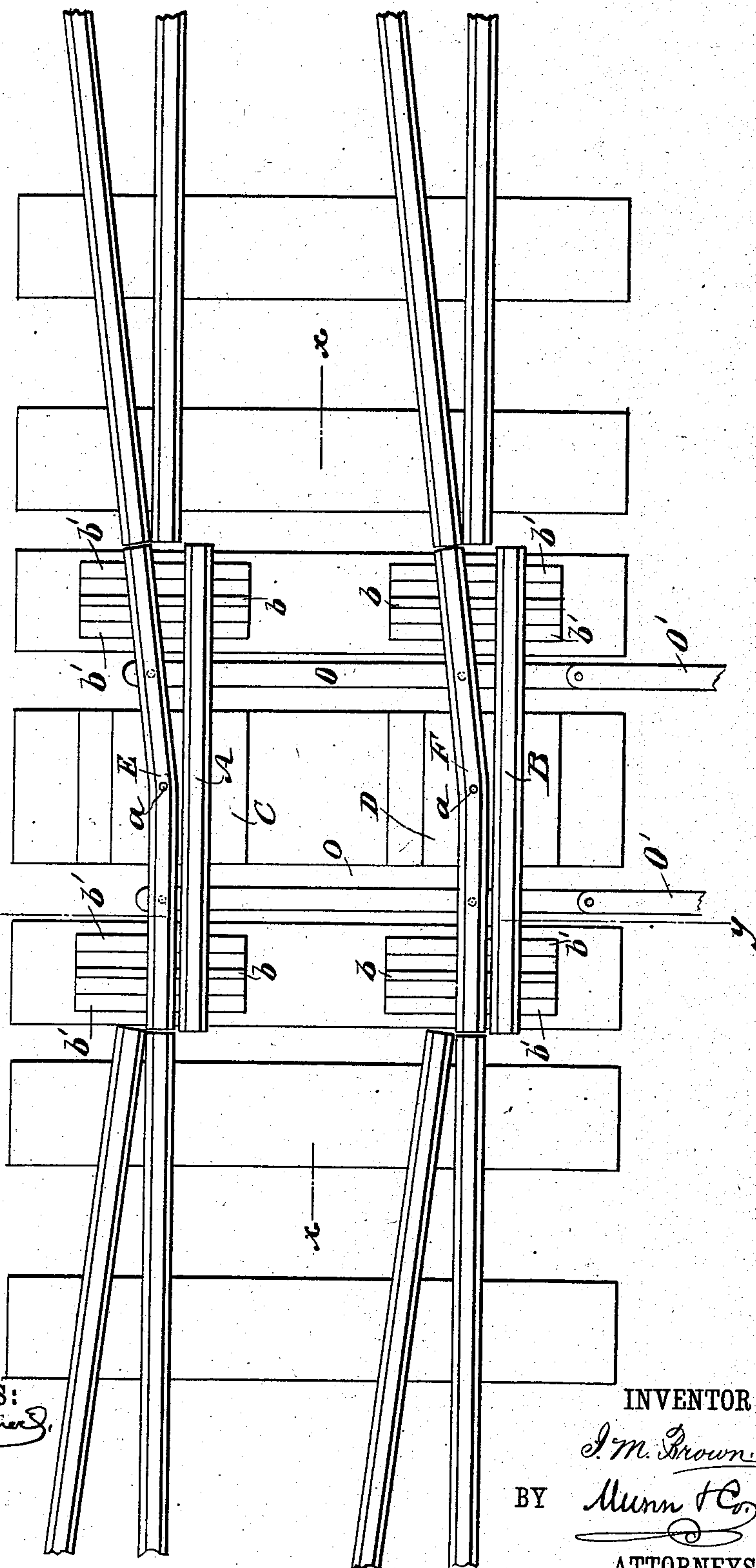
2 Sheets—Sheet 1.

I. M. BROWN.
RAILROAD SWITCH.

No. 380,086.

Patented Mar. 27, 1888.

Fig. 1.



WITNESSES:
John M. Brown
C. Sedgwick

INVENTOR:
I. M. Brown
BY *Munn & Co.*
ATTORNEYS.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

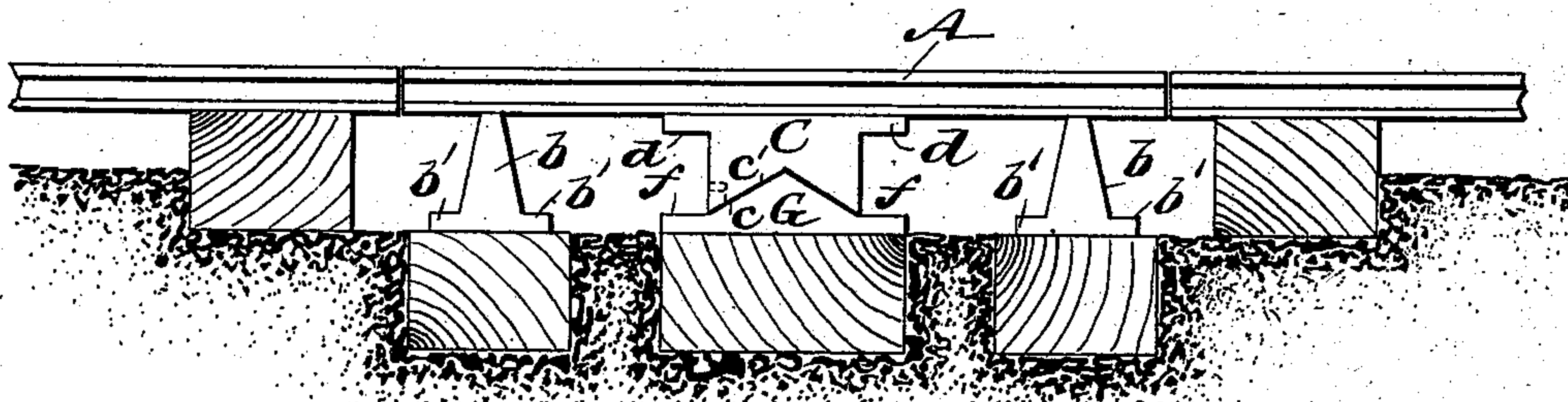
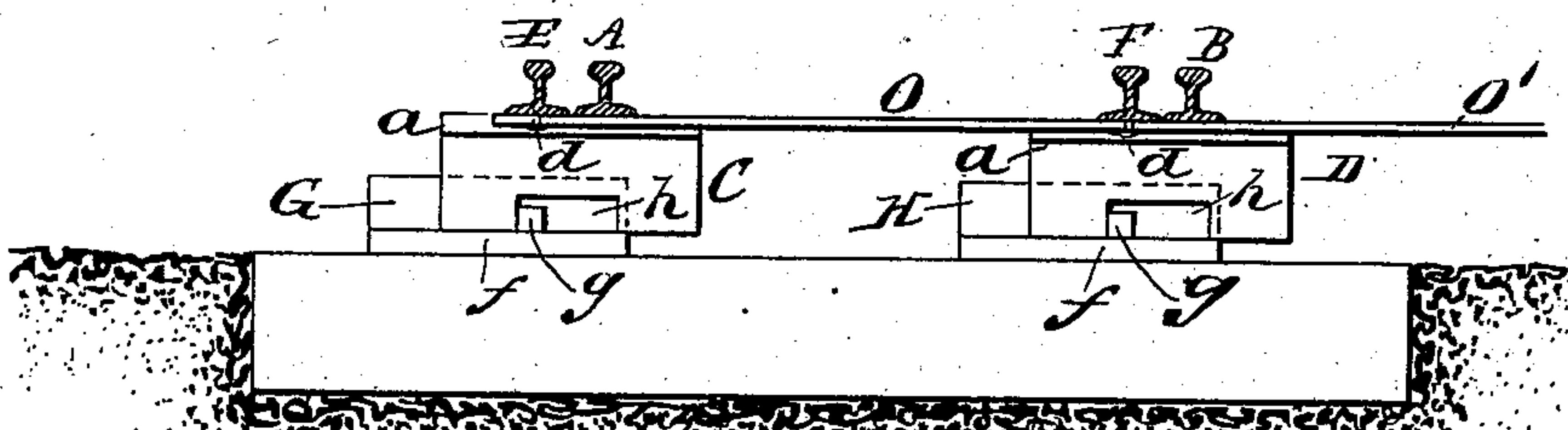


Fig. 3.



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UNITED STATES PATENT OFFICE.

ISAAC M. BROWN, OF COLUMBUS, INDIANA.

RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 380,086, dated March 27, 1888.

Application filed May 7, 1887. Serial No. 237,507. (No model.)

To all whom it may concern:

Be it known that I, ISAAC M. BROWN, of Columbus, in the county of Bartholomew and State of Indiana, have invented a new and Improved Railroad-Switch, of which the following is a full, clear, and exact description.

The object of the improvement is to provide a railway-switch of less length than the switches now in use, thereby reducing the friction that necessarily encumbers the common switch-rails.

Another object is to enable the placing of more tracks (of the required curve or radius) on any given parallel space than can now be done under the present system of switch construction.

These ends being gained, I am enabled to construct a switch-yard that will facilitate the making up of trains and thereby save time and labor; and I greatly avoid the obstruction of streets and alleys in towns and cities, which cannot be done under the present mode of switching, and my new switch cannot be obstructed by heat, cold, snow, sleet, ice, or any other ordinary obstruction, and it is always ready for use and is easily and readily worked at any time desired.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my new railroad-switch. Fig. 2 is a sectional elevation on the line *xx*, Fig. 1; and Fig. 3 is a transverse sectional elevation taken on the line *yy* of Fig. 1.

The two rails *A B* are three feet long, cut from T-rail iron bar, and are the main track-rails or connection, and are securely bolted to the upper section of the V-shaped slides or center rests, *C D*, through flanges *d*, projecting from each side of said center rests. The ends of each rail *A B* rest on chairs *b* on each side of the center rests, *C D*. The rail *A* is inside of the throw-rail *E* and rail *B* is outside of throw-rail *F*. The switch throw or rods *O O'* are on the side opposite to rail *B*.

When a train or car is to be thrown from the main track to the switch-track, the switch is drawn back or forced forward, as the case may be, by the rods *O O'*, attached to levers. (Not shown.) In this manner the rails *E F*

are drawn up so as to take the place of rails *A B*, (parts of the main track,) the ends of rails *E F* fitting up to the ends of rails on the main track and siding. The throw-rails *E F* are graduated on a proper curve or radius to suit the track or curve upon which the train or car is to be switched, either to the right or to the left. A pivot or bolt, *a*, is securely fastened to the upper surface of each of the sliding center rests, *C D*, and passes loosely up into a hole one inch in diameter and two inches deep, drilled from the under side of and in the center of throw-rails *E F*, thus permitting throw-rails *E F* to turn freely back and forth on pivot or bolt *a*, and thus making the ends of throw-rails *E F* adjustable to right or left, as may be desired. The ends of the two throw-rails *E F* are connected to the said rods or bars of iron *O*, of sufficient size and strength, as may be required, and of a length equal to the width of the track, and a bolt is inserted loosely through a hole (one inch in diameter) drilled into each of the bars *O* and securely screwed into the under side of throw-rails *E F* from four to six inches from ends of said throw-rails, so that the bars may turn loosely on said bolts or pivots when moved back and forth, the ends of throw-rails resting upon the chairs *b*, and these chairs *b* are fifteen inches long (more or less) and three inches high, (more or less,) and are made of malleable or cast iron with a smooth parallel surface on top about one inch wide (more or less) and extending the entire length of the chairs, and by preference the chairs *b* are graduated in thickness from one inch at top down wedge shape to three inches of the base, with a flange, *b'*, on each side of the base to admit of spiking the chairs to a cross-tie or other support.

The V-shaped slides or center rests, *C D*, are twelve inches (more or less) long and six inches wide and three inches (more or less) thick, and the groove or channel *c'* is an inch and a quarter (more or less) deep, and these rests are placed upon the lower base-sections, *G H*, which are ribbed or formed with a tongue, *c*, to fit the groove *c'* of the center rests, *C D*, and the lower sections have flanges *f* formed upon them for spiking said sections to the cross-ties or other supports.

The lower edge on either side of the upper

section of the center rests, C D, opposite the rods O is cut out to form a recess, *h*, and on the sides of the lower sections, G H, is secured a guide-pin, *g*, which pins act as a check or
5 guide to the distance the switch is to be moved.

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

10 1. The railway-switch herein shown and described, the same consisting of the straight rails A B and the bent rails E F, in combination with the V-shaped center rests, C D, adapted to slide upon the V-shaped base-sections G H, substantially as described.
15

2. The stationary supports *b b* and the intermediate base-sections, G H, in combination with the sliding center rests, C D, and the rails A B and E F, secured thereon, substantially
20 as described.

3. The base-sections G H, formed with tongues *c*, in combination with the center rests, C D,

grooved to receive the tongues, in combination with the supports *b* and the rails secured upon the center rests, C D, substantially as described. 25

4. The lower sections, G H, provided with the stop-studs *g*, in combination with the center rests, C D, placed upon the said sections and formed with stop-recesses, substantially
30 as described.

5. The combination, with the sliding center rests, of the bent rails pivoted to the said center rests and connected to the rods O, substantially as described. 35

6. The combination, with a transversely-sliding track-section, of bent throw-rails pivoted alongside of the rails of said track-section, substantially as set forth.

ISAAC M. BROWN.

Witnesses:

MARY F. BROWN,
BERTRAND SHIRK.