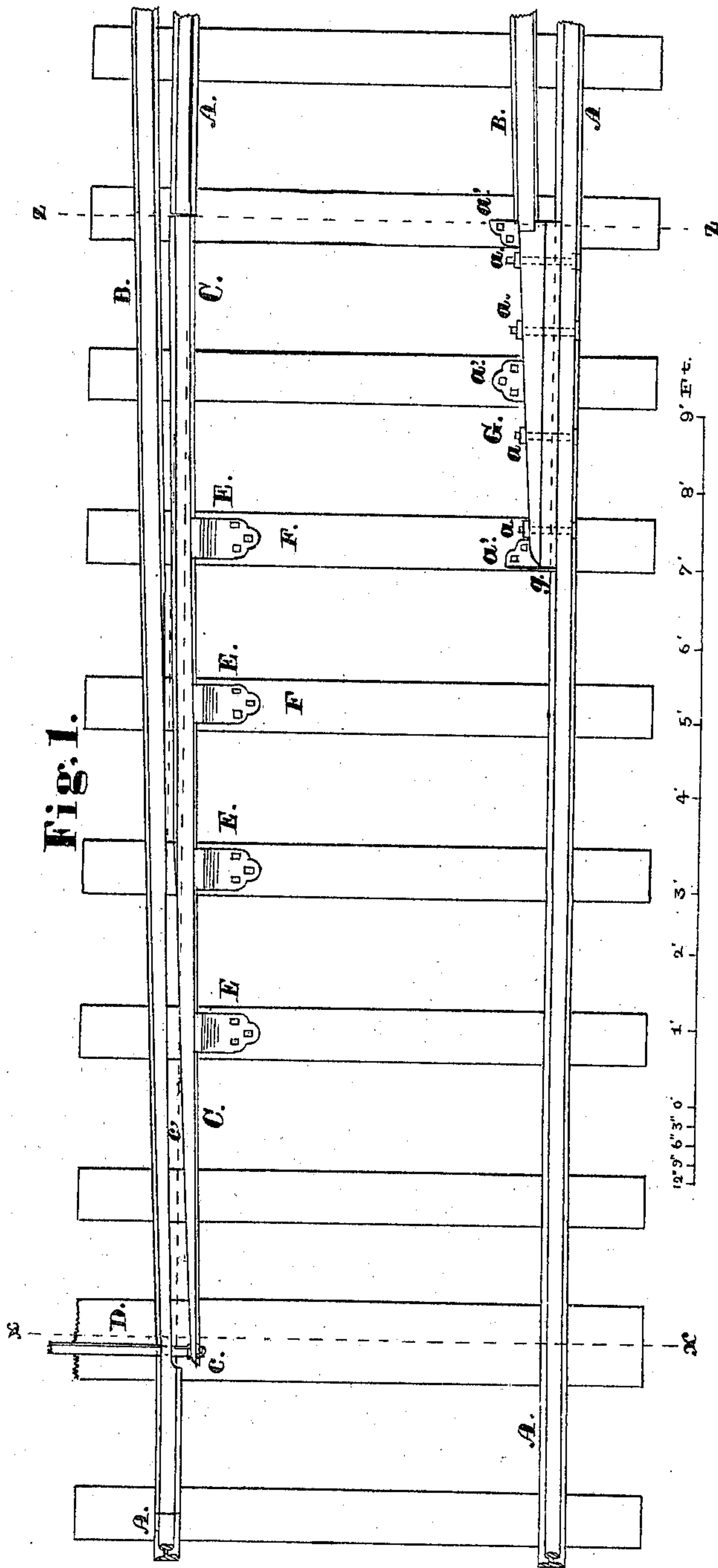


T. J. REYNOLDS.

Improvement in Railroad-Switches.

No. 132,023.

Patented Oct. 8, 1872.



WITNESSES:

Alexander Nabinger  
Robert R. Mantz

Fig. 3.

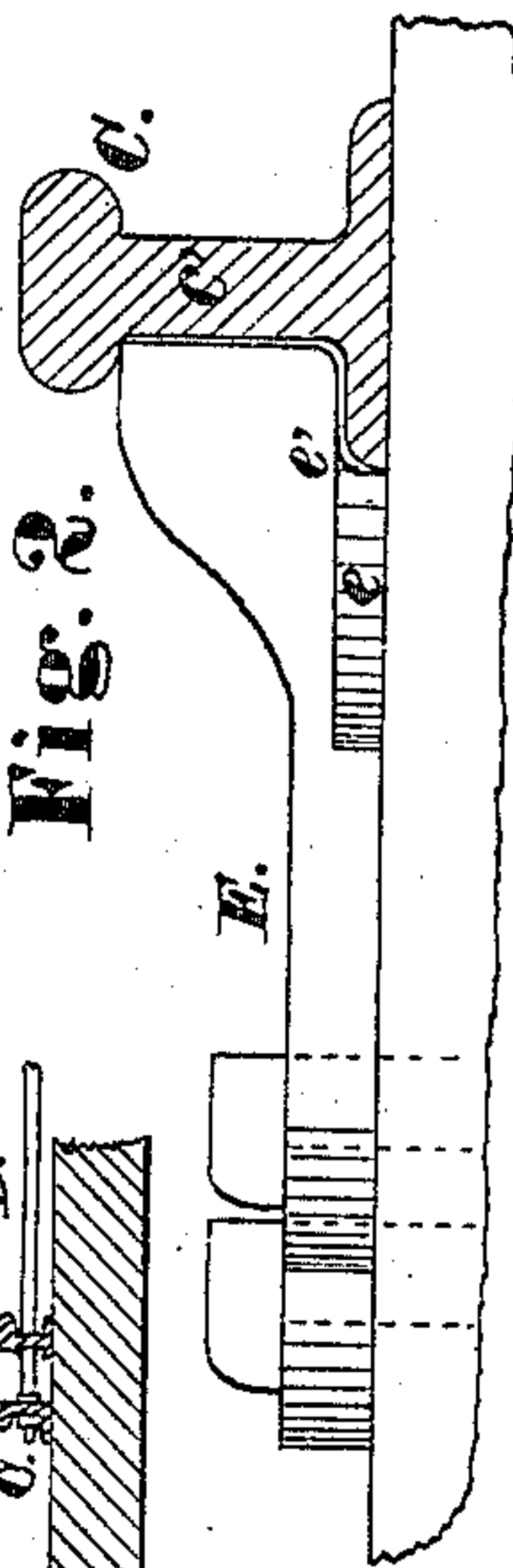
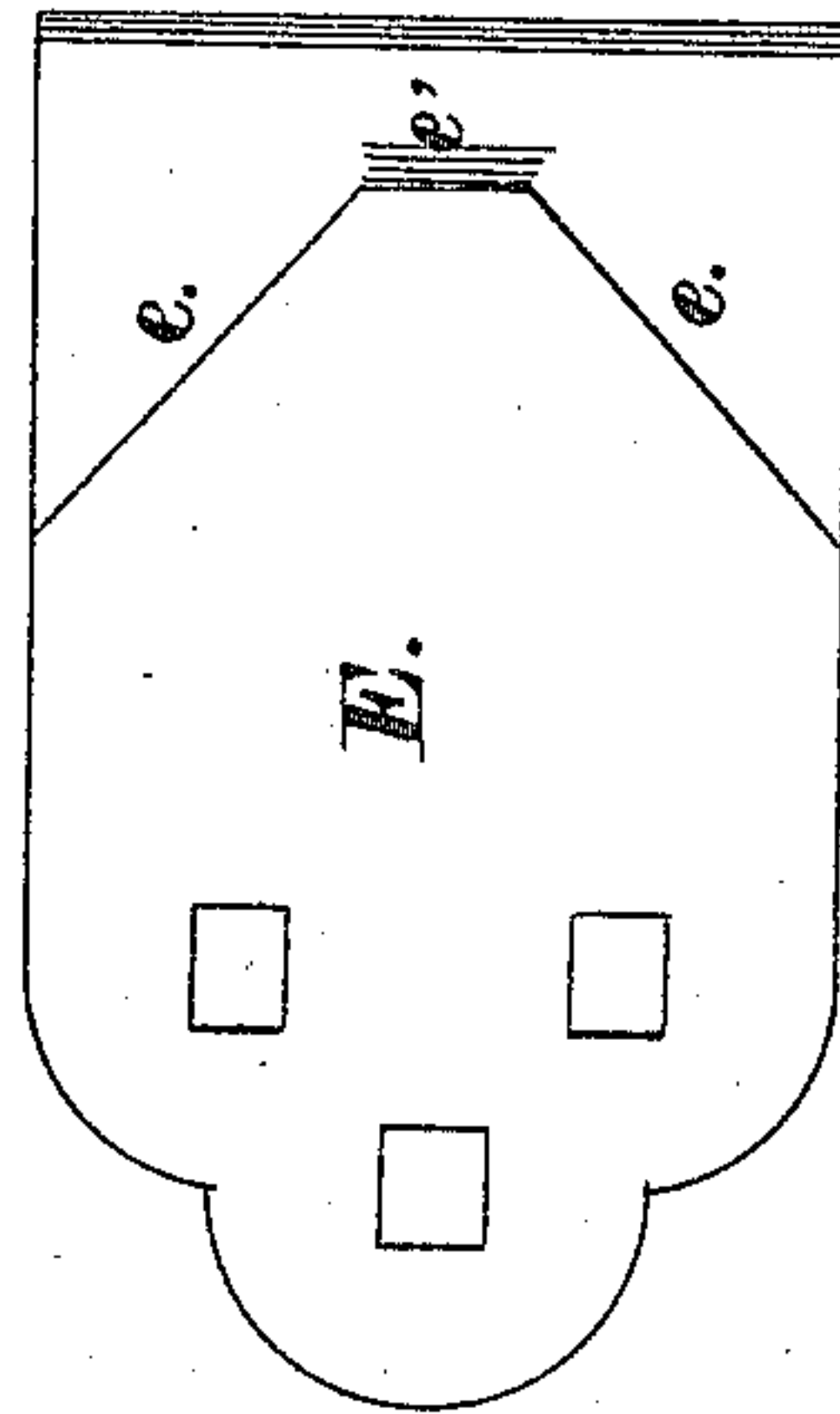


Fig. 4.

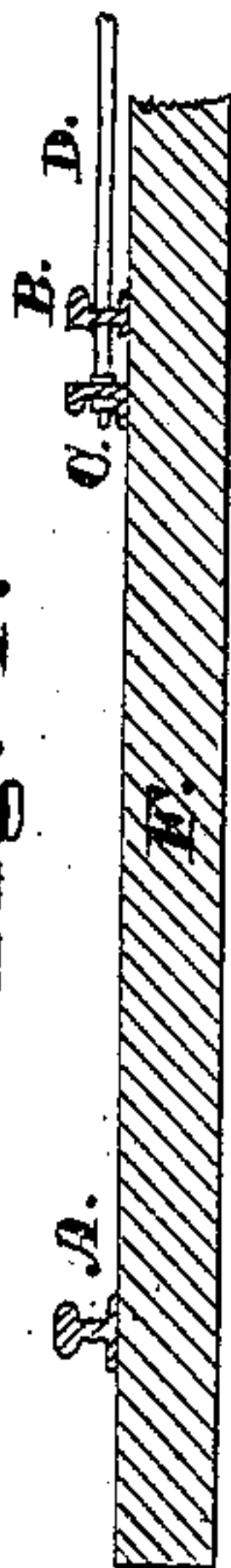
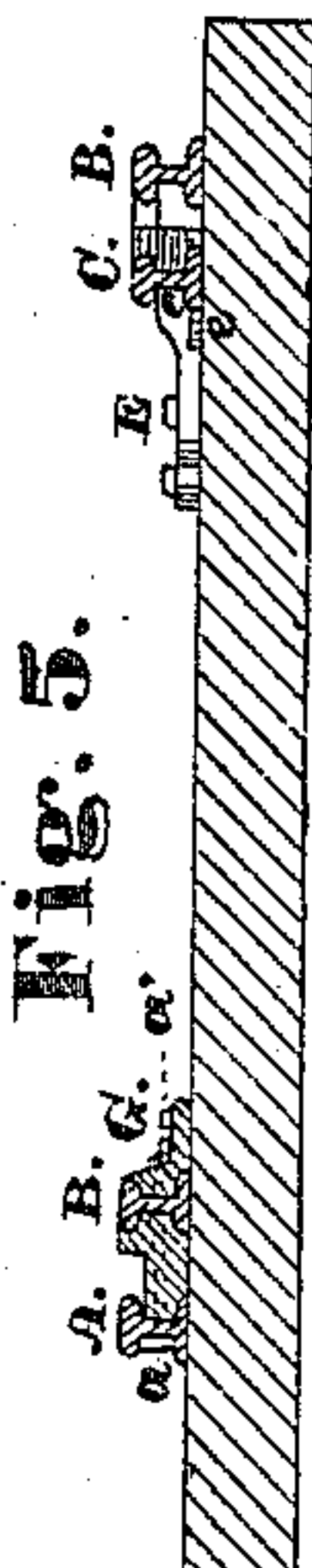


Fig. 5.



SCALE FOR FIGS 1, 4, & 5.

SCALE FOR FIGS 2. & 3.

INVENTOR:

Thomas J. Reynolds.

Per

Charles P. Voss

HIS ATTORNEY.



# UNITED STATES PATENT OFFICE.

THOMAS J. REYNOLDS, OF NASHVILLE, ILLINOIS, ASSIGNOR OF TWO-THIRDS OF HIS RIGHT TO AMOS WATTS AND LESTER C. BARTON, OF SAME PLACE.

## IMPROVEMENT IN RAILROAD SWITCHES.

Specification forming part of Letters Patent No. 135,923, dated October 8, 1872.

*To all whom it may concern:*

Be it known that I, THOMAS J. REYNOLDS, of Nashville, in the county of Washington and State of Illinois, have invented certain Improvements in Railroad Switches, of which the following is a specification:

My invention relates to an improvement in railroad switches, and consists in the form and construction of a "fixed point" fastened to the rail of the main track, and a single and pointed switch-rail that acts in conjunction therewith.

Figure 1 is a plan of a railroad switch embodying my invention; Figure 2 is a side elevation of the knee; Fig. 3, a plan of the bottom of the same; Fig. 4, a section taken through the dotted line *x x*, Fig. 1; and Fig. 5, a section taken through the dotted lines *z z*, Fig. 1.

A A are the rails of the main track; B B, the rails of the turnout or siding. C is a pointed switch-rail, joined with fish-plates to the rail A. This rail is pointed for about one-half its length, and the rail B cut out sufficiently to receive it, as shown in Fig. 1. The switch-rail is operated by the rod D attached to a lever, and a switch-stand of any shape or form. E E E E are knees placed upon and spiked to the ties F F F F. These knees are formed as shown in Figs. 2, 3, and 5, and fit against the shank *c'* of the rail. The bottom of the knee is beveled out, as shown at *e e*. The straight part *e'*, one and a half inch wide, fits against the flange *c''* of the rail. The beveled part is so that if snow, ice, or gravel gets between the flange *c''* and the part *e'* it will be forced out through the beveled part much easier than if the part *e* runs clear across the knee. G is the fixed point, made of steel, and is bolted to the rail A of the main track with the bolts *a a a a*, and is also spiked down to the ties at *a' a' a'*.

The switch is operated as follows: When the train passes on the main track the switch-rail C is placed as shown in dotted lines in Fig. 1. To pass the train on the turn-out the switch-rail C is forced out from the rail B by

the usual method of a lever and a connecting-rod, D. The flanges of the car-wheels pass between the point *c* and the rail B. After the wheel passes in some two or three feet the inside of the flange of the wheel presses against the outside of the rail C and the cars are gradually drawn on the siding or turn-out, so that the outside of the flange of the wheel opposite the one described above will pass the point *g*.

By this arrangement of the rail C and the "fixed point" G (on the scale shown in the drawing) cars of the regular and also the compromise gage will pass on the track without any jar, or wearing track as quick as in the ordinary switch. As the flange of the wheel does not strike the outside of the rail C (at *c'*) until some two or three feet is passed over, the point *c* is durable. And also the point *g* and the knee E being opposite each other and spiked on the same tie the track cannot spread. By this arrangement, also, even if the train should be passing on the main track and the switch should be open for the siding, (as shown in Fig. 1,) the play that is allowed on the tread of the wheels (some four or five inches) will allow of the train passing without "jumping the track," as the opening is only three inches between the point *c* and the rail B. No bridles or chairs are used with this switch, and the construction of the fixed point G allows of the switch being placed at any point of the main track without cutting the rails, or of necessity at or near a joint.

I claim as my invention—

1. The fixed point G, constructed as described, and secured to the main rail A with the bolts *a a a*, as shown and described, and for the purpose set forth.

2. The combination of the switch-rail C, knees E E E, and fixed point G, as shown and described, and for the purpose set forth.

THOMAS J. REYNOLDS.

Witnesses:

CHARLES P. HOUSUM,  
JACOB I. BEAR.