

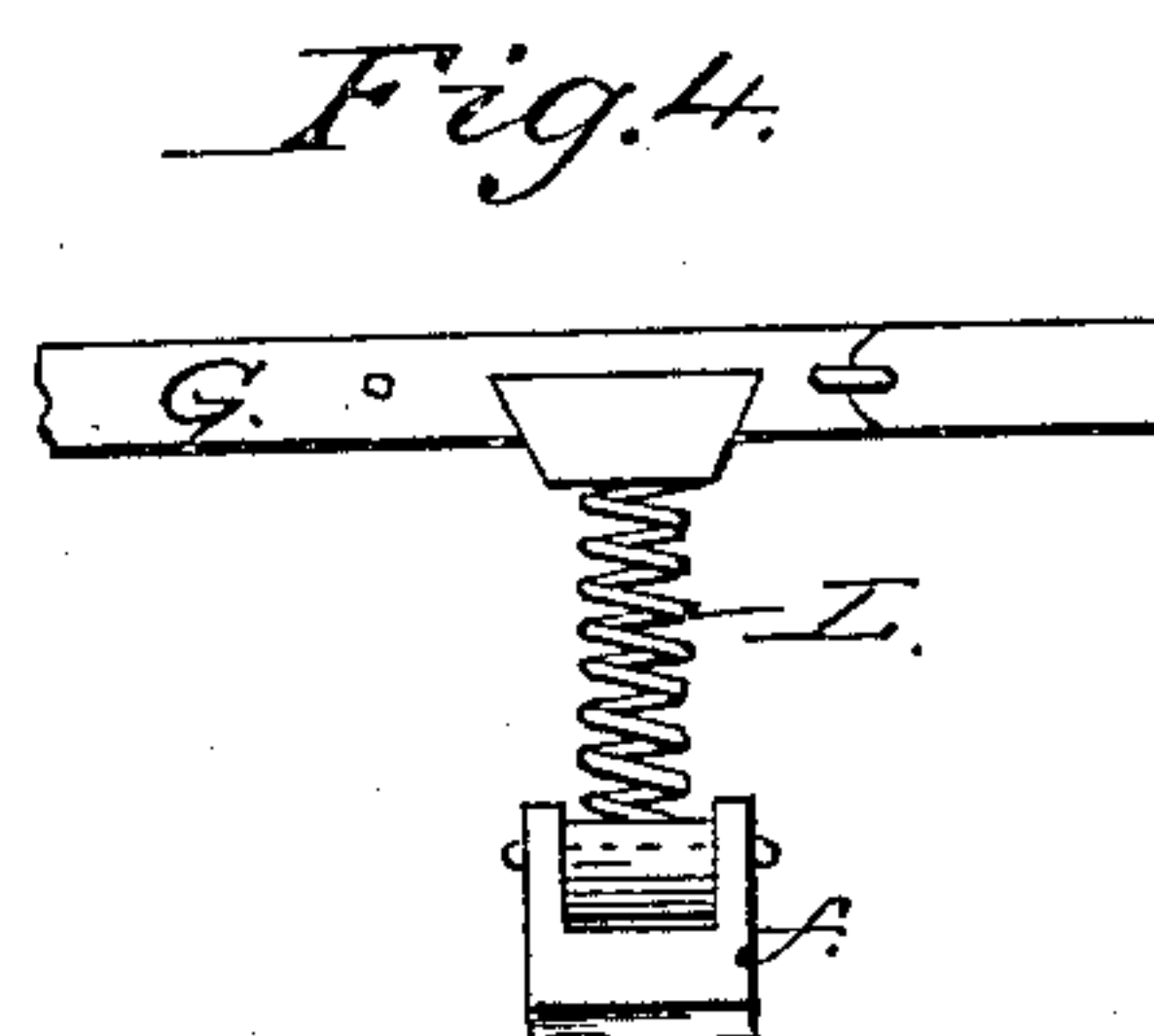
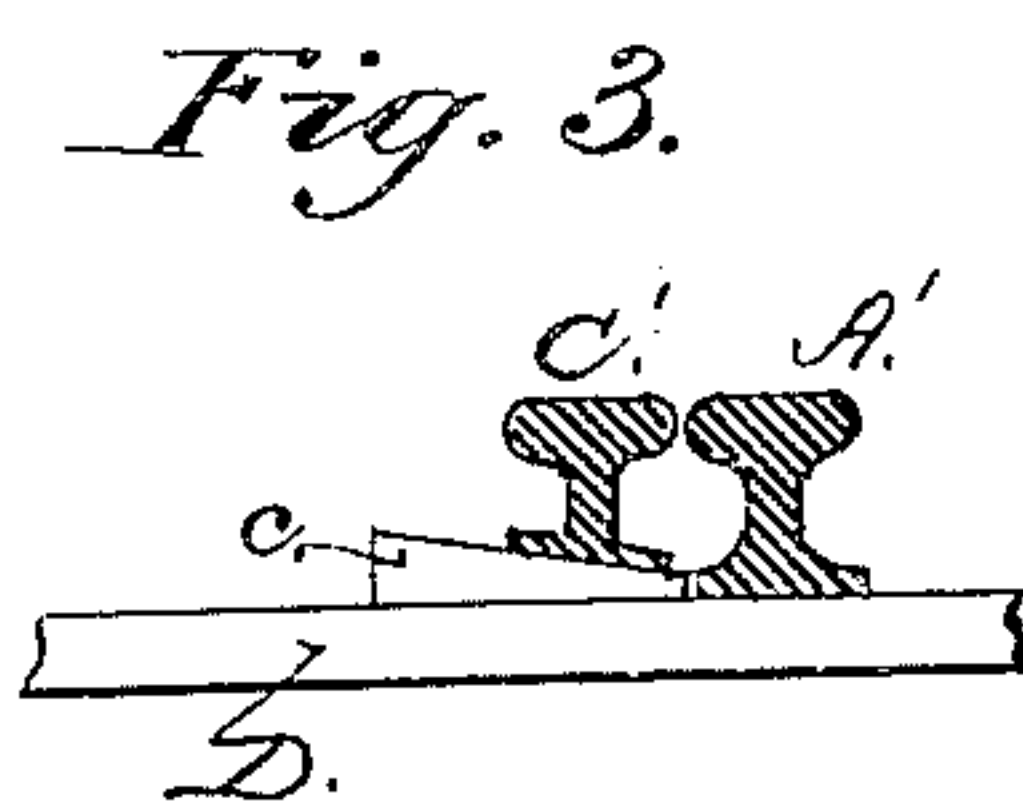
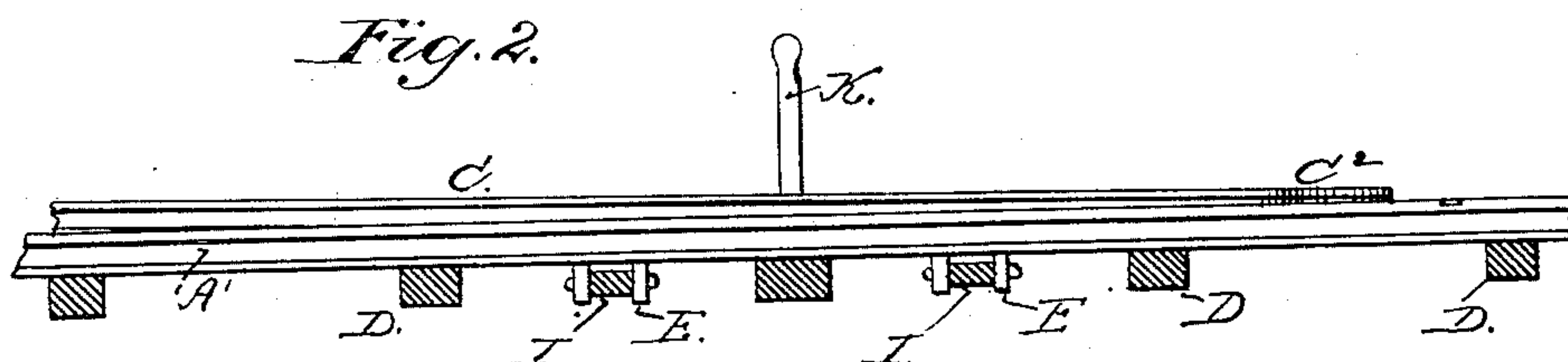
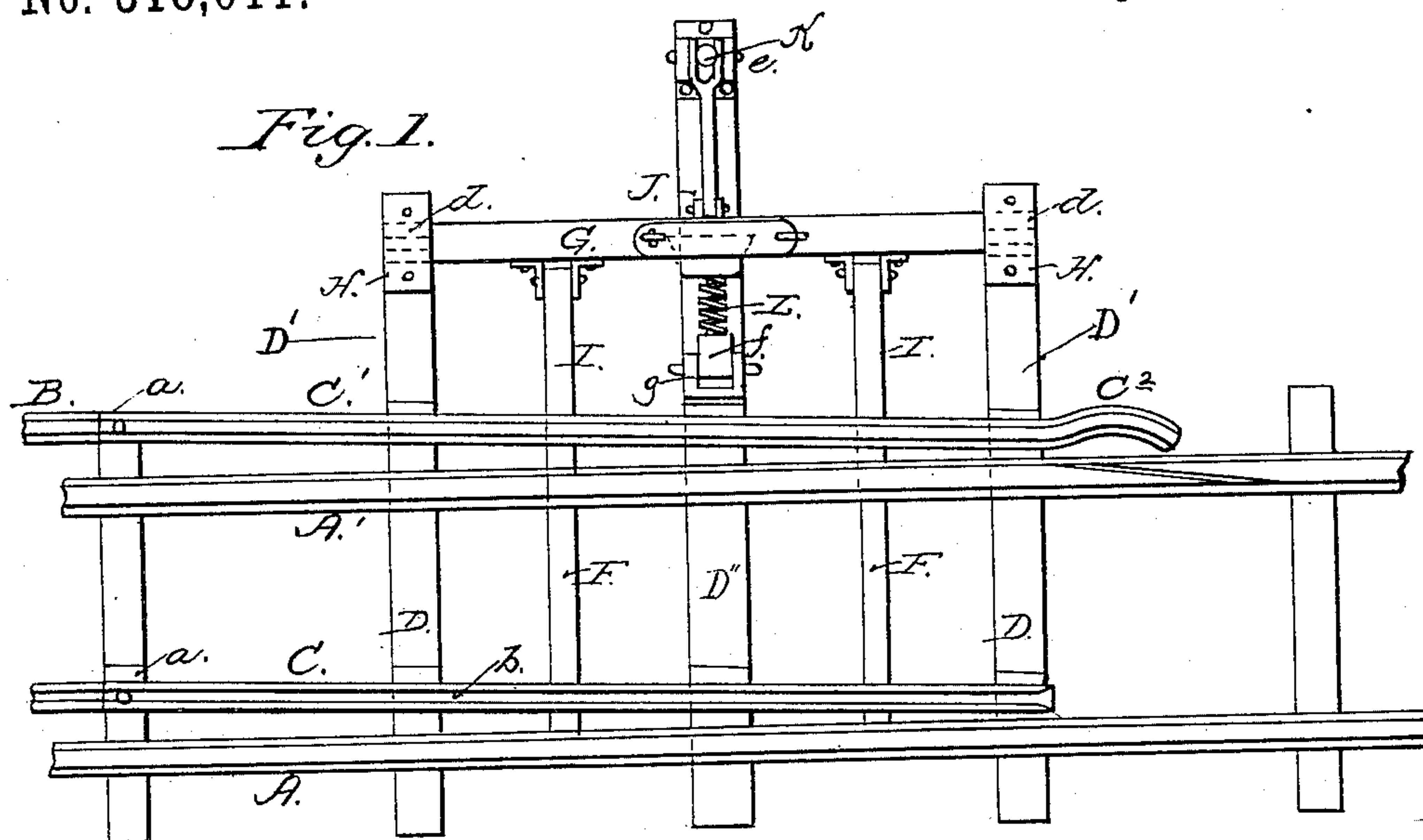
(No Model.)

W. H. McKINLEY.

AUTOMATIC SWITCH.

No. 318,011.

Patented May 19, 1885.



Witnesses:

2 Ored. Holes.  
Parker & Sweet. Jr.

Inventor:

William H. McKeintey  
By L. Bingham  
Atty.

# UNITED STATES PATENT OFFICE.

WILLIAM HARRISON MCKINLEY, OF SHANNONDALE, PENNSYLVANIA, AS-  
SIGNOR OF TWO-THIRDS TO CHARLES H. SONGER AND JOHN A. KURTZ,  
BOTH OF SAME PLACE.

## AUTOMATIC SWITCH.

SPECIFICATION forming part of Letters Patent No. 318,011, dated May 19, 1885.

Application filed January 21, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. MCKINLEY, of Shannondale, in the county of Clarion and State of Pennsylvania, have invented certain new and useful Improvements in Railroad Tracks and Switches; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of railway-rail switches which are adapted to be operated by a projection upon the engine or car; and the features of novelty consist, essentially, in the details of construction and general arrangement of parts, all as will be hereinafter fully described, and specifically designated in the claim.

In the accompanying drawings, Figure 1 represents a top plan view of my improvements; Fig. 2, a longitudinal section thereof, and Figs. 3 and 4 detail sectional views.

Similar letters of reference occurring on the several figures indicate like parts.

Referring to the drawings, A A' represent the main track or rails, and B my improved switch, the two side rails, C C', of which are hinged or pivoted at one end to the blocks *a*, while the opposite ends have a free lateral motion. These rails C C' gradually slope from their free ends, where they come into juxtaposition with the main rails, upward to the blocks *a* at their pivoted ends, the rail C being provided with a central groove or channel, *b*, its entire length to receive the flanges of the car-wheels, while the opposite rail, C', has a curved or cam-shaped end, C<sup>2</sup>, with which a suitable projecting arm upon the engine or cars is adapted to engage to draw the free ends of said rails into position with the main rails, to switch the cars off upon a side track. Each of the rails C C' has an inclined or inwardly-sloping bottom adapted to move upon a series of correspondingly-shaped blocks, *c*, arranged upon the cross-ties D, as shown.

Recessed projections or lugs E depend downward from the bottoms of the rails C C', to receive the ends of the rods or bars F, which hold or connect the said rails together at suitable distances apart.

To one side of the main track and switch is provided an auxiliary mechanism by which the switch may be operated by hand, said mechanism consisting, essentially, of a cross-bar or frame, G, the ends of which are adapted to move within recesses *d* in the side blocks, H, secured to the ends D' of the extended cross-ties D, and rods I connecting said bar or frame with the lugs E upon the bottom of the rail C', a suitable hand-lever, K, pivoted within a recessed upright projection, *e*, being connected by a suitable rod, J, to the lever or frame G.

Between the rail C' and the said frame G is provided a coiled spring, L, one end of which is detachably secured to the cross-frame G, and the opposite end to a lug or block, *f*, pivoted within a recessed projection, *g*, upon the cross-tie D', the object of said spring being to force the rails C C' outward and keep the main track open until the switch is drawn in by the projection upon the engine or by the hand-lever.

In the operation of my invention the projecting arm upon the engine is thrown out to engage the cam-shaped end C<sup>2</sup> of the rail C' when it is desired to leave the main track, thereby drawing both rails C C' into juxtaposition with the rails of the main track, and allowing the wheels of the engine and cars to pass off from the main track upon the switch-rails C C'. The said rails having a gradual slope upward to the side track causes the wheels of the cars to easily and gradually leave the main track and pass on the rails of the switch without jar or displacement of parts.

Having thus described my invention, I claim as new and useful—

The herein-described railroad-switch, consisting of the side rails, C C', one of which is provided with the cam-shaped end C<sup>2</sup>, said rails being pivoted at one end to the blocks *a*, and connected together at a suitable distance apart by means of the rods F, pivoted within the recessed projections E, substantially as and for the purpose specified.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WILLIAM HARRISON MCKINLEY.

Witnesses:

A. E. O'DONNELL,  
J. A. KURTZ.