

J. SHAFER.

Improvement in Railroad-Switches.

No. 129,063.

Patented July 16, 1872.

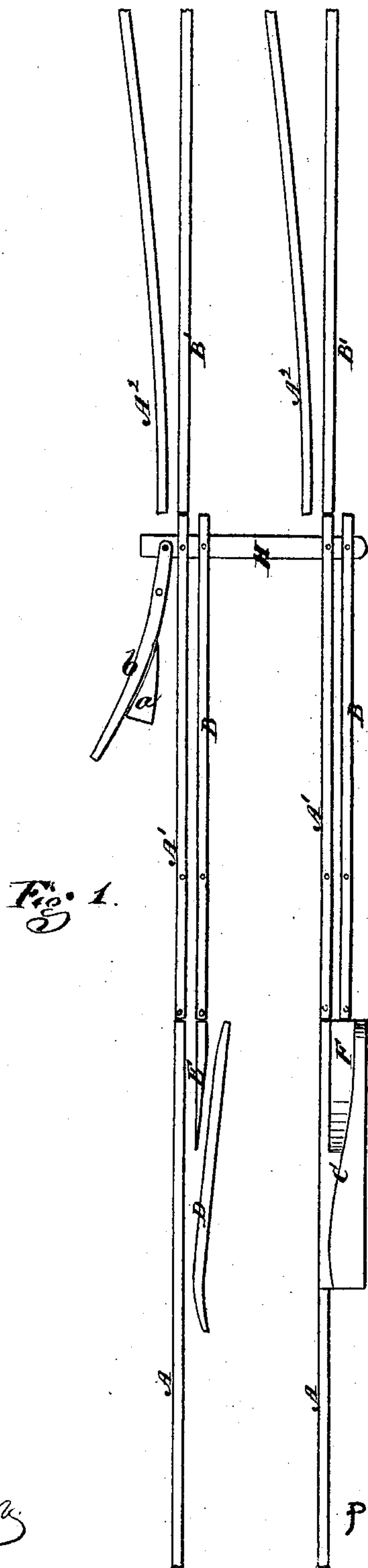


Fig. 1.

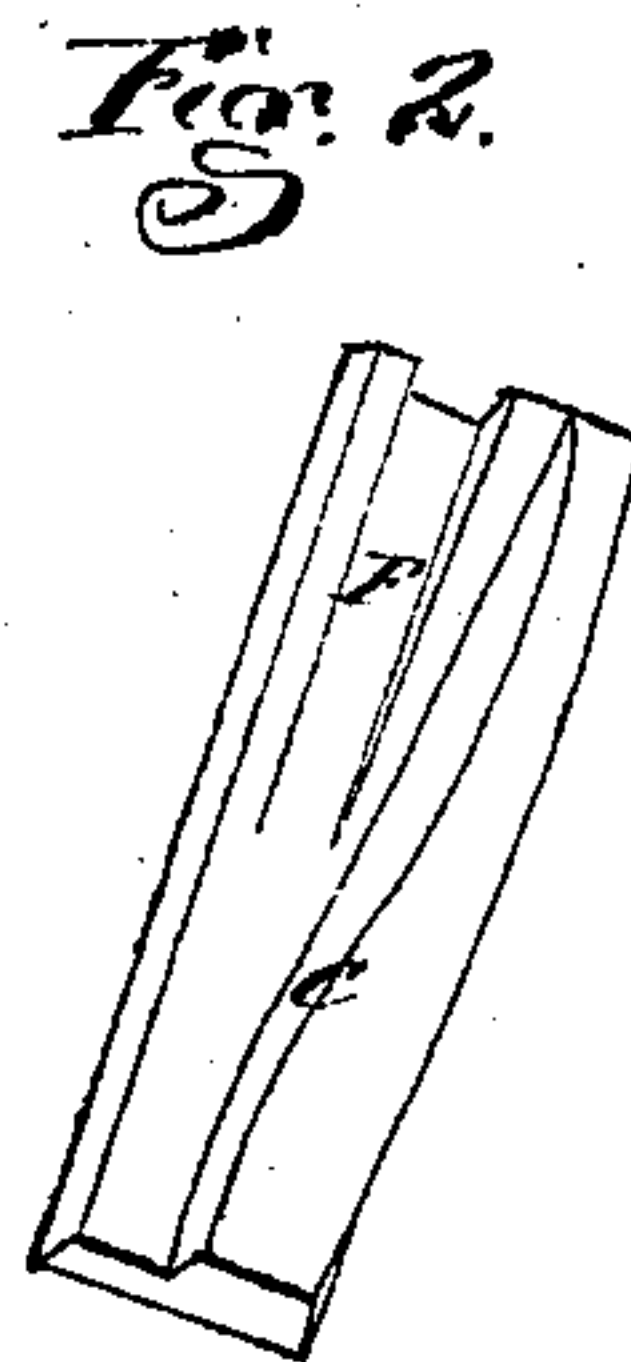


Fig. 2.

Witnesses:

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PER

# UNITED STATES PATENT OFFICE.

JOHN SHAFER, OF TUNNEL HILL, PENNSYLVANIA.

## IMPROVEMENT IN RAILROAD-SWITCHES.

Specification forming part of Letters Patent No. 129,063, dated July 16, 1872.

Specification describing a new and useful Improvement in Railroad-Switch, invented by JOHN SHAFER, of Tunnel Hill, in the county of Luzerne and State of Pennsylvania.

My improvement in switches consists of a novel arrangement whereby the rails for the main line maintain their complete form, and do not have the tongue or frog common to ordinary switches.

Figure 1 of the drawing is a plan view of a main line and switch arranged according to my invention, and Fig. 2 is a perspective view of the piece C F.

A, A<sup>1</sup>, and A<sup>2</sup> represent the main line. B B' represent the siding. C and D represent the switch. E is a beveled piece terminating the inside rail of the siding. The part C of the switch is a widened and elevated piece on the outside of one of the main rails A, next to the ends of A<sup>1</sup> and B, which are parallel to each other; between which part C and said rail A, at the end, is a groove, F, into which the flange of the wheel is received as it passes off the end of the rail B', at the same time that the flange of the wheel on the other side passes outside of the curved guard-rail D, and the head passes onto the point E. The said groove F shallows up to a level with the top of rail A, and the high portion C curves inward, so as to force the wheel over to the inside of rail A, the outside of the wheel curving against the inner curved wall of said

part C. The guard-rail D acts on the inside of the other wheel, and forces it over onto the main rail of that side in the same manner. The rails A<sup>1</sup> and B are secured at one end to cross-tie, in the usual manner, and at the other end are connected to a sliding bar, H, which is operated by means of a horizontal spring-lever, b, that is adapted to be sprung over and against one or the other side of a triangular block, a, whereby the movable ends of the main and siding rails are securely held in position.

For running cars from the siding onto the main track by this switch, the rails B will be shifted into the line with B', and A<sup>1</sup> into line with A<sup>2</sup>; but for running from the main track onto the siding, the said rails B and A<sup>1</sup> will be adjusted by the sliding bar H, as shown.

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

The switch and siding herein described, consisting of the widened and elevated piece C, having the groove F, curved guard-rail D, short tapered piece E, main and sliding rails A<sup>1</sup> B, sliding bar H, spring-lever b, and block a, all constructed and arranged in the manner and for the purpose specified.

JOHN SHAFER.

Witnesses:

THEODORE BENHAM,  
JACOB MILLER.