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Harry K. Leach's

Rail Rail Switch.

fig. 1.

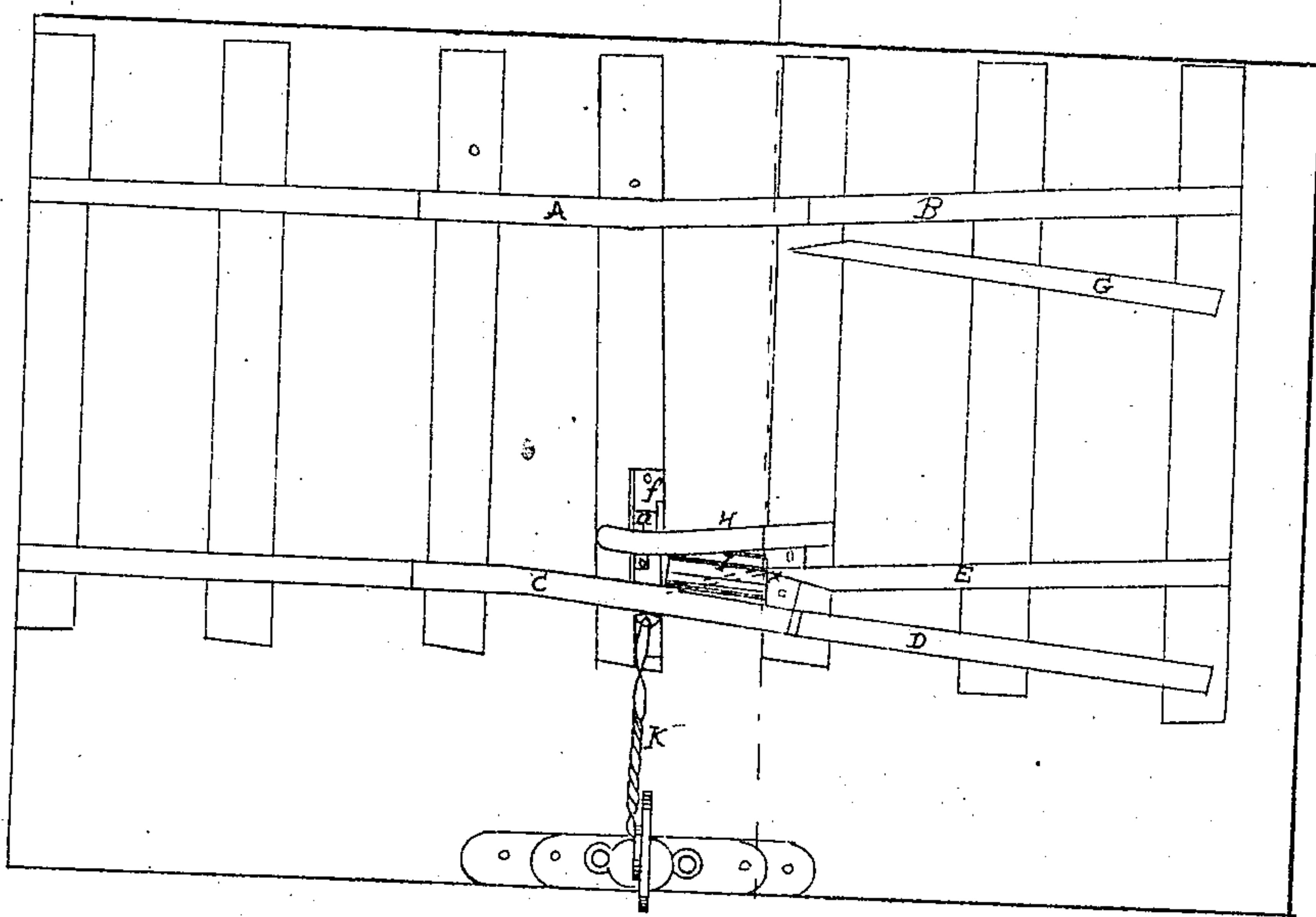


fig. 2.

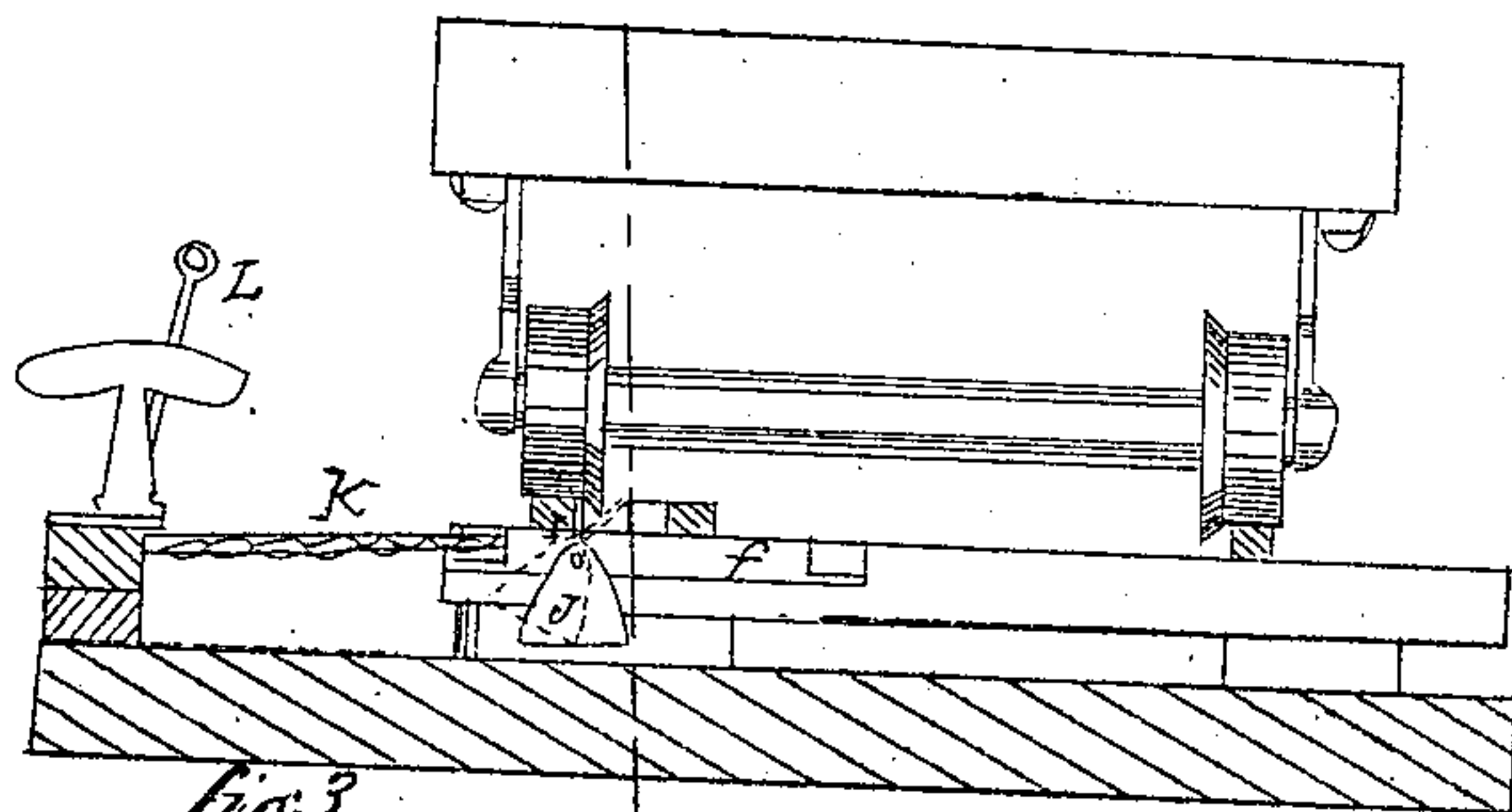
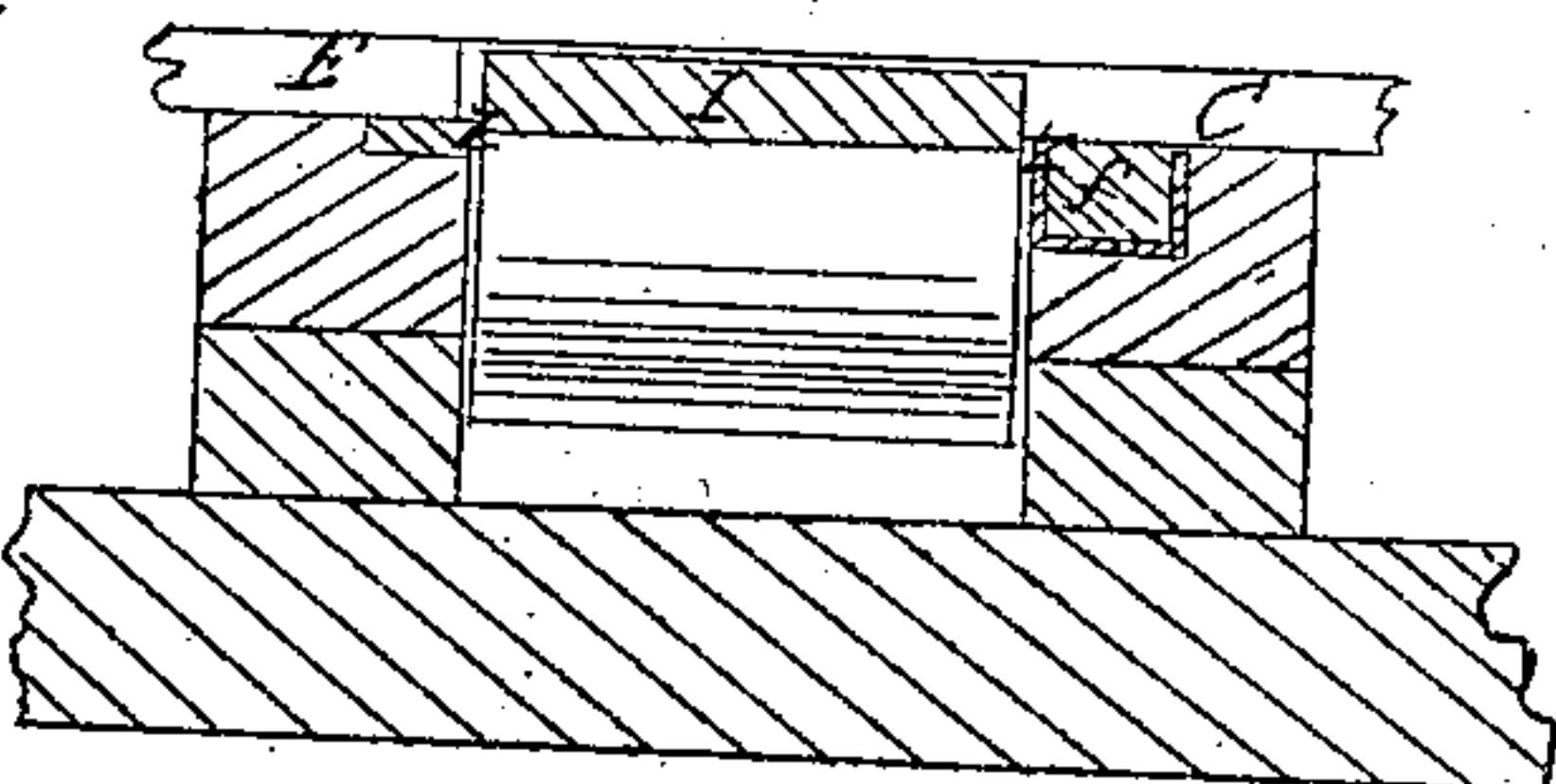


fig. 3.



PATENTED
MAR 3 1868

Witnesses:

A. D. Stockbridge
A. A. Leatman

Inventor:

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Per
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att'y

United States Patent Office.

HARRY K. LEECH, OF HARRISBURG, PENNSYLVANIA.

Letters Patent No. 75,171, dated March 3, 1868.

IMPROVED RAILROAD-SWITCH.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, HARRY K. LEECH, of Harrisburg, in the county of Dauphin, and in the State of Pennsylvania, have invented certain new and useful Improvements in Railroad-Switches; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters of reference marked thereon.

In the annexed drawings, making a part of this specification, A, B, and E represent the main rails of a railroad-track, and D and G the switch-rails or sidings. These rails may be constructed generally in any of the well-known and usual ways. H represents merely a guide-rail, extending across the cross-ties, upon which I adjust my switch. J represents a metallic guide, made of wrought iron or steel, its upper side ordinarily one and one-half inch in thickness, but may be made of any thickness that, in practice, may be found most desirable, the bottom made thicker and heavier. This guide is provided with journal-bearings, which work in journal-boxes *x* and *a*. The bearing *x* is made strong, and securely fastened to the cross-tie upon which the end of the main-track rail F rests, and the bearing *a* is also made strong, and so as to move in a groove or box, *f*, which is secured to the next cross-tie, in front of the bearing *x*. The bearing *x* is operated or moved back and forward by means of the horizontal bar K, to which it is attached, and the lever L, which, together, is a common switching or shifting-arrangement.

I make the main track, as well as the switch or siding, slightly curved, so as to divide the curve between the two tracks, and thereby have but a very slight curve in either. I also make the rail C, where the curve is made, a little wider on its top than the ordinary rail, and make a shoulder therein for the movable end of the guide J to fit in, so that the inside of the rail and guide, when it is drawn out to rest in said shoulder, makes a continuous and regular face for the flange of the car-wheel to rest against, and thereby guide the train to or on the track desired.

It is obvious that as the guide J is hung in the manner of a swivel, the top thereof will swing or move out of the way when the flange of a car-wheel presses on its back or outside, whenever it is placed against and in the shoulder of the rail C, and when placed against the guide-bar or rail H, the flange of the car-wheel, pressing against its other side, will remove it, so that it will be no obstruction, and the train of cars pass along on the track undisturbed.

The advantages of this guide J are thus readily seen. The guide being placed on the shoulder, and close to the rail C, guides or directs the cars so as to run on the main track, no matter from which direction the train may be approaching; for, as above stated, if a train or car be on the siding-rails D and G, and moving toward the main-track rails A and C, the flange of the car-wheels will displace the top of the guide when passing over the same, after which it resumes its proper position, to form or make the main track continuous.

By placing the end of the guide J against the guide-rail H, the cars coming from one direction, on the main track, are switched off on to the siding, and, coming from the other direction, pass along without disturbance, by means of the guide J turning in its bearings, as above described.

I adjust the guide J a very little lower than the rails of the track, and, as the curve is very slight, the ends of the rails of the side and main track are less distance apart than the thickness or face of a car-wheel, which will therefore continually rest on one or the other of said rails, and never on the guide J.

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

The guide J, hung in fixed and movable bearings, when constructed and adjusted with the rails, substantially as and for the purpose herein set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 20th day of November, 1867.

HARRY K. LEECH.

Witnesses:

ARCHIBALD CAMPBELL,
A. JACKSON KOLP.