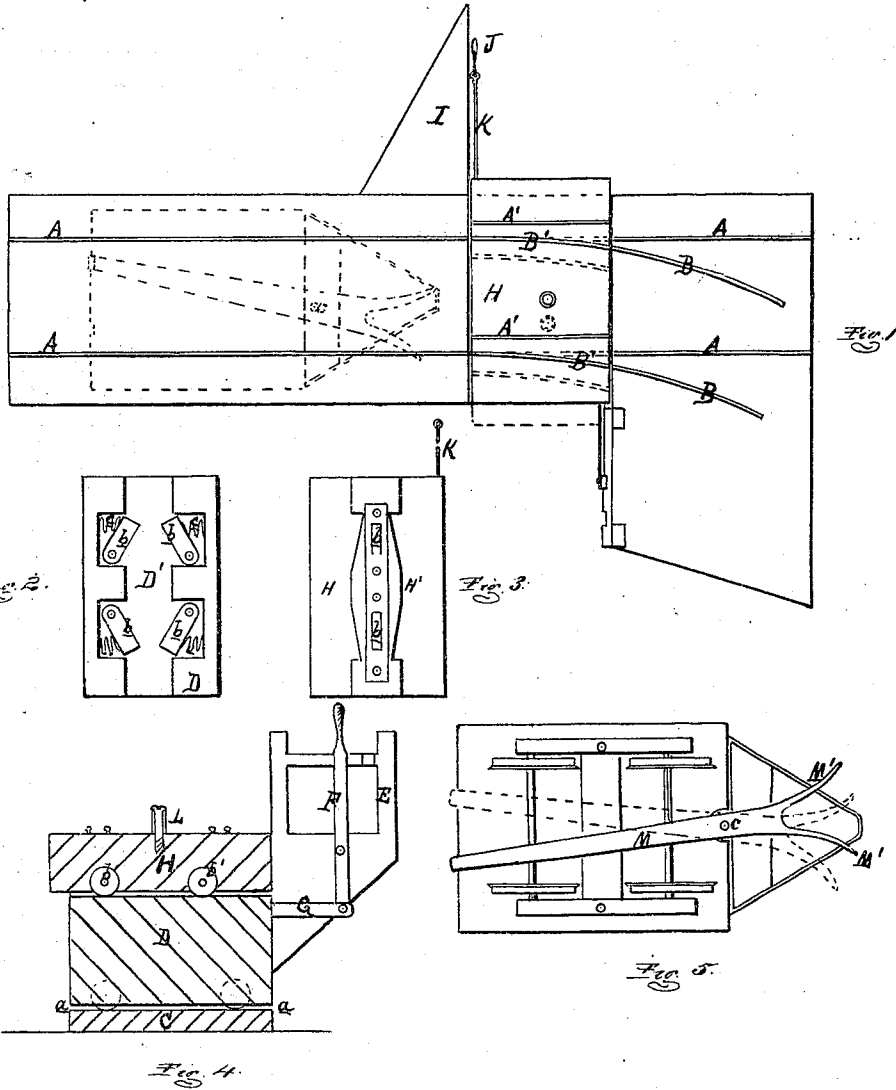


M. BROCKWAY, Jr.

Improvement in Railway-Switches.

No. 128,105.

Patented June 18, 1872.



ATTEST:
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UNITED STATES PATENT OFFICE.

MARCUS BROCKWAY, JR., OF JONESVILLE, MICHIGAN, ASSIGNOR TO HIMSELF AND LUTHER GILLET, OF SAME PLACE.

IMPROVEMENT IN RAILWAY SWITCHES.

Specification forming part of Letters Patent No. 128,105, dated June 18, 1872.

To whom it may concern:

Be it known that I, MARCUS BROCKWAY, Jr., of Jonesville, in the county of Hillsdale and State of Michigan, have invented a new and useful Improvement in Railway Switches; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon and being a part of this specification, in which—

Figure 1 is a plan view of my switch, with the front part of a locomotive shown in outline, with its shifter set to move the switch-table to the main line. Fig. 2 is a plan of the locking-stops of the switch-bed. Fig. 3 is an inverted plan of the corresponding part of the switch-table. Fig. 4 is a cross-section at $x x$; and Fig. 5 is an inverted plan of the front truck of a locomotive, and showing the shifting-lever which moves the switch-table.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a railway switch, so constructed and arranged that by means of a lever-shifter under the front part of the locomotive the engineer, through the adjustment of said shifter, can shift the switch from the main line to the side track, or vice versa, the switch being moved laterally by the locomotive. The switch can be moved by hand as well, so that trains may be caused to follow either the main line or take a side track, in the usual manner. The invention consists in a peculiar bed placed in the road-bed at the points of the side track, moving laterally across the roadway, and which bed may be moved by a lever in a table carrying sections of track, to connect with the rails of the main line and side track, moving on and with the bed referred to; and, in connection therewith, a shifter-lever under the front part of a locomotive, adjustable by the engineer, for moving the table to the side track from the main line, or vice versa, as more fully hereinafter set forth.

In the drawing, A A represent the rails of the main line, and B B the points of a side track. Across the road-bed a cut is made touching the points of the rails B, in the bottom of which cut a strong floor or platform, C, is laid, on which a bed, D, traverses, being supported on rollers or wheels a , as seen in

Fig. 4. At the side of the road a switch-stand, E, is erected, having a lever, F, pivoted therein, which, through a link, G, enables the switchman to move the bed transversely across the roadway. In the top of the bed there is a transverse groove, D', in each side wall of which two recesses are formed. In the inner end of each recess is pivoted a locking-stop, b, having a spring, c, behind its free end to push it out into the groove D'. H is a table lying on the bed, with a rib, H', on the under side, which sits in the groove of the bed, traveling on rollers b' in the bottom of the groove, said rollers being journaled in cavities in the bottom of the table. This rib H' has two half V-shaped stop-notches in each side, one near each of the ribs, allowing the table to travel on the bed a distance equal to difference apart of the main-line rails and the points of the side track. At one side of the track, to a stringer, I, there is pivoted at its lower end an indicator or target, J, which is connected to the table by a link, K. When the table, with its rail-sections A' and B', is right for the main line, this target stands in a vertical position, and when thrown for the side track it is inclined. In either case it indicates to the engineer of an approaching train the position of the switch. L is a roller sleeved on a vertical stud at the center of the table, equidistant from the main-line rail sections, and projects a little above their plane. M is a shifter-lever, pivoted, as at c, under the front truck or other part of the locomotive, its long arm extending back and up into the cab of the engine, engaging with notches in a quadrant, so that the engineer may vibrate it a given distance and lock it in place. The short arm projects forward under the lower part of the pilot or "cow-catcher," where it is forked, as seen at M', said forks being in the form of webs pendent below the general plane of the lever, but not low enough to catch upon the ties or ballast of the track. The pivot of the lever is at half-gauge, or equidistant from the rails A.

As before stated, a switchman can throw the bed and table by means of the lever, so that the rail sections of the table will carry the train from the main line onto the side track, or vice versa, or lock them to the main track; but the switch is also subject to the control of

the engineer of an approaching locomotive. By referring to Fig. 1 it will be noticed that the switch is set to direct the approaching engine, shown in dotted outline, to the side. If the engineer desires to pass the side track and continue on the main line, he throws the shifter to the position shown in said figure, when one of the jaws passes into oblique contact with the roller, and at once easily pushes the table over until its main rails *A'* are coincident with the rails *A* of the main line, before the leading wheels of the engine pass onto the table. In this manner he can always control the direction of his engine, and saves much time in switching, especially in depot-yards, in making up trains. On the road the target always shows him the position of the switch, so that he need never run on a switch and take the side track, unless he so desires.

One pair of the stops always acts to prevent the table from moving too far, while the others, pressing against the wedging sides of the rib, prevent the table from moving accidentally back.

What I claim as my invention, and desire to secure by Letters Patent, is—

The platform *C*, bed *D*, table *H*, rollers *a b'*, switch-stand *E*, switch-lever *F*, link *G*, the notched rib *D'*, stops *b*, springs *c*, link *K*, and target *J*, all constructed, arranged, and operating substantially as herein described, for the purposes specified.

MARCUS BROCKWAY, JR.

Witnesses:

GEO. C. MUNRO,
LUTHER GILLET.