H. D. SPRAGUE.

Railroad-Switch.

No. 221,196. Patented Nov. 4, 1879.

Fig: 1.

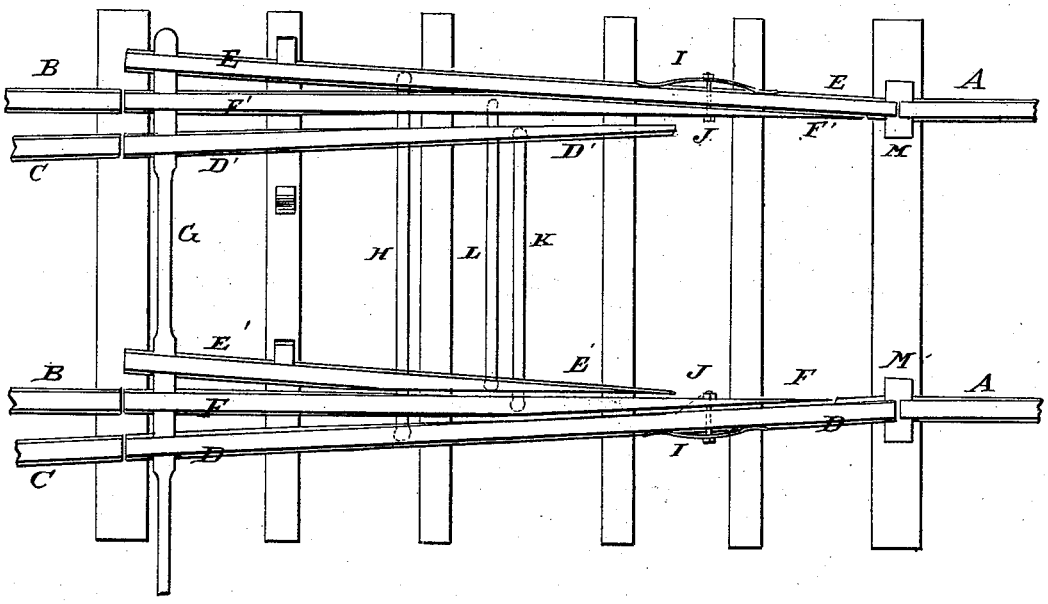
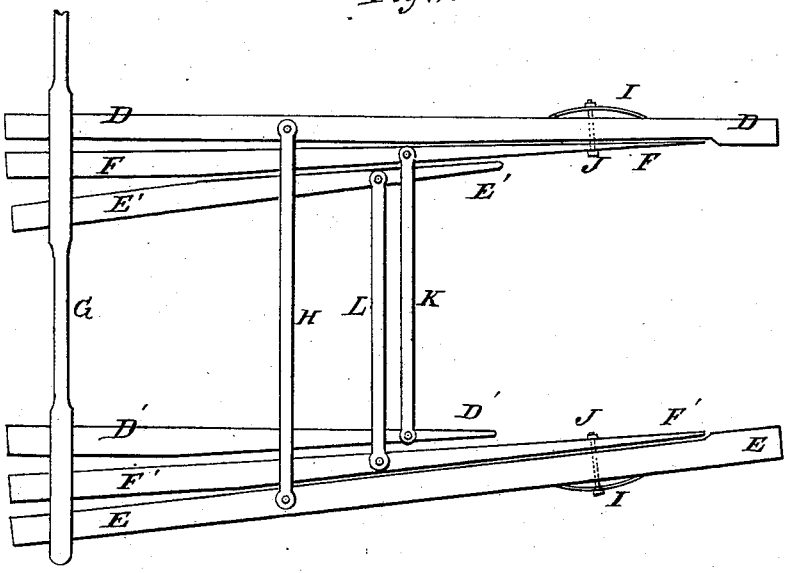


Fig: 2.



WITNESSES:

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INVENTOR:

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UNITED STATES PATENT OFFICE.

HENRY D. SPRAGUE, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO HIMSELF AND JAMES C. SHERIDAN, OF SAME PLACE.

IMPROVEMENT IN RAILROAD-SWITCHES.

Specification forming part of Letters Patent No. **221,196**, dated November 4, 1879; application filed March 5, 1879.

To all whom it may concern:

Be it known that I, HENRY D. SPRAGUE, of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Railroad-Switches, of which the following is a specification.

Figure 1 is a plan view of my improved switch. Fig. 2 is an under-side view of the movable rails.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish railroad-switches which shall be so constructed as to prevent trains from running off the track through a misplaced switch.

The invention consists in an improved railroad-switch formed by the combination of the springs, the three pairs of switch-rails, the connecting-bars, and the switch-bar with each other and with the rails of the tracks, as hereinafter fully described.

A represents the rails of the track, with which the rails B and C of the two tracks are to be connected by the switch.

D E are two switch-rails, which are connected at one end and pivoted to the ends of the rails A by chairs M. The other ends of the rails D E are attached to the switch-bar G, by which they are moved in the usual way. The rails D E are also connected by a bar, H.

D′ E′ are the switch-rails, that form tracks in connection with the rails D E, respectively; and F F′ are two switch-rails, also forming a track.

The rails F F′ are attached at one end to the switch-bar G, and their other ends are tapered to fit against the inner sides of the rails D E near their pivoted ends, and are held against the said rails D E by springs I, placed upon the outer sides of the rails D E, and having bolts J attached to them, which pass through holes in the rails D E, and are attached to the tapered ends of the rails F F′.

The rails D′ E′ are placed at the inner sides of the rails F′ F, and are attached at one end to the switch-bar G. The other ends of the rails D′ E′ are tapered upon their outer sides, and are placed at such a distance from the said rails F F′ that the flanges of the car-wheels may pass through readily.

The rail D′, at a little distance from its tapered end, is connected with the rail F by a bar, K, and the rail E′ is connected with the rail F′ by a bar, L.

With this construction, if a train upon the track B approaches the switch, the wheels pass along the rails F′ F to the rails E D, and thence to the rails A. If a train upon the track C approaches the switch, the wheels pass along the rails D D′, and the flanges of the wheels upon the rail D press the tapered end of the rail F inward against the tension of the spring I, which moves the tapered end of the rail D′ outward against the rail F′, so that the wheels may pass from the rail D′ to the rail F′, thence to the rail E, and thence to the rail A. The other wheels pass directly from the rail D to the rail A.

In case the switch is shifted so as to bring the rails E E′ in connection with the rails B, and the rails F′ F in connection with the rails C, a train from either of the tracks B C will pass safely to the track A, the switch-rails being moved into the proper place by the flanges of the wheels, in the same manner as hereinbefore described.

With this construction a train from the track A will pass along the switch-rails F F′ to the track B or C, according as the switch may be adjusted, and cannot get off the track, as the said switch-rails F F′ are always connected with one or the other of the said tracks B C.

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

An improved railroad-switch formed by the combination of the springs I, the rails D D′, E E′, and F F′, the connecting-bars H K L, and the switch-bar G with each other and with the track-rails A A, B B, and C C, substantially as herein shown and described.

HENRY D. SPRAGUE.

Witnesses:

WILLIAM B. W. HALLETT,

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