W. J. Stowell

R. R. Switch

3 Sheets. Sheet 1.

No. 74951

Patented Feb. 25. 1868

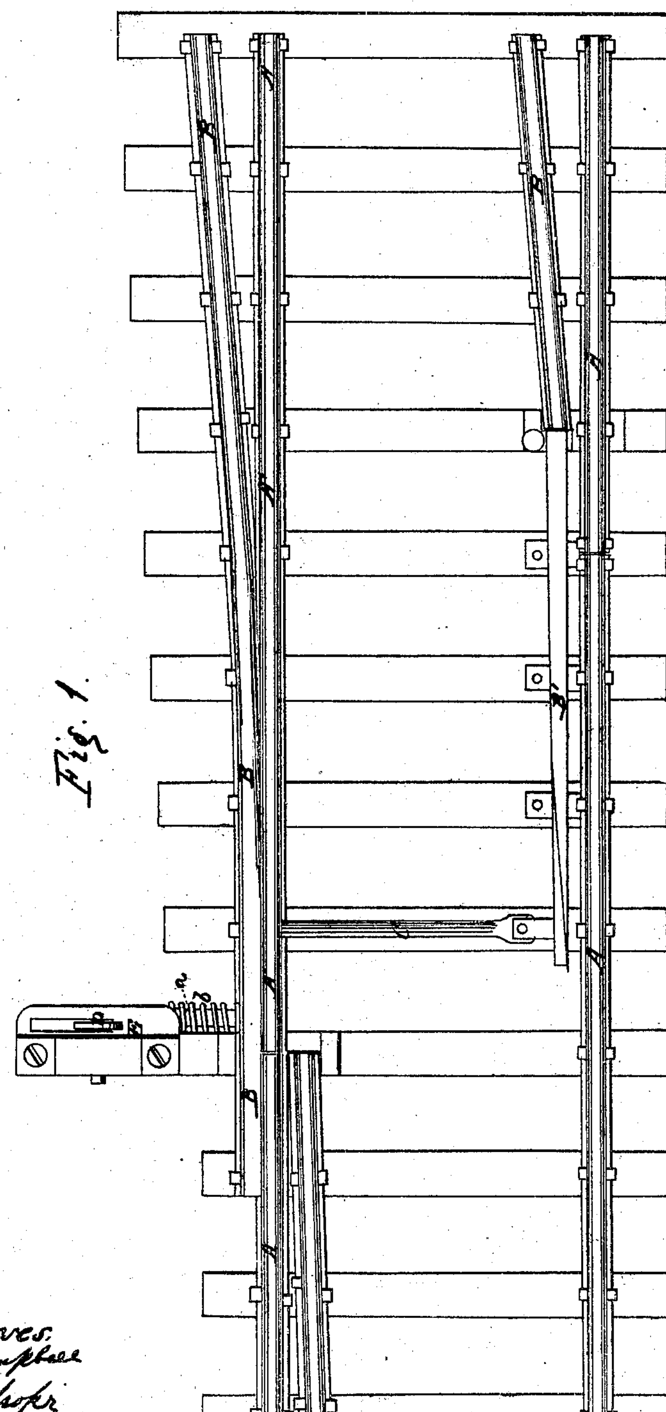

Fig. 1.

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3. Sheets. Sheet. 2

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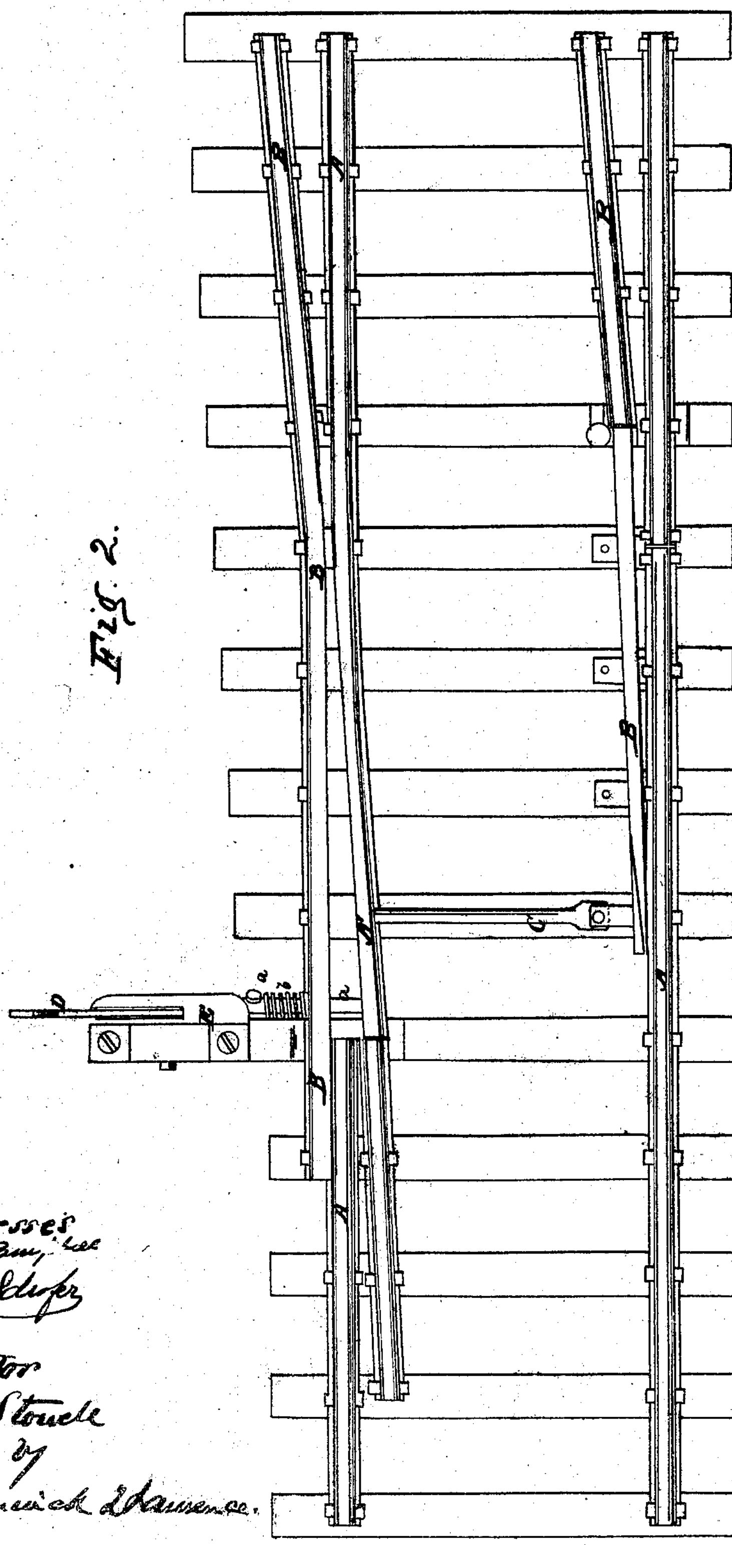
Fig. 2.



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Sheet. 3.

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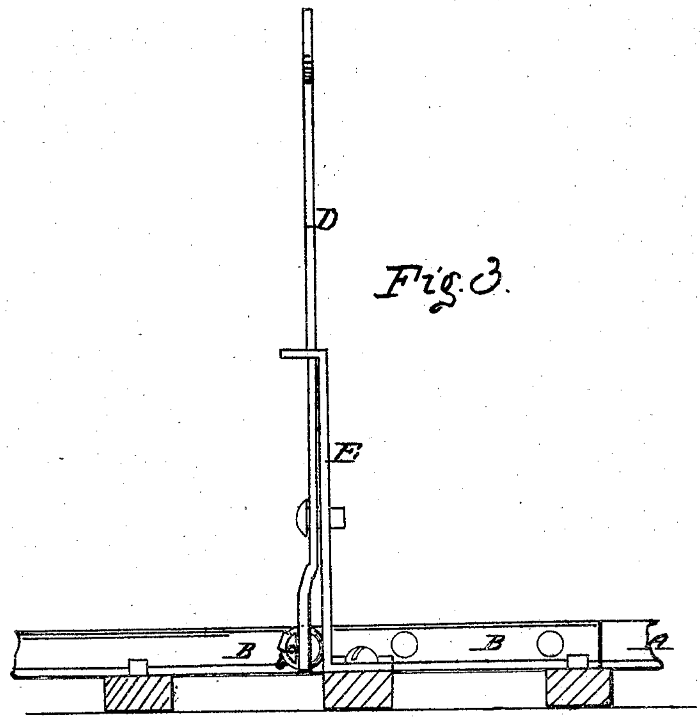

Fig. 3.

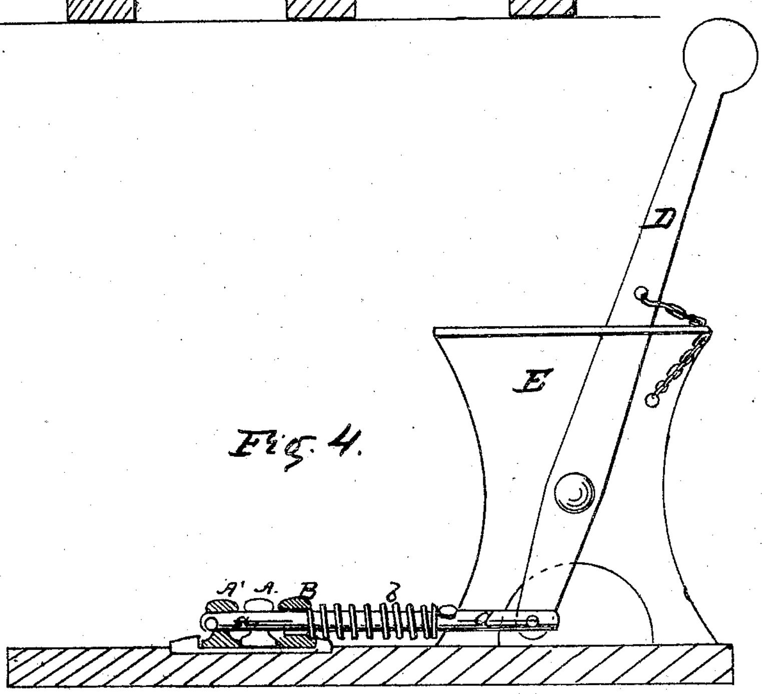

Fig. 4.

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WILLIAM J. STOWELL, OF BALTIMORE, MARYLAND.

Letters Patent No. 74,951, *dated February* 25, 1868.

IMPROVED RAILWAY-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, WILLIAM J. STOWELL, of the city and county of Baltimore, in the State of Maryland, have invented a new and improved Railroad-Switch; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a plan view of the switch, showing the switch-rails in line with the main track.

Figure 2 is a similar view of the same parts, showing the switch-rails in line with the siding or turnout.

Figure 3 is a side elevation of the rails outside, taken at the switch.

Figure 4 is a sectional view, showing the manner of connecting the switch-lever to one of the switch-rails.

This invention relates to an improvement on the construction of railroad-switches, which improvement is designed particularly for use in connection with the automatic switch secured to me by Letters Patent, dated on the 19th day of June, 1866, the latter being applied at one end of the siding or turnout, and the former being applied to the opposite end of the siding.

The nature of my invention consists in having one of the switch-rails of the turnout connected to one of the switch-rails of the main track by a cross-brace or tie, and in connecting the latter switch-rail to a switch-lever, by means of a rod passing horizontally through the stationary turnout-rail, which rod is provided with a strong spring that serves to positively hold the switch-rail of the main track in line therewith, and in close contact with the inside of the stationary rail of the turnout, as will be hereinafter described.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings, A A represent the rails of the main track, and A′ the main-track switch-rail, which latter may be jointed, so as to move about a fixed pivot, but I prefer to have this rail-section spiked down to the cross-ties, so that a sufficient portion will be left free to spring laterally from the main-track rail, the section B of the turnout, as shown in figs. 1 and 2.

By thus arranging the switch-rail A′, I have but one joint at the switch, and, therefore, make the parts more substantial and secure, besides which I make the switch so that it will always have a tendency to keep in place for the main-track rails. The section of rail, A, which is opposite the free end of the switch-rail section, A′, is arranged so as to break joint with the opposite sections of the main rail, as shown in figs. 1 and 2. The siding or turnout B diverges from the main-track rails, and the switch-rail section, B′, is applied between the main rails, so as to have a free lateral vibrating play about a fixed point. This switch-section B′ is connected to the free end of the switch-section A′, by means of a tie, C, which is pivoted by its ends to said rail-sections, so that both of these sections will move together, and, as far as practicable, preserve their parallelism. The rail-section B′ is also made tapering at and near its free end, so as to lie close to the inside of the main-track rail A, when in the position shown in fig. 2, for switching a train upon the siding. The siding or turnout-rail B, which is nearest the section A′, is arranged outside of this section, and outside of the main-track rail A, so that it breaks joint with the joint of the sections A and A′.

The free end of the switch-rail section A′ is connected to a vertically-vibrating lever, D, by means of a horizontal transverse rod, *a*, which passes through the web of the stationary siding-section B, and around which a strong spring, *b*, is coiled, for keeping the rail-section A′ in place, in line with the main-track rail, as shown in fig. 1. The lever D is pivoted to and guided by a standard, E, which is secured down to a firm foundation outside of the tracks.

It is not intended to confine myself to the use of an elliptic spring, helical spring, or any other form of spring for keeping the main-track switch-rail in place, in line with the main track; nor do I confine myself to the manner of arranging the main-track switch-section A′ so that it will bend or spring, as this section may be pivoted like the one opposite.

It is designed by my invention to have the main-track switch always in place, in line with the main track, when it is not held in place, in line with the siding, by a person having hold of the lever D.

If, for any reason, it should be found desirable to keep the switch-rail sections in line with the siding, this may be done by means of a chain, as shown in fig. 4, applied to the lever D, so as to hold it back, which chain should be so constructed that it will readily break, and allow the switch-sections to be thrown into line with the main-track rails, should a train approach the switch on the main track, and its wheels press outward the section A′.

It will also be seen from the above description, taken in connection with the accompanying drawings, that the switch, and all its appurtenances, are above the cross-ties, so that neither dirt nor ice and snow will be liable to clog the parts.

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

1. The arrangement of the switch-rail sections A′ and B′, between the turnout-rail B and the main-track rail A, the former being laid so as to overlap the fixed main rail A, substantially as described.

2. The spring *b*, or its equivalent, interposed between the rail B and lever D, in combination with the connecting-rod *a*, and switch-sections A′ B′, substantially as described.

3. A railroad-rail switch, constructed and operating substantially as set forth.

WILLIAM J. STOWELL.

Witnesses:

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