G. Douglass.

Railroad Switch.

No. 50,564. Patented Oct. 24, 1865.

Fig. 1.

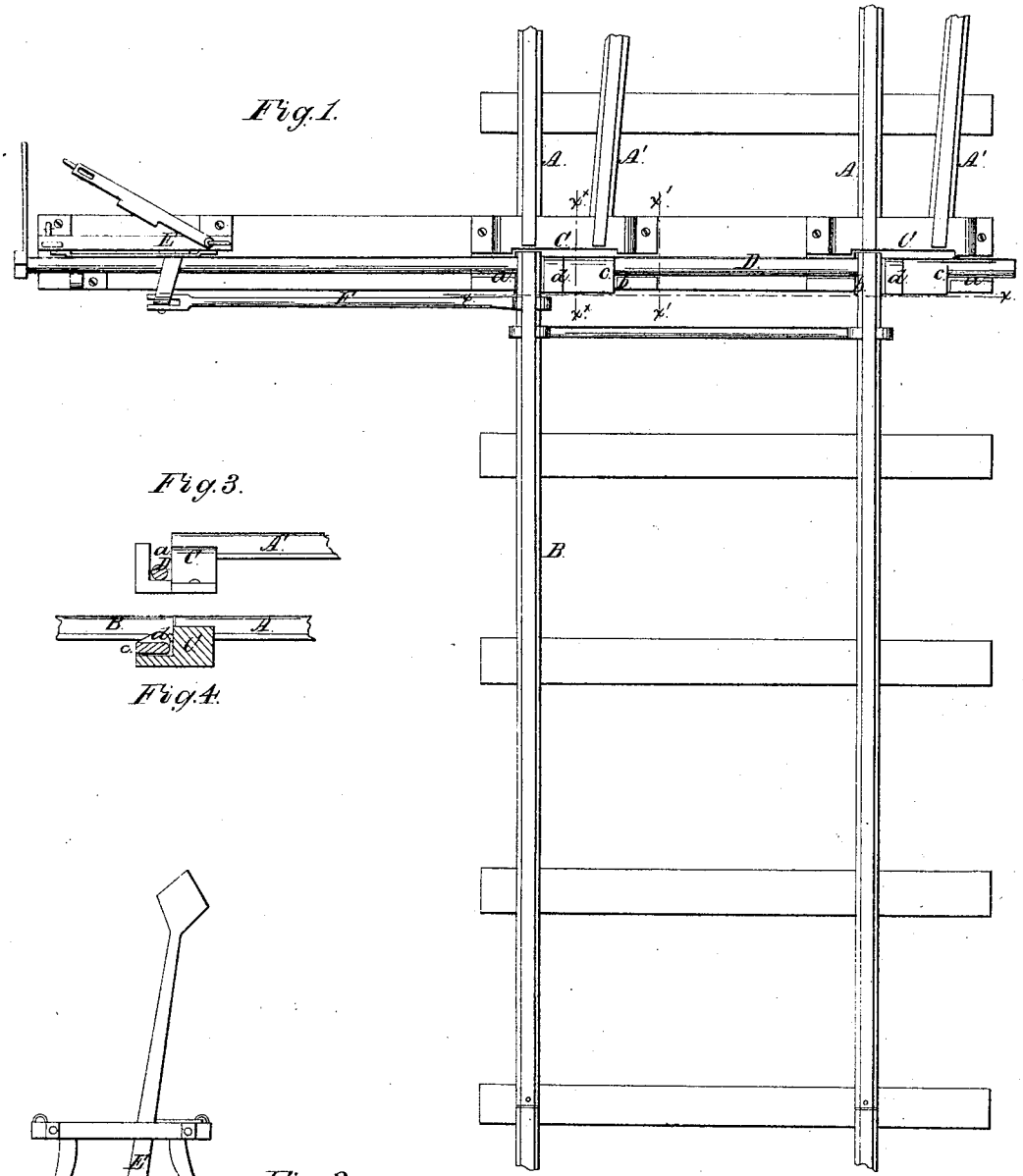
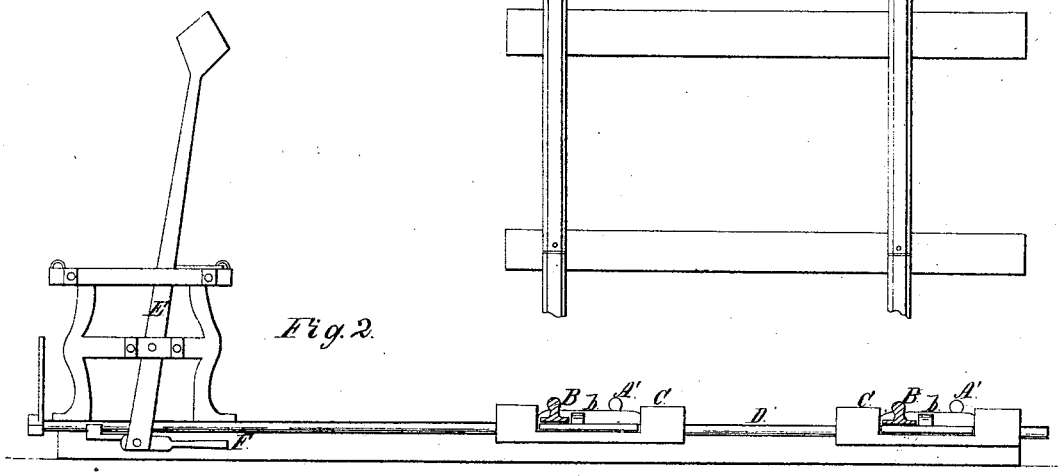


Fig. 3.

Fig. 4.

Fig. 2.



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UNITED STATES PATENT OFFICE.

GEORGE DOUGLASS, OF SCRANTON, PENNSYLVANIA.

IMPROVED RAILROAD-SWITCH.

Specification forming part of Letters Patent No. **50,564**, dated October 24, 1865.

To all whom it may concern:

Be it known that I, GEORGE DOUGLASS, of Scranton, in the county of Luzerne and State of Pennsylvania, have invented a new and Improved Railroad-Switch; and I hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan or top view of my invention; Fig. 2, a transverse vertical section of the same, taken in the line *x x*, Fig. 1. Figs. 3 and 4, sections of the same, taken, respectively, in the lines $x' x' x^{\times} x^{\times}$, Fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a new and improved railroad-switch of that class in which means are devised for preventing the switch from casually moving out of proper position.

The object of the invention is to obtain a switch of the class specified which may be operated or adjusted with the greatest facility, be strong and durable, and held firmly in position, so that it cannot casually or accidentally move out of its proper place.

A A A′ A′ represent the two tracks of a railroad, with either of which the switch B may be made to communicate.

The switch may be of ordinary construction, and the free or disengaged ends of the rails are fitted in chairs C C, in which the ends of the rails of the tracks A A′ are secured. These chairs are formed with a transverse groove, *a*, extending their whole width, the rails of the switch passing entirely across the grooves, and the ends of the chairs which face the switch are notched or provided each with a recess, *b*, to admit of the ends of the switch-rails passing into the chairs, the ends of the recesses *b* serving as guards or stops for the switch-rails, preventing them from moving laterally beyond a certain distance.

D represents a rod, which has two projections, *c c*, extending from it. The length of these projections are equal to the length of the notches or recesses *b* in the chairs, so that the projections may fit in said recesses, and each projection has a ledge, *d*, upon its upper side at its center. These ledges *d* serve as a guard or stop for the switch-rails, preventing them from moving laterally in one direction, while the ends of the recesses *b* prevent them from moving in the opposite direction. The switch-rails, when at one side of the ledges *d*, are in line with the rails A, and when at the opposite sides are in line with the rails A′.

The switch is moved from one track to the other by means of the usual lever and rod, E F, (shown clearly in Fig. 2;) but in order to thus move the switch it will be seen that the ledges *d* must be adjusted in some way so that they will not serve as an obstruction and the rails elevated above the chairs C C. This result is attained by turning the rod D so that the projections *c c* will bear upon the bottoms of the grooves *a* in the chair and raise the rod D, and consequently the ends of the switch-rails, which, under the adjustment of the rod, will rest on the edges of the projections *c*, and will consequently be free from the ledges *d*. The switch is then moved laterally by adjusting lever E, and the rod D turned back and lowered to its original position, so that the ledges *d* will be at one side of the switch-rails, as before.

Thus by this simple arrangement I obtain a strong, durable, and reliable switch, one that cannot casually move out of line with the track, and which may be adjusted in line with either track with the greatest facility.

I would remark that I do not confine myself to one ledge *d* for each switch-rail, as three may be used so as to have a ledge at each side of each switch-rail, in order to guard against accidents by the giving way of the chair.

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

1. The chairs C C, constructed with transverse grooves *a* and recesses *d*, substantially as shown, for the purpose of forming bearings for the rod D, and forming guards or stops at one side of the switch-rails, as set forth.

2. The rod D, provided with projections *c*, having ledges *d* on them, two or more, and arranged relatively with the chairs and switch-rails to operate substantially as and for the purpose specified.

3. The combination of the lever E and rod F with the rod D, provided with the projections *c c*, having ledges *d* on them, and the chairs C C, constructed as described, all for the purpose set forth.

GEORGE DOUGLASS.

Witnesses:
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