

(No Model.)

M. HYNES.  
RAILROAD SWITCH.

No. 463,579.

Patented Nov. 17, 1891.

FIG. 1.

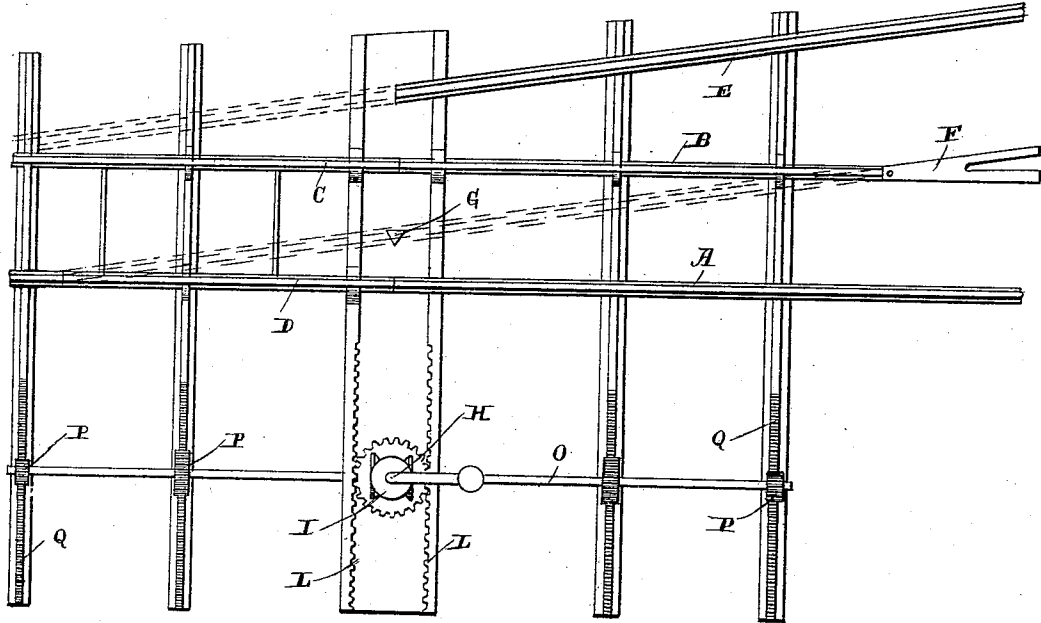
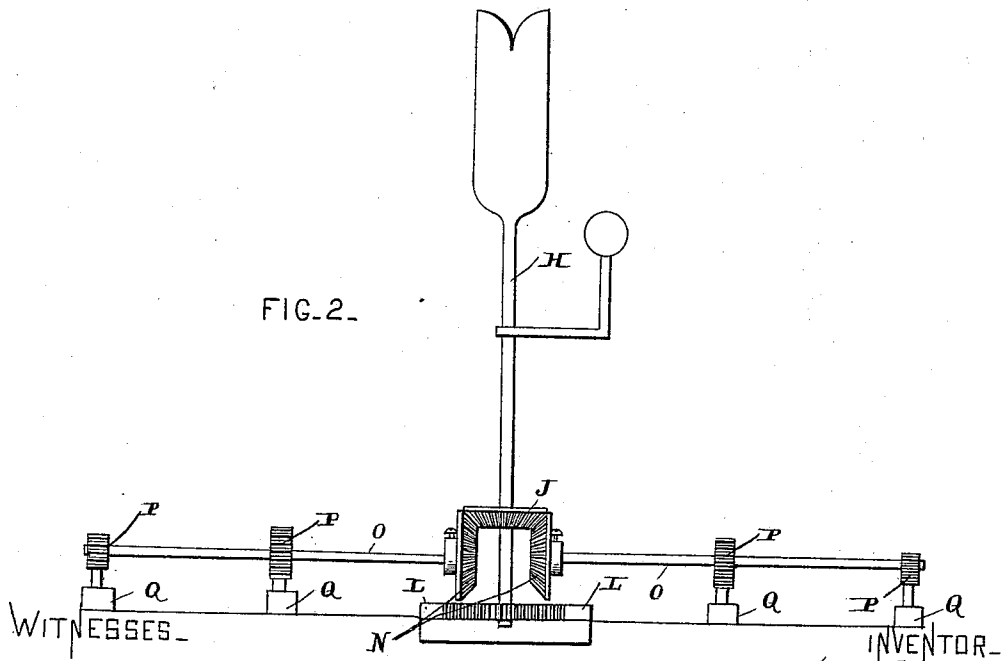


FIG. 2.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

MARTIN HYNES, OF HAMILTON STATION, MINNESOTA.

## RAILROAD-SWITCH.

SPECIFICATION forming part of Letters Patent No. 463,579, dated November 17, 1891.

Application filed April 23, 1891. Serial No. 390,149. (No model.)

*To all whom it may concern:*

Be it known that I, MARTIN HYNES, of Hamilton Station, in the county of Scott and State of Minnesota, have invented certain new and useful Improvements in Railroad-Switches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improvement in railroad-switches; and it consists in the construction and arrangement of parts which will be fully described hereinafter, and particularly referred to in the claims.

The object of my invention is to provide a switch in which the motion from the main switch rod or lever is applied to the pivoted rails at different points, whereby they can be moved more readily and easily than would otherwise be possible.

Figure 1 is a plan view of a switch which embodies my invention. Fig. 2 is a side elevation of the mechanism for moving the pivoted rails.

A represents the stationary rail of the main track, and B C E pivoted rails, which are adapted to be moved back and forth, so as to form portions of either the side or the main track, as may be desired. The rail E of the side track is stationary, and the rail B, which is pivoted at one end to the V-shaped block F, is adapted to move back and forth, as indicated by dotted lines, so as to form a portion of the side or main track, as may be desired. The two pivoted rails C D are moved back and forth, as shown by dotted lines, so as to make connection with either the side or the main track at the will of the operator. Placed midway between the ends of the rails A B and C D is placed a V-shaped block G, past which the end of the rail D moves when the rails C D are moved so as to make connection with the rails of the side track, and up to which the end of the pivoted rail B moves when that rail is moved so as to form a portion of the side track. This block G

bridges over the distance between the ends of the rails and serves to support the treads of the wheels as they pass from one rail to the other. Placed to one side of the tracks is the partially-revolving switch rod or lever H, which has secured to it the large spur-wheel I and the beveled gear J. The wheel I meshes with the racks formed upon the rods L and cause them to move in opposite directions, thereby moving the free ends of the pivoted rails C D in one direction and the free end of the pivoted rail B in the opposite one, thus causing the pivoted rails to be shifted from the main track to the side one or from the side track to the main one, as may be desired. Meshing with the gear J are the two wheels N, which are secured to the inner ends of the two shafts O, which extend in opposite directions, but in a line with each other. Secured to each of the shafts O are the pinions P, which engage with the rack-bars Q, which are fastened at different points to the pivoted rails B C D. As these shafts O revolve in opposite directions the rods P, operated by one shaft, move in an opposite direction from those operated by the other shaft, and hence the movement of the switch-rod H is applied to the pivoted rods at different points, so as to move the pivoted rails at different points, and thus prevent them from sticking, as would otherwise be the case if the power were applied to one point only. As the power is applied to the different parts of the rails long switch-rails can be moved with ease and quickness, and a cheap, simple, and durable switch is produced.

Having thus described my invention, I claim—

1. The stationary rails of the main and side tracks, combined with the movable rails B C D, the switch rod or lever provided with the wheels I J, the rack-bars L, connected to the free ends of the switch-rails, the shafts O, provided with wheels P, and the rack-bars Q, substantially as shown and described.

2. In a railway-switch, the main and side tracks, combined with the rails B C D, pivoted at their outer ends, the switch rod or lever provided with wheels I J, the rack-bars

I, connected with the free ends of the switch-  
rails and engaging the wheel I, the shafts O,  
having gears engaging the wheel J, the rack-  
bars Q, and the gears P upon the shafts O,  
5 engaging the bars Q, the outer wheels P be-  
ing smaller than the inner ones, substantially  
as specified.

In testimony whereof I affix my signature in  
presence of two witnesses.

MARTIN HYNES.

Witnesses:

M. H. ALLEN,  
S. A. HYNES.