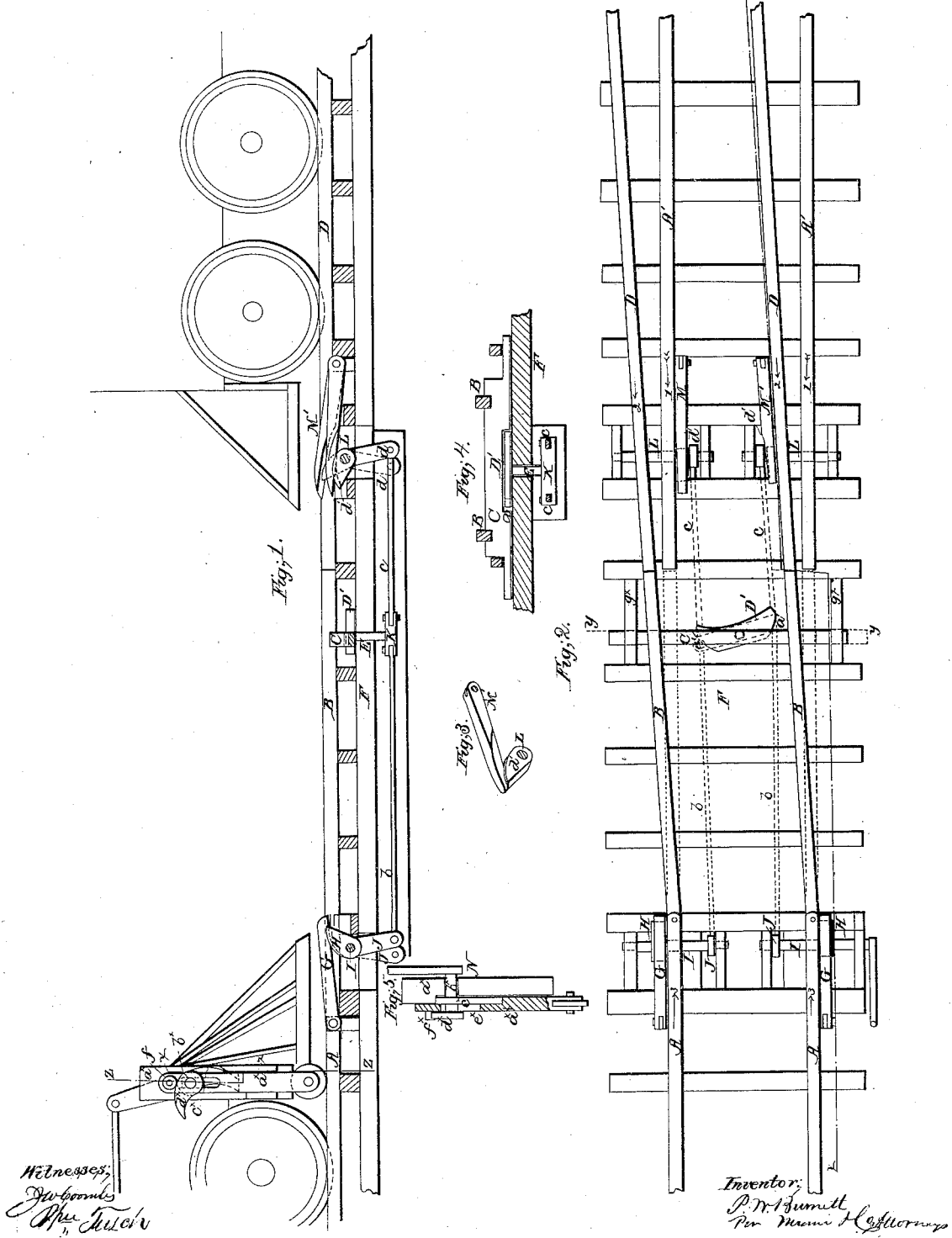


P. W. Burnett.

Railroad Switch.

N^o 34,050.

Patented Jan. 7, 1862.



UNITED STATES PATENT OFFICE

P. W. BURNETT, OF SACRAMENTO, CALIFORNIA.

IMPROVEMENT IN RAILROAD-SWITCHES.

Specification forming part of Letters Patent No. 34,050, dated January 7, 1862.

To all whom it may concern:

Be it known that I, P. W. BURNETT, of Sacramento, in the county of Sacramento and State of California, have invented a new and Improved Railroad-Switch; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of my invention, taken in the line *x x*, Fig. 2; Fig. 2, a plan or top view of the same; Fig. 3, a detached perspective view of one of the levers pertaining to the same; Fig. 4, a transverse section taken in the line *y y*, Fig. 2; Fig. 5, a detached sectional view of the device attached to the locomotive for actuating the switch at certain times.

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

This invention relates to an improved railroad-switch of that class which is actuated by the engine of the train or by an appendage attached thereto, and which is commonly termed "automatic."

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A A, Fig. 2, represent the rails of a main track, and B B represent the rails of a switch, said rails being pivoted at one end in line with the main rails A A and connected at or near the opposite ends by a cross-tie C. (See Fig. 2.)

D D represent the rails of a branch track, and A' A' represent rails which are a continuation of those of the main track A A.

The cross-tie C has a recess *a* made in its under side, and D' is a cam which works in said recess and is secured to the upper end of a shaft E, which passes vertically through a platform F, on which the switch is placed. The form of the cam D' is shown clearly in Fig. 2, and may be described as being a bar or plate with curved cords *a' a'*.

To each side of the main rails A A—their outer sides—there are placed levers G G, one to each rail. These levers G rest on levers H H, which are attached to shafts I I, and each shaft I has a pendant J at its inner end, said pendants extending down through the platform F and being attached to rods *b b*, which extend along underneath the platform

F and are connected at their front ends to a lever K at the lower end of shaft E. The lever K has also rods *c c* attached to its ends, which rods are connected to the lower ends of pendants *d d* at the inner ends of shafts L L, the pendants *d d* having levers *d'* attached, on which levers M M' rest or bear. The levers M M' are similar to the levers G G. The levers M M', however, are placed at the inner sides of the rails D A' of the main and branch tracks. (See Fig. 2.)

The cam D' by being turned will shift the rails B B of the switch either in line with the rails A' A' of the main track or with the rails D D of the branch track, and in case a train is passing along on the main rails A' A' in the direction indicated by the arrows 1 and the switch-rails B B are in line with the branch rails D D the lever M will be elevated and the flange of the forward wheel of the train will depress said lever M and turn its shaft L, and the lever *d'* thereof will actuate, through the medium of its pendant *d* and rod *c*, the lever K and cam D', and the latter will move the switch-rails B B in line with A' A'. In case the train be moving on the branch rails D D in the direction of arrows 2 and the switch-rails B B be in line with the rails A A, the flange of the forward wheels will actuate the lever M' and throw the switch-rails B B in line with rails D D, the latter operation or movement being substantially the same as the former, the cam D' moving the switch in both cases. Thus it will be seen that the switch-rails will be actuated automatically while passing on either the branch or the main rails.

In case a train is passing on the main rails A A toward the switch-rails B B, as indicated by arrow 3, Fig. 2, the switch-rails are moved in line with the branch rails D D or with the rails A' A', as may be desired, by actuating the proper lever G, and the levers G are actuated through the medium of adjustable pendants N, which are secured one to each side of the locomotive. These pendants are formed of a stationary bar *a^x*, having a shaft *b^x* passing transversely through it, on which two curved arms *c^x d^x* are secured at right angles. The innermost arm *c^x* works against a shoulder *e^x* at the inner side of a vertical bar *a^{xx}*, and the arm *d^x* works against a pin *f^x* at the outer side of bar *a^{xx}*, and by turning shaft

b^x the bar a^{xx} may be raised and lowered and kept in either a raised or depressed state, as one arm forms a lock for the other, the arm c^x keeping the bar a^{xx} depressed and the arm d^x keeping it elevated. The engineer by forcing down the bar a^{xx} of either the right or left hand pendant may operate or actuate either lever G, as desired, which levers, through the medium of the levers H, shafts I, pendants J, and rods b , actuate lever K. Thus a perfect and simple automatic switch is obtained—one not liable to get out of repair nor become deranged by use. At each side of the switch there are stops $g^x g^x$, which control the extent of the movement of the switch.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. The arrangement of the pivoted beveled levers M M G G and grooved levers H H, with the pendants J, shafts I I L L, rods $b b c c$, lever K, shaft E, cam D', and switch-rails B B, as herein shown and described.

2. The arrangement of the slotted adjustable pendants N, with the curved arms $c^x d^x$, pins f^x , shoulders e^x , and shafts b^x , as herein shown and described.

P. W. BURNETT.

Witnesses:

ROBERT B. NORMAN,

H. A. BURNETT.