

(No Model.)

A. M. GRUBBS.
RAILROAD FROG.

No. 463,728.

Patented Nov. 24, 1891.

Fig. 1.

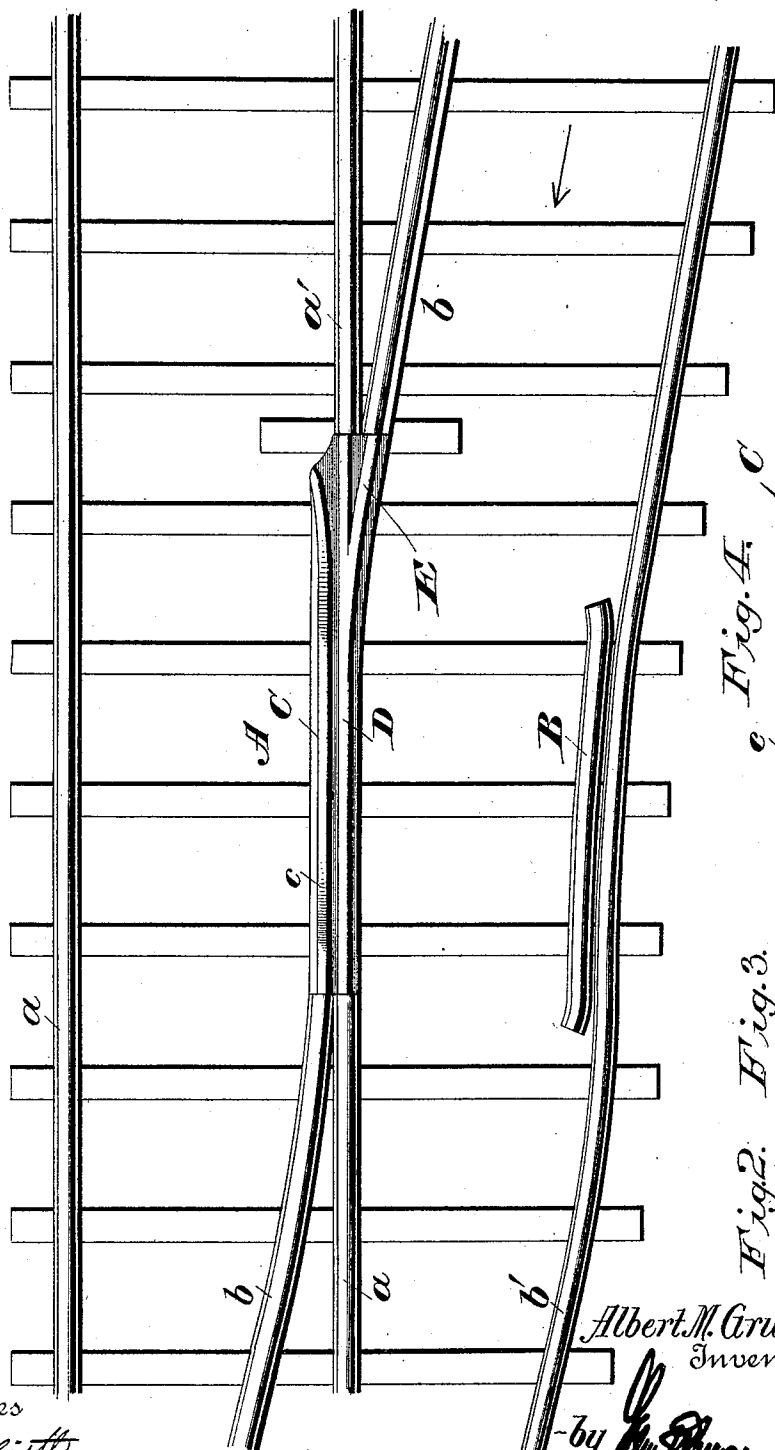


Fig. 4.

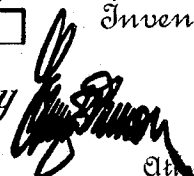


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT MARION GRUBBS, OF FOREST GROVE, OREGON.

RAILROAD-FROG.

SPECIFICATION forming part of Letters Patent No. 463,728, dated November 24, 1891.

Application filed March 19, 1891. Serial No. 385,653. (No model.)

To all whom it may concern:

Be it known that I, ALBERT MARION GRUBBS, a citizen of the United States of America, residing at Forest Grove, in the county of Washington and State of Oregon, have invented certain new and useful Improvements in Railroad-Frogs; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in railroad-frogs; and it consists in the construction and combination of the parts, whereby a solid frog can be used for transferring cars from one track to another, said frog being made in a single piece and provided with a main-track rail of the same height as the ordinary rails and a switch-rail adjacent thereto, a portion of which is of greater height, so that the tread of the car-wheels can ride upon the switch-rail to elevate the flange thereof above the main-track rail, the rail opposite the frog being curved inwardly toward the frog to force the tread of the wheel upon the raised track of the frog, as will be hereinafter more fully set forth.

In the accompanying drawings, Figure 1 is a plan view; Figs. 2 and 3, end views, and Fig. 4 a side view.

a and a' refer to the main-track rails, and b and b' to the switch-rails or the rails of a track which crosses the main track. Opposite the frog A, adjacent to the switch-rail b' , is located a guard-rail B. This switch-rail b' is curved slightly inwardly opposite the frog, so as to bear against the flange of the wheel and force the opposite wheel upon the raised rail of the frog, so that the flange of the wheel will be lifted over the rail, which is of the same height as the switching-track rail.

The frog A is made up of a single piece, and has at one side a rail C with a raised portion c and adjacent thereto a rail D, located on a line with the main-track rail a' . A short rail E diverges from the rail D to form a continuation of the track b . The rails D and E

of the frog are of substantially the same height, while the rail C is raised centrally for a short distance, but at each end is of the same height as the rails D and E, as will more fully appear by reference to Figs. 2, 3, and 4 of the drawings.

The raised portion of the track C extends above the tread of the rail D a height greater than the flange of the car-wheel, so that said wheels in moving onto the frog will ride on the raised portion of the rail C to permit the flanges thereof to clear the rail D.

It will be observed that the main track, made up of the rails a and a' , is entirely clear or open at all times, the flanges of the wheels moving on said track passing between the rails C and D. A car moving on the side track in the direction indicated by the arrow, the flanges of the wheels being on the inner side of the rails will contact with the short rail E until the tread of the wheel rides on the raised portion c of the rail C, when the flanges will be elevated above the plane of the rail D, and the wheels lifted over said rail and passing down the incline at the end of the rail C will be guided onto the rail b . This action takes place without any perceptible jar to the rolling stock, and it will be observed that by the use of the improved frog there is no break in the main track and that switch-points are entirely dispensed with.

This device is designed as an improvement on my patent dated September 23, 1890.

Having thus described my invention, I claim—

In a railroad-frog, the combination, with the track-rails a a' and b b' , of the frog A, made of a single piece and comprising rails or ways C D E and a continuation of the rail D, which meets the rail a' , the rail C having a central raised portion, as shown, and the switch-rail b' having an inwardly-curved portion opposite the frog, for the purpose set forth.

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

ALBERT MARION GRUBBS.

Witnesses:

EDWARD L. NAYLOR,
NOLES MORMER.