B. R. STARRATT.

Adjustable Railroad-Frog.

No. 211,193. Patented Jan. 7, 1879.

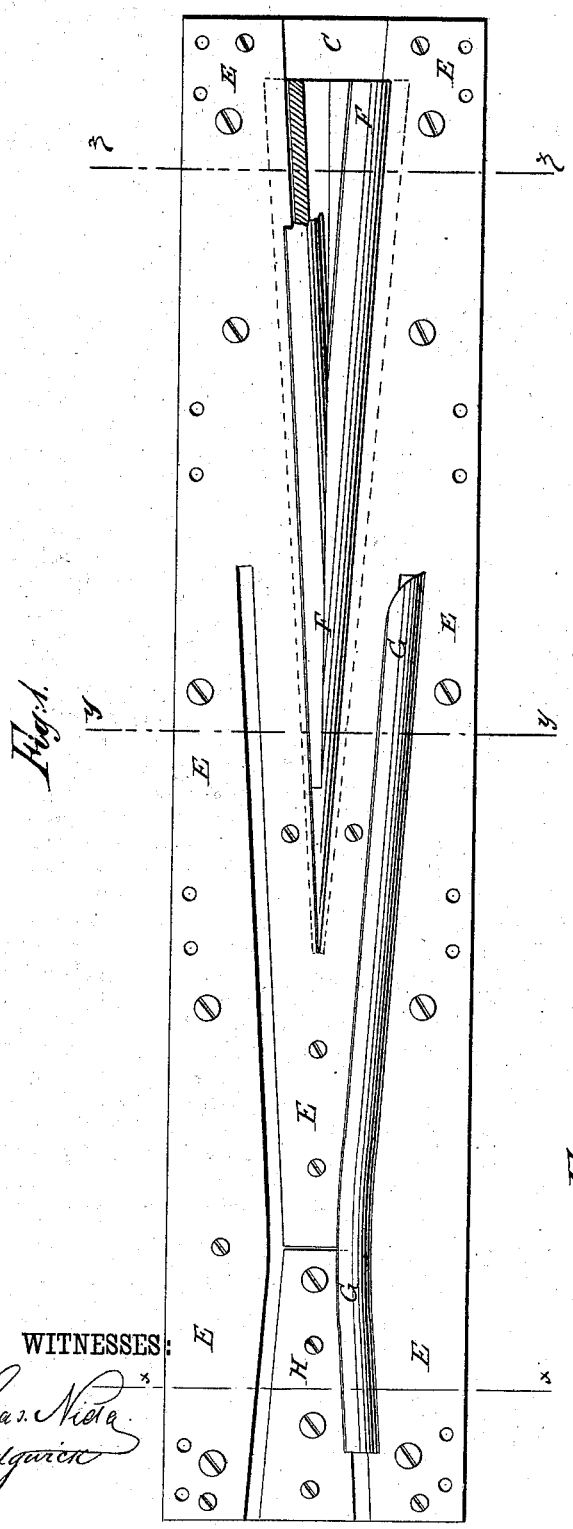

Fig. 1.

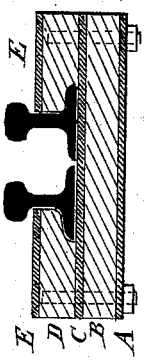

Fig. 4.

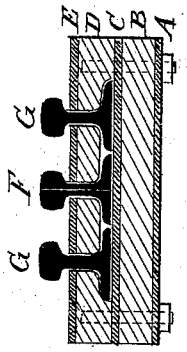

Fig. 3.

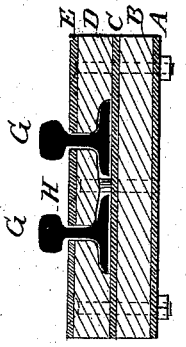

Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

BURPEE R. STARRATT, OF TRURO, NOVA SCOTIA, CANADA, ASSIGNOR TO HIMSELF, GEORGE H. CAMPBELL, AND WILLIAM W. McLELLAN, OF SAME PLACE.

IMPROVEMENT IN ADJUSTABLE RAILROAD-FROGS.

Specification forming part of Letters Patent No. **211,193**, dated January 7, 1879; application filed August 20, 1878.

To all whom it may concern:

Be it known that I, BURPEE R. STARRATT, of Truro, Colchester county, Province of Nova Scotia, Dominion of Canada, have invented a new and Improved Adjustable Railroad-Frog, of which the following is a specification:

Figure 1 is a top view of my improved frog, one of the wing-rails being removed and part of the tongue being broken away to show the construction. Fig. 2 is a cross-section of the same taken through the line *x x*, Fig. 1. Fig. 3 is a cross-section of the same taken through the line *y y*, Fig. 1. Fig. 4 is a cross-section of the same taken through the line *z z*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The object of this invention is to furnish an improved railroad-frog which shall be so constructed that the wing-rails and the tongue, when broken or worn, can be removed and replaced with new ones without removing the frog from its bed.

A represents an iron plate about three-eighths of an inch thick, and of the required length and breadth of the frog. Upon the plate A is placed a plank, B, of the same length and breadth, and about two inches thick. Upon the plank B is placed an iron plate, C, of the same length and breadth, and about half an inch thick, and upon which the wing-rails G and the tongue F rest. Upon the plate C is placed a plank, D, of the same length and breadth, and from two to two and a half inches thick, the said plank D varying in thickness according to the height of the rails. The plank D is slotted and cut out or recessed to fit around the flanges and webs of the wing-rails G and the tongue F, so that the said wing-rails and tongue may be driven into and out of the slots, grooves, or recesses thus formed. Upon the plank D is placed an iron plate, E, of the same length and breadth, and about three-eighths of an inch thick. The plate E is slotted to correspond with the slots of the plank D, so as to fit around the webs of the wing-rails G and the tongue F. Sufficient space must be left between the faces of the wing-rails and tongue G F and the plate E to prevent the flanges of the engine and car wheels from cutting into the said plate E. The tongue F is made of iron or steel rails cut, spliced, and firmly riveted together to give the said tongue a V shape. The tongue F is fitted into the groove in the plank D and plate E, and is made of such a length as to leave a space of five or six inches between its outer end and the end of the frog to receive and serve as a chair for the ends of the track-rails. The wing-rails G are iron or steel, and are inserted in the grooves in the plank D and plate E, and are made of such a length as to leave a space of five or six inches between their outer ends and the end of the frog to receive and as a chair for the ends of the track-rails. The part of the plank D and plate E between the outer parts of the wing-rails G is cut off and put back to serve as a detachable key, H, which must be detached when the said wing-rails are to be removed from their slots. The key H is secured to the base part of the frog by screw-bolts, so that it can be readily detached without disturbing the frog upon its seat. The planks and plates B D A C E are firmly secured together by bolts passing through them, and they also have holes formed through them to receive the spikes by which they are secured to the ties or sleepers.

I am aware that it is not new to embed the two divisions of a divided tongue, and secure wing-rails by cast-iron chains; also, that it is not new to construct a frog-plate of layers of plate, metal, and wood, or to make the frog-point, guard-rails, and rail-sections detachable; but

What I claim is—

The combination of the detachable key H with the wing-rails G and the grooved or slotted body of the frog, substantially as herein shown and described.

BURPEE R. STARRATT.

Witnesses:

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