(No Model.)

C. KEELER.

DEVICE TO PREVENT RAILWAY RAILS FROM SPREADING.

No. 535,290. Patented Mar. 5, 1895.

Fig. 1.

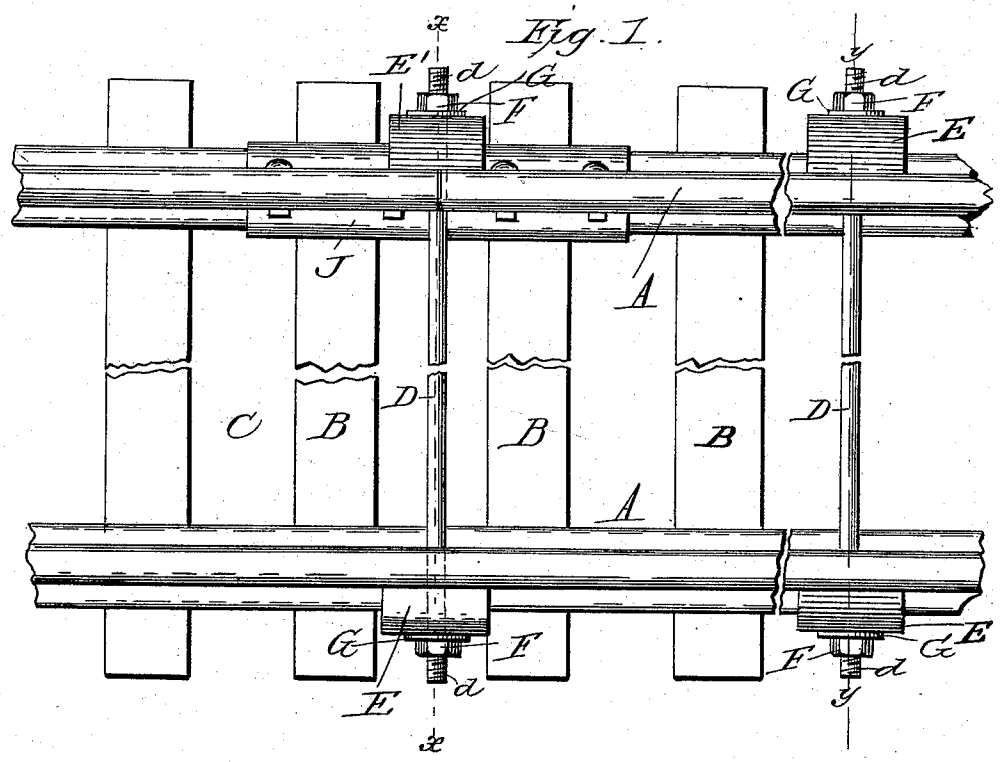


Fig. 2.

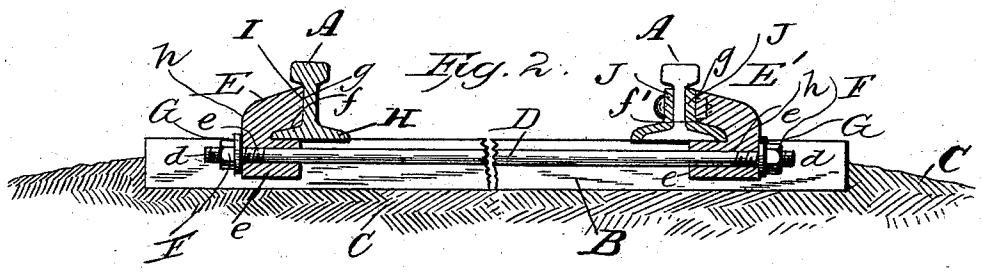


Fig. 4.

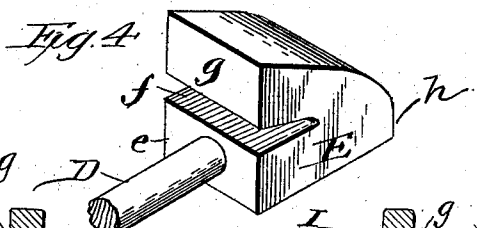
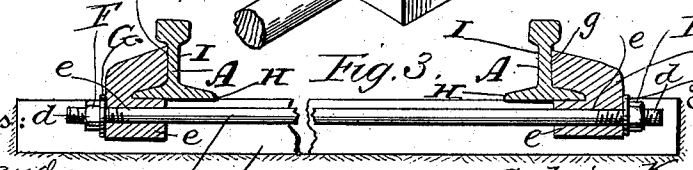


Fig. 3.



Witnesses:
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Edmund L. Jones.

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by Louis Bagger & Co.
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UNITED STATES PATENT OFFICE.

CALVIN KEELER, OF HOBART, NEW YORK.

DEVICE TO PREVENT RAILWAY-RAILS FROM SPREADING.

SPECIFICATION forming part of Letters Patent No. 535,290, dated March 5, 1895.

Application filed October 29, 1894. Serial No. 527,310. (No model.)

To all whom it may concern:

Be it known that I, CALVIN KEELER, a citizen of the United States, and a resident of Hobart, in the county of Delaware and State of New York, have invented certain new and useful Improvements in Devices to Prevent Railroad-Rails from Spreading; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a plan, or top view, of a section of railroad track equipped with my improved device for holding the rails to gage and preventing them from spreading. Fig. 2 is a transverse sectional view on line *x*—*x*, in Fig. 1; and Fig. 3 is a similar view on the parallel vertical plane indicated by the broken line marked *y*—*y*. Fig. 4 is a detail view of one of the clamps.

Like letters of reference designate corresponding parts in all the figures.

My invention relates to devices or appliances for keeping railroad rails to gage and preventing them from spreading, and consists in an improvement upon the device for which Letters Patent of the United States, No. 445,449, were granted to me on the 27th day of January, 1891, whereby the construction of the device is not only much simplified, but better results are obtained and the application of the device to a railroad track facilitated.

On the accompanying drawings, the reference-letter A denotes the rails, and B the ties of the track; the road-bed being shown at C. The rails are fastened to the ties by spikes, as usual, or in any other approved manner; and the lines of rail on opposite sides are connected by tie-rods D, which pass transversely through the road-bed below the track, and are inserted, at opposite ends, through the rail-clamps E, E′. The latter are castings, of any suitable metal, of the configuration shown on the drawings, viz., comprising a longitudinally apertured base *e*, a notched recess or rail-seat *f*, and an overlapping bearing or abutment *g*.

The ends of the tie-rod or connecting bar D are inserted through the apertures *e e* in the castings E E′, one at each end, and are screw-threaded at their projecting outer ends, *d d*, to receive the nuts F and washers G, which, when screwed up home, will bear or abut against the straight outer sides *h h* of the clamps. The end of the overhanging bearings *g g* are also made straight, or approximately so, to fit the adjacent sides of the rail-web or neck, I, against which these bearings abut. Two sets of these clamps are required, which are alike in all respects, except that the recess *f*, for the foot or bottom-flange of the rail, is made larger in the clamps E′, appertaining to one set, than in those (E) belonging to the other set. In applying the clamps, one of the set E′ with an enlarged recess or rail seat *f′*, is used at each rail-joint, and, therefore, on opposite sides of the track; the seat-recess *f′* being large enough to take in the rail-foot and web, as well as the fish-plate J appertaining to the joint. As the rails are laid to "break joints," there will be no rail-joint opposite to the clamp E′, and here a clamp, E, of the other set is used, the seat recess *f* of which is just large enough to fit closely upon and against the adjacent side of the rail-foot H and web or neck I. After the clamps E and E′ have been placed in position upon the rails, opposite to each other, in the manner described, they are connected by the tie-rods D through the road-bed C, after which the washers G G and nuts F F are placed upon the tapped ends *d d* of the rod, and screwed up tight against the contiguous straight sides *h h* of the clamps, which are thus drawn up closely against their respective rails on opposite sides of the track, and thereby effectually prevent the same from drawing apart or spreading.

It will be observed that this device is exceedingly simple both in the construction of its component parts and their application to a railroad track, and that, when applied, it absolutely and effectually does away with the danger incident to the spreading of the rails from any cause.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

In a railroad track, the combination with the rails A, A, railroad ties B, and fish plates J, of the clamps E′, having enlarged recesses

f' with which the fish plates engage and with apertures *e*, the oppositely and alternately arranged clamps E, having small recesses *f*, in which the rail bases are seated, and formed with apertures *e*, the tie rods D, tapped at opposite ends, the nuts F and washers G, G, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CALVIN KEELER.

Witnesses:
STEWART LYON,
JAMES W. LYON.