

T. J. TODD.

Devices for Straightening Railroad Rails.

No. 135,676.

Patented Feb. 11, 1873.

Fig. 1.

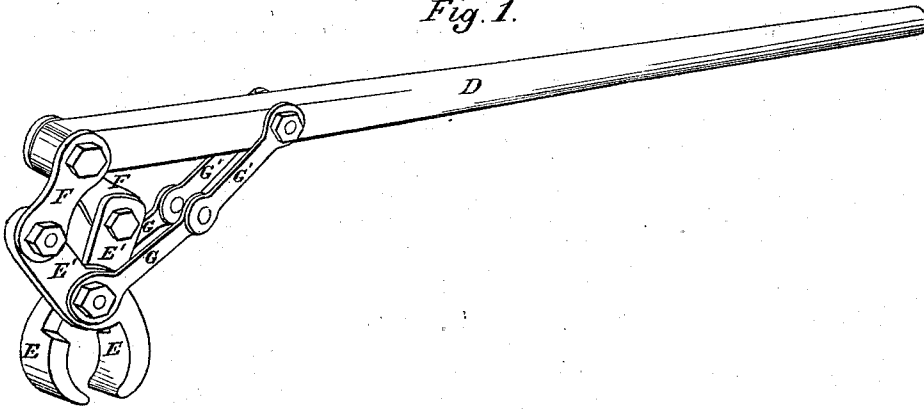
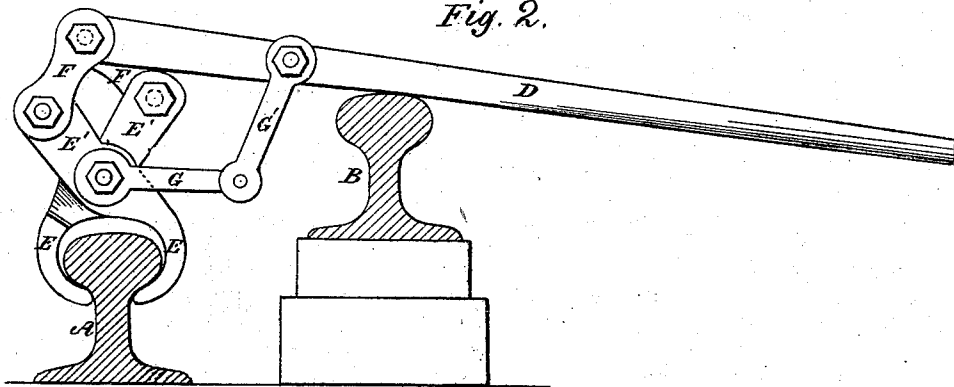


Fig. 2.



Witnesses.

C. F. Rowe.
J. Williams

Inventor.

Thos. J. Todd.
by his atty.
Burr & Rowe

UNITED STATES PATENT OFFICE.

THOMAS J. TODD, OF SOMERVILLE, NEW JERSEY.

IMPROVEMENT IN DEVICES FOR STRAIGHTENING RAILROAD RAILS.

Specification forming part of Letters Patent No. 135,676, dated February 11, 1873.

To all whom it may concern:

Be it known that I, THOMAS J. TODD, of Somerville, in the county of Somerset and State of New Jersey, have invented an Improved Implement for Straightening and Curving Railroad Rails, of which the following is a specification:

My invention relates to that class of implements for the purpose specified which employ a lever provided with clamping-jaws that secure one end of the lever to one of the rails in the track and form a fixed fulcrum for the lever preparatory to its use in bending a rail in the customary manner. The object of my invention is to keep the clamping-jaws in such position that they can be readily secured to the rail in the track; and the improvement consists in pivoting toggle-jointed clamping-jaws to the end of the lever and connecting one of the other joints of the toggle by links to a pivot on the lever, arranged at a suitable distance from the pivot that secures the clamping-jaws to the lever, so that the jaws will be prevented from playing loosely around the pivot that secures them to the lever, but permitted to operate freely in clamping the rail in the track, as hereinafter described.

In the accompanying drawing, Figure 1 is a perspective view of my improved implement with the jaws opened and ready to be applied to a rail. Fig. 2 is an elevation of the same illustrating the use and application thereof in straightening and bending rails.

The rail A is firmly secured as usual to the road-bed, and constitutes a portion of the track. The rail B, which is to be bent, is supported at each end upon blocks C C, or in any suitable manner. The lever D, for bending the rail B, has clamping-jaws E E attached to one of its ends, as hereinafter described, to facilitate the fastening of one end of the lever to the rail A, and provide a fixed fulcrum for the lever preparatory to its use in bending a rail. The jaws E E are crossed and pivoted at their intersection and provided with arms E' E' that extend beyond the pivot in such a manner that when brought together the jaws will open, and when the arms are separated the jaws will close, as illustrated in the draw-

ing. Links F F are pivoted at one of their ends to the end of the lever and at each side thereof, and at the other end of the arms E' E', and thus form a toggle-jointed connection between the clamping-jaws and the end of the lever. In order to keep the jaws in proper position to be conveniently applied to the rail I provide links G G pivoted to the jaws at their intersection, the opposite ends of these links being pivoted to links G' G', which are in turn pivoted to the lever at a suitable distance from the pivot of the toggle-jointed jaws. By this means the clamping-jaws are prevented from swinging loosely around the pivot that connects them with the end of the lever and held in such position that the jaws can be readily applied to the rail in the track. The toggle-joints of the clamping-jaws are sufficiently tight to hold the jaws open when placed in that position to be applied to their work, but permitted to operate freely in clamping the rail.

In the use of this implement the jaws E E are opened and held in position by the links, so that they may be readily placed upon a fixed rail, A, of the railroad track. The free end of the lever D is then thrown across the center or unsupported portion of the rail B to be bent and proper pressure applied thereto.

The application of power to the free end of the lever, drawing upon the toggle, at the opposite end thereof, operates to close the jaws firmly upon the rail A, and thus gives secure hold to the lever during the operation of bending the intermediate rail B by means of power applied to lever D, as illustrated in Fig. 2 of the drawing.

I claim as my invention and desire to secure by Letters Patent—

The combination of the lever, the toggle-jointed clamping-jaws, and links to connect the jaws with the lever so as to hold the jaws in proper position to be applied to their work, the parts being constructed substantially as described.

THOMAS J. TODD.

Witnesses:

A. T. E. SCHENCK,
D. M. VOORHEES.