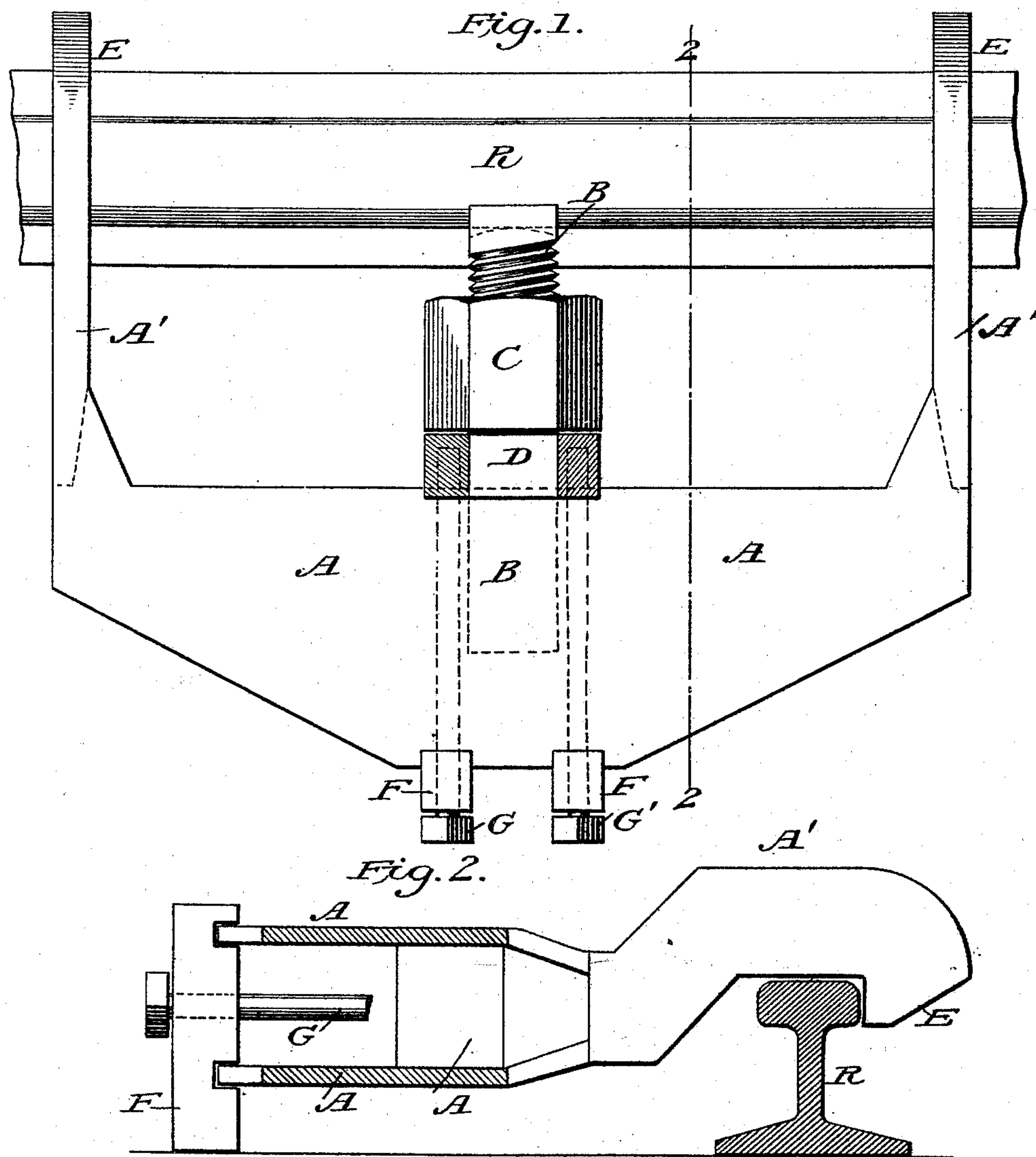


(No Model.)

A. L. STANFORD.
RAILROAD RAIL BENDER.

No. 497,288.

Patented May 9, 1893.



Witnesses.

Louise C. Stanford
Mary E. Stanford

Inventor.

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UNITED STATES PATENT OFFICE.

ARTHUR L. STANFORD, OF EVANSTON, ILLINOIS.

RAILROAD-RAIL BENDER.

SPECIFICATION forming part of Letters Patent No. 497,288, dated May 9, 1893.

Application filed January 10, 1893. Serial No. 457,926. (No model.)

To all whom it may concern:

Be it known that I, ARTHUR L. STANFORD, a citizen of the United States, residing at Evanston, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Railroad-Rail Benders; and I do 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 the letters of reference marked thereon, which form a part of this specification.

My invention is designed for bending railroad rails, to adapt them to any desired curve in the track; or for use as guard-rails; and it is adapted as well to straightening railroad rails, which have been bent by too heavy strain.

Of the railroad rail benders now in use, those of simple construction have been found imperfect in operation, and the more effective devices are so heavy that they are inconvenient to handle, and are complicated in construction, thus being expensive to manufacture; and their tendency to get out of order, is increased by the great number of their constituent parts. My invention is designed to overcome these difficulties, by furnishing a railroad rail bender of light weight, simple construction, and effective operation.

In the drawings Figure 1 is a plan view of my machine in position for use upon a railroad rail. Fig. 2 is a cross section on the line 2 2 of Fig. 1 omitting certain parts.

A is the frame with extensions A' A' having hooks E E.

B is a screw threaded bending or push bar having the nut C.

D is a washer of peculiar construction.

F F' are parts adapted to gage and firmly control the distance between the two sides of frame A; and also to support the machine at right angles to the vertical axis of the railroad rail.

G G' are bolts passing through notched or grooved gaging and supporting pieces F F'

and screw threaded in washer D holding same in place upon the frame.

E E Fig. 1 and E Fig. 2 are hooks to hold the rail against the pressure of bending bar B. The extensions A' A' and hooks E E are preferably made integral with the frame A and the hooks E E are equidistant from bar B, and support the machine at right angles to the rail. Bar B is grooved at its end which bears against the rail in such manner as to prevent the bar from turning together with the nut as it would otherwise do and so render the machine inoperative. Washer D is provided with two grooves adapted to receive the side pieces of frame A. This appears in dotted lines in Fig. 1. These grooves not only prevent washer D from turning with nut C, but also maintain the side pieces of frame A rigidly at proper distance from each other.

The operation of my machine is as follows: The machine being in position for use that is having the extensions A' A' of frame A resting upon the top of the rail to support the machine at the side; and hooks E E bearing against the side of the head of the rail to resist the pressure of bending or push bar B; and gaging and supporting pieces F F' supporting the machine at the side. Now by turning the nut C bending bar B is brought to bear upon the side of the head of the rail about midway between the hooks E E and the rail is bent at this point. The machine is now moved along upon the rail and the operation repeated.

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

In a railroad rail bender a frame having two parallel sides and carrying a grooved washer at one side at or near its middle portion, and grooved gaging and supporting pieces at its opposite side substantially as set forth.

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

ARTHUR L. STANFORD.

Witnesses:

LOUISA C. STANFORD,
MARY E. STANFORD.