

(No Model.)

J. T. JONES.
MANUFACTURE OF RAILWAY SPIKES.

No. 400,405.

Patented Mar. 26, 1889.

Fig. 2.

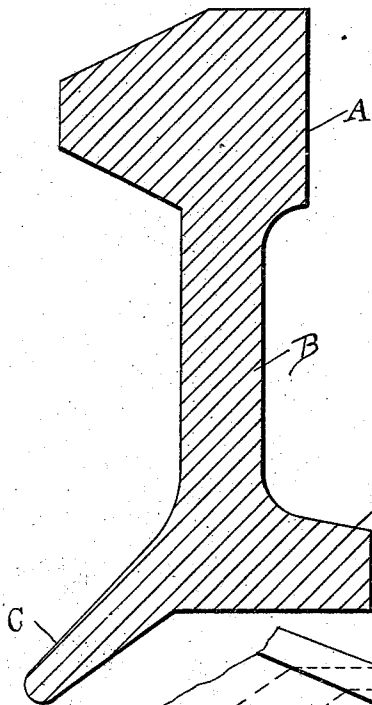


Fig. 1.

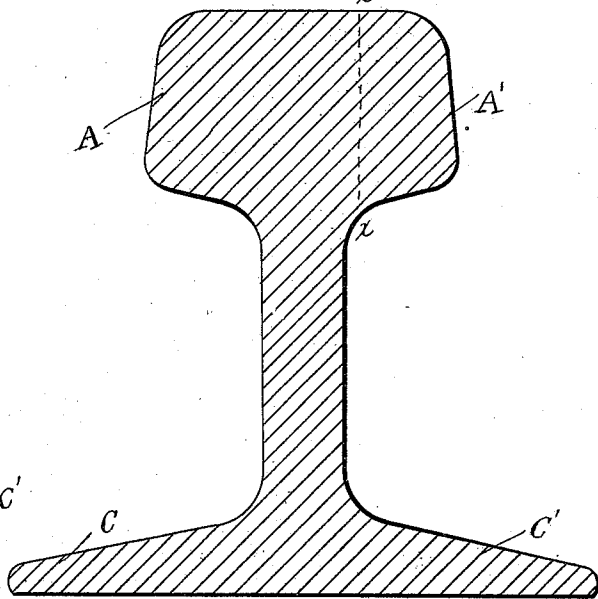


Fig. 4.

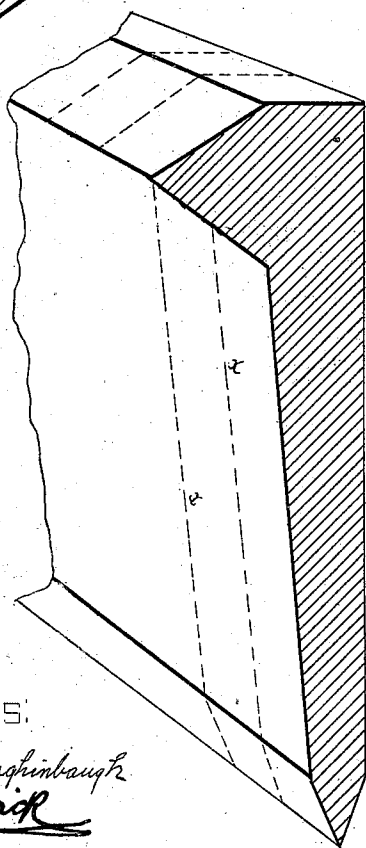
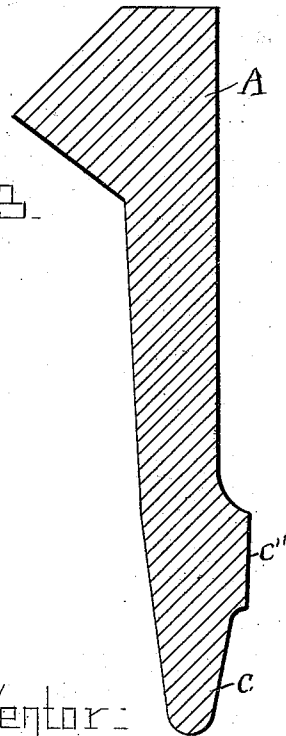


Fig. 3.



Witnesses:

W. E. Aughinbaugh
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Inventor:

John T. Jones
by Marshall Daily
his attorney

UNITED STATES PATENT OFFICE.

JOHN T. JONES, OF IRON MOUNTAIN, MICHIGAN.

MANUFACTURE OF RAILWAY-SPIKES.

SPECIFICATION forming part of Letters Patent No. 400,405, dated March 26, 1889.

Application filed November 21, 1888. Serial No. 291,484. (No model.)

To all whom it may concern:

Be it known that I, JOHN T. JONES, of Iron Mountain, in the county of Menominee, State of Michigan, have invented a new and useful Improvement in the Manufacture of Railway-Spikes, of which the following is a specification.

My invention relates to the manufacture of railway-spike from old steel rails or the fag ends of steel rails, and it has particular reference to the mode of preparing the blank from which the spikes are cut.

The plan I have in view involves the utilization of a portion of the flange of the rail to form a portion of the shank of the spike by bending down said portion of the flange so that it shall finally be upon the prolongation of the web of the rail. In this way I can obtain the requisite length of shank more easily and with less rolling. In another application for Letters Patent of even date herewith, Serial No. 291,485, I have described a method involving this feature, and also involving the preliminary removal or shearing off of a portion of the flange, and if desired, a portion of the head of the rail also.

In the method which I am here about to describe the said portion of the head may be preliminarily sheared off or not, as desired; but in lieu of shearing off a portion of the flange which projects laterally beyond one side or face of the web, I roll this portion into the web or shank and I bend down the remaining portion of said flange so that it shall be on the prolongation of the web.

In the accompanying drawings, Figure 1 is a cross-section of the rail before it has been operated upon. Figs. 2 and 3 are cross-sections of the same at various intermediate stages of the rolling operation. Fig. 4 is a cross-section of the finished blank, with lines indicated in perspective, a portion of said blank having dotted lines indicating the cuts by which it is divided up into spikes.

The particular form of spike-blank in connection with which I have chosen to illustrate my improvement is that shown in my Letters Patent of July 17, 1886, No. 386,404, the same having a chisel-point edge, *a*, and a ridge, *b*, along the opposite or head edge. The inven-

tion, however, is of course applicable to other forms of spike-blanks. The rail, after being brought to the proper heat, is brought to the desired ultimate shape by rolling, being passed for this purpose between rolls provided with suitable grooves to insure the gradual and proper reduction of the rail.

In the rolling operation and at the same time that the head *A* and web *B* of the rail are being rolled one half, *C'*, of the flange of the rail is gradually forced or rolled into the web, while the other half or portion, *C*, is gradually bent or turned down until it is in line with and forms a prolongation of the web, thus giving the requisite width to the blank, or, what is the same thing, the requisite length to the shank of the completed spike. Figs. 2 and 3 represent the rail at intermediate stages of the rolling operation. Of course any desired number of passes may be made use of to bring the rail from the condition in which it is in Fig. 1 to that shown in Fig. 2, and the same is true as concerning the other figures. If desired, the portion *A'* of the head may be sheared off along the dotted lines *y* before the rolling operation. As the blank is brought to the condition shown in Fig. 4, it is divided up into spikes by cutting it along the dotted line *x*.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The method of making railway-spike blank-bars from steel rails, which consists in rolling the said rail into the form of the desired spike-blank bar, and in this operation rolling or forcing into the web or body of the rail one of the flanges and bending down the remaining flange so that it shall be in line with and form a prolongation of said web, and shaping the bar to the form shown in Fig. 4, substantially as and for the purposes hereinbefore set forth.

In testimony whereof I have hereunto set my hand this 19th day of November, 1888.

JOHN T. JONES.

Witnesses:

EWELL A. DICK,
WILL E. AUGHINBAUGH.