

C. K. MARSHALL.

Spike.

No. 161,975.

Patented April 13, 1875.

Fig. 1.

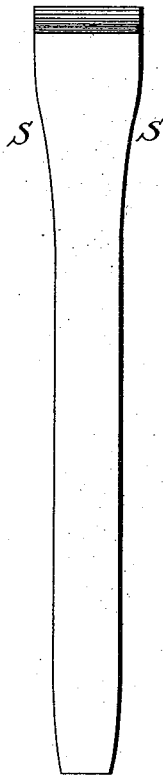
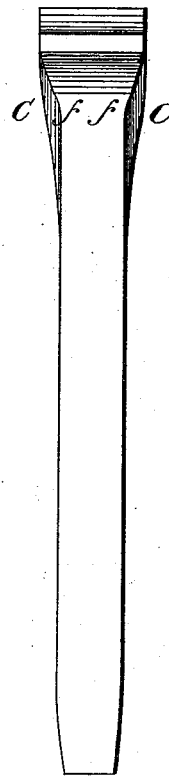


Fig. 2.



Fig. 3.



Witnesses.

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CHARLES K. MARSHALL, OF VICKSBURG, MISSISSIPPI.

IMPROVEMENT IN SPIKES.

Specification forming part of Letters Patent No. **161,975**, dated April 13, 1875; application filed September 17, 1874.

To all whom it may concern:

Be it known that I, CHARLES K. MARSHALL, of Vicksburg, Mississippi, have invented an Improvement in Spikes, of which the following is a specification:

My invention consists of a new form of spike for cross-ties on railroads and for other purposes. It consists of three distinct features. The first relates to the distribution of the metal so that from side to side the spike shall be thinner than from the face to the back, as illustrated in Figures 1 and 2 in the annexed drawings.

In Fig. 1 the spike is intended to be so formed as to be three-eighths and a little over from side to side through the main stem. In Fig. 2 the stem is about five-eighths of an inch through.

In this form the spike is made stronger just in the place where it can perform the largest service of resistance.

In addition, the second feature presents a tapering neck and head to the spike, running from the head down an inch and three-fourths, as shown in Fig. 1, *s s*. This tapering of the neck is beveled, as shown in Fig. 3 at C C, so

that on its face the spike is of a uniform width up to the head of the spike, and it is beveled from *ff* to C C. Made in this form, it enters the wood in a way to resist the pressure with greater force than the ordinary square spike.

Fig. 2 illustrates the third feature of my improvement. This consists, not in making indentations on the stem of the spike, but in bending it so as to obtain convex and concave forms alternately, and for certain purposes may be so formed on all four of its sides. This form of spike will so displace the fibers of the wood, which will reinstate themselves in the hollow curves and hold as fixed or set in the convex curves, that it will hold much more firmly in the timber than any ordinary spike.

What I claim as my invention, and for which I desire to obtain Letters Patent, is—

An improved spike for railroad cross-ties and other purposes, as set forth in the foregoing description and the drawings annexed.

CHAS. KIMBALL MARSHALL.

Witnesses:

JOSEPH GINELLO,
G. S. RECERD.