(No Model.)

L. A. BOWER.

SPIKE.

No. 412,831. Patented Oct. 15, 1889.

Fig. 1.

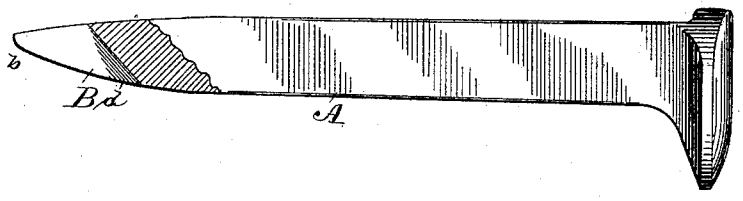


Fig. 2.

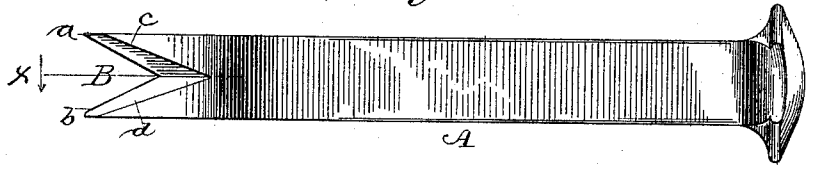


Fig. 3.

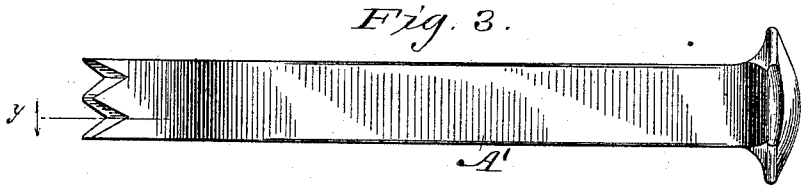


Fig. 4.

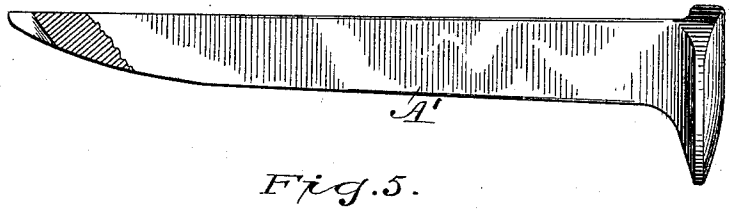
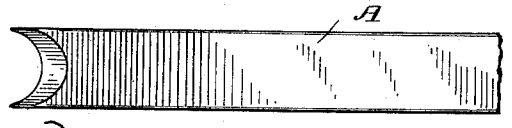


Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

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SPIKE.

SPECIFICATION forming part of Letters Patent No. 412,831, dated October 15, 1889.

Application filed August 26, 1889. Serial No. 322,013. (No model.)

To all whom it may concern:

Be it known that I, LEWIS A. BOWER, of Wilmington, in the county of New Castle and State of Delaware, have invented an Improved Spike, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates more particularly to spikes used to secure railway-rails to the ties of a road-bed; and its object is to produce an improved spike that will drive easier and hold better than the ordinary railway-spike in common use. The ordinary spike has a knife-edge and is tapered upon both sides; but spikes have also been made tapered only on one side and having a straight dull chisel-edge. Such spikes are objectionable because they make direct cuts along the whole lengths of their edges when driven. This objection has been noted heretofore. In United States Patent No. 399,804 is shown a nail on which two V-shaped tapers, upon opposite sides of its point end, have been formed by cutting away parts of the nail to give two central shear-cutting edges, but not chisel-edges. In United States Patent No. 394,678 a spike is shown provided with a series of notches in its edge, producing outer and intermediate points upon its surface without sharp cutting-edges. This spike is also cut away on one side of its edge, as indicated at a^2 in the drawing of said patent.

In my improved device the broad principle manifested in the construction of the nail shown in said Patent No. 399,804 of having shear cutting-edges is recognized; but I have followed the principle in a different construction in my improved spike, by which I simplify it, reduce the cost of its manufacture, and get a better result.

In the accompanying drawings, Figure 1 is a side view, partly in section, of my improved spike. Fig. 2 is another side view of the same. Figs 3 and 4 are similar views, showing a formal modification in the chisel-edging of the spike. Fig. 5 is a view of the point end of a spike having a curved chisel-edge.

Referring to the letters upon the drawings, A, Fig. 1, indicates a spike preferably tapered on each side, but not necessarily equally upon both sides, according to the usual form of a railroad-spike in common use.

B indicates a V-shaped bevel-channel cut in the point end of the spike upon one side, and extending, as shown in Fig. 2, in its broadest part from end to end of the cutting-edge, and forming on one side of the spike a double-inclined chisel-edge, as shown. I thus produce, by means of a single channel, two points *a b*, one on each side of the spike, joined by two inclined chisel-edges *c d*. These two sharp points upon the spike serve to start it very easily into the wood, and the two shear cutting-edges on one side of the spike make a clean cut, so that the wood is displaced and compacted with the most ease and to the best advantage as the spike is driven to place. Such a spike I also find is much less likely to split the wood into which it is driven, especially when soft wood is used.

This spike may, of course, be used for various purposes beside that I have mentioned.

In Figs 3 and 4 I have shown, at A′, a formal modification of my improved spike, in which there are two V-shaped channels and three points. I have also in these figures shown a spike straight upon one side and tapered upon the other; but the spike shown in Fig. 1 exhibits the usual and preferable form of embodiment of my improvement.

In Fig. 5 is shown a curved channel, which is easily formed, and serves the same useful purpose, since it also produces two shear-cutting chisel-edges connecting two points.

What I claim is—

A spike provided with a plurality of points, and a bevel-channel cut upon one side of the spike and extending at its widest part between the points and forming two oppositely-inclined chisel cutting-edges, substantially as set forth.

In testimony of all which I have hereunto subscribed my name.

LEWIS A. BOWER.

Witnesses:
WILLIAM WARD,
JOSEPH L. ATKINS.