(No Model.)

W. GOLDIE.

RAILWAY SPIKE.

No. 585,437. Patented June 29, 1897.

Fig. 1.

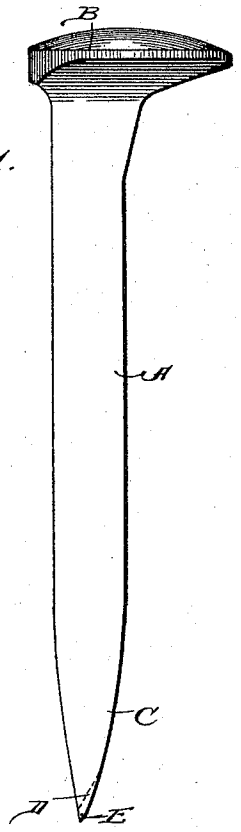


Fig. 2.

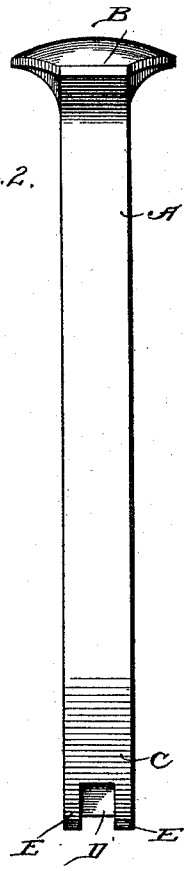
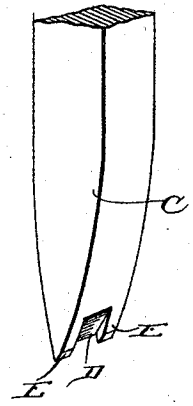


Fig. 3.



Witnesses:

Harry E. Rohrer

J. A. Goedsborough

Inventor:

William Goldie

UNITED STATES PATENT OFFICE.

WILLIAM GOLDIE, OF WILKINSBURG, PENNSYLVANIA.

RAILWAY-SPIKE.

SPECIFICATION forming part of Letters Patent No. 585,437, dated June 29, 1897.

Application filed August 8, 1895. Serial No. 558,621. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM GOLDIE, a citizen of the United States, residing at Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Railway-Spikes; and I do hereby 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.

To obtain the best results from these spikes, it is essential that they should present their inner sides squarely to the foot-flanges of the rail when driven home, and in order to insure this position of the spikes when seated it is necessary with ties made of certain kinds of wood to provide means for preventing the turning or swerving of the spikes on their longitudinal axes in the wood of the ties during the operation of driving home. With ties made of soft or evenly-grained wood the liability of the spikes turning on their axes while being driven in is not a serious obstacle, but with ties made of hard, knurly, and inferior woods, unless some means is provided for retaining the spikes in a constant axial position, there is great liability of the cutting edges of the spikes being deflected by the hard uneven fibers of the wood, thus turning or swerving the spikes around, so that when seated they present one of the edges closer to the flange of the rail than the other instead of standing flat and squarely with respect to the rail.

My invention is designed to obviate this difficulty; and it consists, generally stated, in providing the spike with a central cutting edge and a square-edge chisel-point on each side and projecting beyond the central edge and parallel with the spike-face, such chisel-points being adapted to pierce the wood of the tie in advance of the cutting edge and guide and hold the body of the spike against turning.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, wherein—

Figure 1 is an elevation of the inner side or edge of a full-sized railroad-spike constructed in accordance with my invention. Fig. 2 is a similar view of the same spike, looking at the side; and Fig. 3 is a detail view of the lower portion of the spike, showing in perspective the cutting edge and the guiding-points.

Similar letters in the views indicate the same parts.

A denotes an ordinary railway-spike of the usual or any preferred construction. It has a head B and a tapering point C, formed with front and back faces. The shape and construction of the head are immaterial to the present invention, and the point, except as hereinafter described and illustrated, may be of any form and character desired and have any preferred taper.

D indicates the cutting edge of the spike. It is here shown as formed by cutting or chamfering out a portion of the point of the spike on the front face at the center of its width, so as to leave at each side of the extreme end of the spike, and consequently at each end of the cutting edge, a point E, that projects beyond the line of the cutting edge, as shown most clearly in Fig. 2.

As illustrated in the present drawings, the cutting edge D is beveled to what is known as a "chisel-point," the inclined edge facing toward the front face of the spike and the straight or approximately straight edge being at the back face. The invention, however, is not restricted to this particular form of cutting edge.

The cutting away of the metal of the point of the spike to form the central edge D leaves the points E E projecting, as before stated, beyond the line of the cutting edge and on each side thereof, and the extreme ends of the points are beveled to form square-edge or straight chisel-points parallel with the spike-face, as shown most clearly in Fig. 3, this being the form that is found to give the best results in practice.

The construction of the spike-point being as thus described, it only remains to describe the function of the chisel-points E and their coöperation with the cutting edge D. As before stated, the main object of these points is to pierce the wood of the ties in advance of the main cutting edge and to guide and hold the edge up to its work and prevent it from working around with the grain in woods that are hard and knurly in fiber. In such

woods there is a tendency for the ordinary spikes to turn or swerve around on an axis longitudinally of the spike, but these square-edge guiding and holding points take into the wood ahead of the cutting edge and on opposite sides of the axial line of the spike and effectually prevent such action, thus causing the spike while being driven home to preserve the parallelism of its inner side to the track-rail and insuring that its head takes the proper hold of the foot-flange, so greatly facilitating the driving of the spikes. The piercing-points entering the wood in advance of the cutting edge, only a slight tap is necessary to start the spikes straight into the tie, after which they may be driven farther in without difficulty.

Having thus described the invention, what I claim, and desire to secure by Letters Patent, is—

1. A railway-spike having a central cutting edge, and having a square-edge chisel-point on each side of and projecting beyond the central edge and parallel with the spike-face, substantially as set forth.

2. A railway-spike having a central square chisel cutting edge, and having a square-edge chisel-point on each side thereof and projecting beyond the central edge and parallel with the spike-face, substantially as set forth.

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

WILLIAM GOLDIE.

Witnesses:

J. A. GOLDSBOROUGH,

THOS. S. HOPKINS.