

R. W. DAVIS.
SPIKE.
APPLICATION FILED JULY 1, 1914.

1,119,686.

Patented Dec. 1, 1914.

Fig. 1.

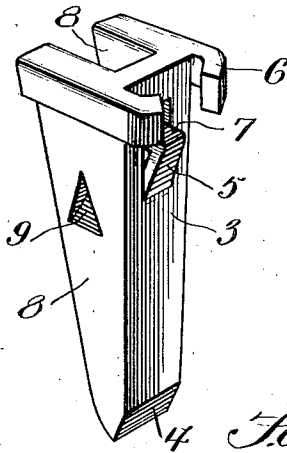


Fig. 2.

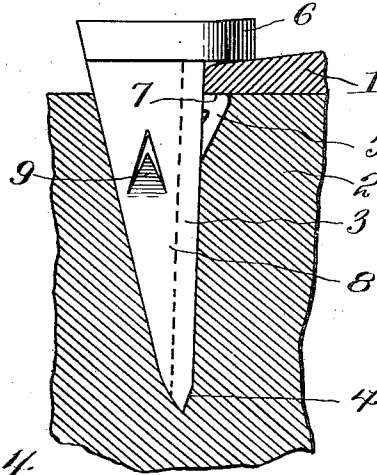


Fig. 3.

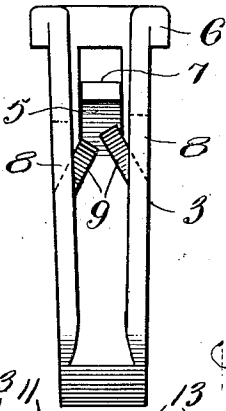


Fig. 4.

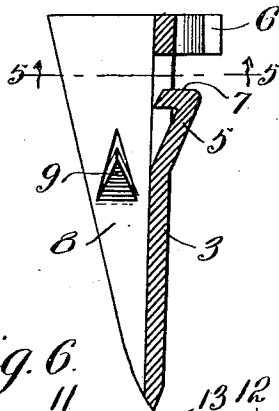


Fig. 5.

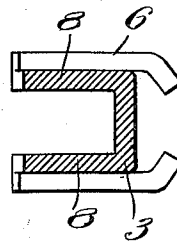
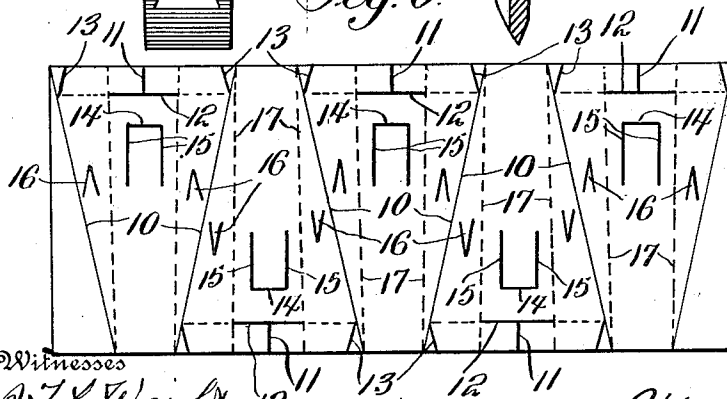


Fig. 6.



Witnesses

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SPIKE.

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To all whom it may concern:

Be it known that I, RAY W. DAVIS, a citizen of the United States, residing at Brownsville, in the county of Fayette and State of Pennsylvania, have invented new and useful Improvements in Spikes, of which the following is a specification.

The present invention relates to improvements in railway spikes.

In carrying out my invention it is my purpose to construct a spike from a single piece of metal, wherein the desired amount of strength, effectiveness and durability will be attained with a small amount of metal and at a minimum cost in the manufacture.

I also propose to construct a spike formed from a blank of metal which shall comprise a head, a front and spaced sides, the sides having V-shaped cuts and the metal therebetween bent inwardly to provide barbs or engaging members which will insure the firm engagement of the spike within the tie, and to further provide the face of the tie with an integral spring clip or shoulder that shall underlie the base flange of the rail with which the spike engages.

With the above and other objects in view, the improvement resides in the construction, combination and arrangement of parts set forth in the following specification and falling within the scope of the appended claims.

In the drawing: Figure 1 is a perspective view of a spike constructed in accordance with the present invention, Fig. 2 is a sectional view through a tie illustrating the manner in which the spike engages within the tie and with the base flange of the spike, Fig. 3 is a rear elevation of the spike, Fig. 4 is a central vertical sectional view through the same, Fig. 5 is a transverse sectional view approximately on the line 5-5 of Fig. 4, and Fig. 6 is a view of the blank from which a plurality of the spikes are formed.

Referring now to the drawing in detail, the numeral 1 designates a railway rail which is supported upon a tie 2.

The numeral 3 designates the spike which has its opposite faces sloping or inclining downwardly to its point from its head, the front face being at a less inclination than the rear. The front face is beveled toward its rear face, as indicated by the numeral 4, to provide a sharpened entering point, and also preferably the side faces are sloped or inclined from the head toward the point 4.

The front face of the spike is formed with a spring tongue 5 which is disposed a suitable distance below its head 6, and the upper wall of the spring tongue forms a substantially horizontal shoulder 7 which is adapted to engage beneath the base flange of the rail 1 when the spike is inserted in the tie, as shown in Fig. 2. The side members 8 of the spike are provided with substantially V-shaped slits, the metal of which being bent inwardly to form teeth or prongs 9, the said prongs entering the wood of the tie between the sides thereof to insure the spike against turning or upward movement.

As illustrated in Fig. 6, the spike is formed from a blank of metal, the same being preferably spring steel, and as will be noted by reference to the said Fig. 6 the sheet of metal is scribed with opposite angular lines 10, and the metal is cut upon the said lines, each member thus provided forming a blank for a spike, so it will be noted that a great number of spikes may be formed from a single blank or sheet of metal. Before the metal is cut upon the inclined lines 10, the same is slitted centrally and vertically from the widened edge over each of the flanges as indicated by the numeral 11, the said slit 11 being intersected by a horizontally disposed slit 12, and if desired, the corners of the wider ends of each of the blanks is cut off angularly, as indicated by the lines 13. Each of the blanks below the slit 12 is formed with a central longitudinal slit 14 and vertical slits 15 which extend from the ends of said slit 14. The side of the blank opposite the vertical slits 15 is provided with angular or V-shaped slits 16. The numerals 17 indicate the fold lines, and when one of the blanks is severed from the metal it is placed within a suitable machine whereby the same is turned upon the fold lines 17 to provide the sides 8 of the spike. The head is formed by bending the same downwardly over the sides in a line with the horizontal slit 12, and the portions of the metal between the slit 11 and the ends of the slit 12 may be bent inwardly and angularly and passed to properly engage with the base flange of the rail. The metal between the slits 14 and 15 is bent outwardly and from thence inwardly to provide the rounded spring tongue 5 and the horizontal shoulder 7, while the metal between the V-shaped slits 16 is bent inwardly to provide the prongs 9.

From the above description, taken in connection with the accompanying drawing, the simplicity of the device as well as the advantages thereof will, it is thought, be perfectly apparent to those skilled in the art to which such invention appertains without further detailed description.

Having thus described the invention, what I claim is:

10 1. A spike having a wedge-shaped body and a head arranged upon the sides and projecting from its sides over its front face, and its said front face provided with a spring tongue which has an angular upper
15 wall providing a shoulder for the purpose set forth.

20 2. A spike comprising a wedge-shaped body including a front face and spaced sides, the said face having its lower end beveled to provide an entering point, a head formed upon the sides and extending over the front face of the tie, said front face below the head having an integral spring

tongue, and inwardly extending prongs upon the sides.

25 3. A spike constructed from a flat sheet of metal and formed to provide the front face and angular spaced sides, the inner edge of the sides being rolled to provide a head, and the members of the head extending angularly beyond the front face, the front face being slitted longitudinally and transversely and the metal between the slits being bent to provide a spring tongue which comprises an outer rounded portion and an upper
30 straight shoulder, and the sides having V-shaped slits and the metal between the slits being bent inwardly to provide prongs which project beyond the faces of the sides.

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

RAY W. DAVIS.

Witnesses:

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