No. 650,248. Patented May 22, 1900.

J. HENNIGAN.

SPIKE.

(Application filed Oct. 31, 1899.)

(No Model.)

Fig. 1

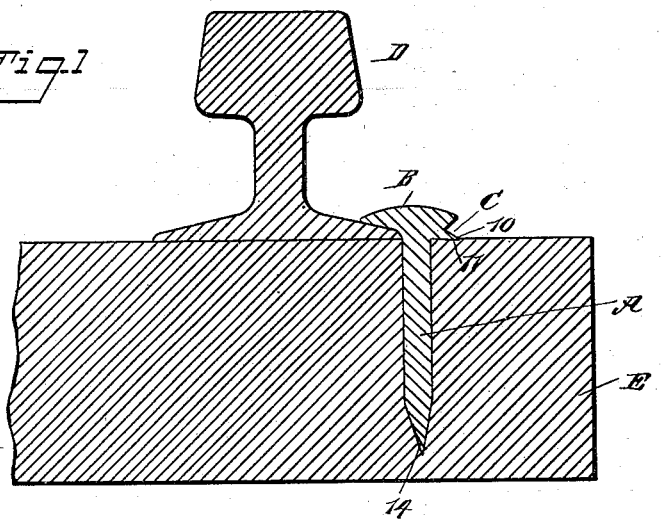


Fig. 2

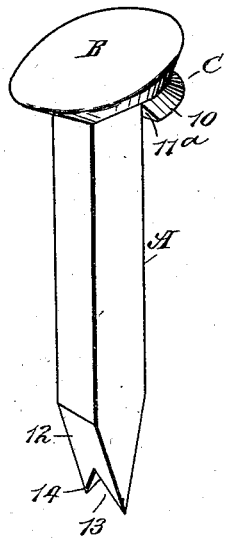
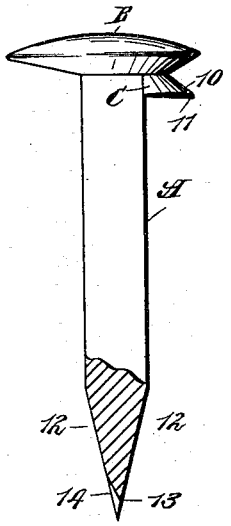


Fig. 3



WITNESSES:

J. A. Brophy.

J. Fred Acker.

INVENTOR

James Hennigan

BY

Munn & Co.

ATTORNEYS

UNITED STATES PATENT OFFICE.

JAMES HENNIGAN, OF INKERMAN, PENNSYLVANIA.

SPIKE.

SPECIFICATION forming part of Letters Patent No. 650,248, dated May 22, 1900.

Application filed October 31, 1899. Serial No. 735,380. (No model.)

To all whom it may concern:

Be it known that I, JAMES HENNIGAN, a citizen of the United States, and a resident of Inkerman, in the county of Luzerne and State of Pennsylvania, have invented a new and Improved Spike, of which the following is a full, clear, and exact description.

One object of the invention is to so construct a spike for railway-rails that the spike will be prevented from being pressed back from the rail by the movement of the latter.

Another object of the invention is to so point the spike that it will start easily in a tie and cut better than the ordinary spike and, furthermore, to so shape the point of the spike that as the spike is driven the point will tend to force the head of the spike in direction of the flange of the rail.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical section through a railway-rail and likewise a vertical section through a portion of a tie and through the improved spike, the spike being in position to hold the rail to the tie. Fig. 2 is a perspective view of the improved spike; and Fig. 3 is a side elevation of the spike, the lower portion being broken away.

As usual, the spike consists of a body A and a head B, the head being adapted to engage with the flange of a rail D when the body of the spike is driven into a tie E. The body A of the spike at its outer or rear side, just below the head B, is provided with a flange C. This flange has a downwardly and outwardly inclined upper surface 10 and a flat surface 11, the flange being located at the opposite side of the body to that from which the bearing-surface of the head B extends or that surface which is adapted to engage with the flange of the rail. Between the flange C and the head B is formed a groove 15, which affords a convenient purchase for a spike-puller. The flange C also has a flat vertical surface 11^a in alinement with the back of the spike, this surface serving as a safeguard against a twisting movement of the spike-head.

The lower end of the body is provided with a downwardly-inclined surface 12 at the front and at the rear, whereby the lower end of the body is brought to a sharp edge, and in this sharp lower edge a V-shaped recess 13 is produced, and the inclined surface 12 on the side of the body at which the bearing-surface of the head is located is provided with a bevel 14 at the recess 13, the said bevel being of the same shape as the said recess.

When a spike constructed as above described is driven into a tie, the wide sharp edge of the body readily cuts into the tie and the recess 13 receives between its walls the compressed fibers of the wood, thus holding the spike firmly in position, and the bevel 14 at the recess 13 tends to force the bearing-surface of the head B in direction of the flange of the rail as the spike is driven home.

The flange C when the spike has been driven to an engagement with the rail bears firmly upon the upper surface of the tie and effectually prevents the head of the spike from being forced from the flange of the rail as the rail is vibrated by a passing train. Furthermore, the flange C, in addition to being a stop for the head of the spike, tends materially to strengthen the spike where its head connects with the body. The head of the ordinary railway-rail spike is generally weakest at its head because of the portion that stands out from the tie. This weakness is overcome in my construction of spikes, and yet the spike can be drawn with any of the spike-pullers now in use and with better results than heretofore, as the improved spike can be drawn without its becoming bent, the groove 15 facilitating the application of a spike-puller.

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

A spike comprising a shank, a head at one end thereof, and a flange projecting from the shank below the head on the outer side thereof, that is, on the side opposite to that portion of the head which is adapted to engage the rail, the lower surface of the flange being flat, and the upper face of the flange being

beveled forming a groove between the flange and the head, while the front or inner face of the flange is flat and vertical and forms an upright shoulder in alinement with the back of the spike, and the point of the shank having a V-shaped notch beveled on that side of the shank which is opposite to that on which the flange is arranged.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES HENNIGAN.

Witnesses:
JOHN M. DOBBIE,
MICHAEL MARTIN.