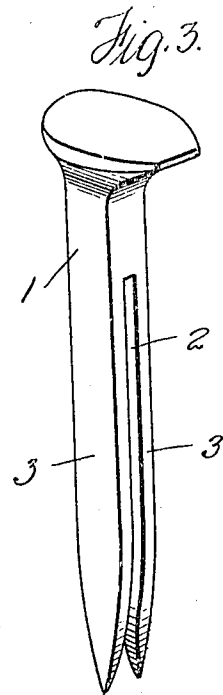
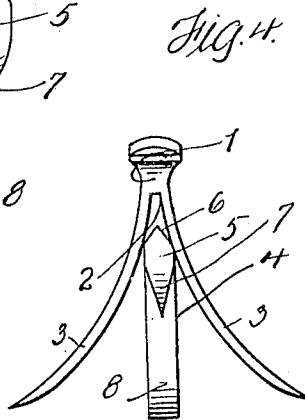
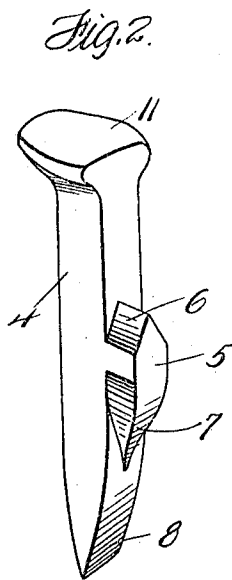
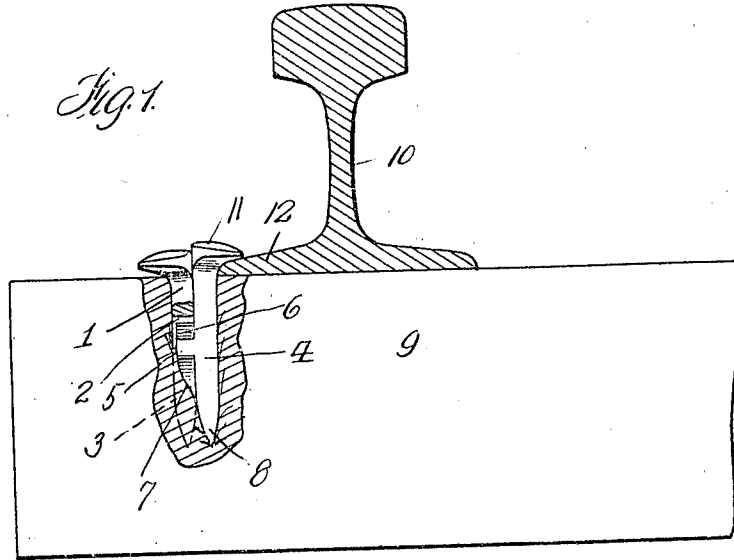


H. S. PATTERSON.
EXPANSION KEY SPIKE.
APPLICATION FILED JUNE 22, 1909.

954,204.

Patented Apr. 5, 1910.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

HENRY STANLEY PATTERSON, OF FARMINGTON, WEST VIRGINIA.

EXPANSION KEY-SPIKE.

954,204.

Specification of Letters Patent.

Patented Apr. 5, 1910.

Application filed June 22, 1909. Serial No. 503,624.

To all whom it may concern:

Be it known that I, HENRY STANLEY PATTERSON, a citizen of the United States of America, residing at Farmington, in the county of Marion and State of West Virginia, have invented certain new and useful Improvements in Expansion Key-Spikes, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to expansible key spikes, and the invention has for its objects to provide positive and reliable means for holding a spike in a tie or similar structure; to provide a spike deflector that can be easily and quickly placed in position for deflecting or clenching the end of a spike within a tie, and to provide means for holding a spike whereby a rail or similar structure cannot become accidentally disengaged from a tie or similar base to which the same is secured.

Other objects of the invention are to provide a simple and durable spike that can be easily placed in position; to furnish an expanding spike with an auxiliary or main holding spike for deflecting the split ends of the expanding spike, and to eliminate all wrecks and accidents incurred in connection with railroads by rails spreading or becoming accidentally disengaged from ties or sleepers.

These and such other objects as may hereinafter appear are attained by an expansible spike, that will be presently described in detail and then claimed.

Reference now being had to the drawing forming a part of this specification, Figure 1 is an elevation of a portion of a tie partly broken away and partly in section, illustrating my improved spikes, mounted in said tie, Fig. 2 is a perspective view of the auxiliary or main holding spike, Fig. 3 is a similar view of the expanding spike, and, Fig. 4 is a front elevation of said spikes, showing the expanding spike relative to the auxiliary or main holding spike.

To put my invention into practice, I provide the shank 1 of an ordinary spike with a slit or bifurcation 2 dividing the spike to form two parallel malleable arms 3 having

a pyramidal pointed end and capable of being spread or deflected to that extent as to lock and clench the lower end of the spike when driven into a tie, said spike constituting what I term an expanding spike.

To spread and deflect the arms 3 of the expanding spike 1, a main holding spike 4 is used. The front side of this spike intermediate the ends thereof is provided with an enlargement 5 having the upper end thereof beveled or tapered as at 6, while the lower end is gradually tapered to form a point 7, which in conjunction with the spike point 8 permits of said spike being easily driven into a tie.

The manner of assembling the spikes relative to a tie 9 for holding a rail 10 upon a tie, is as follows:—The main holding spike 4 is driven into the tie 9 whereby the head 11 of said spike will extend over the base flange 12 of a rail 10. The expanding spike 1 is then driven into the tie 9 against the spike 4, whereby the split end of the spike 1 will impinge the enlargement 5 and the arms 3 will spread into the tie and lock both of said spikes in said tie.

It will be observed that the spike 4 cannot be removed until the spike 1 is driven or drawn, and that the spike 1 increases the holding power of the spike 4.

Having now described my invention, what I claim as new is:—

In combination a spike provided on one side at a point intermediate its ends with a laterally-extending enlargement having a beveled upper end and a tapering lower end, said tapering end facilitating the driving of the spike into position, and a clencher spike for the first mentioned spike, said clencher spike having its shank split to provide a pair of flat arms, each formed with a pyramidal pointed end, said arms adapted to be engaged by the beveled end of said enlargement for deflecting said arms when the clencher spike is driven in position.

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

HENRY STANLEY PATTERSON.

Witnesses:

J. G. McCoy,
W. P. Hyde.