L. RATHMACHER.

RAILWAY SPIKE.

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1,067,879.

Patented July 22, 1913.

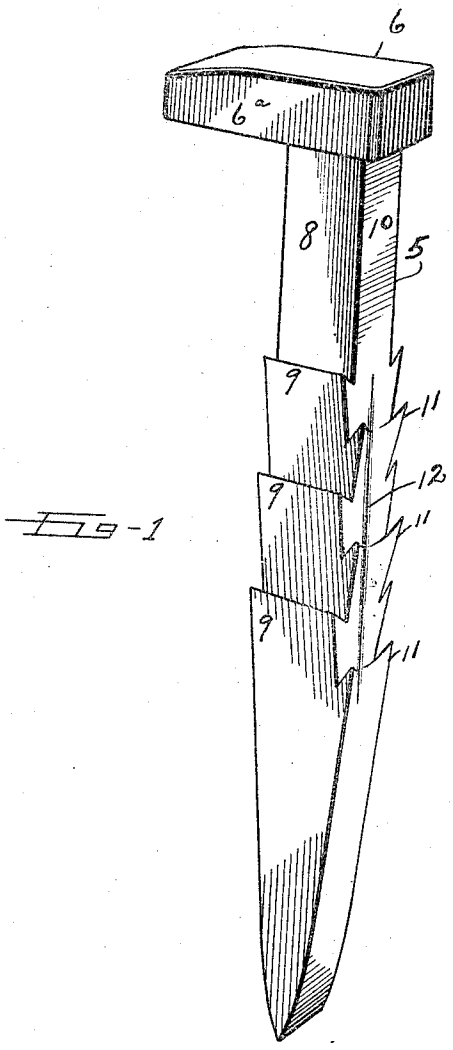


Fig-1

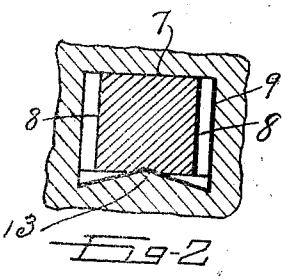


Fig-2

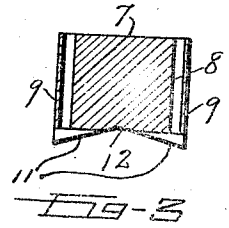


Fig-3

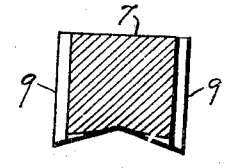


Fig-4

Witnesses
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UNITED STATES PATENT OFFICE.

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RAILWAY-SPIKE.

1,067,879. Specification of Letters Patent. Patented July 22, 1913.

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To all whom it may concern:

Be it known that I, LOUIS RATHMACHER, a citizen of the United States, residing at Sparta, in the county of Randolph and State of Illinois, have invented certain new and useful Improvements in Railway-Spikes, of which the following is a specification.

This invention relates to railway spikes and has for its object the provision of an improved device of this character provided with holding teeth and with a key forming recess arranged in a novel manner with relation to said teeth, whereby an efficient engagement of the spike with the tie is insured, and whereby twisting or turning of the spike during the driving operation will be guarded against, to thus insure the elongated head of the spike lying in the proper position to engage over the flange of the rail to be held.

Further objects and advantages of the invention will be set forth in the detailed description which now follows:

In the accompanying drawing, Figure 1 is a perspective view of a spike constructed in accordance with the invention; Fig. 2 is a transverse sectional view upon line *x*—*x* of Fig. 1; Fig. 3 is a like view upon line *y*—*y* of Fig. 1, and Fig. 4 is a like view upon line *z*—*z* of Fig. 1.

Like numerals designate corresponding parts in all of the figures of the drawing.

Referring to the drawing, the numeral 5 designates the shank of the spike and 6, the head, having the elongated or extended portion 6^a adapted to engage over the flange of the rail in the usual and well known manner. The inner face 7 of the spike, that is, the face lying toward the portion 6^a, is smooth and unobstructed so that it may ride freely down alongside the edge of the base flange of the rail.

The sides of the spike are provided with barb-like teeth 9 extending entirely across said side faces, those portions of the side faces lying below said teeth presenting plane surfaces. The rear face 10 of the spike is provided with barb-like teeth 11 that lie in staggered relation to the teeth 9, these teeth 11 being beveled inwardly in opposite directions and merging into a central key forming recess 12 that is indented slightly below the face 10. This recess serves the purpose of forming a key 13, (see Fig. 2) to aid in preventing twisting of the spike during the time that it is being driven into position and to thereby insure the head 6 lying in proper position for efficient engagement with the base flange of the rail. This preventing of the twisting of the spike arises from the fact that the spike while being driven into position will take the path of least resistance and the path of least resistance is in a straight line. This is particularly true where the oppositely inclined faces of the teeth 11 pass downwardly into the wood. The inclination of these faces is such as to resist any lateral or twisting movement of the spike. As long as the spike travels in a straight line, the inclination of these faces is such as to balance the thrust against them, and this balancing of the thrust holds the spike against twisting.

From the foregoing description, it will be seen that simple and efficient means are herein provided for accomplishing the objects of the invention, but while the elements shown and described are well adapted to serve the purposes for which they are intended, it is to be understood that the invention is not limited to the precise construction set forth but includes within its purview such changes as may be made within the scope of the appended claims.

Having described my invention, what I claim is:

1. A spike of the character described comprising a shank portion and a head portion having an elongated extension, that face of the shank toward said extension being plane, barb-like teeth formed upon the opposite side faces of the spike and extending entirely thereacross, the rear face of the spike having a key forming centrally located groove extending longitudinally therein, and a plurality of barb-like teeth formed upon the opposite sides of said groove and merging from the corners of the shank into said groove.

2. A spike of the character described, comprising a shank portion and a head portion having an elongated extension, that face of the shank toward said extension being plane, barb-like teeth formed upon the opposite side faces of the spike and extending entirely thereacross, the rear face of the spike having a key forming centrally located groove extending longitudinally therein, and a plurality of barb-like teeth formed upon the opposite sides of said groove and merging from the corners of the shank into said

groove, the last named barb-like teeth being arranged in staggered relation to the first named barb-like teeth.

3. A spike of the character described, comprising a shank portion and a head portion having an elongated extension, that face of the shank toward said extension being plane, barb-like teeth formed upon the opposite side faces of the spike and extending entirely thereacross, the rear face of the spike having a key forming centrally located groove extending longitudinally therein, and a plurality of barb-like teeth formed upon the opposite sides of said groove and merging from the corners of the shank into said groove, the last named barb-like teeth being arranged in staggered relation to the first named barb-like teeth, the side faces of the spike below the teeth carried thereby presenting plane surfaces and the front and rear faces of the spike being tapered at the bottom of the shank to form a wedge-like point.

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

LOUIS RATHMACHER.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."