

M. D. MYERS.
RAILROAD SPIKE.
APPLICATION FILED MAR. 8, 1919.

1,320,085.

Patented Oct. 28, 1919.

Fig. 1

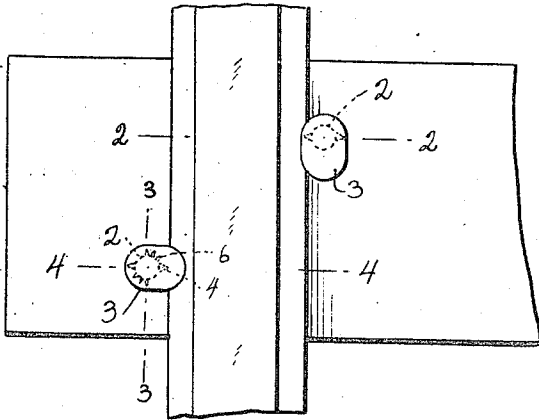


Fig. 5

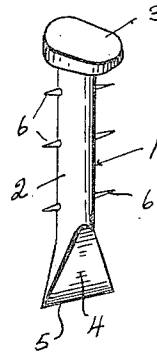


Fig. 2

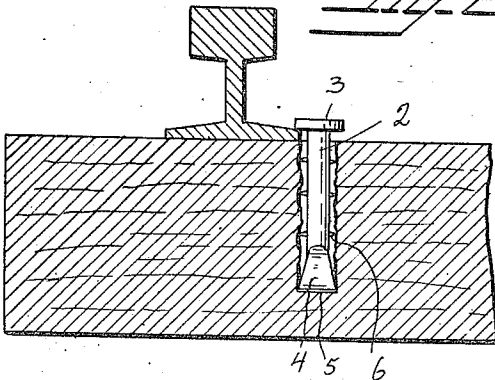


Fig. 3

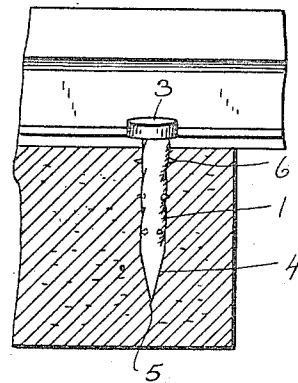
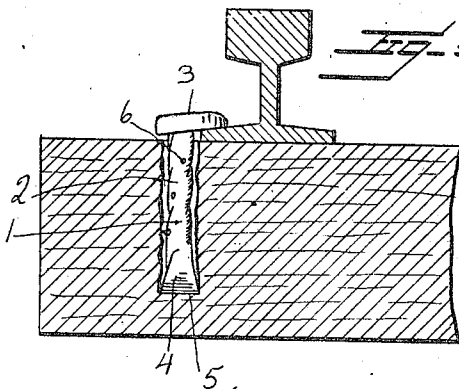


Fig. 4



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RAILROAD-SPIKE.

1,320,085.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MAURICE D. MYERS, a citizen of the United States, residing at Tower, in the county of Cheboygan and State of Michigan, have invented certain new and useful Improvements in Railroad-Spikes, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to an improved railroad spike, and the invention aims to provide means at the lower end of the spike, whereby it may easily penetrate the tie.

A further object of the invention is to provide means on the spike alined with and adapted to follow the cut formed by the means at the lower end of the spike, and adapted to lock the spike in the tie, after the spike has been driven home.

More specifically, the invention aims to provide a railroad spike having its lower end constructed fan or segment-shaped and sharpened, whereby the spike may easily enter the tie, the fan-shaped end entering the tie in parallelism with the grain of the wood. It is obvious that owing to the lower end of the spike being fan-shaped it will very easily cut its way into the tie in parallelism with the grain of the wood.

Also, more specifically, the invention aims to provide a plurality of projections on the body or shank of the spike, equally spaced and super-imposed, and alined with the diagonal edges of the fan-shaped end, and therefore, will readily enter the cuts formed by the fan-shaped end of the spike when driven home. After the spike reaches home, it is the aim to provide means on the upper end of the spike, that is, a head so shaped as to permit the same to be engaged by a wrench; whereby the spike may be partially rotated. It is obvious that when rotating the spike in this manner, the projections will force themselves out of alinement with the cut made by the fan-shaped end of the spike and become positioned transversely of the grain of the tie. It is obvious that in partially rotating the spike in this manner, the fan-shaped end will resist this twisting or rotating action of the spike, therefore, will remain in the position which it assumes when first driving the spike into the tie. Consequently the shank of the spike will twist, this twist gradually increasing from the fan-shaped end of the spike, up to the head thereof. It is obvious that owing to

this twist in the shank of the spike, and particularly since the projections will become transversely disposed of the grain of the tie, the spike will be prevented from accidental upward displacement.

While the design and construction at present illustrated and set forth is deemed preferable, it is obvious that as a result of a reduction of the invention to a more practical form commercial purposes, the invention may be susceptible to changes, and the right to these changes is claimed, provided they are comprehended within the scope of what is claimed.

The invention comprises further features and combination of parts, as will be hereinafter set forth, shown in the drawings and claimed.

In the drawings:

Figure 1 is a plan view of a portion of a tie, and a rail thereof, showing two spikes, both driven completely home, but showing the positions assumed by the parts of one spike, before it is twisted and the assumed positions of the corresponding parts of the other spike after it is twisted.

Fig. 2 is a sectional view on line 2—2 of Fig. 1.

Fig. 3 is a sectional view on line 3—3 of Fig. 1, showing the projections positioned at right angles to the grain of the wood.

Fig. 4 is a sectional view on line 4—4 of Fig. 1, showing the projections at right angles to the grain of the wood, and the fan-shaped end positioned with the grain of the wood, showing a twist in the shank of the spike.

Fig. 5 is an enlarged detail perspective view of the spike.

Referring more especially to the drawings, 1 designates the spike as a whole, which comprises a shank 2, which may be any suitable shape, preferably cylindrical in cross-section, and a head 3, which may also be rectangular, so as to be engaged by a wrench, whereby the spike may be partially rotated. The head of the spike is elongated, one end projecting beyond the side of the shank of the spike more than the other end, so as to provide means to overlies the base of the rail, to securely fasten the same to the tie.

The lower end of the shank terminates in a fan or segment-shaped part 4, and the lower edge 5 of this part is sharpened, so that when the spike is driven into the tie,

the fan-shaped part extending in parallelism with the grain of the tie, the sharpened edge will cut its way into the tie, the corners of the fan-shaped part gouging the wood, and making it easy for the spike to reach home, under the impact of a maul or hammer.

The shank of the spike upon two of its opposite sides is provided with a plurality of tapering projections 6. These projections are equally spaced and super-imposed, and their outer ends alined above and with the corners of the fan-shaped part, so that they will easily fall into the cuts made by the fan-shaped part of the spike, when driven home.

In practice, after the spike, nail or the like is driven home into the tie, the fan-shaped part enters the tie in parallelism with the grain of the timber. After the spike has been driven the distance desired, a suitable wrench (not shown) may be applied to the head of the spike, whereby it may be given a partial rotation. Since the fan-shaped part is broad it will remain in the position it first assumed when the spike reaches home, consequently will resist the pressure employed, when partially rotating the spike. Consequently the shank of the spike under this strain or pressure urged by the wrench on the head of the spike will become twisted, the twist gradually increasing in degree from the fan-shaped part of the head. When the shank of the spike becomes so twisted, the projections will become arranged substantially at right angles to the grain of the timber, out of alinement with the cuts made by the fan-shaped part, thereby preventing accidental upward displacement of the spike. The twist formed in the shank of the spike will also constitute anchoring means, to resist the upward strain on the spike. Furthermore, owing to this twist in the shank of the spike, the spike will be prevented from rotating toward and assuming its original position and shape.

The construction of retaining means may be applied to any form of nail, preferably heavy nails, or to any other device that is capable of being driven into wood, conse-

quently it is the aim not to limit the construction to merely a railroad spike, and it is therefore obvious that such changes may be made without in any way departing from the scope of the claims.

The invention having been set forth, what is claimed as new and useful is:

1. A railroad spike, comprising a shank provided with a head to be engaged by a wrench for twisting the shank, said shank at diametrically opposite portions having a plurality of vertically spaced laterally extending projections, the lower end of the shank having a fan-shaped part provided with a cutting edge, to cut a way for the shank and making opposite cuts for the projections, said fan-shaped part also constituting means to resist the pressure urged by the wrench on the head, whereby the shank may be twisted subsequently to being driven home for positioning the projections at right angles to the grain of the timber.

2. A railroad spike, comprising a shank, said shank at diametrically opposite portions having a plurality of laterally extending projections vertically in alinement, the lower end of the shank having a broad part provided with a cutting edge to cut a way for the shank, said broad part having cutting corners extends laterally in opposite direction for making opposite cuts for the projections, said broad part also constituting pressure resisting means when a twisting action is imparted to the shank, said shank having a head on its upper end to be engaged by a wrench for twisting the shank subsequently to being driven home, whereby the projections may be positioned out of vertical alinement with each other and at right angles to the grain of the timber, said head being laterally extended more on one side than the other, to overlies the base of the rail when the shank is twisted.

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

MAURICE D. MYERS.

Witnesses:

ANNA POLLARD,
MRS. EDITH BURT.