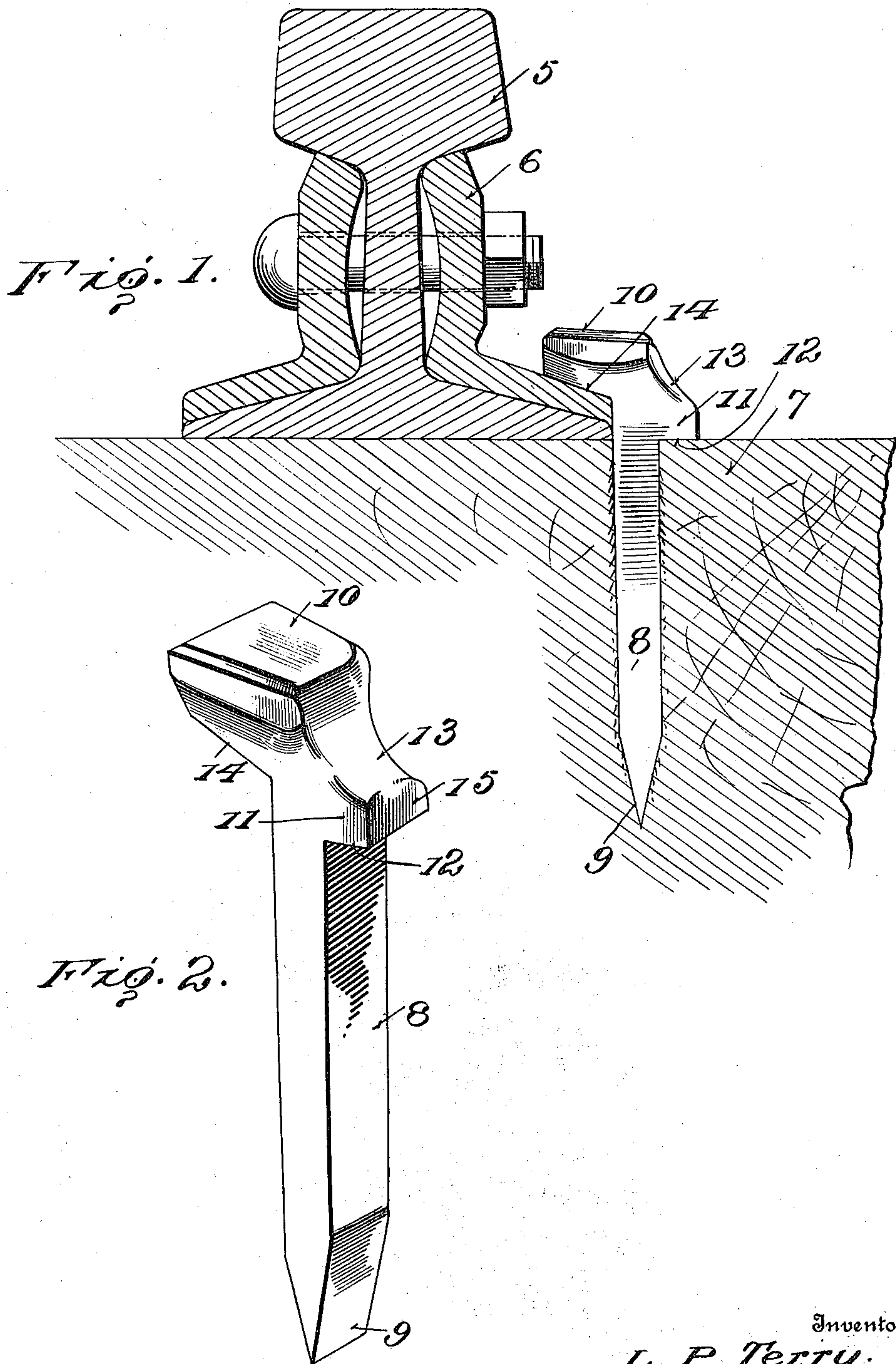


L. P. TERRY.
RAILROAD SPIKE.
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989,825.

Patented Apr. 18, 1911.



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UNITED STATES PATENT OFFICE.

LEE P. TERRY, OF FAIRLAND, OKLAHOMA.

RAILROAD-SPIKE.

989,825.

Specification of Letters Patent.

Patented Apr. 18, 1911.

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To all whom it may concern:

Be it known that I, LEE P. TERRY, citizen of the United States, residing at Fairland, in the county of Ottawa and State of Oklahoma, have invented certain new and useful Improvements in Railroad-Spikes, of which the following is a specification.

This invention relates to railway spikes and has for its object to provide a comparatively simple and inexpensive device of this character having a shoulder formed on one side thereof and adapted to bear against the upper surface of the cross tie, thereby to prevent bending of the spike, and thus assist in preventing spreading of the rails.

A further object of the invention is generally to improve this class of devices so as to increase their utility, durability, and efficiency, as well as to reduce the cost of manufacture.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a transverse sectional view of a rail section and cross tie, showing my improved spike in position thereon; Fig. 2 is a perspective view of the spike detached.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The improved spike forming the subject matter of the present invention is principally designed for use in retaining railway rails in position on the adjacent cross ties, and by way of illustration is shown in connection with a section of rail, in which 5 designates the rail, 6 the fish plate, and 7 the cross tie.

The spike comprises a longitudinally disposed shank 8, preferably rectangular in cross section, as shown and having one end thereof provided with a pointed terminal 9 and its opposite end extended laterally on one side of the shank to form an overhanging head 10 adapted to engage the fish plate 6, and thus lock the fish plate and rail in position on the adjacent cross tie.

One side of the shank 8 is extended laterally to form an enlargement 11 defining a square shoulder 12 adapted to bear against the upper surface of the cross tie, thereby to prevent accidental bending of the spike,

and thus assist in preventing spreading of the rails.

The enlargement 11 gradually merges into the rear portion of the head 10 and is provided with an inclined rear face 13 which acts to cause the blows in driving the spike to force the spike inward against the edge of the rear face and fish-plate, at the same time causing the force of the blow to be distributed directly to the shank of the spike. This rear face also assists in shedding dirt, cinders, and other foreign matter, and thus prevent the same from working beneath the base of the rail.

The lower face of the head 10 is also preferably inclined downwardly in the direction of the forward longitudinal edge of the shank as indicated at 14, thereby to conform to the inclination of the adjacent fish plate and permit the head of the spike to snugly engage the same when the latter is driven home with a maul, sledge hammer, or other suitable tool.

The inclined face 13 of the enlargement 11 preferably terminates short of the outer end of the shoulder 12 thus giving the enlargement 11 a sufficient thickness to withstand strain without tending to bend. At the same time the thickness of the enlargement 11 is such that when it is desired to withdraw the spike it is only necessary to insert a claw or crow-bar beneath the enlargement 11. If this enlargement were thin, it would be liable to bend under strain of withdrawing the spike and thus render the spike useless in further service. Furthermore it is to be noted that the upper face 10 of the spike head terminates at its rear in substantial alinement with the rear face of the spike, and that the material forming the head is downwardly and rearwardly inclined from the rear edge of the face 10 to the upper edge of the enlargement 11, thus the enlargement 11 is braced and held in relation to the head, which would not be the case were this inclined portion of the head omitted, and the enlargement 11 was merely a projection from the rear face of the shank. By the peculiar construction illustrated a flat rear portion 15 is produced which provides a face against which the blows of a sledge may impact when it is desired to drive the spike laterally to bring it into closer contact and give it a wedging engagement with the rail and fish-plate. If it were not for this face 15 the blows of the

sledge would have to be delivered against the inclined face 13; thus not driving the spike laterally but downward, as later explained.

5 It will be seen that the peculiar form of the rear of the spike head provides a thickened shoulder 11 which will not bend under strain and which will not be bent by the blows of a hammer coming from a direction
10 parallel to the face of the tie, and that not only are these results accomplished by cutting off the shoulder 11 so as to provide the face 15, but a vertical face is also secured whereby the spike may be driven laterally
15 against the fish-plate and jammed into engagement therewith.

It will here be noted that the shoulder 12 is disposed diametrically opposite the head 10 and in a horizontal plane slightly below
20 that of the inclined face 14 of said head so that when the spike is driven into the cross tie, the inclined face 14 will bear against the adjacent fish plate and the shoulder 12 against the upper face of the cross tie, as
25 before stated. This shoulder 12 also serves to limit the downward movement of the spike and has a tendency to prevent splitting or battering of the metal forming the head of the spike, when the latter is driven
30 in the cross tie.

It is to be noted that the face 15 has a height approximately equal to the combined thicknesses of the rail-base and fish-plate at the edge of the base and fish-plate so that
35 when the spike is forced inward the shoulder 12 will contact with the tie coincidently with the contacting of the inclined face with the fish-plate. Furthermore as before noted, the upper face 10 of the spike terminates
40 at its rear coincidently with the plane of the inner face 8 of the shank of the spike and from the enlargement 11 is an inclined face 13 which extends upward and forward to the rear edge of the face 10. This peculiar
45 construction insures that the force of a blow struck upon the head of the spike shall be carried directly downward and that the force of the blow is not partially wasted as it would be if the head extended rearward

beyond the inner face of the shank 8. If 50 the sledge hammer struck this rearward extension it would simply tend to bend it. The blow would be partially deflected and the force partially wasted. As it is, however, if the sledge does not strike accurately upon 55 the top of the spike and should strike rearward of the face 10, the blow would be received upon the inclined face 13 and as a consequence the spike if deflected at all will be deflected inward against the rail and fish- 60 plate.

Having thus described the invention, what is claimed as new is:

A railway spike comprising a shank having a head overhanging the shank at its forward end, said head being formed with a flat 65 upper surface terminating at its rear end in alinement with the rear face of the shank, the head being provided at its front end with a flat vertical face, the overhanging 70 under side of the head having a downwardly inclined face extending from the vertical face to the shank and adapted to bear against the fish-plate, there being an enlargement formed on that side of the shank 75 opposite the vertical face of the head and defining a square shoulder disposed in a plane below the plane of the inclined lower face of the head and arranged substantially at right angles to the longitudinal plane of 80 the shank for engagement with the upper surface of a cross-tie, the head being provided with a rearwardly inclined face extending from the rear edge of the flat upper surface of the head to a point spaced from 85 the lower face of the shoulder sufficiently to produce a flat vertically disposed portion forming a vertical flat face to receive the blows of a sledge and thereby also providing a shoulder which is relatively thick at its 90 end and resists deformation when the spike is driven.

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

LEE P. TERRY. [L. s.]

Witnesses:

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