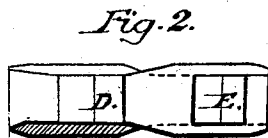
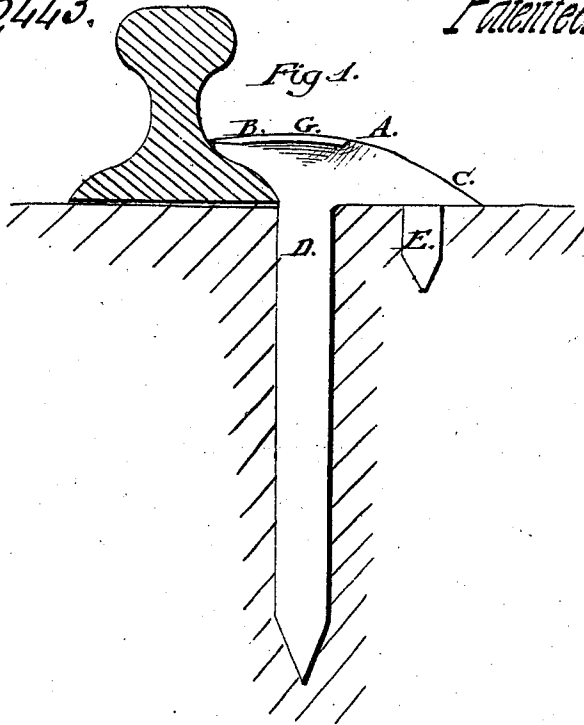


P. J. Dwyer,

R.R. Spike.

No. 95443.

Patented Oct. 5. 1869.



Witnesses:
John H. Brooks
E. Green Collins

Inventor:
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per Wm. H. G.
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United States Patent Office.

P. J. DWYER, OF ELIZABETHPORT, NEW JERSEY.

Letters Patent No. 95,443, dated October 5, 1869.

IMPROVED RAILROAD-SPIKE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, P. J. DWYER, of Elizabethport, in the county of Union, and State of New Jersey, have invented a new and improved Railroad-Spike; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in spikes for securing railroad-rails, designed to provide a spike having greater resistance to the lateral pressure of the rails, and adapted also to resist the drawing action thereof.

The invention consists in an elongated head for adaptation to the base of the rail on one side, and to the tie on the other, to resist the springing action caused upon the shank of the spike by the vertical and lateral pressure of the rail. Also for the application of a stud, to be driven into the tie behind the shank, for increasing the resistance to lateral pressure, all as hereinafter more fully specified.

Figure 1 represents a side elevation of my improved spike, as in the position for holding a rail, and

Figure 2 represents a plan view from the point.

Similar letters of reference indicate corresponding parts.

I have found that in practical use the spikes are first loosened in their positions in the ties by the lateral springing of the shanks near the top, caused by the outward pressure on the rails, which gradually widens the space occupied by the spikes, until the frictional hold thereon of the wood is so lessened that the spikes soon yield to the upward-springing action of the rails.

They are also broken frequently, especially in frosty weather, by the lateral springing, caused by the rails after the holes have been enlarged to some extent.

The spikes hitherto employed have been unduly exposed to this action, by reason of having no lateral support from the head on the ties opposite to that

part which laps over the base of the rail to hold it down.

To overcome these difficulties, I propose to provide the elongated heads A, so shaped that while the part B, which laps over the base of the rail to hold it down, fits thereon properly, the other and much longer part, C, will bear fairly upon the face of the tie, to resist the springing of the shank of the spike at the point D, whereby it is worked loose, as above described.

To further resist the lateral action of the rail, I provide the stud or auxiliary spike E, projecting downward from the head, near the end of the outer part C, which, when the spike is driven into the tie, will enter the same, and increase the capacity thereof to resist the said pressure, which being thus more effectually resisted, increases, in the same measure, the efficiency of the spike to resist being drawn vertically by the rails. It is also less liable to break in frosty weather.

Upon the top of the head I provide the overhanging ledges G, for the application of the claw-bar for drawing it, when required.

It will be seen that my improved spike is peculiarly adapted to resist the great outward pressure upon the rails where curves occur in the road; also that the liability of the common spikes to fracture at the junction of the head and shank, caused by the striking of the head at one side on the base of the rail, is avoided.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The railroad-spike, constructed as described, with the extended head A B C, having the ledges G, and the short, inflexible stud E, formed upon the under side, in such a manner as to enter the wood at some distance from the shank D, whereby two separate openings are made in the wood, as herein described for the purpose specified.

Witnesses:

JAMES NEWMAN,
MICHAEL McDERMOD.

P. J. DWYER.