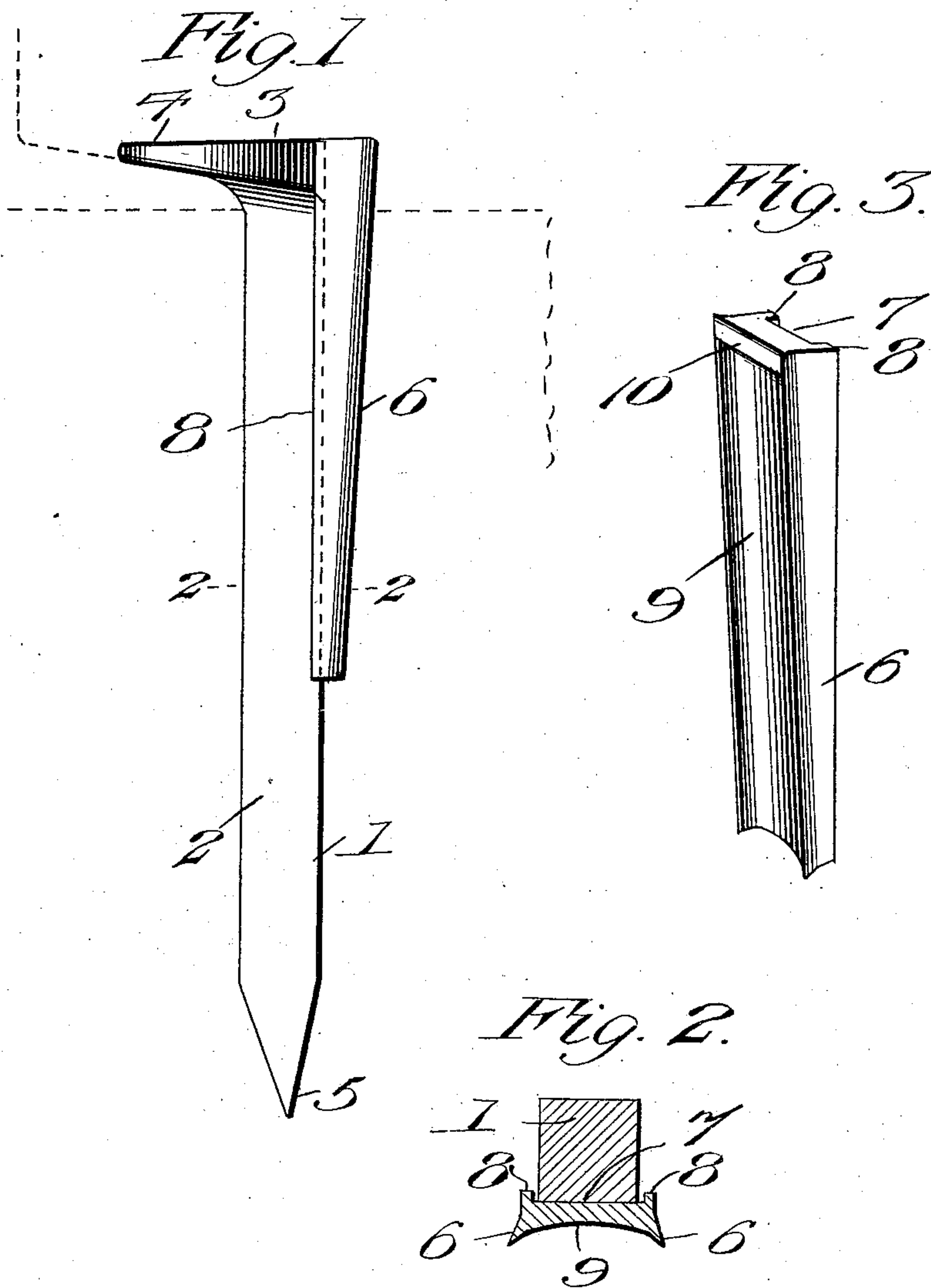


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W. D. F. JARVIS.
SPIKE HOLDER.

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SPIKE-HOLDER.

No. 865,906.

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To all whom it may concern:

Be it known that I, WILLIAM D. F. JARVIS, a citizen of the United States, residing at Belington, in the county of Barbour and State of West Virginia, have invented new and useful Improvements in Spike-Holders, of which the following is a specification.

The invention relates generally to an improvement in railroad spikes, comprehending specifically a wedge strip designed for coöperation with the standard commercial or other spike.

The main object of the present invention is the production of a wedge strip designed to be used with any desired form of spike, and serving in use, to reinforce the spike and prevent movement of the same in a direction away from or longitudinally of the rail.

The invention in its preferred form will be described in detail in the following specification, reference being had particularly to the accompanying drawings, in which:

Figure 1 is a view in side elevation illustrating the application of my improved wedge strip to the standard commercial spike. Fig. 2 is a transverse sectional view on the line 2—2 of Fig. 1. Fig. 3 is a perspective view of the wedge strip.

Referring particularly to the drawings, 1 represents the spike, comprising the shank 2, formed at one end with a head 3, having the overhanging lip 4, and at the opposite end with the wedge point 5, all of which parts may be of any preferred or desired construction.

In the standard spike, the shank 2 is of square formation in section, having plane side edges, forward edge, and rear edge. In use this form of spike has been found objectionable in that the plane rear edge, which is the strain resisting edge, will, in the movement of the spike incident to the movement of the rail, displace the wood fiber ends bearing against said edge to such an extent as to permit independent movement of the spike. Under the outward movement of the spike, due to the spreading strain of the rails, the plane rear edge will eventually so disturb the contacting fiber ends as to displace them, with the effect to decrease their resistance against movement of the spike. Under the longitudinal movement of the spike, due to the contraction and expansion of the rails, the plane rear edge of the shank acting across a straight surface of said fiber ends, will tend to gradually force said fiber ends in opposite directions, so that the plane rear edge of the shank becomes practically a wedge to separate the fibers.

Both of the above noted results, incident to the movement of the spike, tend to loosen the grip of the spike in the tie, necessitating a redriving of the spike, or a filling of the excess opening. It is to avoid these objections, and to practically and effectually prevent

movement of the spike that the present invention is designed. The wedge strip of this invention comprises a metallic block 6, wedge shaped in edge view, and having a plane rear face 7, formed at the edges with longitudinally extending ribs 8. The front or forward face of the block is of concaved formation in transverse section, as at 9, the side edges of the concave preferably extending beyond the side edges of the block.

The plate is preferably, though not necessarily, of a length slightly in excess of half the length of the spike, and at the upper or head end is formed with a lip 10 to overlie the concave 9, whereby to provide a shoulder for use in withdrawing the wedge.

The wedge of this invention is designed for use with commercial or other spikes, and is arranged for coöperation therewith by seating the rear edge of the spike against the rear face of the wedge, as shown in Fig. 2. The rear face of the wedge, included between the ribs 8, is preferably of greater width than the similar dimension of the coöperating edge of the shank, whereby to provide a narrow space between the side edges of the shank and said ribs. As the spike with a wedge in place is driven into the tie, the lower or narrowed end of the wedge will cleanly sever the contacting fibers of the wood, and group or gather said fiber ends within the concave 9. Any tendency on the part of the wedge and spike to movement outward away from the rail will be effectually resisted by said fiber ends, as said ends by said movement, and owing to the concave 9, will be forced toward each other into a compact mass with the effect to resist such movement. It is evident that the greater the strain toward this movement, the greater the resisting effect of the fiber ends, as said ends are thereby more effectually grouped and compacted.

By forming the rear face of the wedge of greater width than the rear edge of the shank, movement of the spike longitudinally of the rail, necessarily incident to the contraction and expansion of the rail, is permitted without the slightest tendency to effect or shift the wedge.

The concavity 9 may be of any width desired, preferably however, but slightly wider than the shank of the spike, it being understood that the additional width simply provides additional resistance surface.

The wedge strips are designed to be constructed of a single piece of material and at a single operation, as by stamping or the like.

Having thus described the invention, what I claim is:

1. The combination with a spike, of a wedge strip therefor comprising a wedge-shaped plate formed with a plane face to engage the plane face of the spike, the strip being

formed at the edges of the plane face with longitudinally arranged ribs spaced apart a distance in excess of the width of the spike, the opposing face of the plate being concaved.

- 5 2. The combination with a spike, of a wedge strip therefor comprising a wedge-shaped plate formed with a plane face to engage a plane face of the spike, the strip being formed at the edges of the plane face with longitudinally arranged ribs spaced apart a distance in excess of the

width of the spike, the opposing face of the plate being 10
concaved, the concaved face being of greater width than the plane face.

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

WILLIAM D. F. JARVIS.

Witnesses:

JOHN L. FLETCHER,
DAVID W. GOULD.