No. 653,266. Patented July 10, 1900.

L. S. SHERWOOD.

SPIKE.

(Application filed Mar. 21, 1900.)

(No Model.)

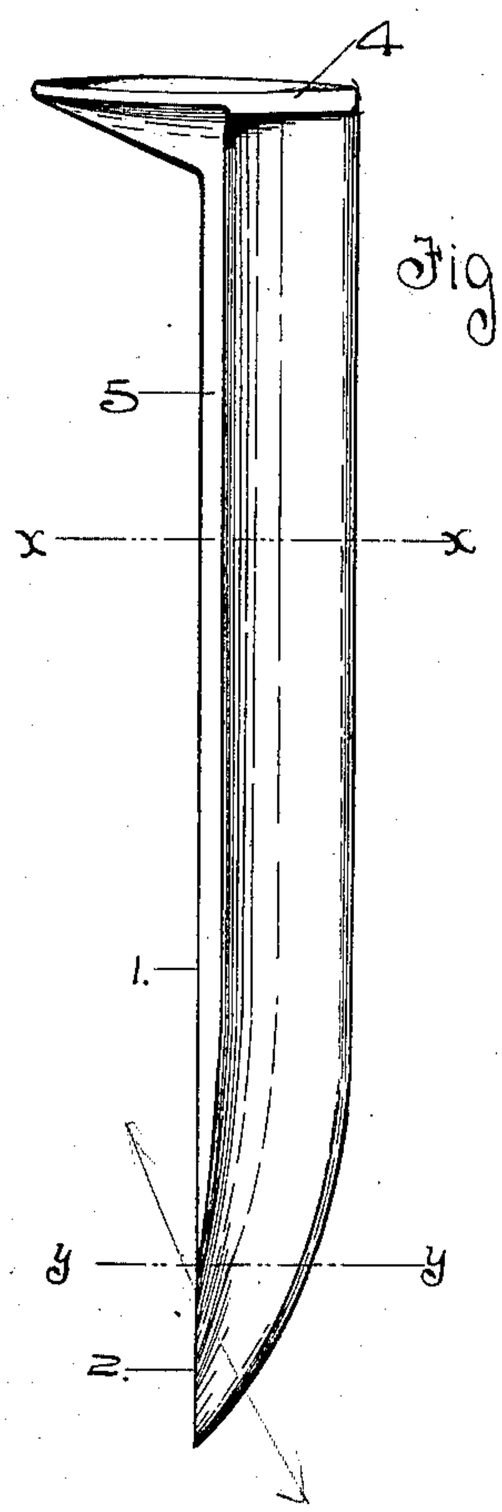

Fig 1.

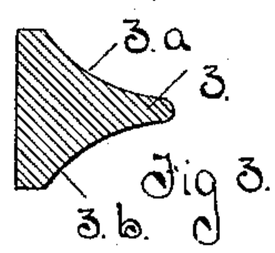

Fig 3.

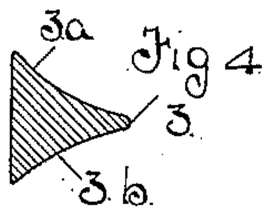

Fig 4

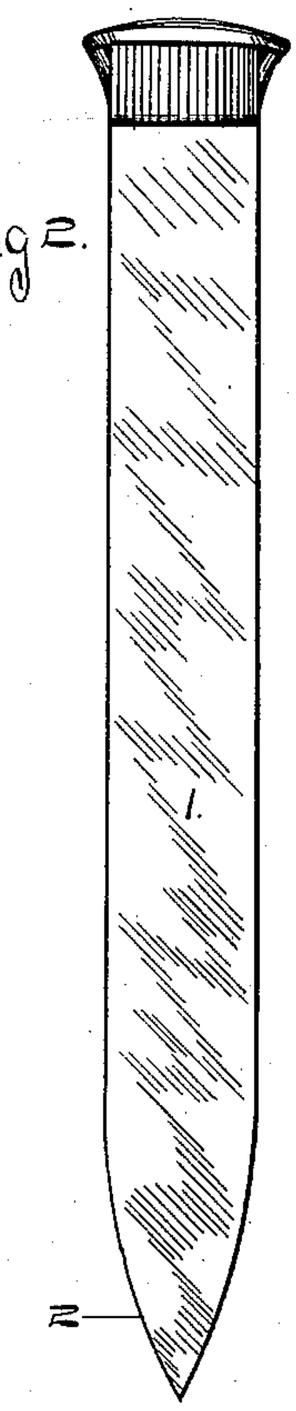

Fig 2.

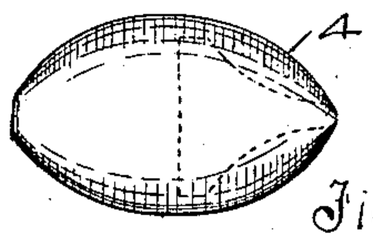

Fig. 5.

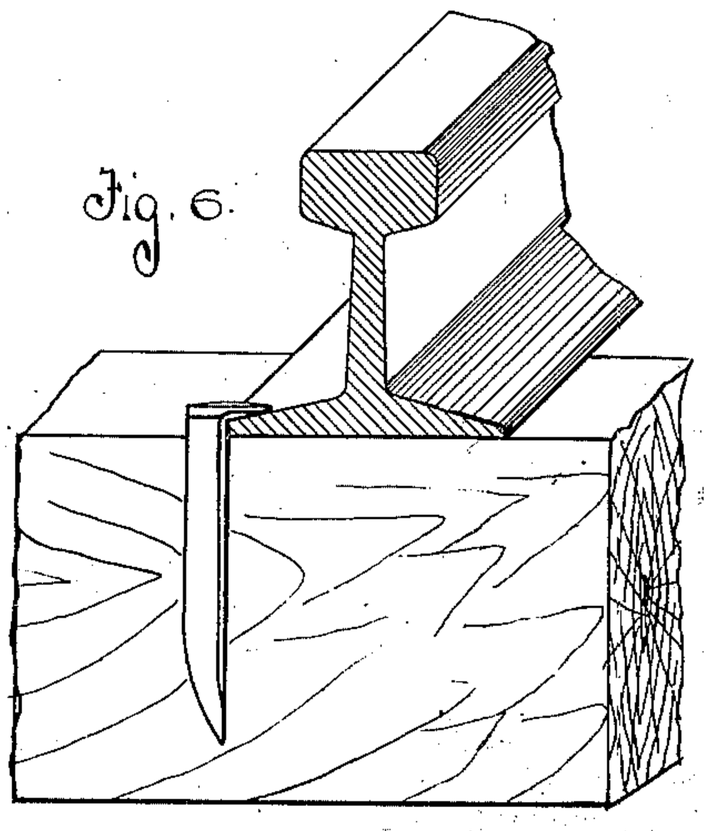

Fig. 6.

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LEVI S. SHERWOOD, OF WEST BAY CITY, MICHIGAN.

SPIKE.

SPECIFICATION forming part of Letters Patent No. 653,266, dated July 10, 1900.

Application filed March 21, 1900. Serial No. 9,502. (No model.)

To all whom it may concern:

Be it known that I, LEVI S. SHERWOOD, a citizen of the United States, residing at West Bay City, in the county of Bay and State of Michigan, have invented certain new and useful Improvements in Spikes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to railroad-spikes; and the improvement consists in the arrangement of the parts of a spike, as herein described, whereby the objects of my invention are accomplished.

The purposes of the invention are, first, to produce a spike of simple construction, that will be easily manufactured, and that will have adequate strength and holding power, while requiring a minimum amount of material for its manufacture; second, to provide a sharp cutting edge to sever the fibers of the tie and two lateral channels at the back of the spike, as more fully described hereinafter, whereby the fibers of the tie are forced backward and sidewise a sufficient distance to permit the passage of the spike, but not far enough to compress the fibers around the spike beyond their elastic limit. This arrangement of the body of the spike provides great holding power with a small amount of metal in the spike-body.

My invention is illustrated in the accompanying drawings, throughout the several views of which similar numerals of reference designate corresponding parts and devices.

In the drawings, Figure 1 is a side elevation of my improved spike, and Fig. 2 is a front view. Fig. 3 is a cross-section on the line $x\,x$ of Fig. 1, and Fig. 4 is a cross-section on the line $y\,y$ of Fig. 1. Fig. 5 is a plan view of the spike-head, and Fig. 6 is a view showing the spike in use.

As is clearly shown in the drawings, the device consists in a spike-body having a flat front face 1 with a lower wedge-shaped cutting edge 2, one face of which is flush with the face 1 of the spike. The two sides of the spike-body back of the face are concaved, as shown in Figs. 3 and 4, thus forming a backwardly-extending rib or web 3, flanked by the two concaved faces 3^a and 3^b. Toward the point of the spike the web merges into the front face of the spike, as is clearly shown in Fig. 1. A sharp point is thus formed, having a flat face and a back portion that consists of two concaved channels that extend up the back of the spike. By this means the spike is easily started into the tie with a slight blow, the flat front face making a clean shearing cut across the fibers of the tie and the gradual upward wind of the concaved channels 3^a and 3^b forcing the fibers of the tie backward and sidewise without tearing them excessively and without compressing them beyond their elastic limit, thereby conserving the holding power of the tie on the spike. The concaved sides by increasing in width from the point of the spike upward, as indicated in Figs. 4 and 3, gradually part the fibers transversely to the direction of the grain and also along the direction of the grain, thus securing efficient binding-surface on the sides as well as on the back of the spike, while greatly reducing the amount of metal usually put into a spike. The rib or web 3 gives adequate strength to the spike, and the flat face 1 affords as much bearing-surface for the rail-flange as an ordinary flat spike. The rear edge of the spike-head 4 projects over the spike-body to afford means for drawing the spike. The front lateral edge of the spike 5 is made flat and of a sufficient thickness to give the necessary strength and stiffness to the edge of the spike-body and is beveled off near the point of the spike to coincide with the sharp cutting edge 2, as is shown in Figs. 1 and 2.

What I claim as my invention, and desire to secure by Letters Patent, is as follows:

1. In a railroad-spike having a flat front face, a point having wedge-shaped cutting edges 2 flush with the face of the spike, and a body comprising two rearwardly-extending concaved sides forming between them the rearwardly-extending web 3, said concaved sides and rearwardly-extending web merging at their lower part into the point of the spike in manner substantially as described and for the purposes set forth.

2. A spike consisting of a flat front face; a point having wedge-shaped cutting edges flush with the face of the spike; and narrow

rearwardly-extending side edges; and two concaved rearwardly-extending faces forming between them a central rearwardly-extending web, said concaved sides and rearwardly-extending web merging at their lower part into the point of the spike, substantially as described.

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

LEVI S. SHERWOOD.

Witnesses:
GEO. B. WILLCOX,
W. NICHOLSON.