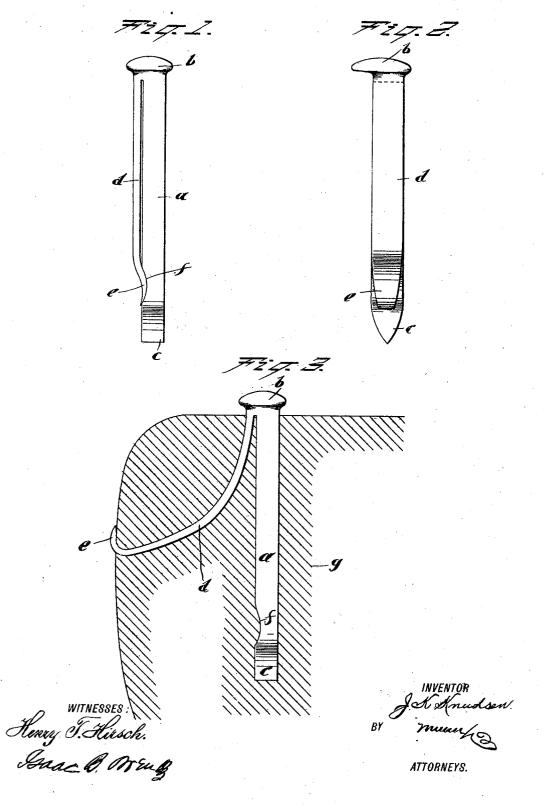
(No Model.)

## J. K. KNUDSEN. RAILWAY SPIKE.

No. 578,151.

Patented Mar. 2, 1897.



THE MORRIS PETERS CO., PHOTO-LITHO, WASHINGTON, D. C.

## UNITED STATES PATENT OFFICE.

JENS KRISTIAN KNUDSEN, OF ENGADINE, MICHIGAN.

## RAILWAY-SPIKE.

SPECIFICATION forming part of Letters Patent No. 578,151, dated March 2, 1897.

Application filed November 3, 1896. Serial No. 610,904. (No model.)

To all whom it may concern:

Be it known that I, JENS KRISTIAN KNUD-SEN, of Engadine, in the county of Mackinac and State of Michigan, have invented a new and Improved Railway-Spike, of which the following is a full, clear, and exact descrip-

This invention has for its purpose to provide a railway-spike which cannot work loose 10 in the tie, but which, on the other hand, may be easily withdrawn. In attaining this end I provide a spike having a head and having a rigid body portion provided near its pointed end with a curved indentation or recess. The 15 spike also has a pliant prong normally running alongside the body of the spike and terminating in a curved point fitting within the depression. By means of the peculiar construction of the point the prong is caused to diverge from the body portion as the spike is driven into place and to project through to the side of the tie, against which the prong may be clenched.

The invention will be fully described here-25 inafter and then defined in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a rear elevation of the invention. Fig. 2 is a side elevation thereof, and Fig. 3 is a sectional view showing the prong in position in the tie.

The body a is rigid, and has a head b and 35 a point c. Formed integral with the upper end of the body a is the prong d, the width of which is equal to the width of the body and the lower end of which terminates in a curved point e just above the point c.

The side portion of the body a is provided near its pointed end with an indentation f, in which the curved point e of the prong d is normally seated, as shown in Figs. 1 and 2.

In using the spike it is driven into the tie  $q_5$ , as shown in Fig. 3. The pointed end  $q_5$  of the prong d will take a course in the tie divergent from the course taken by the body a, thereby causing the prong d to branch out-The spike should be so located with reference to the side of the tie that the point 50 e will extend beyond said side. This point may now be bent upward and clenched against the side of the tie. By such a construction it is impossible for the spike to work out of the tie, since the peculiar form of the prong 55 and the construction of the body portion make the connection an absolutely firm one. The recess or depression f and the curved point e are provided to make proper the inclination at which the prong extends with ref-erence to the body a. The location of the curved end e within the recess f prevents the prong from branching outward to an excessive degree, and holds it in the proper relation with reference to the body portion.

By bending the point e back to approximate alinement with the main portion of the prong d the spike can be readily withdrawn.

It will be understood that by having the prong d project through the side of the tie 70 the prong can be clenched, because without clenching the prong the spike would in time work loose or out, as is the case with the ordinary railway-spike.

Having thus described my invention, I 75 claim as new and desire to secure by Letters Patent-

A railway-spike having a rigid body portion at one end of which is a head and at the opposite end of which is a point, the body por-80 tion having an indentation in one side and adjacent to the point, and a pliable prong formed integral with the body portion and immediately adjacent to the head thereof, the prong normally lying snugly against the side 85 of the body portion, and terminating in a free end at the indentation in the body portion, the free end of the prong being pointed and curved to lie snugly within the indentation, substantially as described.

JENS KRISTIAN KNUDSEN.

Witnesses:

MARGARET FURLONG, THOMAS FURLONG.