

(No Model.)

E. DIETRICH.
RAILROAD SPIKE.

No. 440,422.

Patented Nov. 11, 1890.

Fig. 1.

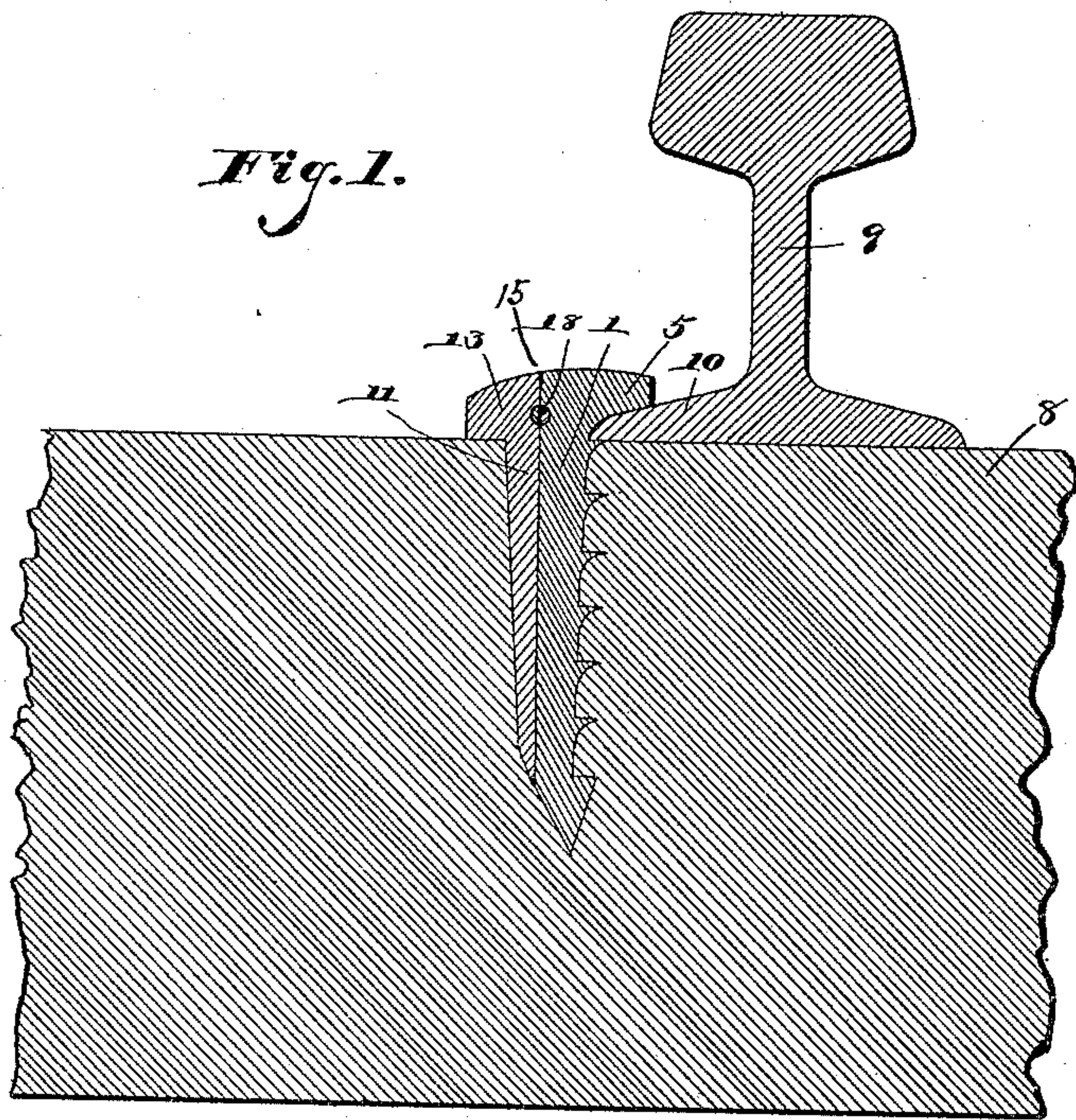


Fig. 2.

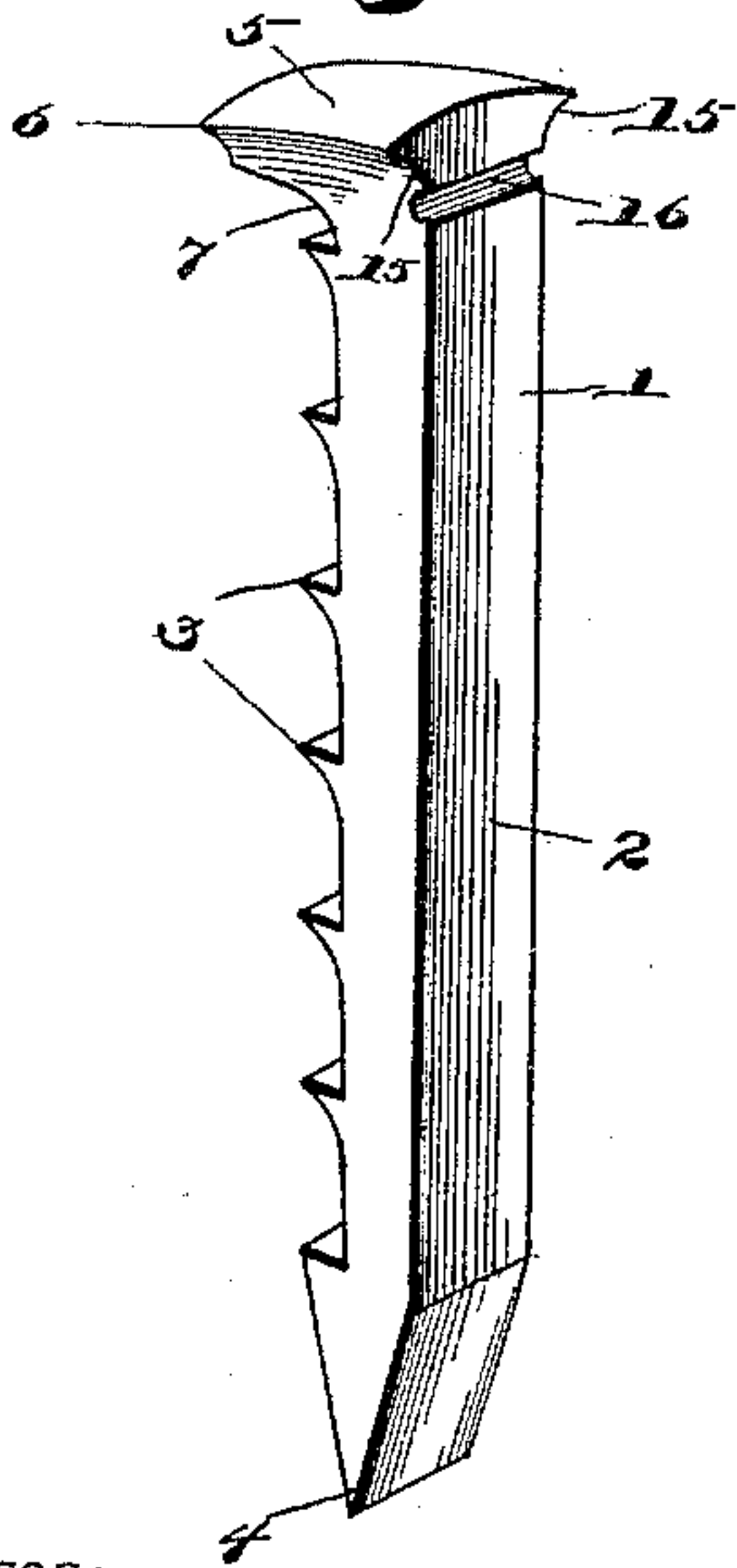


Fig. 3.

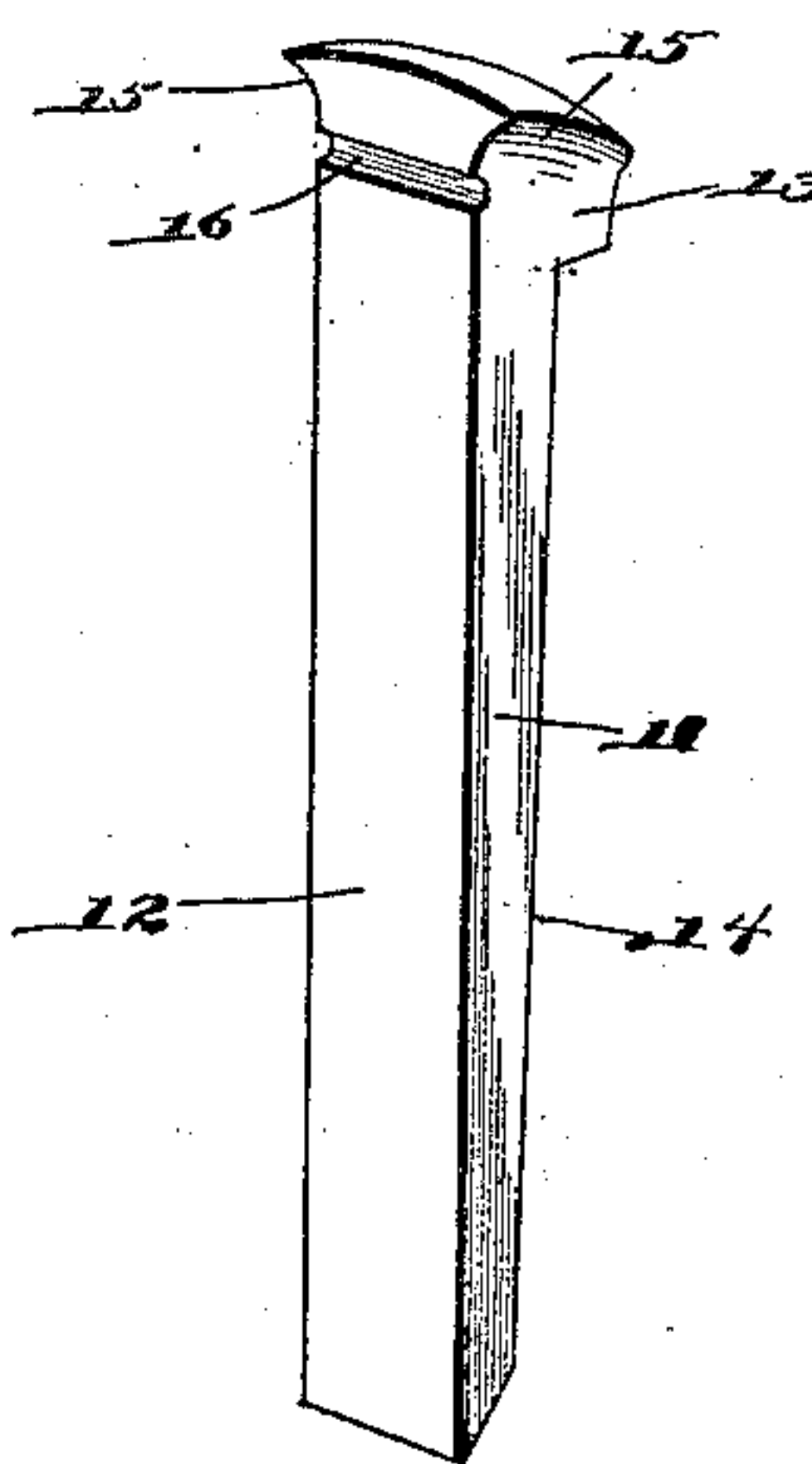
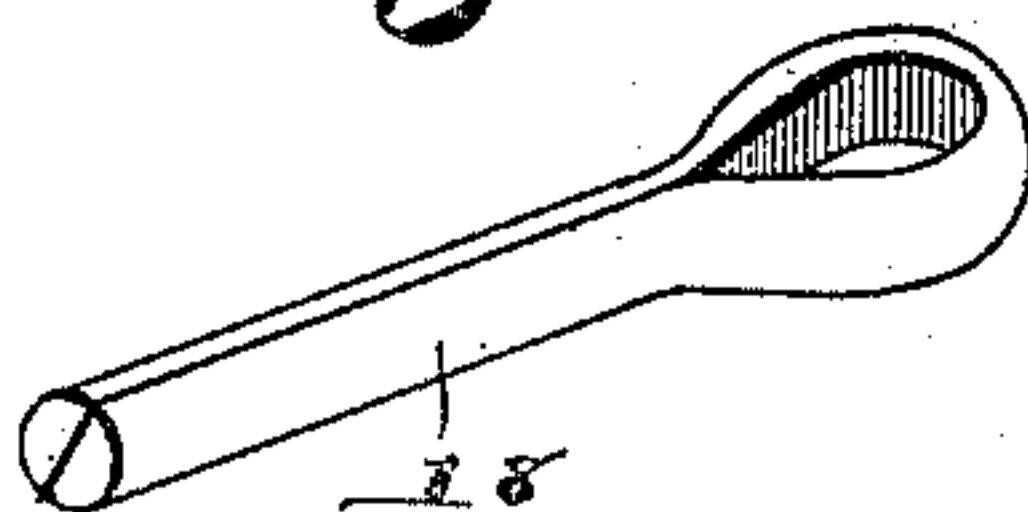


Fig. 4.



Witnesses:

Samuel Ker
W. S. Duwall

Inventor

Elias Dietrich

By *his* Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

ELIAS DIETRICH, OF ROCHESTER, NEW YORK.

RAILROAD-SPIKE.

SPECIFICATION forming part of Letters Patent No. 440,422, dated November 11, 1890.

Application filed April 19, 1890. Serial No. 348,602. (No model.)

To all whom it may concern:

Be it known that I, ELIAS DIETRICH, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a new and useful Railroad-Spike, of which the following is a specification.

This invention has relation to railroad-spikes; and the objects of the invention are to provide a spike adapted to be securely locked in position in the railroad-tie and against any withdrawn therefrom and to serve as a support for the base of the rail, whereby the latter will not wear away the tie and thus render the connection between the spike and the rail a loose one, and therefore constantly requiring attention for tightening up the same.

Other objects and advantages of the invention, together with the novel features thereof, will hereinafter appear, and be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a transverse section of a railroad-tie, a rail and a spike connecting the two and constructed in accordance with my invention. Fig. 2 is a detail view of the main or primary spike. Fig. 3 is a similar view of the secondary spike. Fig. 4 is a perspective of the locking-key.

Like numerals of reference indicate like parts in all the figures of the drawings.

The primary or main spike 1 is square in cross-section and comprises a rear plain face 2, and at its opposite or front face is provided with a series of upwardly-disposed barbs 3. The lower end of the spike is beveled at its front and rear faces to form a wedge-shaped entering point 4, and the upper end of said spike is provided with a head 5, the rear end of which is flush with the rear wall of the spike and the forward end of which projects over and beyond the front wall and the series of barbs, as shown at 6, and is provided upon its under side with a curved recess or cut-away portion 7.

8 represents a tie of ordinary construction, and 9 a rail located upon the tie in the usual manner, and the primary spike 1 is driven within the tie until the upper barb of the same is flush with the upper surface of the tie, and upon said upper barb rests the bot-

tom of the base 10 of the rail, the upper curved portion of the base being embraced and overlapped by the curved or recessed forwardly-projecting portion of the head, so that, as will be apparent, the wear of the base of the rail upon the tie is avoided, in that the wear comes upon the upper barb of the spike. The barbs also prevent any withdrawal of the spike, and after the spike has been driven said barbs interlock with the grain of the wood of the tie, and being upwardly disposed do not interfere with the ready driving of the spike into the tie.

11 represents the secondary spike, which, like the primary spike, has its inner or adjacent face perfectly plain, as shown at 12, and is provided at its upper end with an outwardly-projecting head 13, the under edge of which is in a horizontal plane with the upper edge of the upper barb of the opposite or primary spike. The outer wall of the secondary spike is also plane, and is beveled as at 14, so that when the spikes are placed side by side said beveled portion forms a continuation of one side of the wedge-shaped driving-edge of the opposite or primary spike. The secondary spike is slightly tapered or wedge-shaped, as shown, and is entered into the tie in close proximity to the rear face of the primary spike, so that the same serves to force the primary spike so that its barbs will effectually interlock with the fiber or grain of the wood. The adjacent upper edges of the heads of the spikes are slightly cut away or beveled, as at 15, in order that a wedge-shaped tool may be introduced between the two for the purpose of starting a separation thereof prior to a withdrawal of spikes. The inner faces or walls of the two spikes, at a point opposite their heads, are provided with registering half-round transverse grooves 16, which combine to form a cylindrical opening when the spikes are together, and through said opening there is passed a split pin 18, formed, preferably, of spring metal, which acts to prevent a withdrawal of either one of the spikes and securely locks them together.

From the above construction it will be apparent that I have provided an extremely efficient and strong spike adapted to support as well as connect the rails to the ties, and

that in such a manner as to prevent any wear of the rail upon the tie. Although the lock of the spike is most efficient and requires no attention on the part of track-walkers, yet it
5 will be apparent that a necessary separation and withdrawal of the spikes may take place whenever desired and with comparatively little trouble.

Having thus described my invention, what I
10 claim is—

1. The herein-described spike, comprising a primary and secondary spike arranged face to face, the secondary spike being wedge-shaped and the two spikes provided near
15 their upper ends with registering grooves formed in their inner walls, and a removable locking-pin inserted in the opening formed by the grooves when the primary and secondary spikes are placed face to face, substantially
20 as specified.

2. The herein-described spike, the same consisting of the main spike having the outer plain wall and the head, the rear end of which

is flush with said wall and the front end of which is formed to overlap the base of a rail, 25 the supplemental wedge-shaped spike terminating at its upper end in a head oppositely disposed to the head of the main spike and having its inner end flush with the wall of the secondary spike and its opposite end 30 formed to rest upon a tie, the adjacent edges of the heads being beveled or cut away, as at 15, and the adjacent faces of the spikes being transversely grooved below the heads and a split locking-pin of spring metal inserted in 35 the opening formed by the said grooves when the primary and secondary spikes are placed face to face, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature 40 in presence of two witnesses.

ELIAS DIETRICH.

Witnesses:

JOHN O'KELLY,
JOHN C. McNAB.