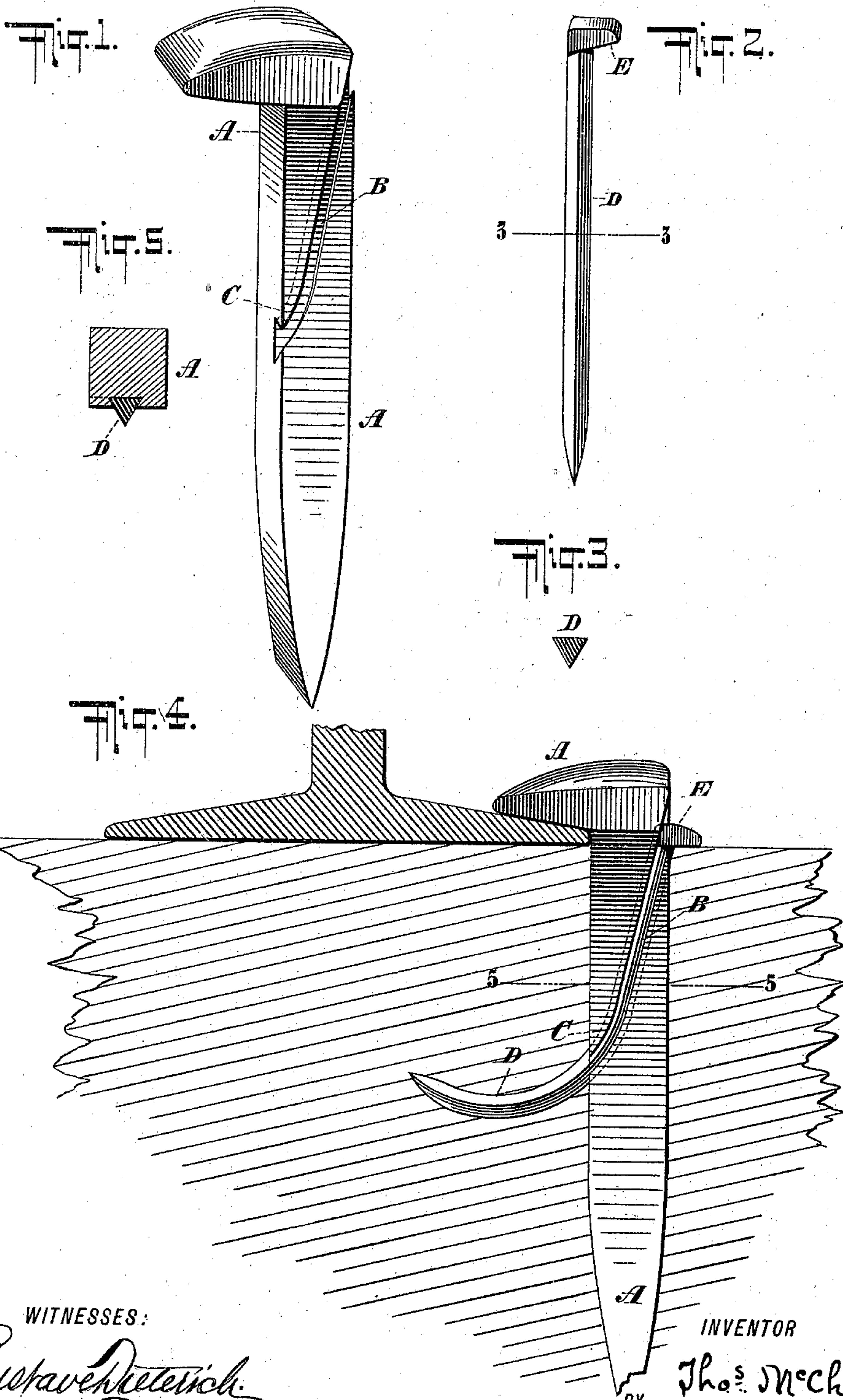


(No Model.)

T. McCHERRY.  
SPIKE.

No. 555,965.

Patented Mar. 10, 1896.



WITNESSES:

*Gustave Dietrich*  
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# UNITED STATES PATENT OFFICE.

THOMAS McCHERRY, OF BROOKLYN, NEW YORK.

## SPIKE.

SPECIFICATION forming part of Letters Patent No. 555,965, dated March 10, 1896.

Application filed October 8, 1895. Serial No. 564,983. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS McCHERRY, a subject of the Queen of Great Britain, residing at Brooklyn, Kings county, in the State of New York, have invented certain new and useful Improvements in Spikes, of which the following is a full, clear, and exact description.

My invention relates to improvements in spikes and fastening devices of an analogous character, and has for its object to provide a spike having a key adapted to be secured therein and engage with the timber for its entire length, and thereby securely lock the spike in position at two or more of its sides and render it impossible to withdraw the spike without first withdrawing the key.

Heretofore in constructing spikes and keying devices therefor it has been the custom to cut away or remove so much of the spike, in order to accommodate the keying device whereby the spike was locked upon one of its sides only, that the spike became so weakened in consequence thereof as to render the same unfit for the purposes for which it was designed. Now by means of my invention I am enabled to obviate these defects and overcome the disadvantages incident thereto.

My invention resides in the novel details of construction, and the combination, connection and arrangement of parts hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, wherein like letters of reference indicate like parts, Figure 1 is a perspective view of my improved spike. Fig. 2 is a side view of the key for locking said spike in the timber. Fig. 3 is a section thereof taken on the line 3 3 of Fig. 2. Fig. 4 is a side view, partly in section, showing the spike driven into the timber to secure a rail and the key in position on said spike to lock the same; and Fig. 5 is a diagrammatic section taken on the line 5 5 of Fig. 4, showing the position of the key in relation to the spike and timber contiguous thereto.

In said drawings, A designates a spike of the ordinary construction which is here provided upon its side with a groove B, made wide at its back and contracted at the front, and extending diagonally across the body of

the spike from a point at the back of the head to a point on the opposite side of the spike about midway of the distance from head to point. This groove B is made perfectly straight except near its lower end, where it is curved, as shown at C, and D is a key having a shank triangular in cross-section, and provided at its lower end with a point and at its upper end with a head E, the under side of the projecting portion of which is tapered toward the edge, as shown in Fig. 2.

The operation is as follows: After the spike has been driven fully home in the timber the head thereof will remain projecting above the same and expose the mouth of the groove B at the back thereof. Thereupon the point of the key D is inserted in said mouth and the key driven downwardly into the spike. When the point of the key strikes the curved portion C of the groove B the same will be deflected and the key caused to change its course and enter the timber at substantially right angles to the body of the spike, and when said key has been driven completely home it will assume the position illustrated by Fig. 4, and thereby securely lock the spike in position.

It will be observed that by making the groove B wide at its back and contracted at the front and the key triangular in cross-section it will be impossible for the key to ride out of the same when being driven in, and that the portion of the key which projects lengthwise beyond the edge of the groove forms a cutting-edge which will firmly embed itself in the timber contiguous to the side of the spike wherein the groove is situated, and the lower projecting end of the key embed itself in the timber in the side contiguous to the lower end of the groove, and thereby lock the spike to its position. I do not, however, wish to limit or confine myself to a triangular key and a groove formed to accommodate the same, as the key may be made of different forms in cross-section and a groove formed to extend diagonally across the side of the spike to accommodate the same, which will permit a portion of the key to project lengthwise out of the groove beyond the limits of the spike, and a portion thereof to project transversely beyond the limits of the spike and into the timber contiguous to the spike.



Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination of a spike having a groove in the side thereof extending diagonally across the same, and a key adapted, when inserted in said groove, to project longitudinally for its entire length, and transversely for a portion of its length beyond the outline of the spike, and the projecting portions thereof to engage with the timber contiguous to the spike to lock said spike in position, substantially as specified.

2. The combination of a spike having a suitable retaining-groove in the side thereof extending diagonally across the same, and a key conforming in outline to said groove, and adapted when inserted therein to project longitudinally for its entire length, and transversely for a portion of its length beyond the outline of the spike to engage with the timber contiguous to the spike to lock said spike in position, substantially as specified.

3. The combination of a spike having a retaining-groove in the side thereof made wide at its back and contracted at the front, extending from a point at the back of the head diagonally across the side, and terminating at the side of the spike about midway of its length opposite to the side where its entrance

is situated, and provided near its terminal with a curved portion to deflect the course of the key, and a key having a triangular shank adapted when inserted in said groove to project longitudinally for its entire length, and transversely for a portion of its length beyond the outline of the spike and into the timber contiguous thereto, whereby to lock said spike in position, substantially as specified.

4. The combination of the spike A having arranged in the side thereof and extending diagonally across the same the retaining-groove B provided near its lower end with the curved portion C, and the key D having a triangular shank and the head E, and adapted, when inserted in the retaining-groove aforesaid, to project longitudinally for a portion of its width, and transversely for a portion of its length beyond the outline of the body of the spike into the timber surrounding said body of the spike to hold the spike in position, substantially as shown and described.

Signed at the city of New York, in the county and State of New York, this 7th day of October, 1895.

THOMAS McCHERRY.

Witnesses:

J. L. MILLARD,  
E. V. RANDALL.