R. K. Walton,

Spike.

No. 82,900. Patented Oct. 6, 1868.

Fig: 1.

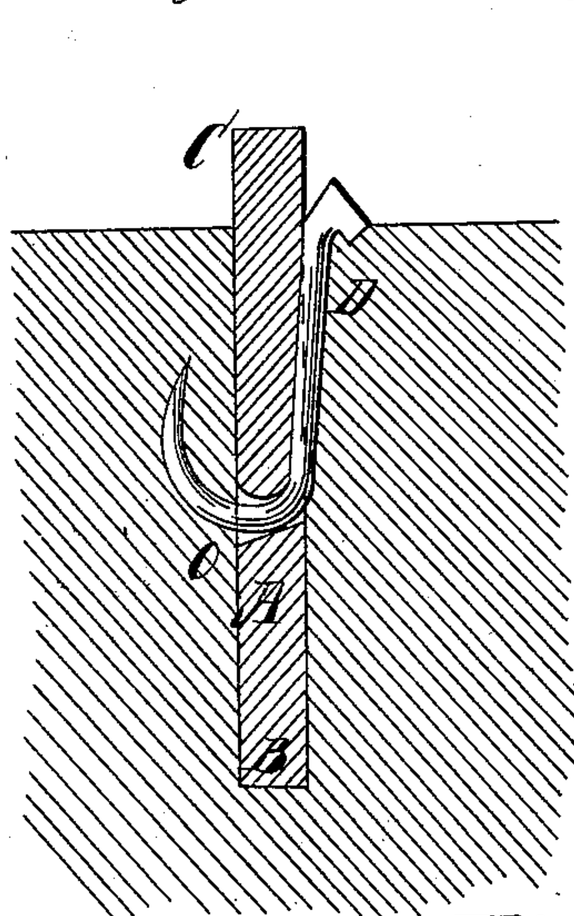


Fig: 2.

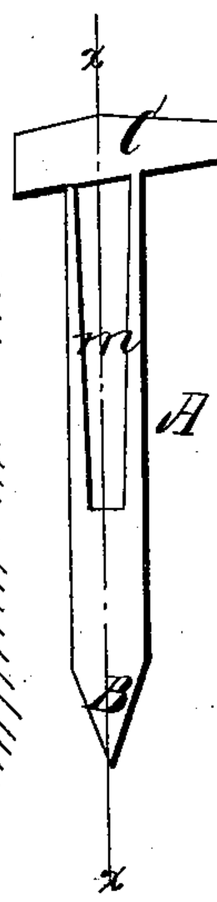


Fig: 3.

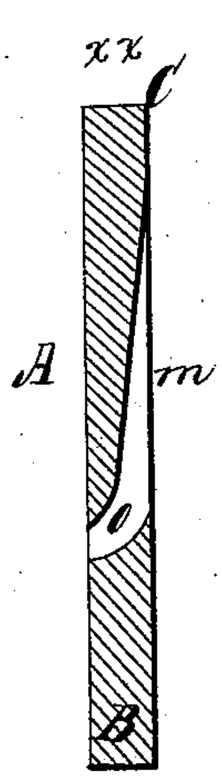


Fig: 4.

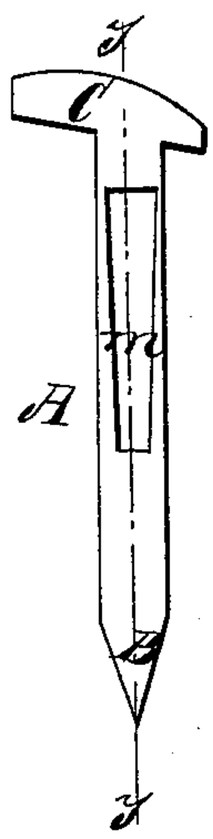


Fig: 5.

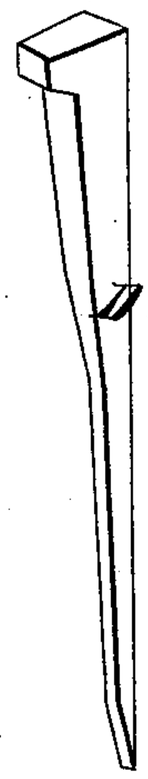
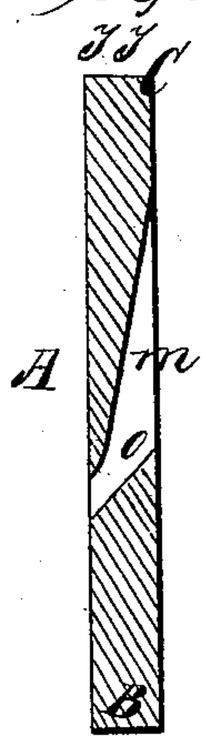


Fig: 6.



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United States Patent Office.

R. K. WALTON, OF CLARINGTON, OHIO.

Letters Patent No. 82,900, *dated October* 6, 1868.

IMPROVEMENT IN SPIKE.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, R. K. WALTON, of Clarington, in the county of Monroe, and State of Ohio, have invented a new and improved Spike; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a longitudinal vertical section, showing the spike in position in the wood.

Figures 2 and 4 are side elevations, showing different forms of spike, and the spike in different positions.

Figures 3 and 5 are longitudinal vertical sections, showing differently-shaped apertures through the spike.

Figure 6 is a view of the auxiliary spike or nail before it is bent.

The object of this invention is so to construct a spike for railroad purposes, or for common use in spiking planks to timbers, or in spiking timbers together for ship-building or other purposes, that the spike can be firmly embedded in the wood, so that it cannot be withdrawn, or even moved a started in its bed, by any vibration of the wood or of the spike, or by any extracting-instrument, which will not tear away or remove the wood itself.

To this end, I cast or make the spike with an inclined or curved hole through it from side to side, and with a guide-groove or depression on its side, leading from near its head to the entrance to the hole or passage. In connection with a spike thus formed, I employ a supplementary or auxiliary spike or nail, which, being driven down by the side of the spike after the latter is in its place, passes through it and enters the wood on its opposite side, firmly fixing the spike in its place, and preventing its being withdrawn or moved by any force whatever that will not break or tear away the wood itself.

In the drawings, A indicates the body, B the point, and C the head of the main spike, the auxiliary spike or nail being represented by the letter D, and by fig. 6. *o* is the hole or passage through the body of the spike A, being made inclined and straight, as in figs. 1 and 5, or inclined and curved, as in fig. 3. Leading to the upper end of this opening is a guide-groove, *m*, extending from the upper end of the spike. The groove may be made tapering downward in width, if desired, and tapering upward in depth. The aperture *o* may be situated at any point along the body of the spike at which it may be thought best to place it. For general purposes, I make it about at the point represented in the drawings; but when the spike is to be employed for the purpose of bolting together timbers or planks, as in the ship-yard, I would generally make it with a blunt point, and place the hole very near the extremity, so that the lock shall be formed at or near the end of the spike.

The operation of this improved spike is as follows:

The main spike is driven into the wood up to the head, as seen in fig. 1. The point of the auxiliary spike is then inserted into the upper end of groove *m*, and the auxiliary spike is driven down into the groove. The latter guides its point accurately into the opening *o*, through which it passes, entering the wood on the opposite side, and bending up, as seen in fig. 1, forming a strong lock which cannot be started or moved except by breaking away the wood. The straight incline, figs. 1 and 5, will, in general, bend up the rod D sufficiently to form a perfect lock, but, if thought necessary, the curved incline, fig. 3, may be employed, the effect of which will be to bend the point of the rod D more closely to the spike A, preventing its projecting out to a great distance from the body of the main spike. In some kinds of work, where there is not much wood around the main spike, the curved incline spike may, for this reason, be decidedly superior to the other.

The tapering width of the guide-groove causes the nail to wedge into it firmly, preventing any vibration or wearing of the parts against each other, and holding all the parts together more compactly and firmly than if the groove were made of equal width from top to bottom.

I do not limit myself, however, to the tapering groove, but my invention covers all forms of groove used for the purpose herein set forth.

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

A spike, formed with an opening, *o*, through it, and a guide-groove, leading from its upper end to the opening, substantially as above set forth.

To the above specification of my improvement I have signed my hand, this 25th day of June, 1868.

R. K. WALTON.

Witnesses:

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