

J. H. STARNES.
HOE FASTENINGS.

No. 187,925.

Patented Feb. 27, 1877.

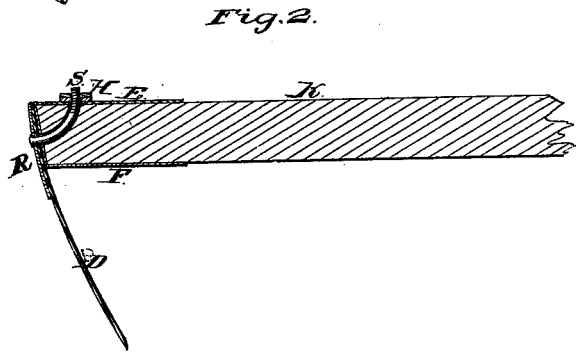
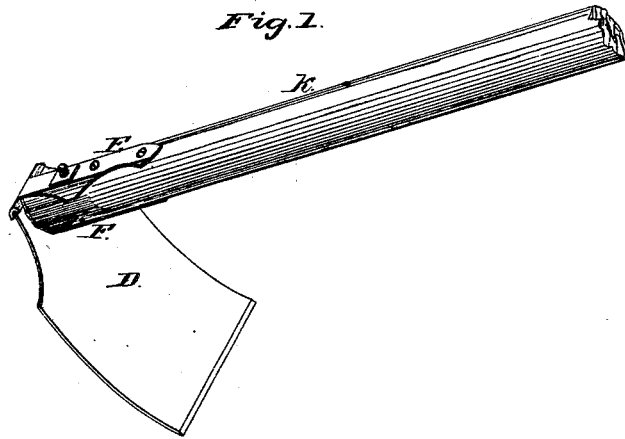


Fig. 3.

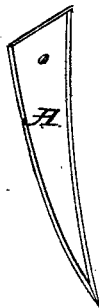


Fig. 4.

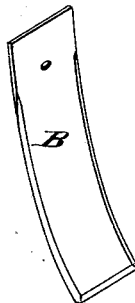
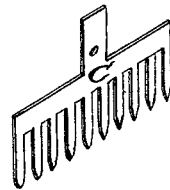


Fig. 5.



Witnesses:
W. J. Robertson.
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UNITED STATES PATENT OFFICE.

JOHN H. STARNES, OF BUNCOMBE COUNTY, NORTH CAROLINA.

IMPROVEMENT IN HOE-FASTENINGS.

Specification forming part of Letters Patent No. 187,925, dated February 27, 1877; application filed February 14, 1877.

To all whom it may concern:

Be it known that I, JOHN H. STARNES, of the county of Buncombe, and State of North Carolina, have invented a new and useful Improvement in Hoe-Handles, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing, in which—

Figure 1 is a perspective view of a section of a hoe-handle having a hoe attached. Fig. 2 is a right cross-section of Fig. 1. Figs. 3, 4, and 5 are views of other implements which may be readily substituted for a hoe-blade.

The object of my invention is to construct a hoe-handle so that the hoe-blade may be used without the eye, as on the ordinary blade, so that the blade may be adjusted at different angles, and so that other implements may be substituted for the hoe, as hereinafter described.

The blade may be of any desired form, as shown at A, B, C, and D, and is perforated near the upper end for the passage of the bolt used to secure it to the handle. It consists of a flat piece of metal without the eye, which is necessary in a hoe of the ordinary construction. The handle K is of the common form, and at its lower end is provided with the plate F, which is iron or steel of suitable thickness, and is permanently secured to the under side thereof by wood-screws or rivets. The plate F is bent upwardly to fit the end of the handle, as shown at E, and the bent portion is perforated for the passage of the attaching-bolt. A similar plate, E, is fastened in the same way to the top of the handle, has its end bent in a downward direction, and the

bent portion is somewhat longer than the diameter of the handle, so as to stiffen and render the blade more rigid. It is also perforated at the end and on the top, as shown, for the passage of the attaching-bolt S, which is of curved form, as shown in the drawing.

The blade is attached to the handle by inserting the upper end thereof between the bent or flanged ends of the plates. The curved bolt is then passed through the perforations or apertures in the blade, the bent portions of the plates, and a correspondingly-curved hole or perforation in the handle, the threaded end of the bolt coming out at the top and secured by an ordinary nut.

By these means of attachment, blades of different forms with a single handle, blades of plane metal without an eye, which renders them more expensive, may be used, and the angle of the blade may be varied by adjustments of the bolt and nut.

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

1. The combination of the handle K with two L-shaped plates, and a curved bolt and nut, substantially in the manner and for the purpose specified.

2. The combination of the handle K, having two L-shaped plates, and a curved bolt and nut, with a hoe or other blade, substantially in the manner and for the purpose specified.

JOHN H. STARNES.

Witnesses:

JAS. McENTIRE,
W. T. ROBERTSON.