A. A. PORTER.

Hoe.

No. 168,780. Patented Oct. 11, 1875.

Fig. 1.

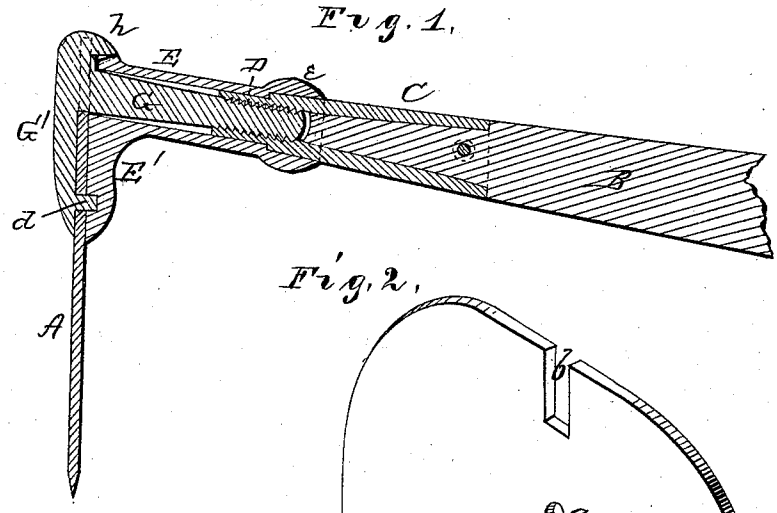


Fig. 2.

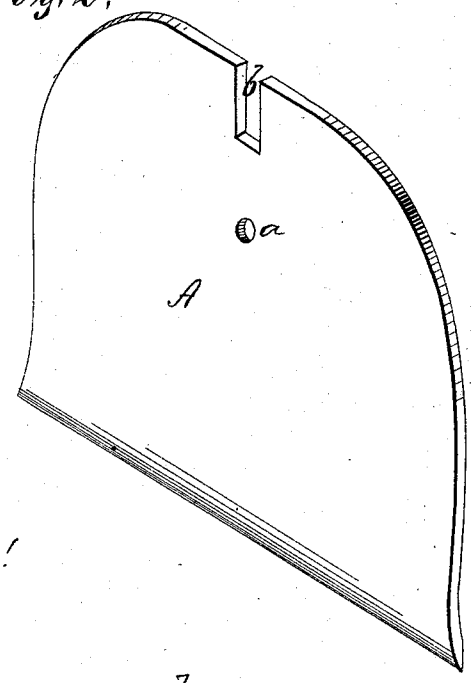


Fig. 3.

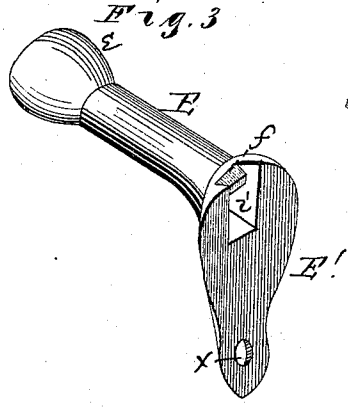
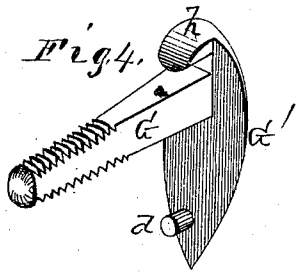


Fig. 4.



WITNESSES

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ARCHIBALD A. PORTER, OF GRIFFIN, GEORGIA.

IMPROVEMENT IN HOES.

Specification forming part of Letters Patent No. **168,780**, dated October 11, 1875; application filed August 26, 1875.

To all whom it may concern:

Be it known that I, ARCHIBALD A. PORTER, of Griffin, in the county of Spaulding and in the State of Georgia, have invented certain new and useful Improvements in Hoes; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification:

My invention relates to improvements in hoes; and it consists in a novel manner of connecting the hoe blade and handle together to give strength to the parts, and allow a ready attachment or detachment of the same, all as more fully hereinafter set forth.

In the accompanying drawings, making a part of this specification, Figure 1 represents a sectional view of the handle, blade, and connections. Fig. 2 represents a perspective view of the blade detached. Fig. 3 represents a perspective view of the socket and brace for the inner side of the blade; and Fig. 4 represents a perspective view of the screw-bolt and brace for the outer side of the brace.

A in the drawings represents a hoe-blade, having a square open slot, *b*, in its top, and having a perforation, *a*, in the body of the blade below this slot. B represents the handle, upon the end of which is a metallic ferrule, C, which has a hollow tenon, D, at its extremity, which is provided with interior screw-threads, as shown. E represents a hollow socket, having its rear end *e* enlarged, within which is formed a shoulder, to bear against the shoulder formed by the tenon D on the ferrule. Upon the front end of the socket E is formed a downward-projecting brace, E′, in the top of which is made an open-end square slot, *i*, which terminates in a cut-away, *f*, in the upper edge of the brace. The lower end of the brace is provided with a perforation, *x*, for the purpose hereinafter described. G represents a shank, which is made flat on two sides, has a screw-thread formed on its inner end, and has a downward-projecting brace, G′, and a short inward-projecting stud, *d*, as shown. Upon the top of the brace G′ is made a projection, *h*, which lies in the cut-away *f* in the brace E′ when the parts are connected together, as in Fig. 1.

To put the parts together, the shank G is passed through the open slot *f*, and the stud *d* of the same inserted in the opening *a* of the blade, so that the brace G′ lies flat against the blade. The socket E is then passed over the shank, with the brace E′ flat against the inner face of the blade, and with the stud *d* entering the opening *x* of the brace. The handle is then attached by inserting the tenon D and screwing the same until the shoulders of the tenon and socket come together. The connection being complete, the hoe-blade is rigidly secured, and the blade is braced both on the outer and inner side.

To detach the parts it is simply necessary to unscrew the handle.

I am aware that hoe-blades have been secured between the inclined head of a socket and the head of a screw passing through the blade and socket into the handle and held firmly by a projection on the head entering a slot in the blade, and hence I do not claim such as being my invention.

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

The shank G and lip *h*, socket E and recess F, in combination with the blade A and handle B C, as specified.

In testimony that I claim the foregoing I have hereunto set my hand this 9th day of August, 1875.

ARCHIBALD A. PORTER.

Witnesses:

A. PRATOR,

J. Q. A. ALFORD.