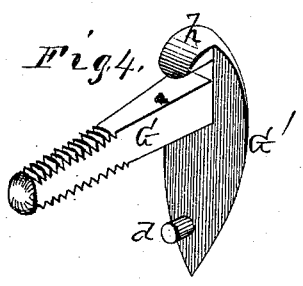
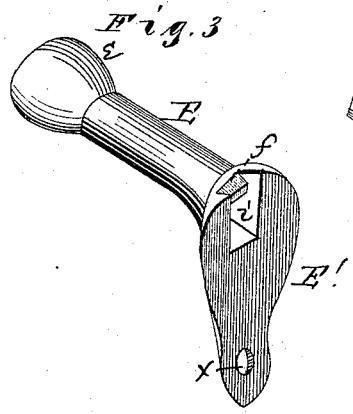
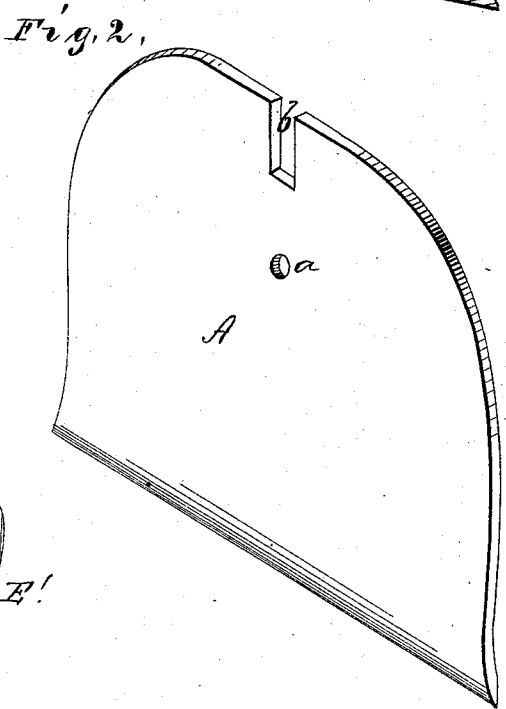
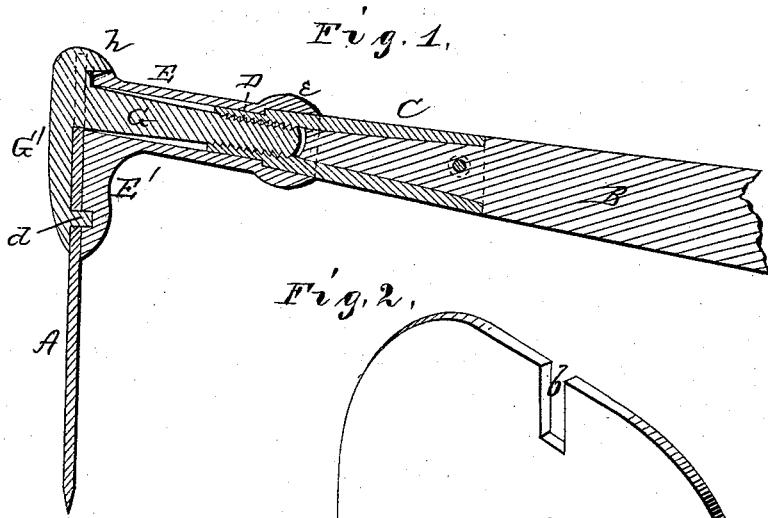


A. A. PORTER.

Hoe.

No. 168,780.

Patented Oct. 11, 1875.



WITNESSES
Char. M. Bart
C. R. Evers

By

INVENTOR
A. A. Porter,
Charles Mason
Attorney

UNITED STATES PATENT OFFICE.

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 blade.

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.