

A. H. MILLER.  
Hoe.

No. 205,667.

Patented July 2, 1878.

Fig. 1.

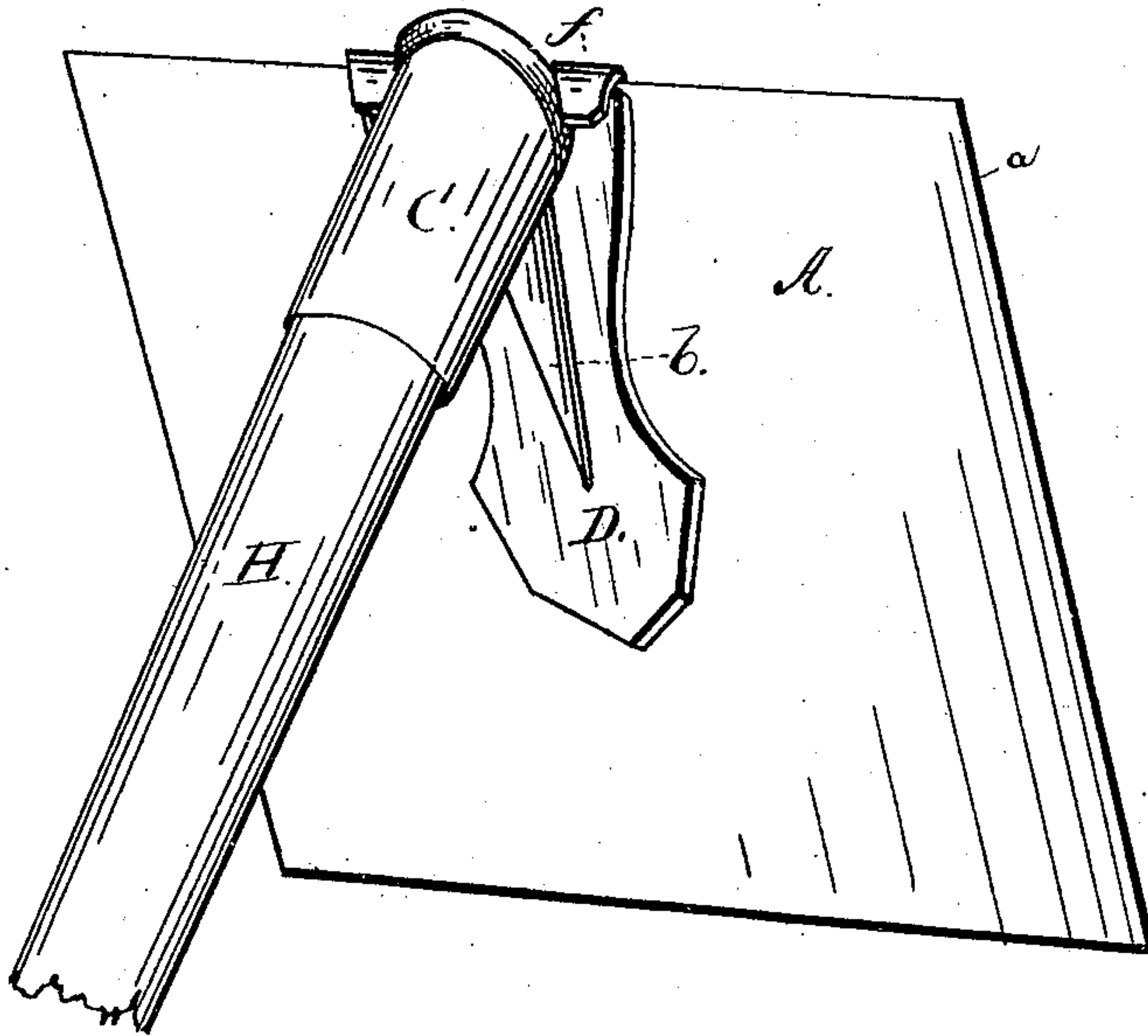
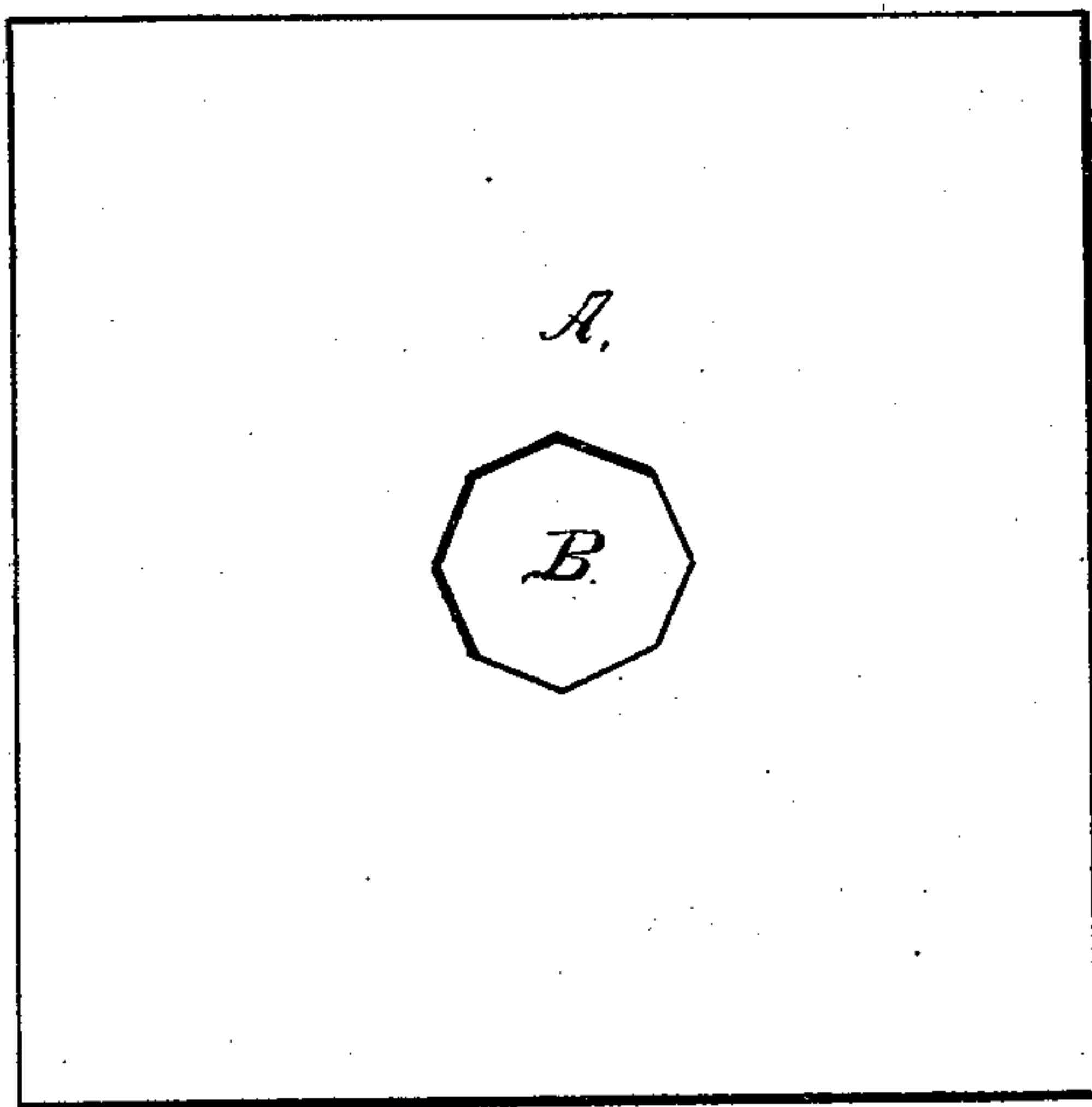
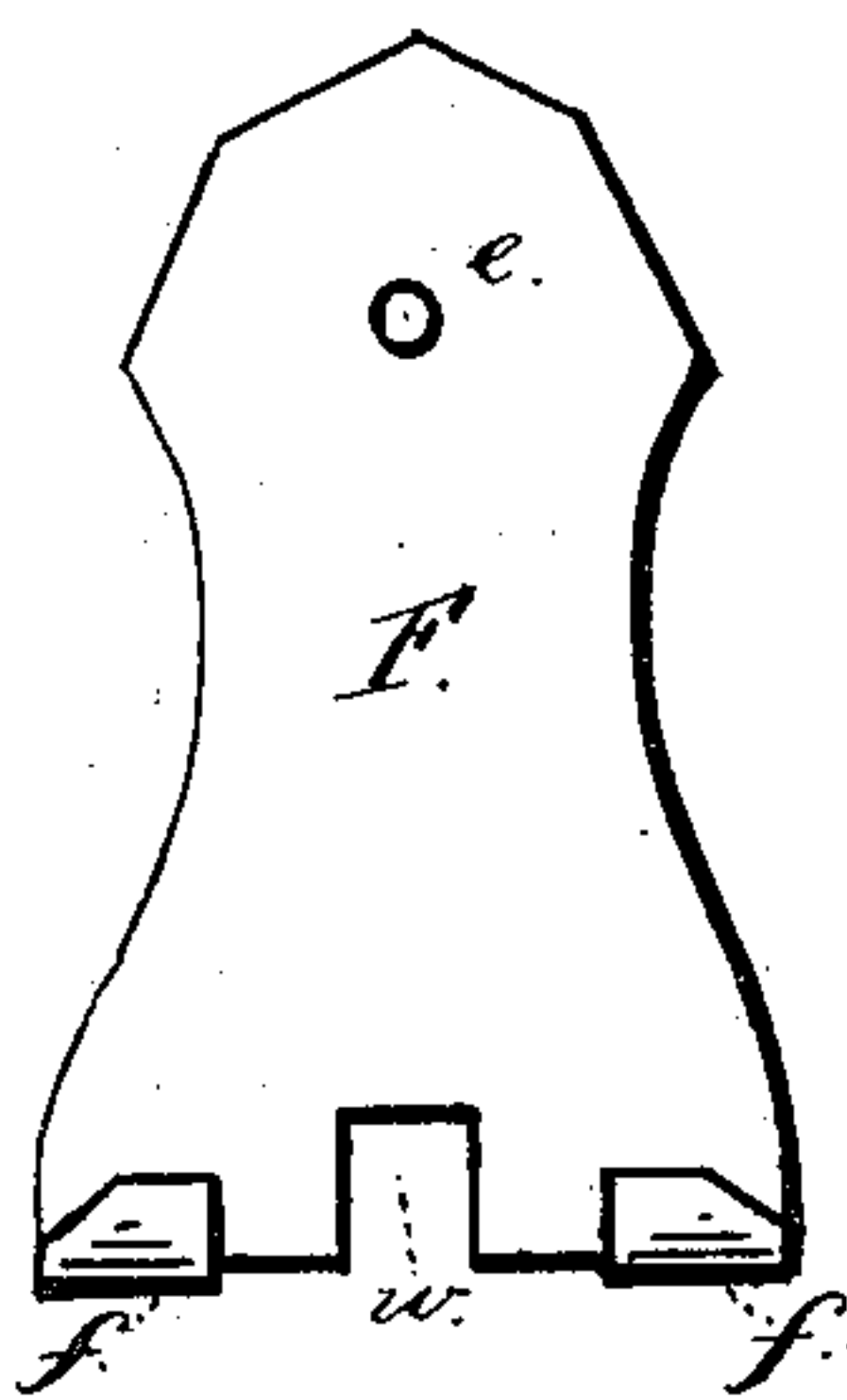


Fig. 2.



WITNESSES

John F. Blackmar,  
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INVENTOR.

Aaron H. Miller.  
Gilmore Smith & Co.

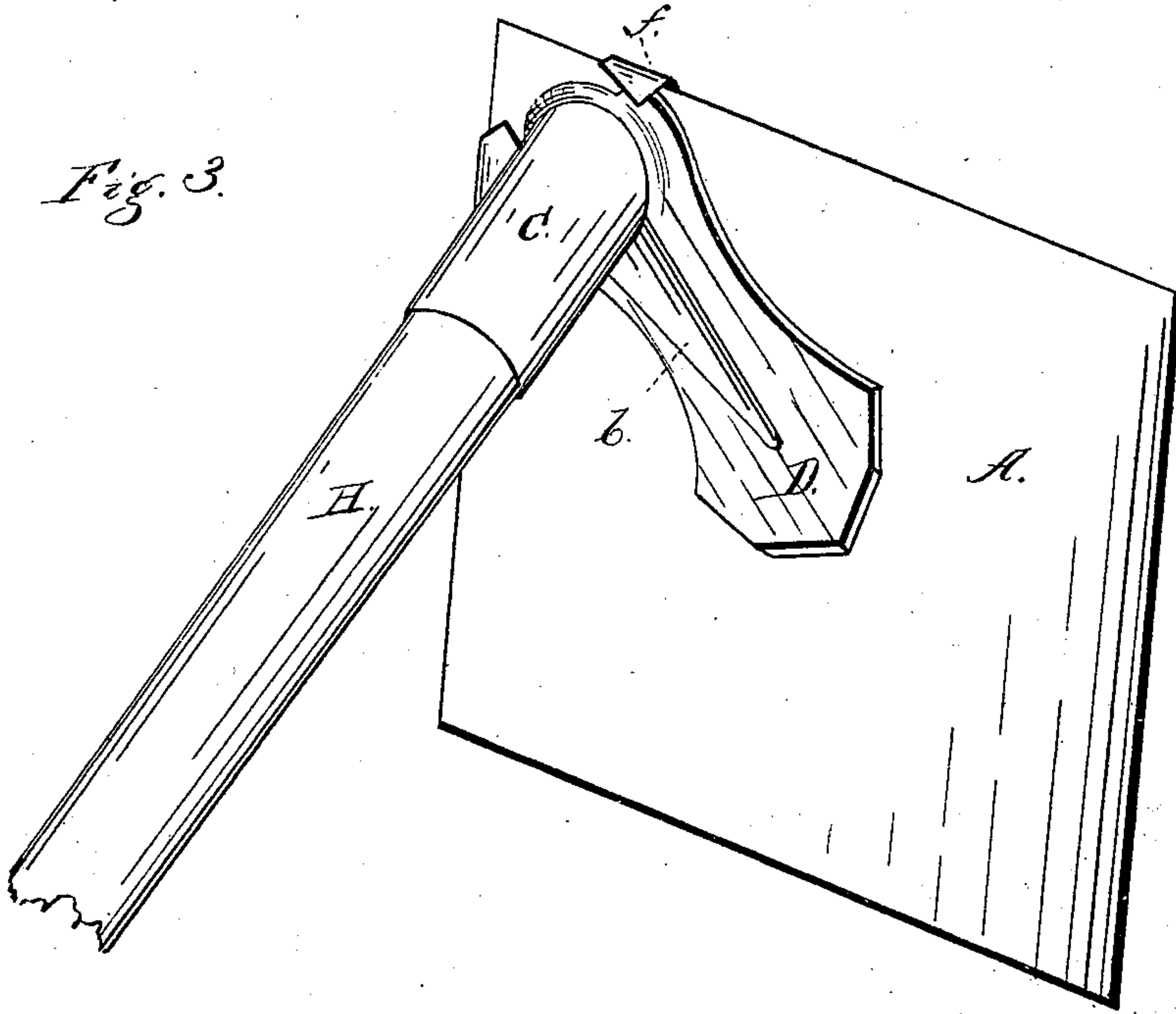
ATTORNEYS.

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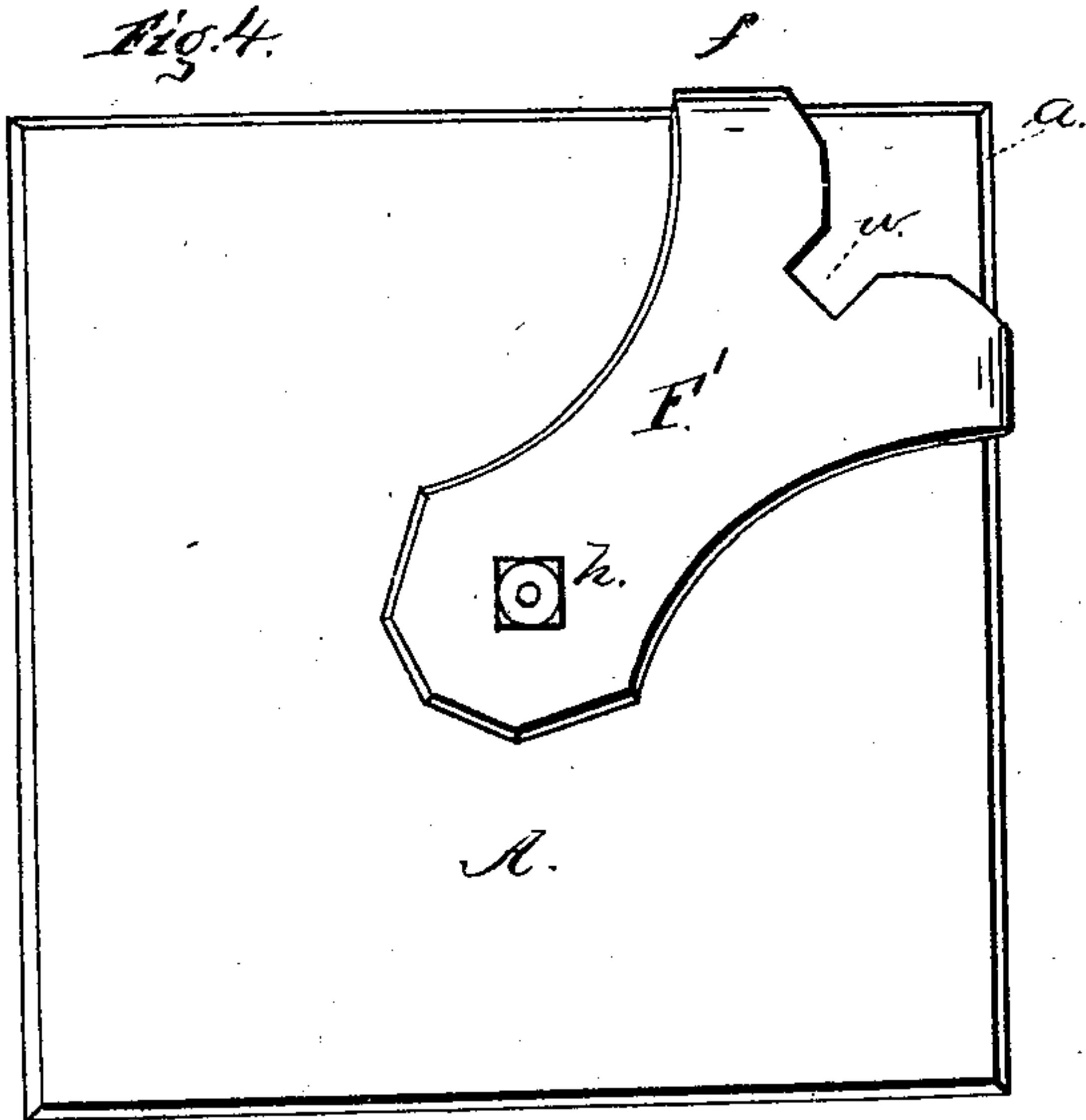
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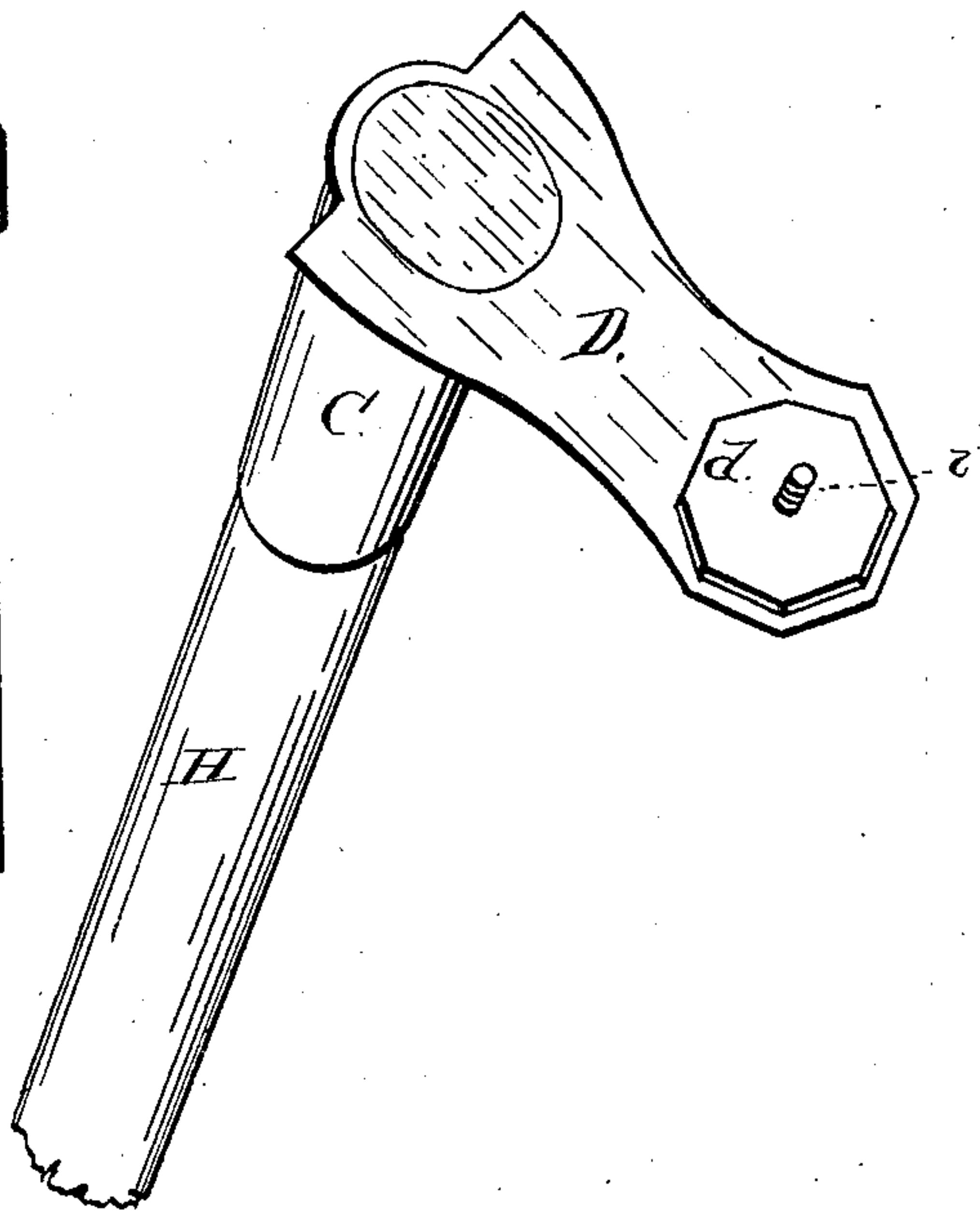
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



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*James J. Sheehy.*

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*Aaron H. Miller,*  
*Gilmore, Smith & Co.*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

AARON H. MILLER, OF ATLANTA, GEORGIA, ASSIGNOR OF ONE-HALF HIS  
RIGHT TO JOSEPH H. DAVIS, OF SAME PLACE.

## IMPROVEMENT IN HOES.

Specification forming part of Letters Patent No. **205,667**, dated July 2, 1878; application filed  
June 1, 1878.

*To all whom it may concern:*

Be it known that I, AARON H. MILLER, now of Atlanta, in the county of Fulton and State of Georgia, have invented a new and valuable Improvement in Hoes; 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 annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a perspective view of my hoe. Fig. 2 is a plan view of brace and plate. Fig. 3 is a perspective view of a modification. Fig. 4 is a plan view of the plate, showing the brace; and Fig. 5 perspective view of the handle and socket.

The nature of my invention consists in the construction and arrangement of a hoe and devices for adjusting the same to the handle, as will be hereinafter more fully set forth.

The annexed drawing, to which reference is made, fully illustrates my invention.

A represents the hoe-blade, made in square form and having its edges beveled on one side, as shown at *a*. In the center of the blade A is an opening, B, of regular octagonal form.

C represents the socket, in which the handle H is fastened, said socket being, at its inner end, provided with an arm, D, having on its outer side a longitudinal rib, *b*, for strengthening the same. On the inner side at the end of the arm D is formed an octagonal projection, *d*, of such size as to fit in the hole B in the center of the blade or plate A, and said projection is of the same thickness as the hoe-blade. From the center of the projection *d* projects a bolt, *i*, as shown.

To connect the blade and arm a brace, F or F', is used. The brace F is, at its outer end, formed with two hooks or bent lips, *f f*, to overlap the upper edge of the hoe-blade. The inner end of the brace has a slot, *e*, through

which the bolt *i* projects, and a nut, *h*, then screwed down tightly on the bolt secures the parts together and clamps the blade firmly between the brace F and the arm D. The adjoining surfaces of the projection *d* and brace F are to be roughened, so as to make them bind better.

The brace F' is constructed in precisely the same manner as the brace F, except that the hooks are placed at an angle, so as to fit over the corner of the hoe-blade.

It is, of course, understood that the two braces F and F' are not used at one time. The brace F is used when the hoe is to be used as a square or field hoe, and the brace F' when it is to be used as a trenching-hoe.

It will be seen that the blade A can be turned so as to use either of the four sides and either of the four corners, and it can then be reversed, so as to use either side in front. This latter adjustment makes the blade self-sharpening.

The braces F F' are cut out at their outer ends, as shown at *w*, to be used as a wrench for turning the nut *h*.

What I claim as new, and desire to secure by Letters Patent, is—

1. The brace F', with its inclined hooks *f* and wrench *w*, constructed and adapted to serve as specified relatively to the blade A *a*, as set forth.

2. The trench-hoe described, consisting of the square blade A *a*, corner-brace F', having hooks *f* and their connections, adapted to be applied to the corner of the hoe, as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

AARON H. MILLER.

Witnesses:

JOSEPH H. DAVIS,  
JOHN RHEA.