

(No Model.)

C. A. F. PETERS.
EARTH AUGER.

No. 256,039.

Patented Apr. 4, 1882.

Fig. 1.

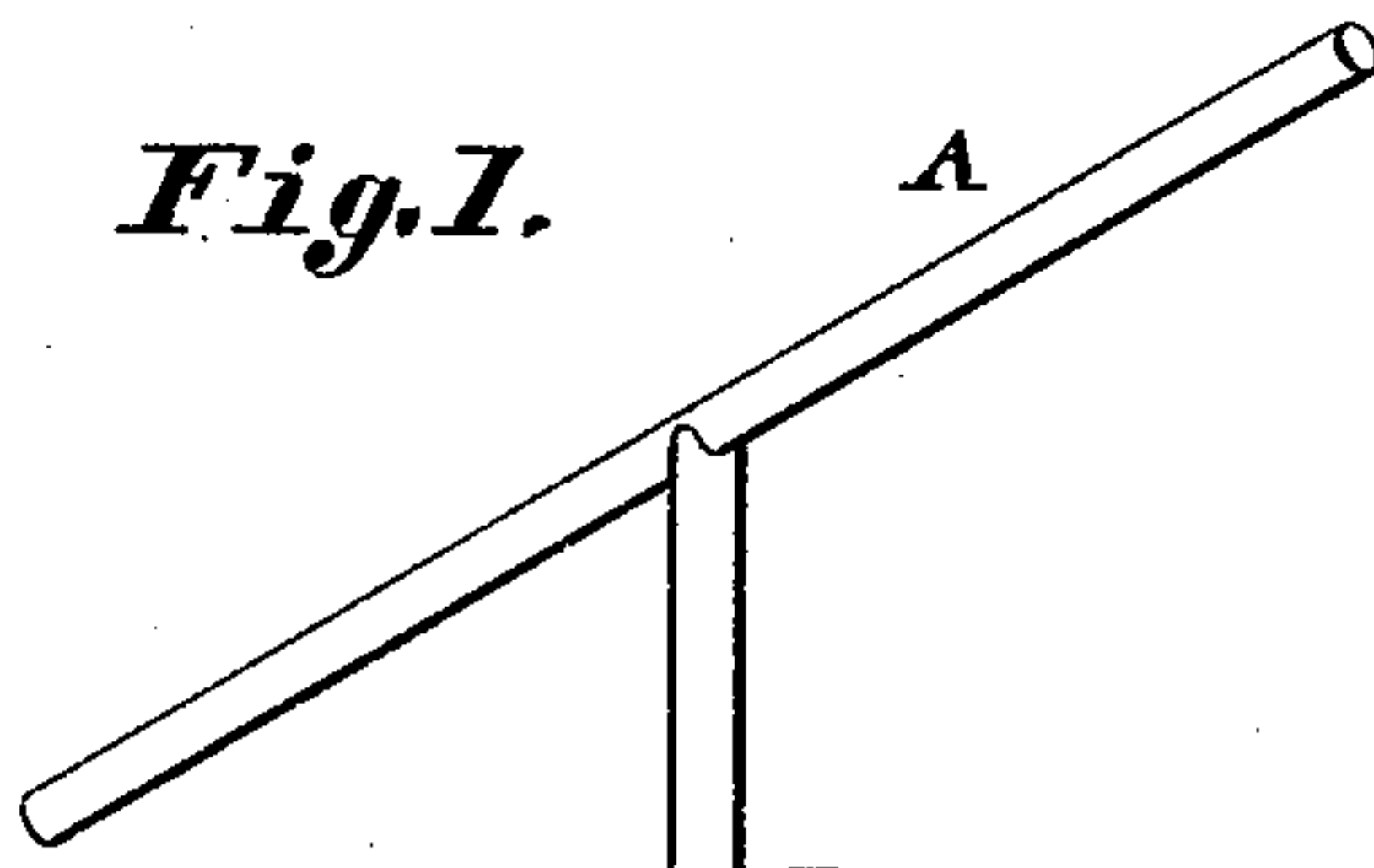


Fig. 2.

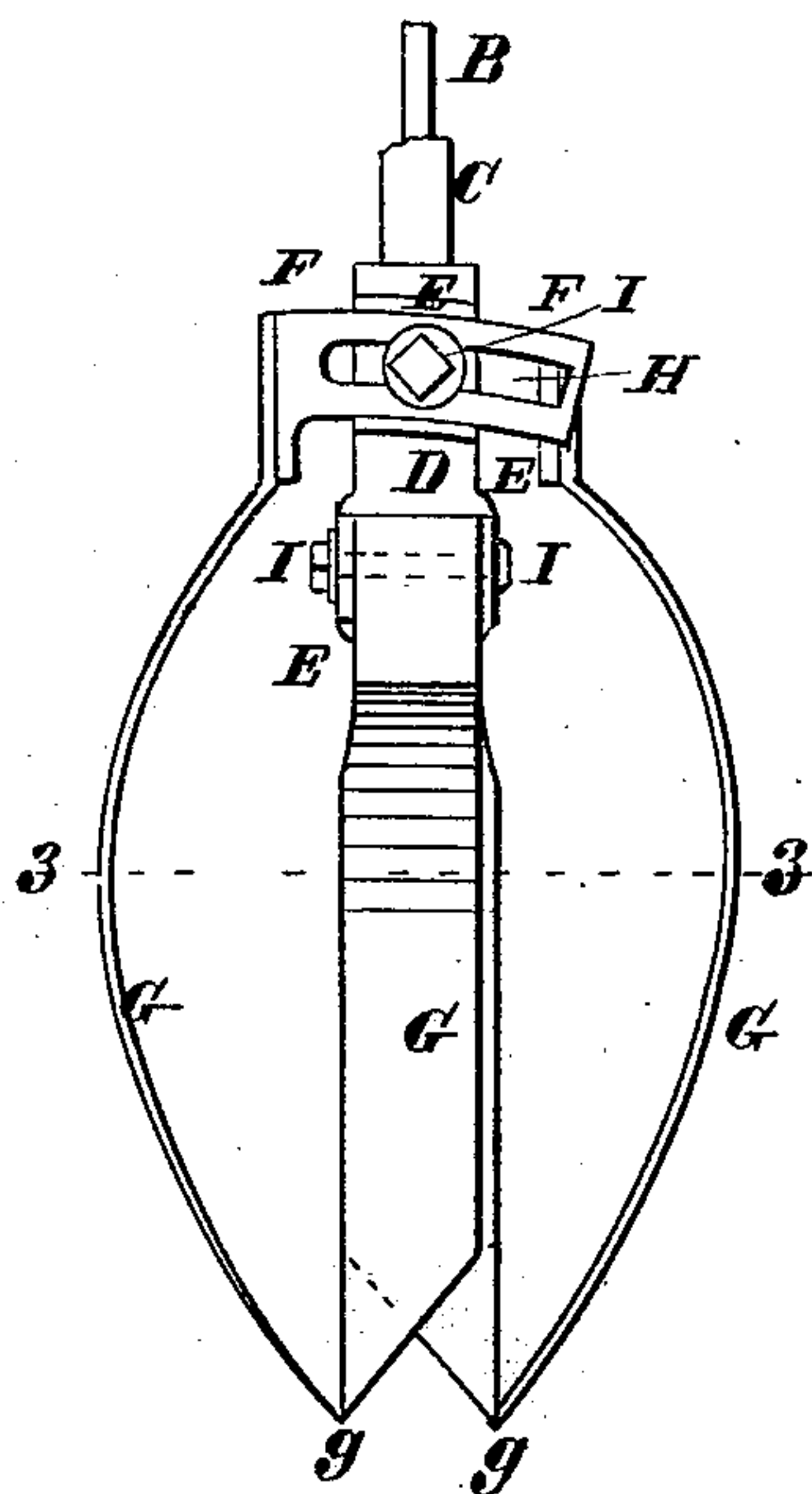
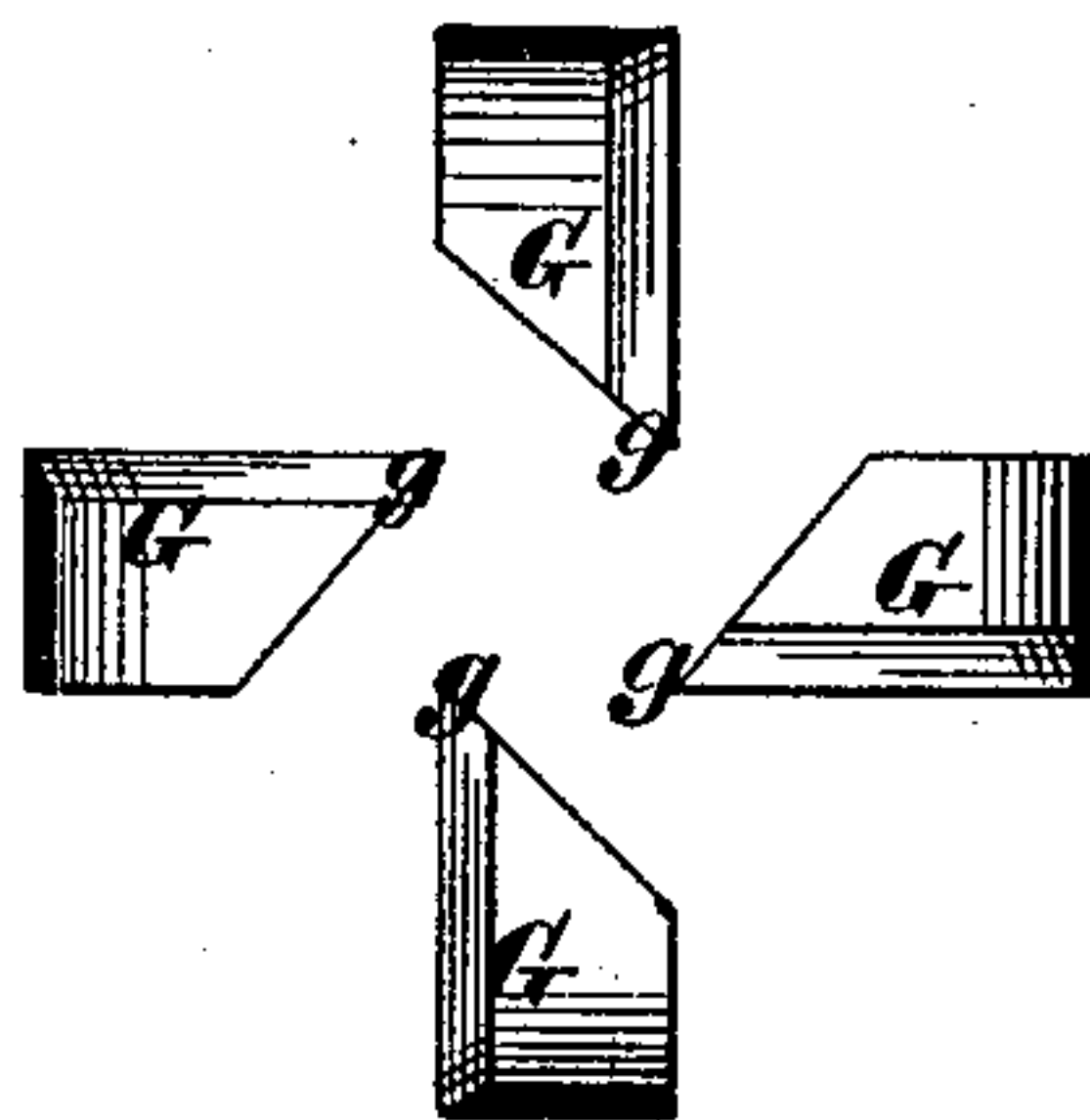
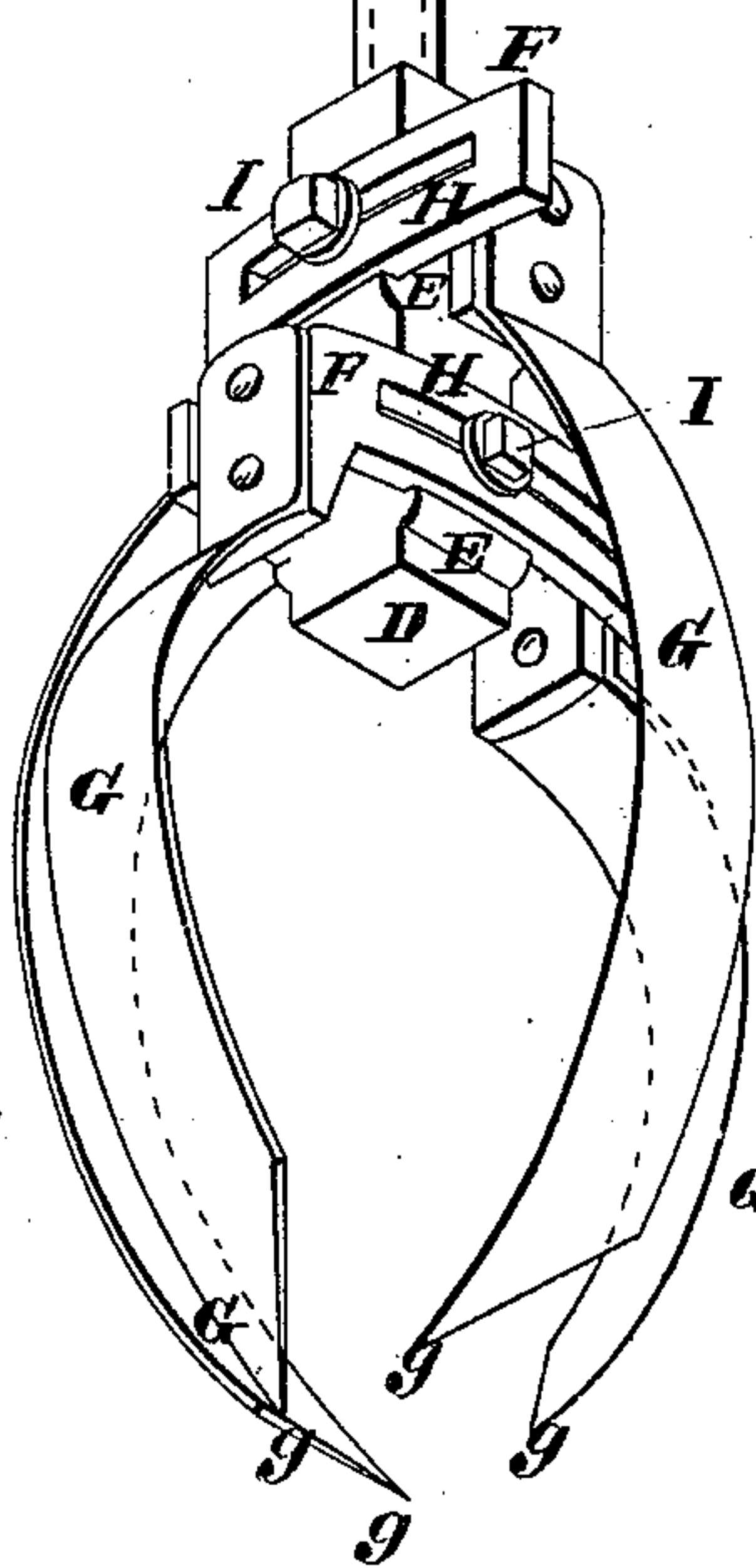


Fig. 3.



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UNITED STATES PATENT OFFICE.

CARL A. F. PETERS, OF ST. LOUIS, MISSOURI.

EARTH-AUGER.

SPECIFICATION forming part of Letters Patent No. 256,039, dated April 4, 1882.

Application filed February 23, 1882. (No model.)

To all whom it may concern:

Be it known that I, CARL A. F. PETERS, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Earth-Augers, of which the following is a specification, reference being had to the accompanying drawings, forming part of the same.

My improvement relates to an auger for hand or machine use; and it consists in the described manner of constructing the cutters and connecting them to the head, and also in making the handle or stem extensible, as set forth.

In the drawings, Figure 1 is a perspective view of the auger fitted for hand use. Fig. 2 is a side view with the upper part of the stem broken off. Fig. 3 is a vertical section of the blades or cutters at 3 3, looking down.

The shank or stem has a handle or cross-bar, A, by which it is turned.

B is a rod extending from the middle of the handle A, and whose lower portion is inserted in the tubular part C of the stem. The rod B admits of endwise adjustment in the tube C, and is held in the desired position in the tube by a set-screw, c, which screws in one side of the tube, and whose end bears against the rod B.

D is an angular head, having upon its sides (four sides being shown) guide-ribs E, which form curved channels to receive the curved lugs F, that are firmly attached to the upper ends of the cutters, and which are thus made adjustable on the head to fit the auger for boring holes of varying diameter. The lugs F have curved slots H, through which pass bolts I, that extend through the head, each bolt thus serving to hold two cutters in place. In place of the bolts I passing through the head, I may use screws working into the head. These bolts give means for adjustment, for when the nuts are loosened the lugs F may be set outward or inward. The edges of the lugs F that are in contact with the ribs E and the slots H are made in arcs of circles having their center at

the point g of the cutter to which the lug is attached, so that the position of the extreme point is not changed by setting the cutters outward or inward to increase or diminish the diameter of the hole.

The operation is as follows: The cutters being set to bore a hole of the required diameter, the auger is turned in the ordinary way to fill with earth the space within the cutters. When this space is filled the auger is drawn from the hole, and the earth discharged in the usual manner with augers of this class. To enable the more easy discharge of the earth in boring in wet or tenacious ground, I have found it better to dispense with one of the cutters to allow the easy discharge of earth at that side, whereas in very friable earth the cutters should all be used. As the hole increases in depth the handle or stem B C may be extended by loosening the set-screw c and drawing the rod B outward in the tube C, and then retightening the screw.

Although this auger is shown of a size and character fitted for hand use, I do not confine myself in the application of my improvement to hand-augers, for the improvement is equally well adapted for machine-augers, or those driven by machinery may be made to vary in size, as required.

I claim as my invention—

1. In an earth-auger, cutters secured to the head by bolts and lugs with curved slots, substantially as set forth.

2. In an earth-auger, the combination of curved cutters G and curved lugs F, projecting from the cutters and adjustable upon bolts passing through the lugs and into or through the head.

3. In an earth-auger, an adjustable stem, B C, substantially as and for the purpose set forth.

CARL A. F. PETERS.

Witnesses:

SAML. KNIGHT,
GEO. H. KNIGHT.