

(No Model.)

T. A. PORTER.

EARTH AUGER.

No. 318,653.

Patented May 26, 1885.

Fig. 1

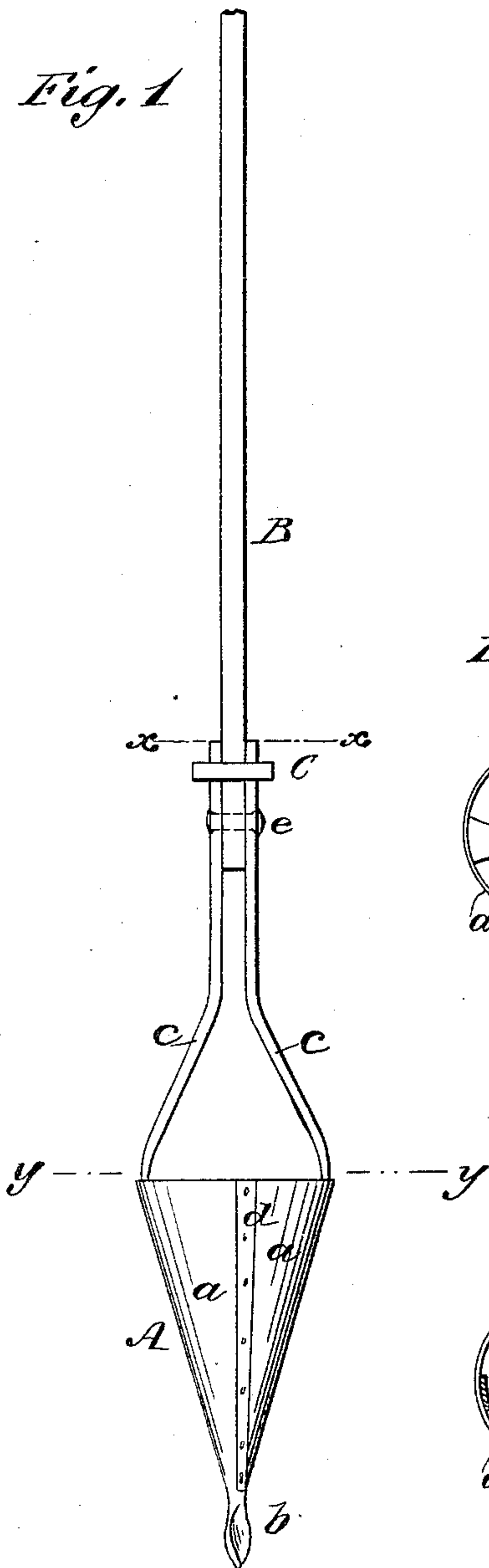


Fig. 2

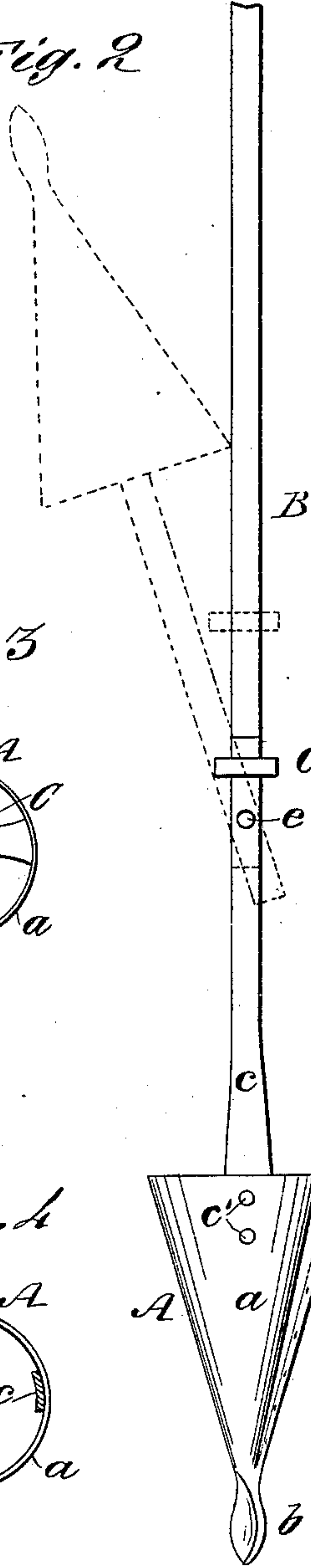


Fig. 5

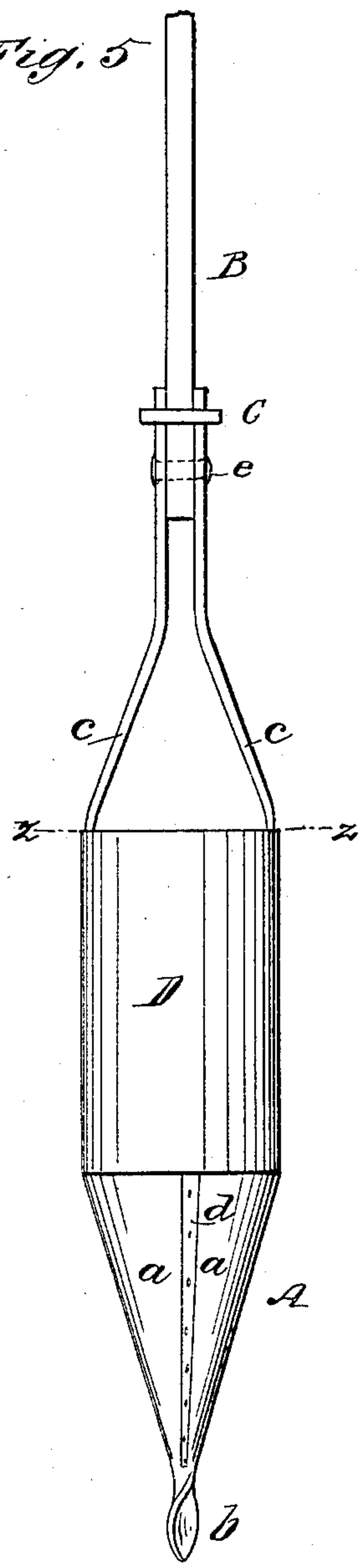


Fig. 3

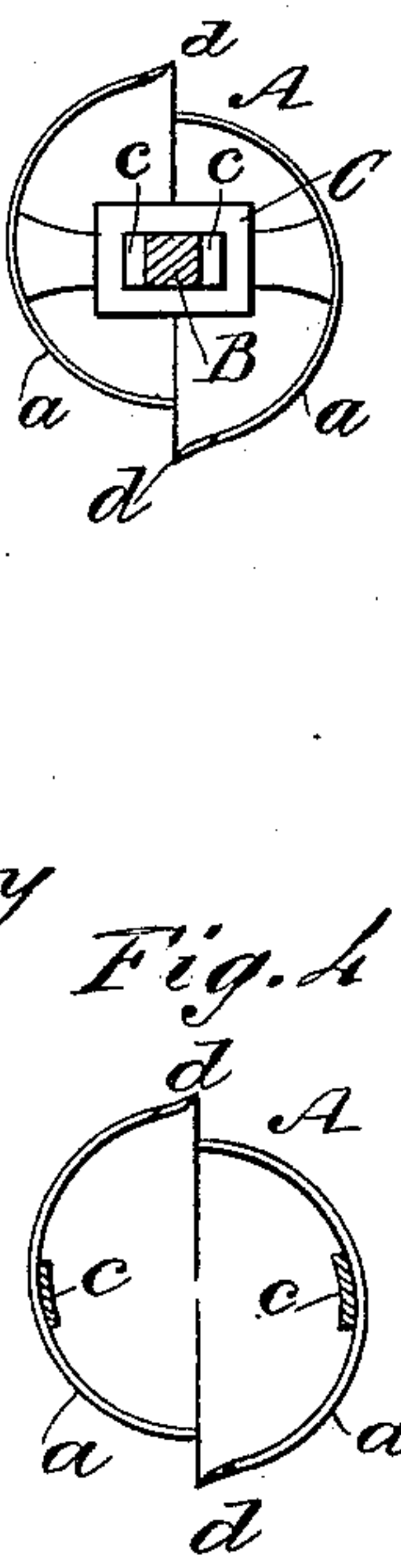


Fig. 4

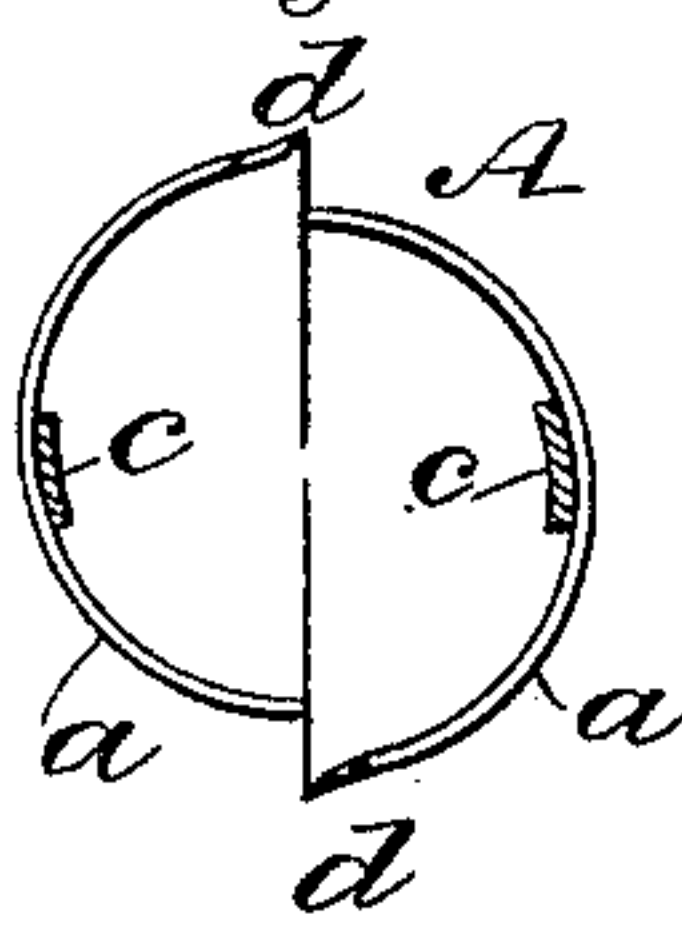
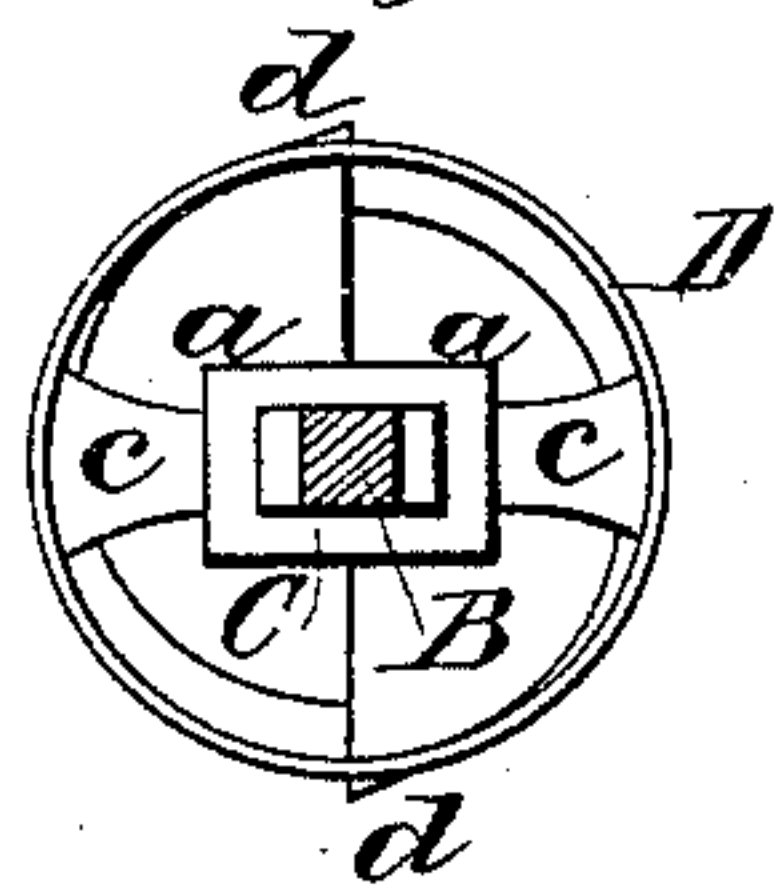


Fig. 6



WITNESSES:

C. Neveux

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# UNITED STATES PATENT OFFICE.

THOMAS A. PORTER, OF CAMERON, TEXAS.

## EARTH-AUGER.

SPECIFICATION forming part of Letters Patent No. 318,653, dated May 26, 1885.

Application filed July 30, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS A. PORTER, of Cameron, in the county of Milam and State of Texas, have invented a new and Improved Earth-Auger, of which the following is a full, clear, and exact description.

This invention relates to a new and improved earth-auger made funnel shaped, with side cutting-edges, and adapted to be inverted for emptying the auger; and the invention consists of the construction and arrangement of parts, as will be hereinafter fully described and claimed.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of my new and improved auger. Fig. 2 is a similar view showing in dotted lines the body of the auger in inverted position. Figs. 3 and 4 are sectional plan views taken respectively on the lines *x x* and *y y* of Fig. 1. Fig. 5 shows the auger provided with an extension; and Fig. 6 is a sectional plan view of the same taken on the line *z z* of Fig. 5.

The body A of the auger is composed of the two semi-cone-shaped shells or sections *a a*. These are placed face to face and joined at the apex, and provided there with the penetrating-point *b*, and they are secured at their upper ends to the braces *c c* by the rivets *c'* (shown in Fig. 2) in such manner that one end of each shell or section sets out on opposite sides of the body A to form the cutting edges or lips *d d*; and these cutting-edges may be faced with steel plates, if desired, to increase their durability.

The braces *c c* are secured at their upper ends to the shaft or handle B by the pivot *e*, and the upper ends of the braces reach some distance beyond the pivot to receive the sliding clasp C upon them, which, when in place upon the ends of the said braces, locks the handle and braces in proper alignment with each other for use; but by slipping the clasp off from the upper ends of the braces *c c*, as shown in dotted lines in Fig. 2, the braces *c* may be turned upon the pivot *e* for inverting the body A, as shown in dotted lines in said figure, for emptying the body of its load of dirt.

To increase the capacity of the auger, I shall in some cases provide the body A with the

cylindrical extension D, (shown in Figs. 5 and 6,) in which case the braces *c c* will be riveted to the upper end of extension D, instead of to the body A, as will be understood from the said last-mentioned figures.

I design my new earth-auger more especially for digging post-holes; but it may be made upon a large scale and used for digging wells; and it is rendered very efficient by the cutting-edges *d*, which cut the whole length of the body, and by the described formation and arrangement of the cutting-edges the head fills as rapidly at the top as at the bottom, so that the cutting is not against a pressure of dirt within the head A; and owing to the hinging of the braces *c c* the head may be very easily and quickly emptied and set again for use.

The cutting-edges *d*, instead of being made straight, may be made curved, or slightly spiral, if desired, and the penetrating-point *b* may be a plain point or auger-shaped; or it may be shaped like the point of a drill, as shown.

I am aware that an earth-auger has been composed of three arms attached to the shaft near the point, and bent upward from the point to make a conical shape, on which arms are fastened bottom plates, a band securing their upper ends, and a cylindrical case resting on the band above the auger. I do not claim such as of my invention.

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

1. The body A, composed of two semi-cone-shaped sections, *a a*, joined together at their lower ends, with their vertical cutting-edges out of line to form two throats on opposite sides of the body, penetrating-point *b*, and braces *c c*, riveted to the upper ends of said sections, to one side of their centers, to hold the sections apart at their upper ends, whereby the throats are made to extend from end to end of the body, substantially as set forth.

2. The combination, with the cone-shaped head A and braces *c*, of the extension D, attached to the upper end of the head A, substantially as shown and described.

THOMAS A. PORTER.

Witnesses:

L. L. RUSSELL,

T. E. LANKFORD.