C. A. BROCKETT.

Earth-Augers.

No. 167,061. Patented Aug. 24, 1875.

Fig. 1.

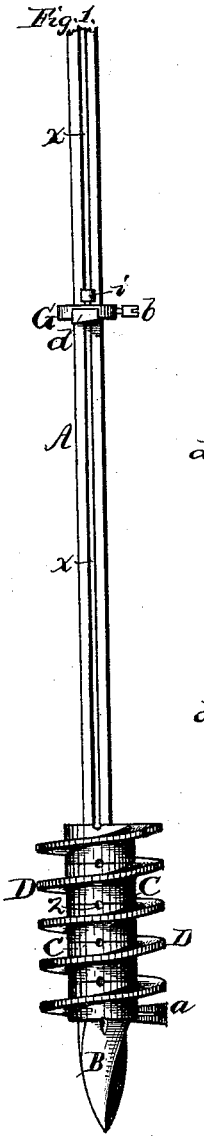


Fig. 2.

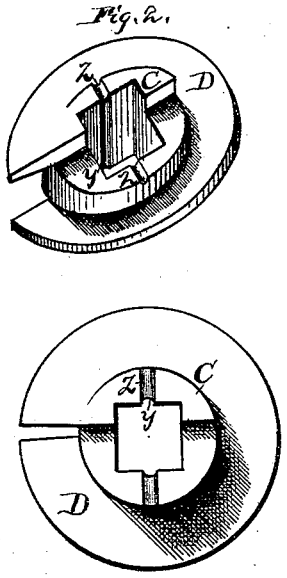
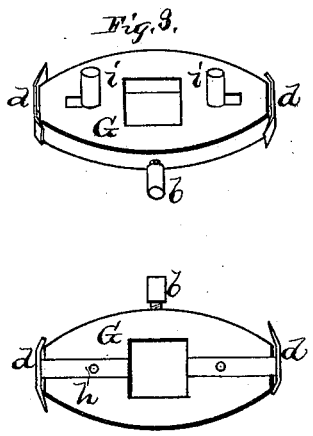


Fig. 3.



WITNESSES:

Jas. F. Duhamel.

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UNITED STATES PATENT OFFICE.

CHARLES A. BROCKETT, OF KANSAS CITY, MISSOURI.

IMPROVEMENT IN EARTH-AUGERS.

Specification forming part of Letters Patent No. **167,061**, dated August 24, 1875; application filed July 16, 1875.

To all whom it may concern:

Be it known that I, CHARLES A. BROCKETT, of Kansas City, county of Jackson and State of Missouri, have invented certain new and useful Improvements in Well-Auger, of which the following is a specification:

The nature of my invention consists in the construction and arrangement of a sectional well-auger, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, which forms a part of this specification, and in which—

Figure 1 is a side elevation of my well-auger. Fig. 2 is a perspective view of one of the sections detached. Fig. 3 shows the construction of the reamer.

A represents the well-auger shaft, made of a square bar of metal, having a longitudinal groove, *x*, in one or more of its sides. At the lower end of the shaft A is formed the auger-point B, of suitable construction. The auger proper is made in sections, each consisting of a hub or collar, C, with circumferential worm-flange D, the flange on each section just passing once around. The sections lap each other, but such lap is simply the thickness of the worm or flange D, which renders them strong and durable, and not liable to become broken. The holes or apertures in the sections are made square, so as to fit over the square shaft A, and in the hubs or collars of the sections are made grooves *y*, corresponding with the grooves *x* on the shaft. These grooves form air-tubes extending from top to bottom of the shaft, and each of such air-tubes is provided with outlets *z* between the sections, and also at the bottom or at the top of the auger-point B, thus admitting air freely into the hole and preventing suction. The bit *a* on the lower section of the auger is made to extend above and below the regular line of the worm, which renders the cutting easy, and causes the auger to go down into the ground rapidly and with less trouble than otherwise. Above the auger, on the shaft A, is secured the reamer, which consists of a cross-bar or plate, G, adjusted on the shaft by a set-screw, *b*. At each end of this bar is a reamer-knife or cutter, *d*, attached to or formed upon the end of a bar, *h*, which slides in a dove-tailed groove in the cross-bar G, and is fastened by a set-screw, *i*, passing through a slot in said cross-bar. By this means the reamer-knives may be extended or contracted at will and held fast at any point desired, so as to make wells of various sizes with the same auger.

I am aware that a sectional well-auger is not new; also, that air-tubes have been formed with well-augers; hence, I do not claim such features, broadly, as my invention.

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

1. The sections D of a well-auger, provided with one or more grooves or recesses, and interior grooves *y* in the hub C, as and for the purpose herein set forth.

2. The combination of the shaft A, having point B and one or more longitudinal grooves, *x*, the sections C D, with one or more interior grooves, *y*, and the outlets *z* between the sections and at the bottom, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my invention I hereunto affix my signature this 12th day of July, 1875.

CHARLES A. BROCKETT.

Witnesses:

WILLIAM G. BAIRD,

FRANK P. BAIRD.