

(No Model.)

2 Sheets—Sheet I.

G. S. DECATUR.
ADJUSTABLE EARTH AUGER.

No. 501,561.

Patented July 18, 1893.

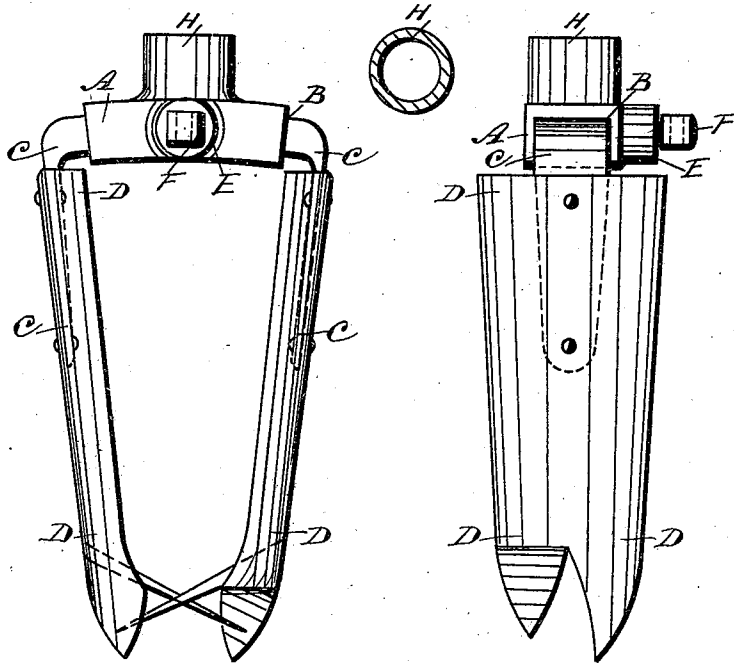


Fig. I.

Fig. II.

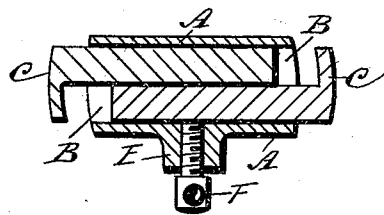


Fig. III.

Witnesses:

Alfred Jung
W. A. Cameron.

Inventor.

Granville S. Decatur.
By his Atty. John D. Hendry.

(No Model.)

2 Sheets—Sheet 2.

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Fig. IV.

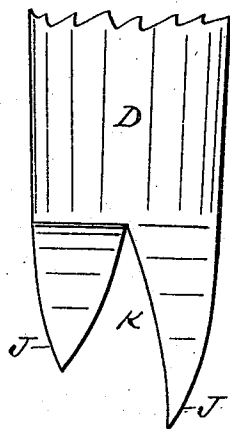


Fig. V.

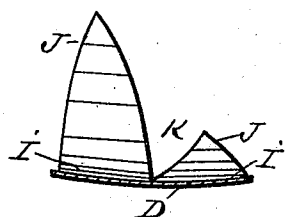
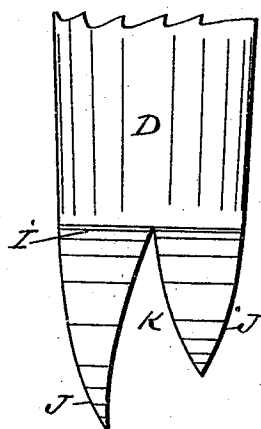


Fig. VI.

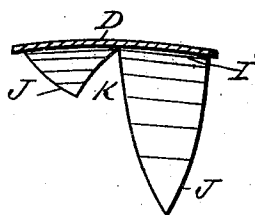


Fig. VII.

Witnesses

G. M. Cameron.

Geo H. Smith

Inventor.

Granville S. Decatur

By John Hendry his Atty.

UNITED STATES PATENT OFFICE.

GRANVILLE S. DECATUR, OF HAMILTON, CANADA.

ADJUSTABLE EARTH-AUGER.

SPECIFICATION forming part of Letters Patent No. 501,561, dated July 18, 1893.

Application filed December 1, 1892. Serial No. 453,724. (No model.)

To all whom it may concern:

Be it known that I, GRANVILLE S. DECATUR, a citizen of Canada, residing at Hamilton, in the county of Wentworth, in the Province of Ontario, Dominion of Canada, have invented a new and useful Adjustable Auger, of which the following is a specification.

My invention relates to improvements in augers for boring holes, consisting of a head, segmental in structure, having an elongated aperture through it, following closely in shape, the lines of the segmental head, and adapted to receive two sliding arms, each bent downward to form a part of the boring blades, and acting in conjunction therewith.

The objects of my improvements are, first, to provide an adjustable hole boring auger, which is capable of diametrical extension; second, to afford facilities for the proper adjustment of the boring blades, to a fixed rigidity; and third, to reduce the friction, hence the labor of boring holes consequent of older methods. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a front elevation of an auger, showing the bent arms with boring blades attached, extending a little out of the head or casing. Fig. 2 is a side elevation of the same; and Fig. 3 is a longitudinal section of the casing and arms, without blades. Fig. 4 is an enlarged elevation of the outer side of the lower part of either boring blade. Fig. 5 is a plan of the same. Fig. 6 is an elevation of the inner side of the boring blade, and, Fig. 7 is a plan of the same. These views embody my invention.

Similar letters refer to similar parts throughout the several views.

In the drawings the segmental auger head is indicated by the letter A, and its through lengthwise slot by B. The said slot, B, re-

ceives and guides to various positions or diameters, the upper part of the bent arms, C, both of which when closed up, extend the whole length of their head, to enable the outer extension of said arms, having their steel boring blades, D, secured thereto, to extend to a greater diameter, and to give strength and stability to same. These arms are bent downward nearly half the length of said blades, in order to secure rigidity to same. The head, A, is provided with a central boss, E, into which is screwed the set screw, F, having a square head, and also an aperture through two sides thereof, for the purpose of using either wrench for head, or pin in said aperture for tightening said screw against the bent arms, C, when adjusted to diametrical position. H is a boss on the top of head, having a socket screwed or otherwise, for the insertion of a handle to manipulate the auger. It will be perceptible that the lower part of the auger is smaller in diameter. This facilitates the boring; also the lower ends of blades are bent inward, as at I, curved, as at J, and slit, as at K, to form a pointed, cutting end, and to act as the bearer of earth, to be lifted out as soon as the interior of auger is filled, when boring.

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

The segmental auger head, A, having through slots, B, of same segmental shape, and bosses, H and E, in combination with the bent arms, C, the upper part of which follow the aforesaid segmental shape, and bending downward are riveted to the steel blades, D, bent inward as at I, curved as at J, and slit as at K, substantially as described.

GRANVILLE S. DECATUR.

Witnesses:

EDWARD NEW,
JOHN HENDRY.