

R. J. GARDNER.
Earth-Augers.

No. 155,939.

Patented Oct. 13, 1874.

Fig. 1.

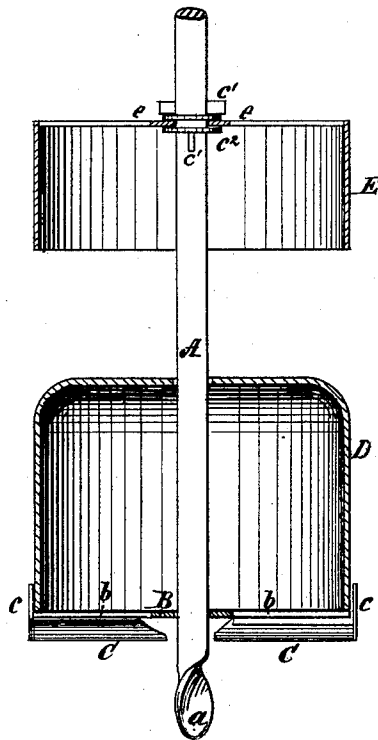
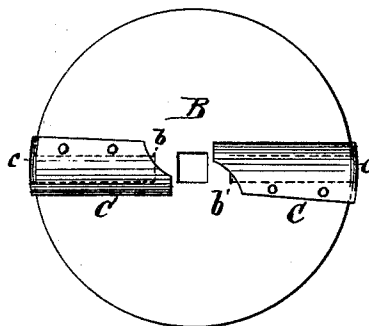


Fig. 2.



WITNESSES:

G. Matthey
Jolou Kemon

INVENTOR:

Robt. J. Gardner
 BY *Wm. L.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

ROBERT J. GARDNER, OF CARLISLE, ARKANSAS.

IMPROVEMENT IN EARTH-AUGERS.

Specification forming part of Letters Patent No. **155,939**, dated October 13, 1874; application filed August 10, 1874.

To all whom it may concern:

Be it known that I, ROBERT J. GARDNER, of Carlisle, in the county of Prairie and State of Arkansas, have invented a new and Improved Well-Auger; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a sectional elevation; Fig. 2, a horizontal section.

The invention will first be fully described, and then pointed out in the claim.

A represents a rotary shaft, which has the bit *a*, bottom B, and two opposite cutters, C C. This bottom is radially slotted at *b b* in the same diametrical line, and beneath each is located one of the inclined cutters C, with edge *c* turned up above the bottom. D is an inverted cup or top-closed cylinder, which slides centrally and loosely on the shaft A, fitting down on the bottom B, and between the edges *c c*. E is a band or ring, having radial arms *e*, made fast to shaft A by keys *c¹ c¹*, and suitable washers *c²*.

The operation is as follows: As the auger

is screwed into the earth the cutters C C take off a shaving or thin slice of soil and transfer it up through and upon the bottom B. This continues until the top-closed cylinder is filled and rises on the shaft to the ring E. As no more dirt can pass through the bottom the operation ceases, and the operator draws the auger out for emptying.

This auger has been practically applied to bore from four to thirty-six inches, and is found to do its work with great neatness and efficiency, as well as with much less than the usual expenditure of labor.

Having thus described my invention, what I claim as new is—

An earth-auger, consisting of the end-bitted shaft A, having radially slotted bottom B, and edge-turned knives C C, the sliding top-closed cylinder D, and the fast ring E, all constructed and arranged substantially as and for the purpose specified.

ROBERT J. GARDNER.

Witnesses:

WM. A. B. GATELY,
I. P. GRAHAM.