J. MINICK.

Earth-Augers.

No. 169,115. Patented Oct. 26, 1875.

Fig. 1.

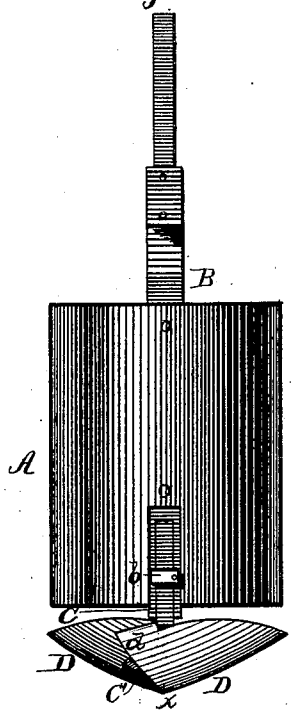


Fig. 2.

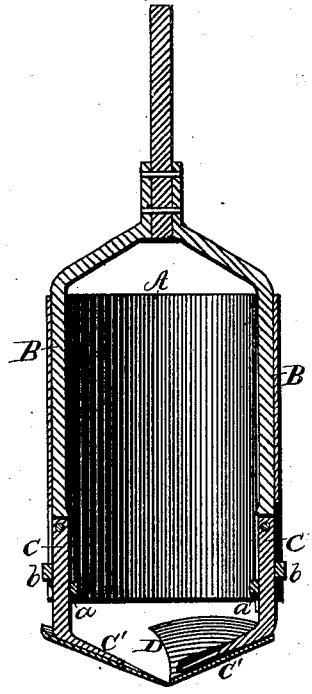
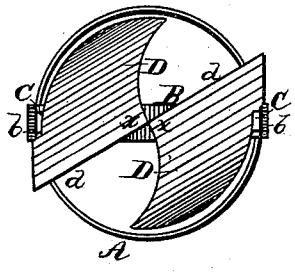


Fig. 3.



WITNESSES;

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JACOB MINICK, OF FLORIS, IOWA.

IMPROVEMENT IN EARTH-AUGERS.

Specification forming part of Letters Patent No. **169,115**, dated October 26, 1875; application filed September 20, 1875.

To all whom it may concern:

Be it known that I, JACOB MINICK, of Floris, county of Davis and State of Iowa, have invented certain new and useful Improvements in Well-Augers, of which the following is a specification:

The nature of my invention consists in the construction and arrangement of a 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 auger. Fig. 2 is a vertical section, and Fig. 3 a bottom view, of the same.

A represents the well-auger bucket, made of sheet-iron, of any suitable dimensions, open at both ends, and fastened by rivets or otherwise to two parallel wrought-iron bars, B B, placed on opposite sides on the inside of the bucket. These bars extend a short distance below the lower end of the bucket, and are slotted or forked for a suitable distance from the lower ends upward. In the upper end of the slot in each bar B is pivoted a bar or shank, C, by means of a bolt, which can be removed when desired. The lower end of the shank C is bent at an angle and flattened, forming the foot C′, to which the bit D is permanently secured. The normal position of the shank C is lengthwise in the slot of the bar B, against a stop, *a*, on the inner side of said bar, and it is prevented from turning outward by means of a button, *b*, on the outer side of said bar.

When the bucket has been filled by boring in the ground it is raised in the usual manner to be emptied, and placed or held over a box or other receptacle. By simply turning the buttons *b b* upward the weight of the dirt in the bucket will swing the bits and shanks outward, and the dirt falls into the box, which is to be removed. As soon as the dirt has passed out of the bucket the bits and shanks swing back in their proper positions, and are fastened by turning down the buttons *b* again.

The bits D are constructed as shown in Fig. 3, each closing a little more than one-fourth of the bottom of the bucket, and the inner ends *x* of their cutting-edges *d* come close together in the center, thus cutting entirely across the entire diameter of the hole, leaving nothing in the center uncut.

When the auger is used in quicksand, valves will be hinged to the rear edges of the bits, and fall over the cutting-edges, so as to close the entire bottom.

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

1. In a well-auger, the bits D D, constructed as described, with the inner ends *x* of their cutting-edges meeting in the center, for the purposes herein set forth.

2. The bit-shanks C, pivoted at their upper ends in the slotted bars B, in combination with the stops *a* and buttons *b*, substantially as and for the purposes herein set forth.

3. The combination of the bucket A, slotted bars B B, pivoted shanks C C, with feet C′ C′ and bits D D, the stops *a*, and buttons *b*, all constructed 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 28th day of August, 1875.

JACOB MINICK.

Witnesses:

L. S. HARWARD,

D. W. HASTINGS.