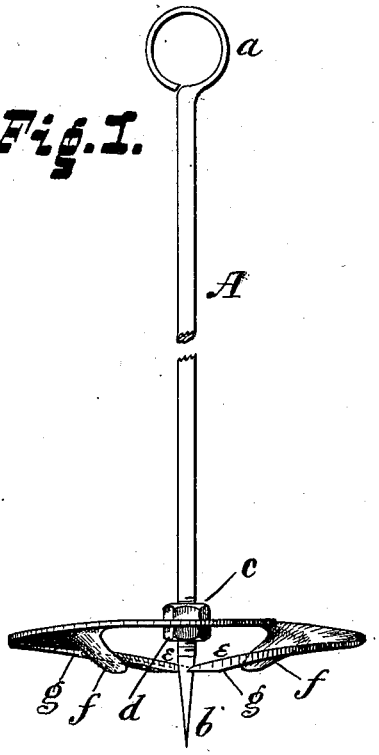
M. SHUTT.
Post-Hole Digger.

No. 200,352. Patented Feb. 12, 1878.

Fig. 1.



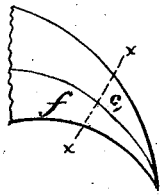


Fig. 2.

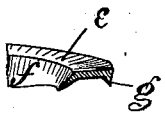


Fig. 3.

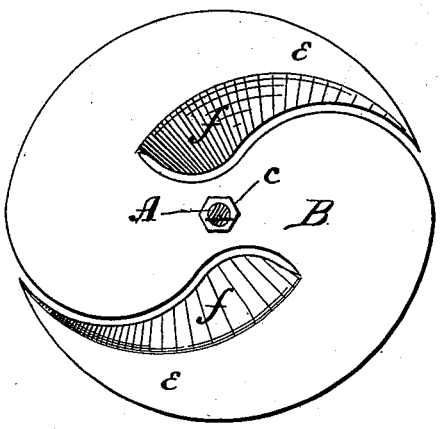
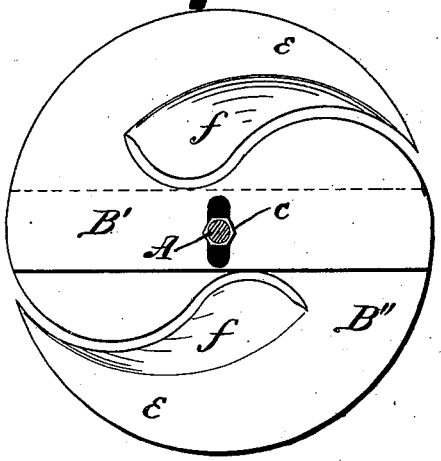


Fig. 4.



Witnesses.

L. M. Hogan.
F. A. Pollock.

Michael Shutt, Inventor.

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Attorneys.

UNITED STATES PATENT OFFICE.

MICHAEL SHUTT, OF KISKIMINETAS TOWNSHIP, ARMSTRONG COUNTY, ASSIGNOR OF ONE-HALF HIS RIGHT TO MARTIN P. KIRKLAND, OF APOLLO, PENNSYLVANIA.

IMPROVEMENT IN POST-HOLE DIGGERS.

Specification forming part of Letters Patent No. **200,352**, dated February 12, 1878; application filed November 19, 1877.

To all whom it may concern:

Be it known that I, MICHAEL SHUTT, of Kiskiminetas township, in the county of Armstrong and State of Pennsylvania, have invented certain new and useful Improvements in Post-Hole Diggers; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is an elevation of my invention; Fig. 2, a detail view; Fig. 3, a plan, and Fig. 4 a plan view of adjustable plates.

This invention relates to the construction of post-hole augers; and consists in the construction and combination of parts, substantially as hereinafter fully described and claimed.

A designates a stock or shank, having at its top an eye, *a*, for the reception of a handle, and its lower end being tapered to a point, *b*, the stock being threaded for a short distance above the taper. A nut, *c*, is first screwed on; next the auger-plate, (to be described,) and finally the nut *d*. The operating portion may be made to cut a single size of hole, or adjustable for various sizes. I will describe these in turn. The auger for single size consists of a plate, B, having a somewhat elliptical outline. At opposite points it is slit or cut inwardly in curved lines sweeping toward the center, then away from it, and passing it, the slit thus taking the form of an ogee. These cuts leave two opposite lips, *e e*, whose inner edges are bent down to form inclined aprons *f f*, whose lower edges are ground sharp. The lips are inclined like a screw-thread, so as to have a pitch suitable for entering the earth and drawing or feeding. The outer edges of the lips, from their points backward, are swaged to form the depending advance cutters *g g*.

The operation is as follows: The point *b* is driven into the earth till the points of the lips *e* touch the ground. Then, the handle being rotated under pressure, the lips *e* enter the earth, cutting their way on two edges—the cutter *g* and the knife-edge of the apron *f*. The latter operates by a "shear-cut," which is more effective and causes less strain than that of a radial cutting-edge. The loosened earth now glides up the aprons *f* in a diagonal easy ascent, onto the floor or level of plate B. Thus, by means of the curved cuts in plate B, the points of lips *e* which are the weakest have the least work to do, and they are strengthened for that by the swaged cutters *g*, giving them increased longitudinal stiffness. The inclination of aprons *f* serves also the same purpose, while both they and the cutters perform their own individual functions besides. The post-hole is thus with little effort bored out, the auger being lifted out from time to time to relieve it of excessive weight.

To make the auger adjustable for various sizes of holes, I construct the floor in two overlapping halves, B′ B″, (see Fig. 4,) each having the ogee slit and lip, constructed in all respects as above described, but having a radial slot at the center in each half, so that by tightening or loosening the nuts *c d*, the plates can be arranged to suit the size of hole to be cut.

The plate, single or double, as well as the whole device, can be easily made by any ordinary blacksmith, and it is thoroughly effective and easy of operation.

I claim—

The post-hole auger consisting of pointed and threaded stock A, elliptical plate B, having two downwardly-inclined lips, *e e*, with their inner marginal edges of ogee curves, and bent down to form aprons *f f*, and at their outer margins swaged cutters *g g*, said curves at their inner ends diverging from the center of the plate, substantially as described.

In testimony whereof I have hereto set my hand this 5th day of November, 1877.

MICHAEL SHUTT.

Witnesses:

JOHN M. OSBORNE,

JOHN ROGERS.