Craft & Weeks.

Earth Auger.

No. 6,880. Patented Nov. 20, 1849.

Fig: 1

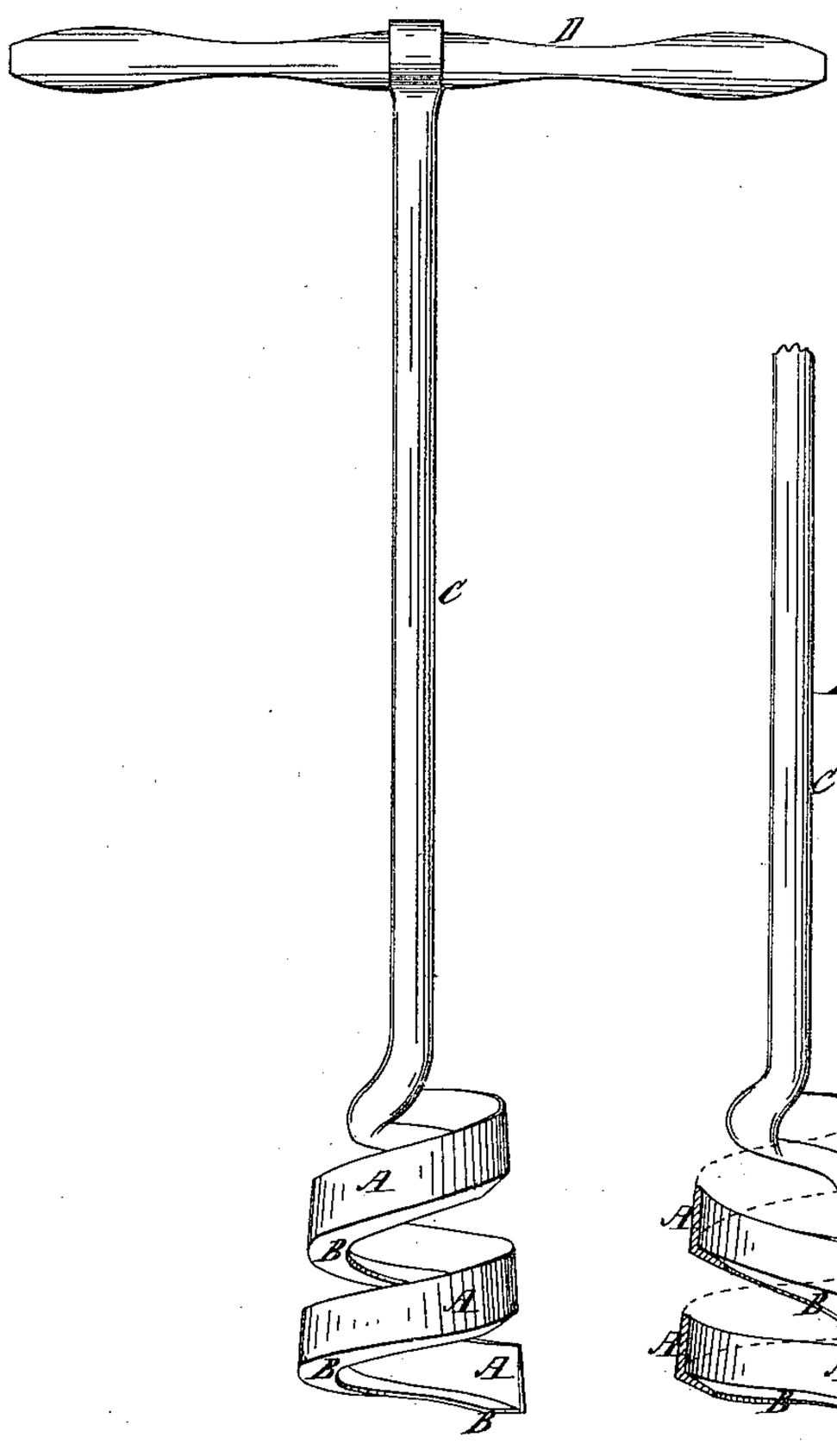
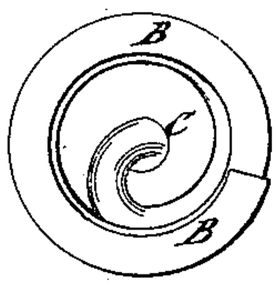


Fig: 3.

Fig: 2



UNITED STATES PATENT OFFICE.

ASHLEY CRAFTS AND EBENEZER WEEKS, OF AUBURN, OHIO.

AUGER FOR BORING EARTH.

Specification of Letters Patent No. 6,880, dated November 20, 1849.

To all whom it may concern:

Be it known that we, ASHLEY CRAFTS and EBENEZER WEEKS, of Auburn, in the county of Geauga and State of Ohio, have invented a new and useful improvement in augers for boring holes through various strata of the earth without the use of a cylindrical tube, such as is used by Page, Disbrow, and others, which improvement is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure 1, is a side elevation of the auger. Fig. 2, is a view of the lower end, inverted. Fig. 3 is a vertical section.

Similar letters in the different figures refer to corresponding parts.

This auger differs from all others for boring holes in the earth in being made externally in the form of a frustum of a cone and entirely open at the lower end and with a spiral lip B or inclined shelf combined with the spiral thread A and connected to the lower edge thereof and nearly at right angles thereto, and extending the whole length of the thread, having no central shaft below the upper end of the spiral thread; by which construction this auger will bore holes in the ground, whether it be sandy, stony, or clayey, of the same diameter as its lower end, by causing the earth and gravel to be packed solidly in the frustum of a cone space inclosed by the spiral thread A so that it can be raised and withdrawn from the hole without crumbling—the said spiral shaft or lip B formed around the lower edge of the spiral thread packing the earth in the auger and preventing its descent before the auger is withdrawn from the hole to be emptied or cleared and by having the said lower and larger end of the auger entirely open stones of a diameter nearly equal to the diameter of the bore of said open end may be received and discharged freely. The friction is likewise reduced by the conical shape of the auger to the lower end thereof, which is in contact with the sides of the hole being bored, while the threads of the smaller diameter are relieved from friction by not touching the sides of the hole thus bored. The stem, shank, or shaft C of this auger commences where the twist or spiral terminates and rises in a straight line as high as intended, where an eye is formed to receive the handle D by which it is turned, formed like the shank and eye of a common twist auger. In boring with this auger the core of earth is not cut up and broken into small particles as experienced in the use of Page and Disbrow's boring tools, but it cuts the piece of earth out whole and packs it into the concavity of the auger by the spiral lip or inclined plane shelf B formed on the lower edge of the spiral thread A, which acts against the said core and gradually lifts it as it is separated from its bed.

We do not claim to be the original inventors of an auger for boring in the earth, but,

What we do claim as our invention and improvement and desire to secure by Letters Patent is—

The peculiar construction of the auger as aforesaid, namely, the combination of the spiral lip or shelf B, extending the whole, or nearly the whole length of the spiral twist A, with the said spiral twist A, which is made to approach the center gradually 'till it intersects the shaft or stem C, forming an auger of a shape approximating to that of a frustum of a cone and being entirely open at the lower end.

In testimony whereof we have hereunto signed our names before two subscribing witnesses.

ASHLEY CRAFTS.
EBENEZER WEEKS

Witnesses:
WM. P. ELLIOT,
A. E. H. JOHNSON.