

W. TUCKER.
Auger and Auger-Bit.

No. 163,282.

Patented May 11, 1875.



FIG. 1.

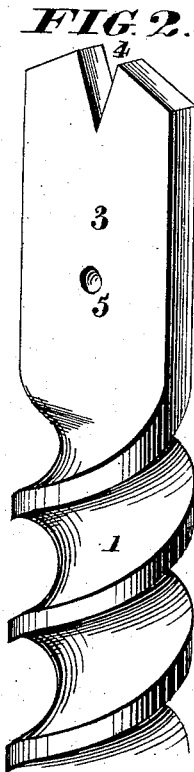


FIG. 2.

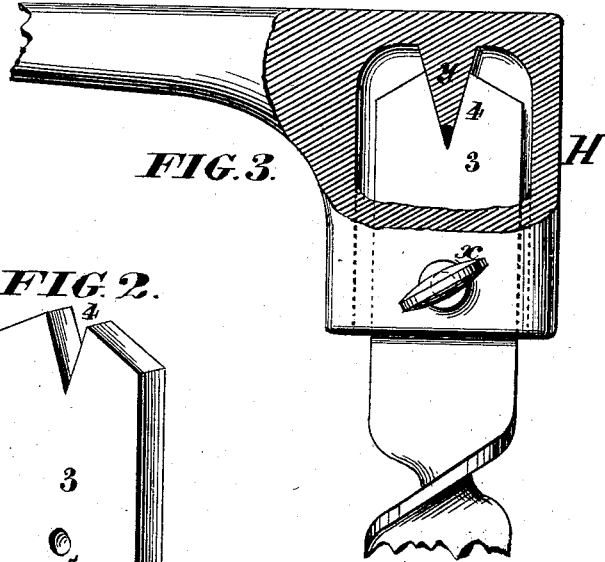


FIG. 3.

WITNESSES
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WILLIAM TUCKER, OF FISKEDALE, MASSACHUSETTS.

IMPROVEMENT IN AUGERS AND AUGER-BITS.

Specification forming part of Letters Patent No. **163,282**, dated May 11, 1875; application filed November 21, 1874.

To all whom it may concern :

Be it known that I, WILLIAM TUCKER, of Fiskedale, in the county of Worcester and State of Massachusetts, have invented a new and useful Improvement in Auger-Bits and Augers, of which the following is a specification:

This invention relates to what are known as screw, spiral, or twist bits, and augers for wood-working.

The present invention consists in a bit or auger of peculiar construction, the same having a flat holding end or shank of the same width and thickness of the metal of the twist or pod, or nearly so, and provided with a V-notch and counter-sink, as hereinafter described, or their equivalents, to adapt it for the application of a brace, handle, or stock directly thereto.

The improved bit or auger is made from flat blanks, and consequently is manufactured with superior cheapness.

The flat holding end provides for extending the twist completely to the holding end, and the improved bit or auger is thus adapted to cut its entire length into wood without being withdrawn for the removal of chips. The extended twist serves also to make the bit or auger stiffer, owing to the bracing action of the same. There is also less liability of breaking a bit or auger thus constructed, there being no reduced section or shoulder to weaken it at any point.

In the accompanying drawing, Figure 1 is an elevation of an auger-bit illustrating this invention. Fig. 2 is a perspective view of the holding end of the same on a larger scale. Fig. 3 is a side view of this holding end and a corresponding holder on the same scale as Fig. 2, the holder being shown partly in elevation and partly in section.

The common forms of bits and augers in the class to which the present invention belongs have shanks of small size and usually round in section, of greater or less length, terminating in square heads, by which braces and handles are applied thereto.

The present form of bit or auger has an ordinary twist, double spiral, or screw-pod, 1, of the required length, and a central screw-point, 2, with cuts and spurs of any approved pattern. In lieu of the ordinary round shank and square head, the improved bit or auger has a

flat holding end or shank, 3, of sufficient length only to provide for applying a brace, stock, or handle thereto, the pod or twist extending from immediately outside of the head or holder to the point.

The primary object in the employment of the flat holding end or shank is to provide for the production of the bit or auger with superior cheapness by a simple process, which is the subject-matter of another invention, the same consisting, essentially, in the employment of a flat blank.

To provide for cutting blanks for the improved bits without waste of stock, and for holding bits of various sizes with holding ends or shanks of correspondingly-different dimensions in one form and size of holder or stock, the flat holding end 3 is, by preference, constructed with a central V-notch, 4, in its extremity, and a counter-sink, 5, in one side, as its holding provisions. The center point 2 of one blank is taken from the holding-notch 4 in another, and sufficient metal for spurs and side cuts is taken from the corners of the holding end of the adjoining blank without detriment to the latter. The holding end of one blank and the cutting end of another are thus produced complete at a single cut, and without waste of stock in the act of severing a blank from the flat bar. The finished bit or auger is produced from the blank thus made by twisting, heading, and finishing the boring end. The holding-notch 4 engages with a corresponding projection, *y*, within a flat recess in my peculiar holder H, Fig. 3, and a clamp-screw, *x*, in one side of the latter engages with the counter-sink 5. The notches and counter-sinks in different bits, being made uniform, or nearly so, they all fit one and the same size of holder.

The following is claimed as new, namely:

An auger-bit or auger having a flat holding end, 3, which is of the same, or nearly the same, size as the metal of the twist or pod 1, and is constructed with a notch, 4, and counter-sink 5, or their equivalents, to adapt the same for the application of a brace, handle, or stock directly thereto, as herein specified, for the purpose set forth.

WILLIAM TUCKER.

Witnesses:

EMORY L. BATES,
RUFUS E. BOND.