

E. C. STEARNS.
Hollow Auger.

No. 225,496.

Patented Mar. 16, 1880.

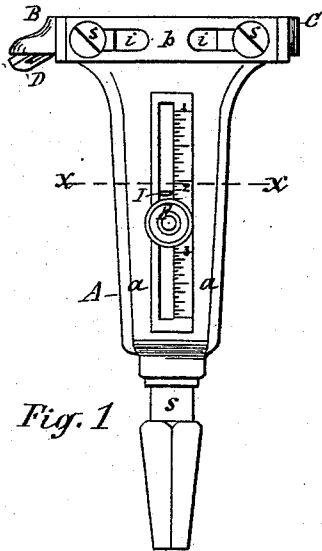


Fig. 1

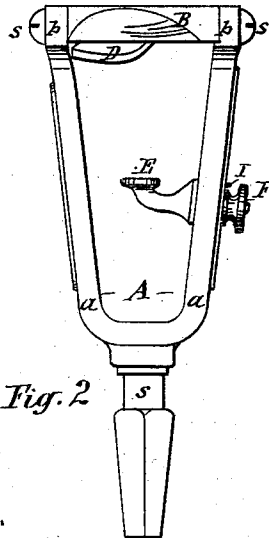


Fig. 2

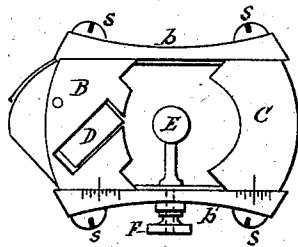


Fig. 3

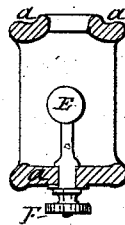


Fig. 5

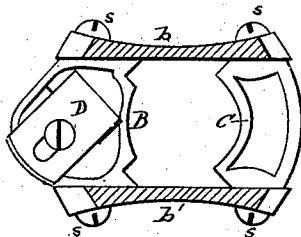


Fig. 4

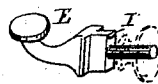


Fig. 6

WITNESSES:

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UNITED STATES PATENT OFFICE.

EDWARD C. STEARNS, OF SYRACUSE, NEW YORK.

HOLLOW AUGER.

SPECIFICATION forming part of Letters Patent No. 225,496, dated March 16, 1880.

Application filed July 26, 1879.

To all whom it may concern:

Be it known that I, EDWARD C. STEARNS, of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Hollow Augers; and I declare the following to be a full, clear, and exact description of the same, so as to enable any person skilled in the art to which it appertains to make and use the same.

This invention relates to hollow augers designed to form tenons of varying sizes; and it consists, essentially, in a novel construction and combination of a stock composed of arms extended from a shank integral therewith and a cutter-jaw and a gage-jaw clamped by and between the free ends of the aforesaid arms, substantially as hereinafter more fully described.

The invention is clearly illustrated in the accompanying drawings, wherein—

Figure 1 is a front view of my improved implement; Fig. 2, a side view; Fig. 3, a plan view; Fig. 4, an inverted plan view of the end of the stock containing the jaws; Fig. 5, a transverse section on line *x x*, Fig. 1, and Fig. 6 a detached view of the stop-piece.

Similar letters of reference indicate corresponding parts.

A represents the stock or body of the auger, composed of the usual shank S, from which are extended the arms *a a*, cast in one piece therewith. The free ends of said arms are provided on their inner side with guides or ways diametrically opposite and parallel to each other and at right angles to the axis of the auger. In the said guides or ways slide the cutter-carrying jaw B and gage-jaw C.

The exterior of the end of the respective arms *a a* is formed into a double wedge, *b*, having their thinnest part in the center of the end of the arm.

Each individual wedge is provided with a slot, *i*, through which passes a clamping-screw, *s*, entering the side of the jaw and having a suitable head bearing on the wedging exterior of the arm *a*.

The jaws B and C are adjusted in their requisite position by sliding them toward or from each other, and secured in their position by means of the clamp-screws *s*, the double wedge *b* re-enforcing their hold correspondingly with the strain applied.

Each individual wedge of one of the arms *a* is provided on its front with a graduated scale, and the adjacent edges of the respective jaws

B and C have an indicating-mark, by which the said jaws can be set to the gage corresponding to the diameter of tenon required without the use of an extra scale or rule.

The under side of the cutter-jaw is recessed and provided with a slanting seat for the cutter D, which is secured thereto by a screw passing through a slot in said cutter, as shown in Fig. 4 of the drawings.

The length of the tenon is determined by a stop, E, having a shank extended through a longitudinal slot in one of the arms *a*, and provided at the outside thereof with a threaded stud, upon which works a thumb-nut, F, by means of which the stop is clamped in its position.

The outer face of the aforesaid shank is provided with an indicator, I, and the adjacent edge of the slotted arm *a* with a scale, by which the length of the tenon to be cut is indicated.

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

1. The within-described hollow auger-stock, consisting of the arms *a a*, extended from and integral with the shank S, and provided at their free end with ways or guides on the inner side, and with the double wedge *b* on the outer side, substantially as described and shown.

2. The jaws B and C, in combination with a cutter-head of a hollow auger, having extending the entire width thereof guides or ways for said jaws, and the double wedging-faces *b b* on their outer side, and the clamp-screws *s*, passing through slots *i* in said wedges, substantially as described and shown.

3. The improved hollow auger herein described, consisting of the arms *a a*, extended from shank S, and provided at their free end with ways on their inner side, double wedges *b* on their outer side, and a graduated scale on the face of the cutter-head, the jaws B and C between said guides, and the screws *s s*, passing through slots in the wedges, all constructed and combined substantially in the manner set forth and shown.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of July, A. D. 1879.

EDWARD C. STEARNS.

Witnesses:

W. E. HOOKWAY,
W. E. WARNER.