

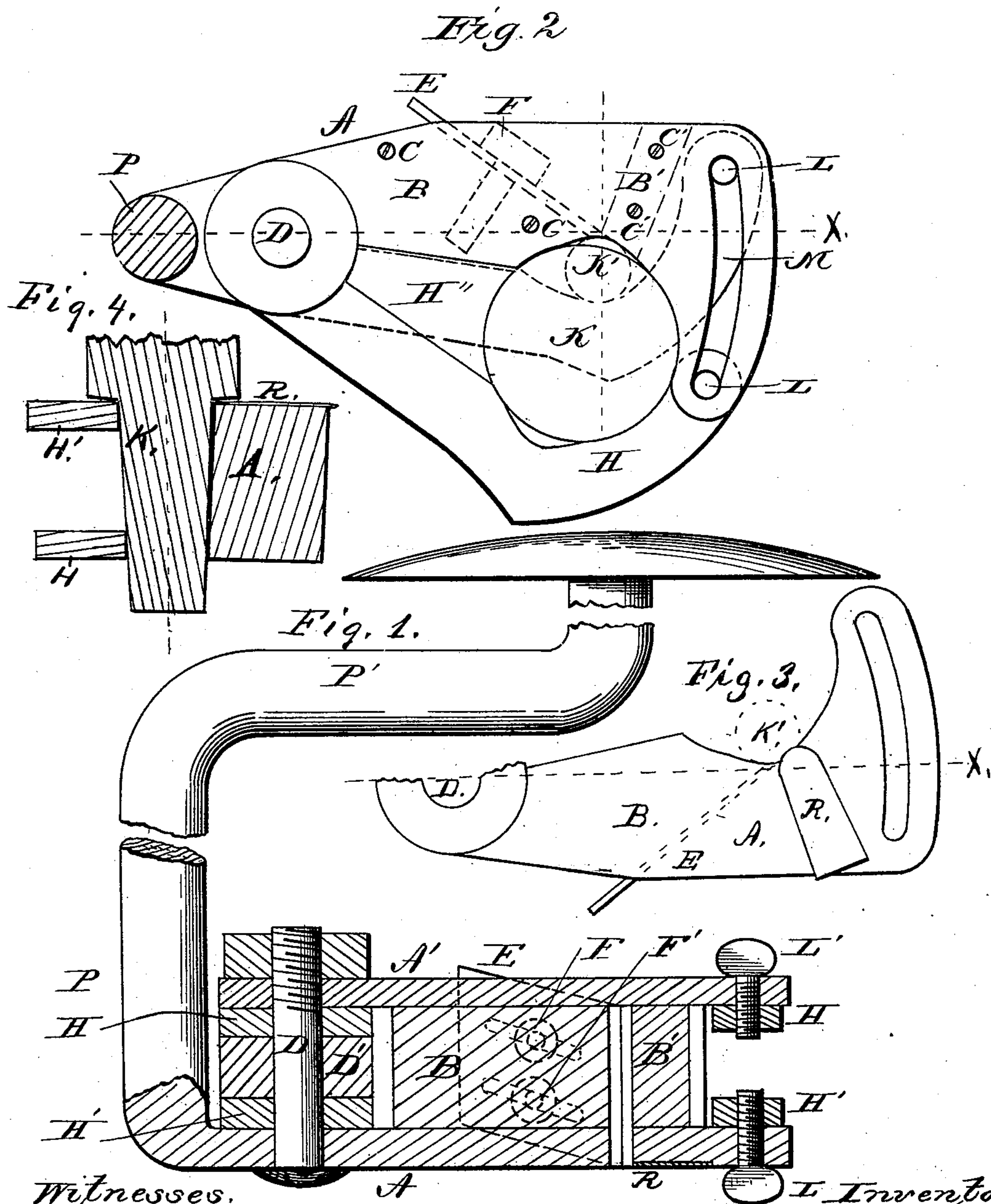
(No Model.)

W. L. STODDARD.

HOLLOW AUGER.

No. 270,856.

Patented Jan. 16, 1883.



Witnesses.
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UNITED STATES PATENT OFFICE.

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HOLLOW AUGER.

SPECIFICATION forming part of Letters Patent No. 270,856, dated January 16, 1883.

Application filed July 18, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. STODDARD, a citizen of the United States, residing at Elvaston, Hancock county, Illinois, have invented a new and useful Improvement in a Hollow Auger, Tenon-Cutter, or Turning-Tool, which is made substantially as set forth hereinafter, referring to the accompanying drawings, in which—

Figure 1 shows a side view, partly in section, of the tool. Fig. 2 shows a top view of part of same. Fig. 3 is a bottom view of part of same. Fig. 4 is a cross-section, as shown in Fig. 2 by dotted line.

This invention relates to hollow augers or turning-tools designed for cutting tenons on the ends of wheel-spokes and other similar uses; and it consists in the improved features substantially as hereinafter shown and set forth.

Two plates, A A', are connected and held together by blocks B B', screws C C' C', and pivot D. Plates H H', between plates A A', have block D' between them, and are also held by pivot D, forming a hinge, on which they are movable to the positions shown by full and dotted lines. These two sets of plates are curved opposite each other in such a way as to fit onto opposite sides of circles K or K', as shown, or any circle intermediate, by turning on pivot D. Their outer ends are held by set-screws L L', arranged to hold them at any point. The screws are held in plates H H' and slide in slots M in plates A A' for adjustment. The plate A extends backward and turns up to form a hand-crank, P, bearing a top, P', like a bit-stock, so that it may be turned in a like way about the circle K or K'; or the plate H, instead, bears this bit-stock-like handle when preferred. When it is desired the stock-handle is connected with a plate on top of plate A', and held in a like manner by pivot D and by screw H, and arranged to pivot over the center of whatever center the plates below are set to. This plate, when desired, has a hole coincident with such circle, but, when desired, has instead a shank

attached above this circle, to which an ordinary bit-stock can be connected instead of the crank-handle shown.

The cutter E is borne on block B, or on a like block borne by plates H H', and is held by the set-screws F F', which are adjustable in slots in cutter E, so as to cut any size shaving from a tenon or part in circle K or K' to the limit allowed by set-screws L L', so as to form a tenon or rounded part on it. The cutter is adjustable to cut more at top than bottom, to form a taper, or the reverse, or make them the same size. The two plates H H' are separately adjustable by their set-screws, so as to fit such peculiarities of cut. The set-screws are reset to make cut after cut till the right size is reached; or they are set at first to fit, and the cut started at top and run down till a full length of tenon is cut. The cutter E is bent up at its end below plate A to cut a shoulder and separate the shaving cut at its edge. The cutter R is set into the side of plate A for this purpose, and when desired the bend in E is omitted.

I claim—

1. In a hollow auger or turning-tool, the part A, bearing a cutter and a curved guide-surface, the part H, bearing a curved guide-surface, and a hinge connecting said parts, having its pivot parallel with the cutter, combined with a slot and set-screw borne by the two parts, adapted to adjust and hold them so the cutter may cut around different-sized fixed circles between said parts.

2. The combination of two guide-parts, H H', made separately adjustable and arranged to act upon one side of a tenon or circle, with cutter E, borne by part A, having curved guide-surfaces arranged to act against the other side of such tenon or circle, and having pivot-hinge and adjustable holder with each of said guide-parts H H', so that the instrument can be set to cut either a straight or taper tenon.

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Witnesses:

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