

M. Weatherington,

Hollow Auger,

No. 17,816.

Patented July 14, 1857.

Fig. 1.

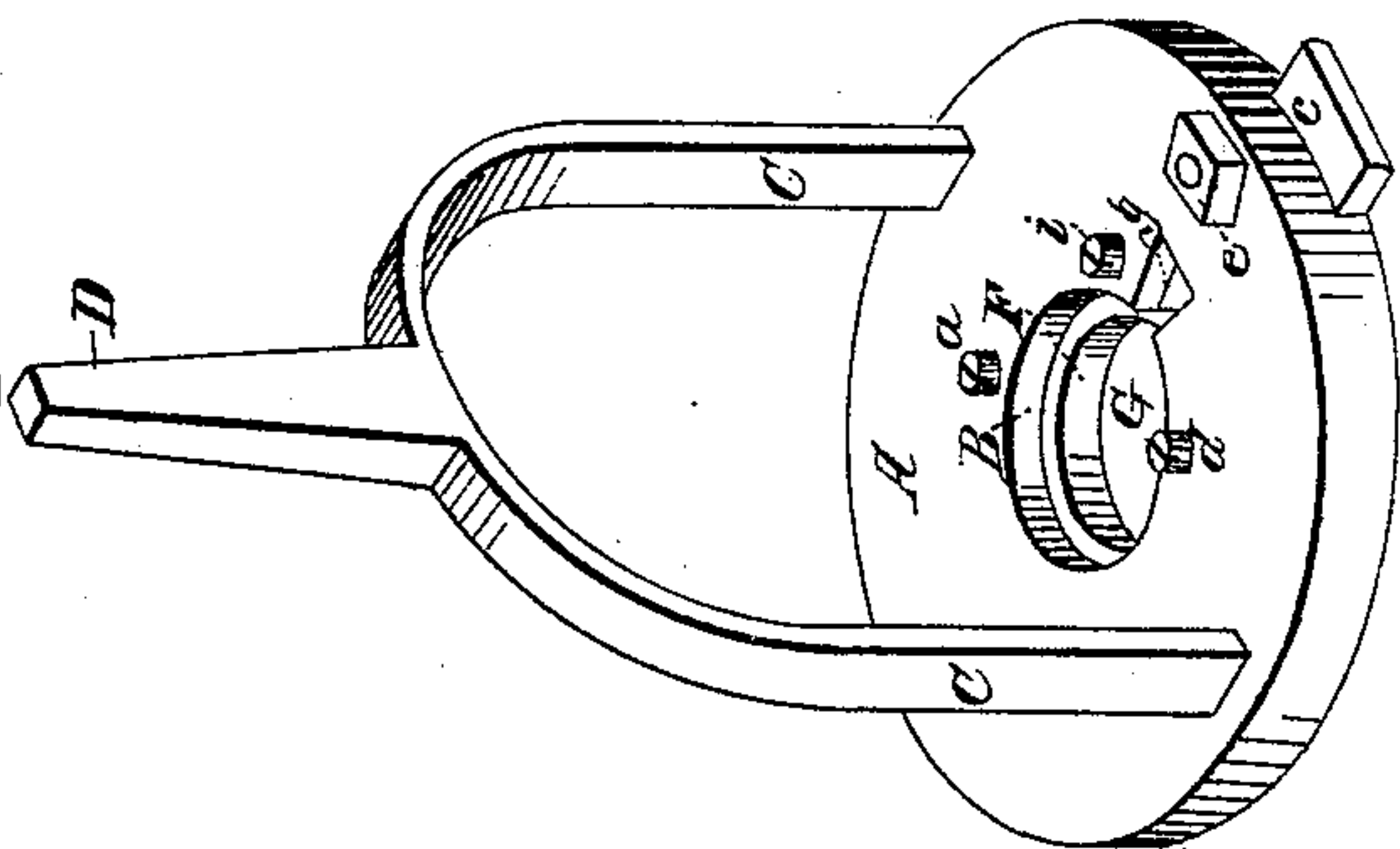


Fig. 2.

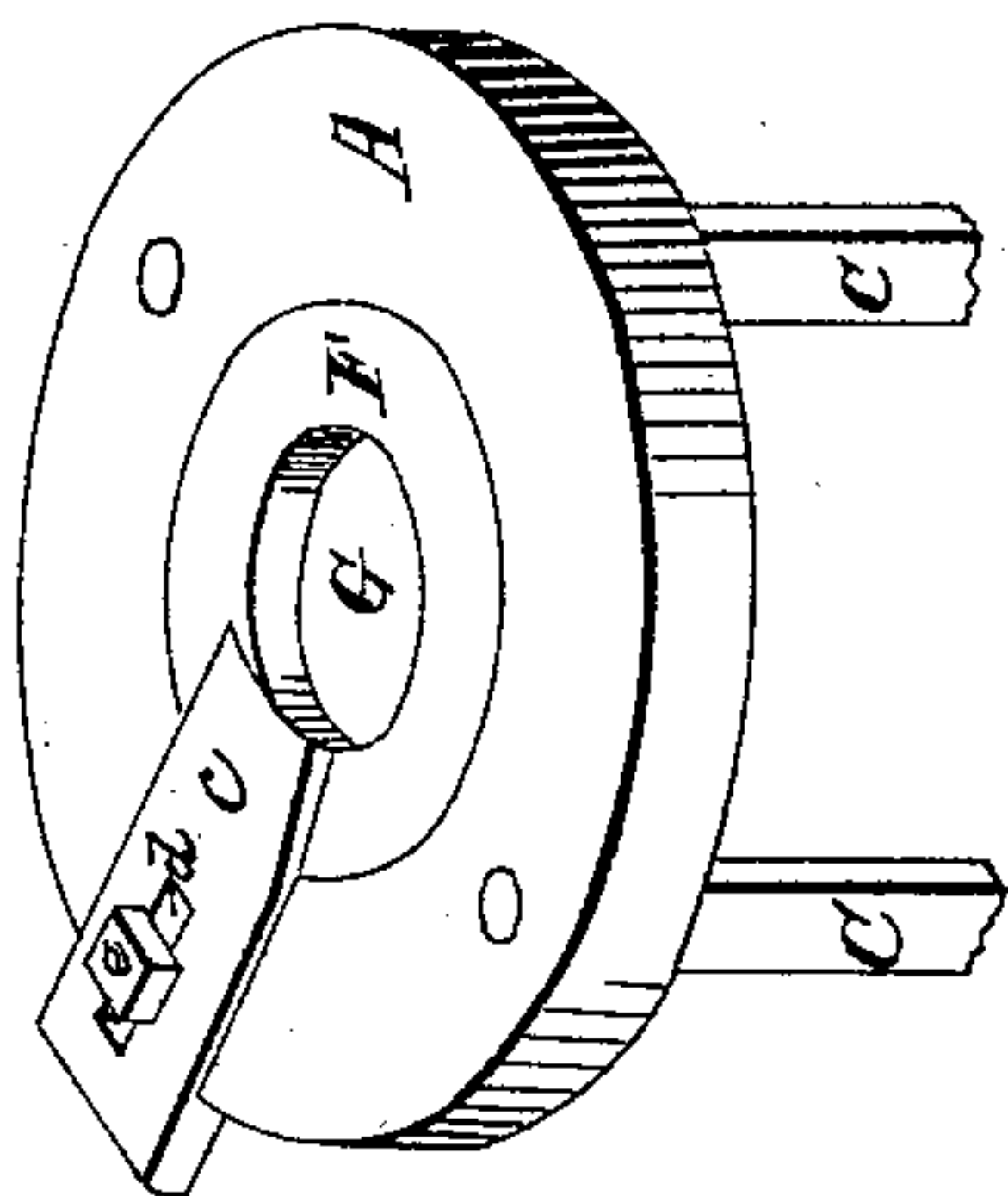


Fig. 4.

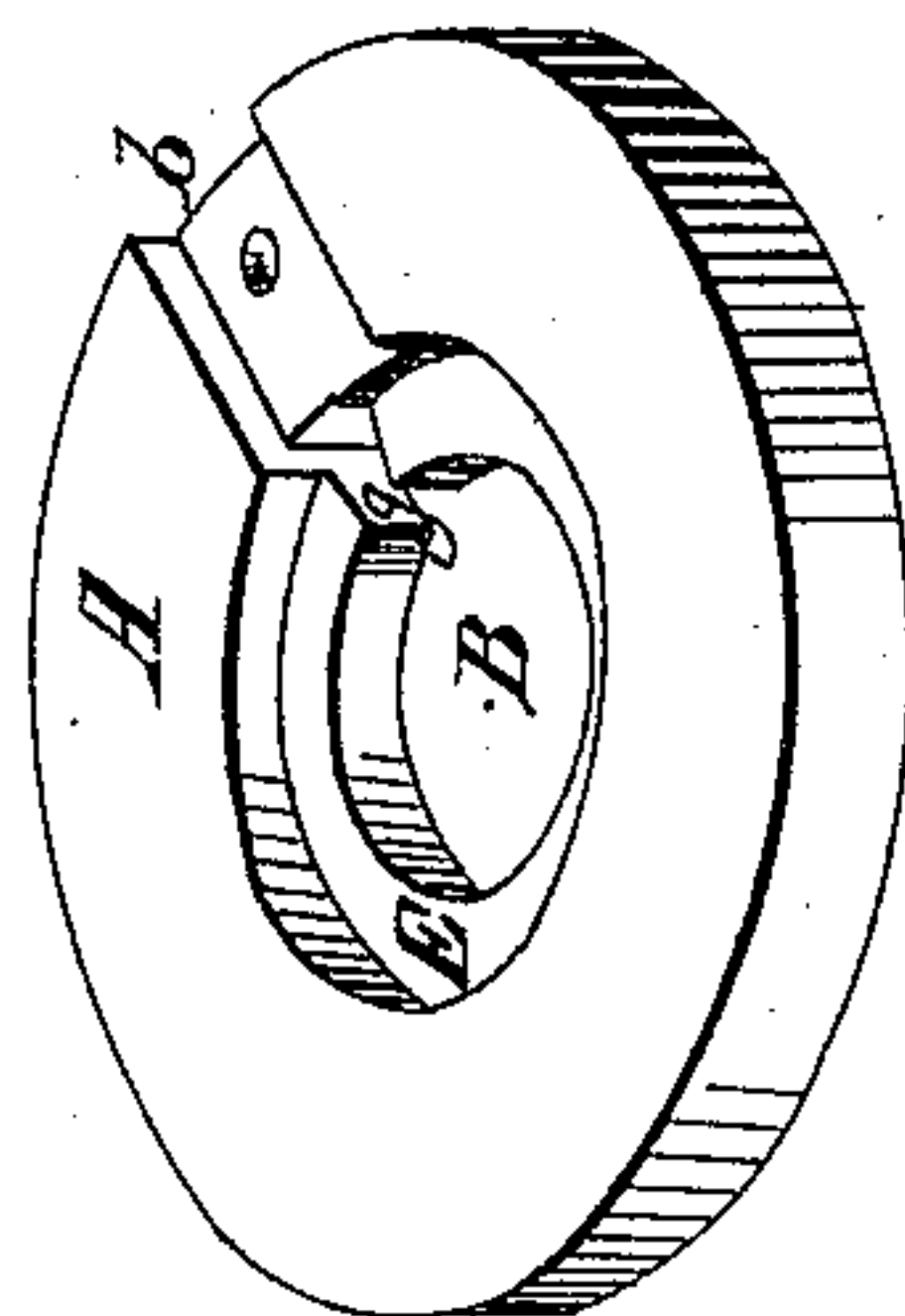


Fig. 5.

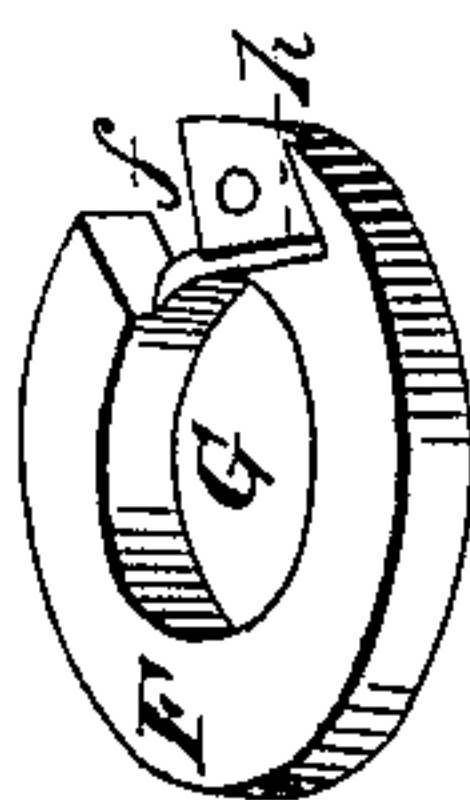


Fig. 6.

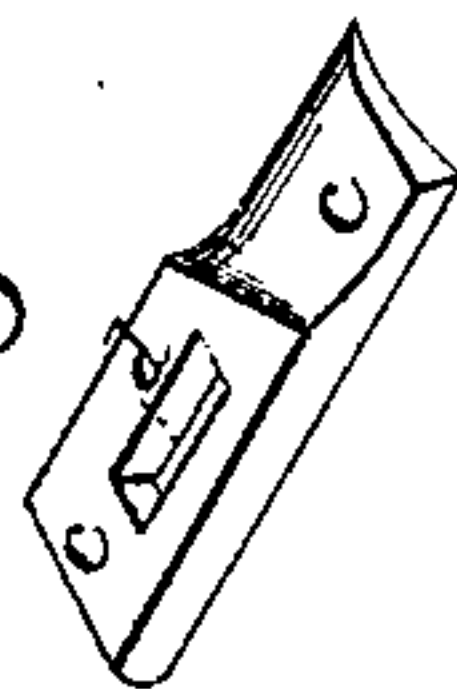
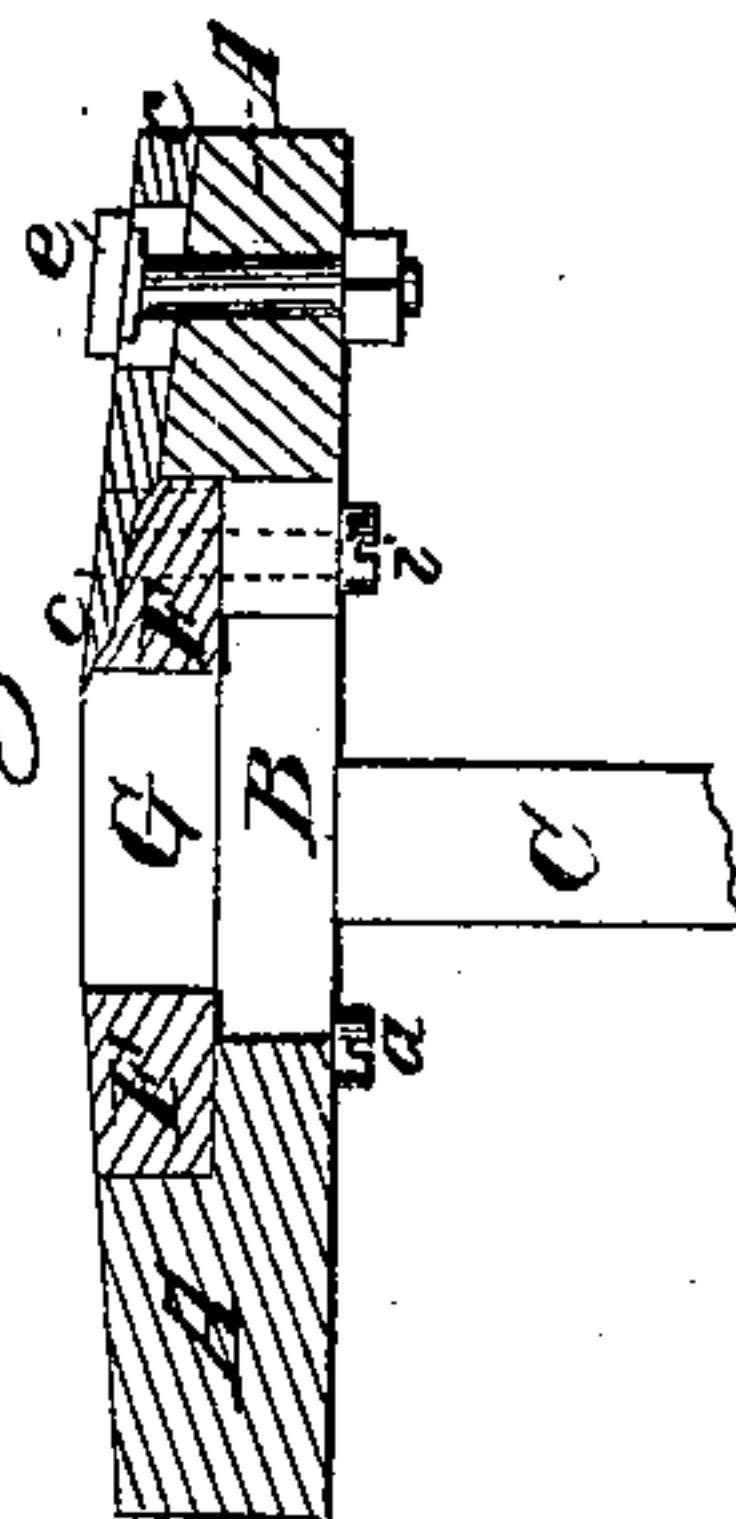


Fig. 3.



UNITED STATES PATENT OFFICE.

MELYN WEATHERINGTON, OF SPRINGFIELD, OHIO.

IMPROVED METHOD OF ADJUSTING ROUND-TENON CUTTERS TO CERTAIN FIXED SIZES.

Specification forming part of Letters Patent No. **17,816**, dated July 14, 1857.

To all whom it may concern:

Be it known that I, MELYN WEATHERINGTON, of Springfield, in the county of Clark and State of Ohio, have invented certain new and useful Improvements in Adjustable Hollow Augers for Boring Round Tenons; and I do hereby declare the following to be a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents in perspective one of the augers in question ready for use. Fig. 2 represents in perspective a view taken from the cutting-face of the auger. Fig. 3 represents a section through the same. Figs. 4, 5, 6 are detached portions of the auger, which will be specially referred to.

Similar letters of reference, where they occur in the separate figures, denote like parts of the auger in all of them.

Many kinds of augers have been devised for boring round tenons, and for boring tenons of the same size there is no difficulty in the construction of the auger; but to make an auger capable of adjustment, so as to bore tenons of variable sizes, but one plan has heretofore been successfully essayed—viz., to split or divide the stock, so that the two parts may be moved from or toward each other to enlarge or diminish the opening between them, and these two parts when adjusted were to be held together by screws or clamps; but with the best of them, so arranged, the two parts will spring, or the screws or clamps will wear, and the consequence is irregular cutting.

The nature of my invention consists in using a solid stock—that is, one which is not cut or divided—and yet so arranged that the opening in its center may be readily adjusted to the size of the tenon to be cut, and by which I can bore a perfectly round tenon, there being no part of the auger that can yield or spring away from the wood.

To enable others skilled in the art to make and use my invention, I will proceed to describe the same with reference to the drawings.

A represents a solid disk, having an opening, B, through its center as large as the very largest sized tenon to be bored by it is required to be. To the top of this disk are fastened arms C, which unite and terminate in a shank, D, that will fit the brace or socket by which the auger is to be worked.

The under side of the disk is countersunk, as at E, Fig. 4, so as to receive any one of a set of rings, F, which have different-sized openings G through their centers, said rings F being held into the countersink by the set-screws *a a* passing through the stock or disk A into them. On the under side of the stock is cut a recess, *b*, into which the shank of the bit *c* fits, and said fit is adjustable in said recess by means of the slot *d* and set-screw *e*, so as to make its cutting-edge adaptable or adjustable to the ring, which may be for the time being in use, the opening in said ring conforming to the diameter of the tenon to be cut. A slot, *f*, must be formed in each ring, which corresponds with and fits to the slot *g* in the disk A, said openings forming a throat, through which the chip or shaving being cut may pass out from the auger. There is also upon each of the rings an inclined recess, *h*, against which the bit or cutter *c* rests, and a set-screw, *i*, passes through the disk and ring both, and its point coming against the bit or cutter, said bit is regulated by said screw for cutting more or less rank, as the character of the work will admit.

To change the auger or adapt it to the cutting of any particular sized tenon, it is only necessary to select the ring having an opening corresponding to that size, fit it into the countersink, adjust the bit, and the auger is changed to that sized tenon. The disk and rings being both uncut, there is no springing apart to cause irregular work, and thus one tool can be used for boring various sized tenons with no more change of parts or time in setting than is required with the imperfect tools heretofore used for this purpose.

Having thus fully described the nature of my invention, I would state that I do not claim boring round tenons, as this is a very common device; but

What I do claim herein as new, and desire to secure by Letters Patent, is—

The combined use of the uncut countersunk disk and removable rings and the bit adjustable thereto for the purpose of making an adjustable hollow auger capable of boring tenons of various sizes without splitting or dividing the stock, substantially as herein described.

MELYN WEATHERINGTON.

Witnesses:

JAMES S. GOODE,
J. WARREN KEIFER.