

(No Model.)

J. C. KIMES.
HOLLOW AUGER.

No. 247,567.

Patented Sept. 27, 1881.

Fig. 1.

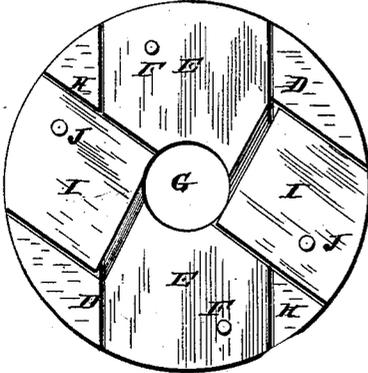


Fig. 2.

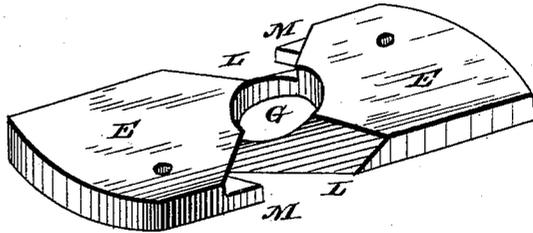


Fig. 3.

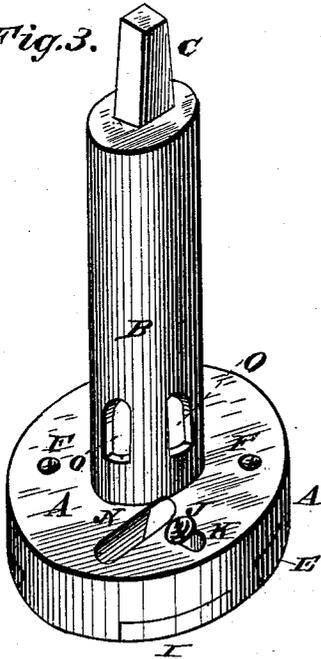


Fig. 4.

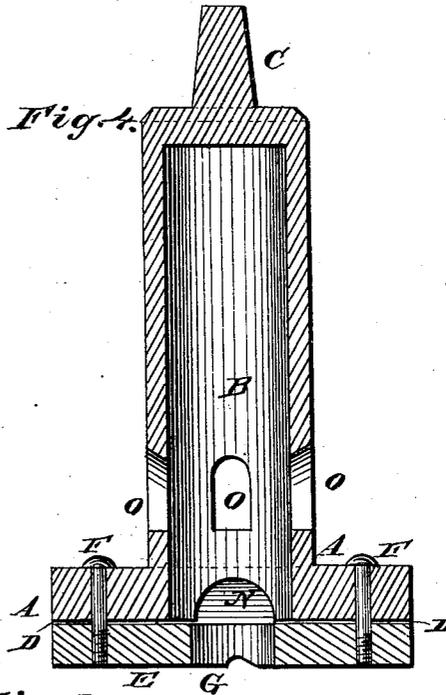


Fig. 5.



WITNESSES

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UNITED STATES PATENT OFFICE.

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HOLLOW AUGER.

SPECIFICATION forming part of Letters Patent No. 247,567, dated September 27, 1881.

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

To all whom it may concern:

Be it known that I, JOHN C. KIMES, of Wadesville, in the county of Wood and State of West Virginia, have invented certain new and useful Improvements in Tenoning-Bits; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

Figure 1 is a bottom-plan view of the bit complete. Fig. 2 is a perspective view of the slide detached. Fig. 3 is a perspective view of the device complete. Fig. 4 is a vertical sectional view, and Fig. 5 is a view of one of the knives or cutters detached.

Corresponding parts in the several figures are denoted by like letters of reference.

This invention relates to an improved device for tenoning spokes, &c., capable of being adjusted in and operated by means of an ordinary brace; and it consists in certain improvements in the construction of the same, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, A represents the head-block, which is provided with a hollow cylindrical stem, B, having a solid square seat, C, by means of which it may be adjusted and secured in any ordinary brace. In the face or lower side of the head A is formed a transverse dovetailed groove, D, to receive and hold a slide, E, which is further secured by means of one or more screws, F, inserted from the top of the head. The said slide is provided with a central circular perforation or opening, G, of the exact size which the tenon to be formed is intended to be. The under side of the head is provided with recesses H H, formed diagonally to and on opposite sides of the transverse groove or recess D, said recesses being for the purpose of receiving the knives or cutters I, which are secured by means of set-screws J, adjustable in transverse slots K, so as to make the said

knives or cutters adjustable in relation to the slide E. The sides of the latter, as shown in Fig. 2, are provided with diagonal notches L and studs M, by means of which the parts are properly adjusted and fitted in relation to each other. Transverse diagonal openings N are formed in the head for the escape of shavings, and vertical slots or openings O are formed in the cylindrical stem for the same purpose.

From the foregoing description, taken in connection with the drawings hereto annexed, the operation and advantages of my invention will be readily understood. It is simple, convenient, and easily operated. The slide E may be readily removed and another having a different-sized opening substituted, so as to make tenons of different sizes.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination, with a tenoning-bit the head of which is provided with a transverse dovetailed recess, of the adjustable and removable series or sets of slides, E, having differently-sized openings G, and provided with recesses L and studs M, to receive and hold the knives or cutters, as herein described, for the purpose set forth.

2. In a tenoning-bit, the head A, having recesses D H and slots K, in combination with the removable slide E, having recesses L and studs M, and the cutters I, adjustable by screws J, working in the slots K, as herein described, for the purpose set forth.

3. In a tenoning-bit, the herein-described removable slide or gage E, having diagonal recesses L and studs M, to receive and hold the cutters, which are adjustable diagonally in the head of the bit, as herein shown and specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

JOHN C. KIMES.

Witnesses:

J. C. HEATON,
T. O. TARENNER.